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**UtahStateUniversity**

**2014 – 2015**

**Spring/Summer 2015**

**General Catalog**

## Aerospace Studies Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Aerospace Studies

### Academic Requirements

Successful completion of the four-, or three year Air Force ROTC program is required to be commissioned as a Second Lieutenant in the U.S. Air Force. Aerospace Studies classes are taken in addition to the classes required for a bachelor's degree. After completing the classes, students earn a minor in Aerospace Studies. In some cases, ROTC classes may be taken in conjunction with a master's degree program. The program taken is based on the number of years remaining until graduation (e.g., a transfer student with three years remaining until graduation would enroll in the three-year program). The courses, along with the normal schedule for taking them for each of the programs, are listed below:

#### Four-Year Program

##### First Year:

AS 1010 - Introduction to the Air Force Today 1

AS 1110 - Leadership Laboratory I 1

AS 1020 - Introduction to the Air Force Today 1

AS 1120 - Leadership Laboratory I 1

##### Second Year:

AS 2010 - The Evolution of US Aerospace Power 1

AS 2110 - Leadership Laboratory II 1

AS 2020 - The Evolution of US Aerospace Power 1

AS 2120 - Leadership Laboratory II 1

##### Third Year:

AS 3400 - Field Training (4 weeks) 1-4

AS 3010 - Air Force Leadership and Management 3

AS 3110 - Leadership Laboratory III 1

AS 3020 - Air Force Leadership and Management 3

AS 3120 - Leadership Laboratory III 1

#### Fourth Year:

AS 4010 - National Security Affairs/Preparation for Active Duty 3

AS 4110 - Leadership Laboratory IV 1

AS 4020 - National Security Affairs/Preparation for Active Duty 3

AS 4120 - Leadership Laboratory IV 1

#### Three Year Program

##### First Year:

AS 1010 - Introduction to the Air Force Today 1

AS 2010 - The Evolution of US Aerospace Power 1

AS 2110 - Leadership Laboratory II 1

AS 1020 - Introduction to the Air Force Today 1

AS 2020 - The Evolution of US Aerospace Power 1

AS 2120 - Leadership Laboratory II 1

##### Second Year:

AS 3400 - Field Training (4 weeks) 1-4

AS 3010 - Air Force Leadership and Management 3

AS 3110 - Leadership Laboratory III 1

AS 3020 - Air Force Leadership and Management 3

AS 3120 - Leadership Laboratory III 1

##### Third Year:

AS 4010 - National Security Affairs/Preparation for Active Duty 3

AS 4110 - Leadership Laboratory IV 1

AS 4020 - National Security Affairs/Preparation for Active Duty 3

AS 4120 - Leadership Laboratory IV 1

#### Summer Training

All cadets in the three-and four-year programs will compete to attend a four-week summer training camp. Attendance at this camp is usually between the sophomore and junior year at a selected Air Force base. Up to 4 credits may be granted for this training.

## Leadership Laboratory

A Leadership Laboratory period is required each week during the fall and spring semesters for each year of aerospace studies. Interested students should check the current Schedule of Classes for the Leadership Laboratory schedule.

Return to: Academic Departments and Programs

## Animal and Dairy Sciences Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Animal, Dairy and Veterinary Sciences

## ADVS Minors

A minor can be valuable when associated with a major in agricultural education, agricultural economics, plant science, nutrition and food science, business, economics, computer science, rangeland resources, and in other disciplines where the animal industry has direct or indirect involvement.

Requirements for specialty or emphasis area minors are listed below. The same departmental standards applying to the Animal, Dairy and Veterinary Sciences major also apply to all minors.

## Requirements for Minors

The following is a listing of courses for the minor emphasis area. A specific course may not be used to fulfill the requirements of more than one ADVS minor.

## Note:

Transfer students must have a minimum of one 3-credit upper-division course in residency with the approval of the ADVS academic advisor.

## Requirements:

ADVS 1110 - Introduction to Animal Science 4

10 elective ADVS credits with approval of the ADVS academic advisor.

Choose one or more courses from:

ADVS 2080 - Beef and Dairy Herd Health and Production Practices 3

ADVS 2090 - Sheep Production Practices 2

ADVS 2120 - Swine Production Practices 2

ADVS 2190 - Horse Production Practices 3

Return to: Academic Departments and Programs

Animal, Dairy and Veterinary Sciences - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Animal, Dairy and Veterinary Sciences

Requirements for the Bachelor of Science in Animal, Dairy and Veterinary Sciences are listed briefly. All graduates from the department must complete one of the following emphases: Animal and Dairy Science; Biotechnology; Bioveterinary Science; or Equine Science and Management.

Students must meet the following minimum requirements:

Attain a grade point average of at least 2.50 in all ADVS courses specified as requirements in their emphasis curricula

ADVS courses required for the major may be repeated only once to improve a grade

Courses required for the major may not be taken for a pass/fail grade

To graduate with a degree in this major, students in the Animal and Dairy Science, Biotechnology and Equine Science and Management emphases must attain an overall GPA of at least 2.25. Students in the Bioveterinary Science emphasis must attain an overall GPA of at least 3.0.

Students must complete the General Education requirements

BIOL 1620 will fulfill the Life Sciences requirement and

CHEM 1220 will fulfill the Physical Sciences requirement for students in the Animal, Dairy and Veterinary Sciences major

ECN 1500 will fulfill the American Institutions requirement for students in the Animal and Dairy Science

emphasis and the Equine Science and the Management emphasis who wish to get an Agribusiness minor

Students must also complete the University Studies requirements

ADVS 4200 and ADVS 4920 will fulfill the Communications Intensive (CI) requirement

ADVS 4560, APEC 5010, BIOL 3060 or STAT 2000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

APEC 3010, APEC 3020, ECN 3010 or MGT 3110 will fulfill the DSS requirement

For more detailed information about courses and the recommended sequence for taking them, see the ADVS academic advisor in the College of Agriculture and Applied Sciences Student Services Center.

Animal, Dairy and Veterinary Sciences Core Requirements

ADVS 1110 - Introduction to Animal Science 4

ADVS 2200 - Anatomy and Physiology of Animals 4

ADVS 3000 - Animal Health and Hygiene 3

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Animal and Dairy Science Emphasis

Required Courses:

ADVS 3500 - Animal Nutrition 4

ADVS 4200 - Physiology of Reproduction and Lactation (CI) 4

ADVS 4560 - Principles of Animal Genetics and Breeding (QI) 3

ADVS 4920 - Undergraduate Seminar (CI) 2

MATH 1050 - College Algebra (QL) 4

Choose two courses from the following:

ADVS 1100 - Small Scale Animal Production 3

ADVS 2080 - Beef and Dairy Herd Health and Production Practices 3

ADVS 2090 - Sheep Production Practices 2

ADVS 2120 - Swine Production Practices 2

ADVS 2190 - Horse Production Practices 3

Choose one course from the following:

ADVS 5080 - Beef Cattle Management 3

ADVS 5090 - Sheep Management and Wool Technology 4

ADVS 5120 - Swine Management 3

ADVS 5130 - Dairy Cattle Management 3

ADVS 5190 - Equine Business Management 3

Choose one course from the following:

STAT 1040 - Introduction to Statistics (QL) 3

STAT 2000 - Statistical Methods (QI) 4

Choose one course from the following:

ADVS 4250 - Internship in Animal Industry 1-12 (3 credits required)

ADVS 4800 - Undergraduate Research of Creative Opportunity 1-6 (3 credits required)

Directed Electives

Students must choose eight courses from the following:

ACCT 2010 - Financial Accounting Principles 3 1,2

ADVS 3520 - Equine Nutrition and Exercise Physiology 3

ADVS 3650 - Live Animal and Carcass Evaluation 3

ADVS 4210 - Applied Reproduction and Artificial Insemination 2

ADVS 4220 - Applied Equine Reproduction I 3

ADVS 5030 - Sustainable Agricultural Production  
Systems with Animals 3

ADVS 5860 - Poisonous Range Plants Affecting Livestock  
3

One additional Management Course (ADVS 5080, ADVS  
5090, ADVS 5120, ADVS 5130 or ADVS 5190) 3-4

APEC 2010 - Introduction to Microeconomics (BSS) 3 1  
or

ECN 2010 - Introduction to Microeconomics (BSS) 3 1

APEC 3010 - Introduction to Agricultural Economics and  
Agribusiness (DSS) 3 1

APEC 3020 - Firm Finance and Records Analysis (DSS) 3  
1

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 3600 - Management of Agriculture Machinery  
Systems (QI) 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

CHEM 2310 - Organic Chemistry I 4 2

CHEM 2315 - Organic Chemistry Laboratory I 1 2

CHEM 2320 - Organic Chemistry II 4 2

CHEM 3700 - Introductory Biochemistry 3 2

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 2350 - Small Business Management 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3530 - New Venture Marketing 2

MGT 3540 - New Venture Financing 2

MGT 3560 - New Venture Planning 2

MGT 3570 - New Venture Social Responsibility 2

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information  
Systems 3

NDFS 4040 - Dairy Foods 3

NDFS 5020 - Meat Technology and Processing 4

NDFS 5040 - Dairy Foods Processing Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4

PSC 2010 - Soils, Waters, and the Environment (BPS) 3  
or

PSC 3000 - Fundamentals of Soil Science 4

PSC 4320 - Forage Production and Pasture Ecology 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

WILD 4000 - Principles of Rangeland Management 3

WILD 3850 - Vegetation and Habitat Management 3

Biotechnology Emphasis

Required Courses:

ADVS 3200 - Ethical Issues in Genetic Engineering and  
Biotechnology (DSC) 3

ADVS 4920 - Undergraduate Seminar (CI) 2

ADVS 5160 - Methods in Biotechnology: Cell Culture 3

ADVS 5260 - Methods in Biotechnology: Molecular  
Cloning 3

ADVS 5280 - Animal Molecular Biology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 3700 - Introductory Biochemistry 3

MATH 1050 - College Algebra (QL) 4

STAT 2000 - Statistical Methods (QI) 4

Choose one course from the following:

ADVS 4260 - Internship in Animal Biotechnology  
Industry 2-12 (3-12 credits required)

ADVS 4800 - Undergraduate Research of Creative  
Opportunity 1-6 (3-12 credits required)

Directed Electives

Students must select at least 15 credits from the  
following. At least one course with a Communications  
Intensive (CI) designation must be included.

ADVS 3500 - Animal Nutrition 4

ADVS 4200 - Physiology of Reproduction and Lactation  
(CI) 4

ADVS 4210 - Applied Reproduction and Artificial  
Insemination 2

ADVS 4220 - Applied Equine Reproduction I 3

ADVS 4560 - Principles of Animal Genetics and Breeding  
(QI) 3

ADVS 5350 - Introductory Pharmacology and  
Pharmacokinetics 3

ADVS 5400 - Environmental Toxicology 3

ADVS 5630 - Endocrinology 3

ADVS 5650 - Science Communication 3

BIOL 5150 - Immunology 3

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

MATH 1100 - Calculus Techniques (QL) 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3530 - New Venture Marketing 2

MGT 3540 - New Venture Financing 2

MGT 3560 - New Venture Planning 2

MGT 3570 - New Venture Social Responsibility 2

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Bioveterinary Science Emphasis Curriculum

(3.0 minimum total GPA required)

This is a four-year program, preparing students for  
application and admittance to veterinary school or  
graduate school. In recent years, the average competitive  
GPA of students who have been accepted to veterinary  
school has been approximately a 3.6 GPA average.

Advanced Standing Requirements

To attain Advanced Standing in Bioveterinary Science,  
students must have completed or must be currently  
registered for a minimum of 60 semester credits, and  
must have earned an overall GPA of at least 2.75 for all  
credits, including transfer credits, taken up to the time  
the petition for Advanced Standing is made.

Students' records will be checked when they reach a total  
of 60 semester credits. Those who do not meet advanced  
standing requirements will be notified to meet with their  
advisor.

Required Courses:

ADVS 3500 - Animal Nutrition 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 3700 - Introductory Biochemistry 3

MATH 1100 - Calculus Techniques (QL) 3

PHYS 2110 - General Physics - Life Sciences I 4

STAT 2000 - Statistical Methods (QI) 4

Senior Year

Students must complete at least 120 semester credits for  
the BS degree, of which at least 40 credits must be in  
upper-division courses. The student must complete two  
courses which are designated Communications Intensive  
(CI), and one course which is designated Quantitative

Intensive (QI). Students must include at least 15 credits from the following list. Other upper-division life sciences courses may be applied to this requirement, if approved by the ADVS academic advisor.

ADVS 3520 - Equine Nutrition and Exercise Physiology 3

ADVS 4200 - Physiology of Reproduction and Lactation (CI) 4

ADVS 4210 - Applied Reproduction and Artificial Insemination 2

ADVS 4220 - Applied Equine Reproduction I 3

ADVS 4560 - Principles of Animal Genetics and Breeding (QI) 3

ADVS 4920 - Undergraduate Seminar (CI) 2

ADVS 5160 - Methods in Biotechnology: Cell Culture 3

ADVS 5260 - Methods in Biotechnology: Molecular Cloning 3

ADVS 5280 - Animal Molecular Biology 3

ADVS 5350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 5400 - Environmental Toxicology 3

ADVS 5630 - Endocrinology 3

ADVS 5650 - Science Communication 3

BIOL 5150 - Immunology 3

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3530 - New Venture Marketing 2

MGT 3540 - New Venture Financing 2

MGT 3560 - New Venture Planning 2

MGT 3570 - New Venture Social Responsibility 2

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Equine Science and Management Emphasis

Required Courses

ADVS 1600 - Riding Fundamentals I 3 3

ADVS 2190 - Horse Production Practices 3

ADVS 2300 - Horse Health Care 2

ADVS 3100 - Equine Evaluation and Judging 3

ADVS 3300 - Farrier Science, Basic Hoof Trimming and Shoeing 3

ADVS 3500 - Animal Nutrition 4

ADVS 3520 - Equine Nutrition and Exercise Physiology 3

ADVS 4200 - Physiology of Reproduction and Lactation (CI) 4

ADVS 4270 - Internship in Equine Industry 1-12 (3 credits required)

ADVS 4560 - Principles of Animal Genetics and Breeding (QI) 3

ADVS 4920 - Undergraduate Seminar (CI) 2

ADVS 5190 - Equine Business Management 3

MATH 1050 - College Algebra (QL) 4

STAT 1040 - Introduction to Statistics (QL) 3

Directed Electives

Students must take at least 15 credits from the following:

ACCT 2010 - Financial Accounting Principles 3 1,2

ADVS 2600 - Riding Fundamentals II--Western 2 3

ADVS 2650 - Riding Fundamentals II--Hunter 2 3

ADVS 3600 - Equine Behavior and Training 3

ADVS 3910 - Special Topics 1-5

ADVS 4220 - Applied Equine Reproduction I 3

ADVS 5030 - Sustainable Agricultural Production Systems with Animals 3

ADVS 5860 - Poisonous Range Plants Affecting Livestock 3

APEC 2010 - Introduction to Microeconomics (BSS) 3 1  
or

ECN 2010 - Introduction to Microeconomics (BSS) 3 1

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3 1

APEC 3020 - Firm Finance and Records Analysis (DSS) 3 1

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 2350 - Small Business Management 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3530 - New Venture Marketing 2

MGT 3540 - New Venture Financing 2

MGT 3560 - New Venture Planning 2

MGT 3570 - New Venture Social Responsibility 2

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

PSC 4320 - Forage Production and Pasture Ecology 3

WILD 4000 - Principles of Rangeland Management 3

Note:

1 Students may obtain an Agribusiness Minor by taking APEC 2010/ECN 2010; APEC 3010, APEC 3020; or APEC 5010, plus 2 courses from approved list.

2 Students may obtain a Chemistry Minor by taking CHEM 2310, CHEM 2315, CHEM 2320, and CHEM 3700, ACCT 2010

3 Students may obtain an Entrepreneurship minor by taking MGT 3510, MGT 3520, MGT 3530, MGT 3540, MGT 3560, and MGT 3570.

4 Transfer student requirements: In order to receive credit for ADVS 1600, ADVS 2600, or ADVS 2650, the student must have received a grade of C or higher in the transfer course, and must demonstrate riding competency to the instructor of record.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Animal, Dairy and Veterinary Sciences - MS

Return to: Academic Departments and Programs

## College of Agriculture and Applied Sciences

### Department of Animal, Dairy and Veterinary Sciences

The proposed combined graduate program will be designated as Animal, Dairy, and Veterinary Sciences with MS and PhD options and five specializations: Animal Management, Animal Health and Disease (new specialization), Animal Molecular Genetics (name change), Animal Nutrition, and Reproduction and Development (name change).

#### Graduate Programs

Graduate Programs Coordinator: Thomas D. Bunch

Location: Agricultural Science 228

Phone: (435) 797-2148

FAX: (435) 797-2118

E-mail: [tom.bunch@usu.edu](mailto:tom.bunch@usu.edu)

#### Admission Requirements

In addition to the general admission requirements, applicants should have satisfactory (3.0 GPA or better) grades in completion of previous degree programs. The GRE exam, as well as verbal and quantitative test scores at or above the 40th percentile, is required.

#### Research

The ADVS department conducts a broad range of basic and applied research in the areas of animal reproduction, animal nutrition, livestock and dairy management, animal health and disease, virology, parasitology, toxicology, cytogenetics, and molecular genetics. Department facilities include over 30 research laboratories on campus and at local and regional animal research facilities. There are research herds and flocks of beef and dairy cattle, sheep, and swine housed close to the University. Research in the department is funded by a multimillion dollar budget derived from support by the Utah Agricultural Experiment Station and by substantial outside contracts and grants. Cooperation with other departments and research centers of the University and with federal collaborators enhances the ADVS research and graduate programs. Significant in this regard are the University Center for Integrated BioSystems, the Utah State Animal Disease Diagnostic Laboratories, the Laboratory Animal Research Center, the Center for Environmental Toxicology, the Center for the Genetic Improvement of Livestock, the Institute for Antiviral

Research and the on-campus USDA Poisonous Plant Laboratory.

#### Financial Assistance

Both departmental and research grant support are available to matriculated graduate students on a competitive basis. The department funds graduate assistantships, which are available on a competitive basis to matriculated graduate students who are U.S. citizens, nationals, or residents. Students interested in departmental assistantships may request an application form from the department or download the form at: <http://www.advs.usu.edu/files/uploads/DAinitialapplication06.pdf>

Applications for graduate assistantships for the following academic year must be submitted by March 15.

Acceptance to graduate study in the ADVS Department does not constitute a guarantee of financial assistance.

#### Career Opportunities

Career opportunities are available for students who have earned graduate degrees in the MS and PhD programs offered by the ADVS Department as described below.

#### MS and PhD Degree Programs

##### Animal Health and Disease

Career opportunities in this area exist in research, management, and submanagement positions in public and private health research and testing organizations, and in commercial industries in the health field. Graduates from the MS program may seek admission to advanced degree programs in the biological sciences or veterinary medicine.

##### Animal Management

Career opportunities include extension, private consultation firms, farm and ranch management, sales and service to agricultural producers, agricultural finance, and international programs.

##### Animal Molecular Genetics

Career opportunities exist in extension university and private research, commercial animal breeding and genetic engineering enterprises, and international programs.

##### Animal Nutrition

Career opportunities exist in extension, university and private research, the commercial animal feedstuffs industry, private consulting firms, and international programs.

### Reproduction and Development

Career opportunities exist in extension; university and private research; the pharmaceutical, embryo transfer, and artificial insemination industries; private consultation; and international programs.

Return to: Academic Departments and Programs

### Animal, Dairy and Veterinary Sciences - PhD

Return to: Academic Departments and Programs

### College of Agriculture and Applied Sciences

### Department of Animal, Dairy and Veterinary Sciences

The proposed combined graduate program will be designated as Animal, Dairy, and Veterinary Sciences with MS and PhD options and five specializations: Animal Management, Animal Health and Disease (new specialization), Animal Molecular Genetics (name change), Animal Nutrition, and Reproduction and Development (name change).

### Graduate Programs

Graduate Programs Coordinator: Lee Rickords

Location: Agricultural Science 248B

Phone: (435) 797-2195

FAX: (435) 797-2118

E-mail: [lee.rickords@usu.edu](mailto:lee.rickords@usu.edu)

### Admission Requirements

In addition to the general admission requirements, applicants should have satisfactory (3.0 GPA or better) grades in completion of previous degree programs. The GRE exam, as well as verbal and quantitative test scores at or above the 40th percentile, is required.

### Research

The ADVS department conducts a broad range of basic and applied research in the areas of animal reproduction, animal nutrition, livestock and dairy management,

animal health and disease, virology, parasitology, toxicology, cytogenetics, and molecular genetics. Department facilities include over 30 research laboratories on campus and at local and regional animal research facilities. There are research herds and flocks of beef and dairy cattle, sheep, and swine housed close to the University. Research in the department is funded by a multimillion dollar budget derived from support by the Utah Agricultural Experiment Station and by substantial outside contracts and grants. Cooperation with other departments and research centers of the University and with federal collaborators enhances the ADVS research and graduate programs. Significant in this regard are the University Center for Integrated BioSystems, the Utah State Animal Disease Diagnostic Laboratories, the Laboratory Animal Research Center, the Center for Environmental Toxicology, the Center for the Genetic Improvement of Livestock, the Institute for Antiviral Research and the on-campus USDA Poisonous Plant Laboratory.

### Financial Assistance

Both departmental and research grant support are available to matriculated graduate students on a competitive basis. The department funds graduate assistantships, which are available on a competitive basis to matriculated graduate students who are U.S. citizens, nationals, or residents. Students interested in departmental assistantships may request an application form from the department or download the form at: <http://www.advs.usu.edu/files/uploads/DAinitialapplication06.pdf>

Applications for graduate assistantships for the following academic year must be submitted by March 15.

Acceptance to graduate study in the ADVS Department does not constitute a guarantee of financial assistance.

### Career Opportunities

Career opportunities are available for students who have earned graduate degrees in the MS and PhD programs offered by the ADVS Department as described below.

### MS and PhD Degree Programs

#### Animal Health and Disease

Career opportunities in this area exist in research, management, and submanagement positions in public and private health research and testing organizations, and in commercial industries in the health field.

Graduates from the MS program may seek admission to advanced degree programs in the biological sciences or veterinary medicine.

#### Animal Management

Career opportunities include extension, private consultation firms, farm and ranch management, sales and service to agricultural producers, agricultural finance, and international programs.

#### Animal Molecular Genetics

Career opportunities exist in extension university and private research, commercial animal breeding and genetic engineering enterprises, and international programs.

#### Animal Nutrition

Career opportunities exist in extension, university and private research, the commercial animal feedstuffs industry, private consulting firms, and international programs.

#### Reproduction and Development

Career opportunities exist in extension; university and private research; the pharmaceutical, embryo transfer, and artificial insemination industries; private consultation; and international programs.

Return to: Academic Departments and Programs

#### Bioveterinary Science Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Animal, Dairy and Veterinary Sciences

#### ADVS Minors

A minor can be valuable when associated with a major in agricultural education, agricultural economics, plant science, nutrition and food science, business, economics, computer science, rangeland resources, and in other disciplines where the animal industry has direct or indirect involvement.

Requirements for specialty or emphasis area minors are listed below. The same departmental standards applying

to the Animal, Dairy and Veterinary Sciences major also apply to all minors.

#### Requirements for Minors

The following is a listing of courses for the minor emphasis area. A specific course may not be used to fulfill the requirements of more than one ADVS minor.

Note:

Transfer students must have a minimum of one 3-credit upper-division course in residency with the approval of the ADVS academic advisor.

Requirements:

A minimum grade of C is required in all courses applied toward this minor.

ADVS 2200 - Anatomy and Physiology of Animals 4

ADVS 3000 - Animal Health and Hygiene 3

7 elective ADVS credits with approval of the ADVS academic advisor.

Return to: Academic Departments and Programs

Toxicology (Animal, Dairy and Veterinary Sciences) - MS

Return to: Academic Departments and Programs

Director: Roger A. Coulombe, Jr.

Location: Animal Science 213

Phone: (435) 797-1600

FAX: (435) 797-1601

E-mail: [roger@usu.edu](mailto:roger@usu.edu)

WWW: <http://toxicology.usu.edu>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in Toxicology

#### Graduate Programs

Established in 1962, USU's Interdepartmental Graduate Program in Toxicology is one of the first degree-granting graduate toxicology programs in the country. More than 150 students have received MS and PhD degrees through this research-intensive interdisciplinary program. Students affiliate with the program through one of

several departments: Animal, Dairy and Veterinary Sciences (ADVS); Biology (BIOL); Chemistry and Biochemistry (CAB); Civil and Environmental Engineering (CEE); or Plants, Soils, and Climate (PSC). The USDA Poisonous Plants Laboratory also provides facilities and research projects for study.

### Admission Requirements

Students with a degree in life sciences, physical science, medical science, or engineering and with adequate preparation in chemistry, biology, physics, and/or mathematics are encouraged to apply. Admission to the program requires compliance with the general admission requirements of the School of Graduate Studies, a faculty sponsor, and acceptance into the sponsoring professor's home department. Applicants should have a minimum GPA of 3.0 from completed degree programs. International students must receive a minimum TOEFL score of 250.

### Major Research Areas

#### Molecular and Biochemical Toxicology

Modern molecular biological techniques are used to determine the mechanisms of toxicity and carcinogenesis by examining how various natural and synthetic compounds interact with the cellular genome and epigenome. Resultant mutations in oncogenes and tumor suppressor genes are being investigated. Other ongoing studies examine the mechanisms of cancer chemoprevention, chemical metabolism, effects of toxicants on macromolecular syntheses, and metabolic intermediates. A comprehensive research program in poisonous plants is another program emphasis at the USDA-ARS Poisonous Plants Laboratory, just north of the USU campus.

#### Environmental Toxicology

Utah State University has a comprehensive research program in several aspects of environmental toxicology. For example, Utah State University faculty pioneered the use of white-rot fungi to degrade environmental contaminants. Several members of the faculty study the effects of air pollution on human health, as well as develop models to predict episodes of high particulate matter. Models are developed and tested for dealing with the migration of chemicals in the environment, especially those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

### Financial Assistance

Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

### Toxicology - MS

#### Course Requirements

Students in the MS program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3

ADVS 6810 - Seminar in Toxicology 1

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

#### Toxicology Program Faculty

##### Professors

Steven D. Aust, free radical toxicology and bioremediation (CAB)

Roger A. Coulombe, Jr., (Director) molecular and environmental toxicology, cancer chemoprevention, air pollution (ADVS)

William J. Doucette, fate of environmental chemicals, phytoremediation (CEE)

R. Ryan Dupont, biological waste treatment (CEE)

Jeffery O. Hall, veterinary toxicology (ADVS)

Ronald C. Sims, environmental engineering (CEE)

Research Professor

Darwin L. Sorensen, aquatic toxicology (CEE)

Associate Professors

Paul R. Grossl, soil chemistry and phytoremediation (PSC)

Randy Martin, atmospheric chemistry, air pollution (CEE)

Assistant Professor

Abby Benninghoff, epigenetics, fetal basis of adult health and disease, carcinogenesis and cancer prevention, environmental toxicology (ADVS)

Collaborators at USDA Poisonous Plants Laboratory

Dale R. Gardner, natural product chemistry

Kip E. Panter, poisonous plants

James A. Pfister, behavioral toxicology

Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

Toxicology (Animal, Dairy and Veterinary Sciences) - PhD

Return to: Academic Departments and Programs

Director: Roger A. Coulombe, Jr.

Location: Animal Science 213

Phone: (435) 797-1600

FAX: (435) 797-1601

E-mail: roger@usu.edu

WWW: <http://toxicology.usu.edu>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in Toxicology

Graduate Programs

Established in 1962, USU's Interdepartmental Graduate Program in Toxicology is one of the first degree-granting graduate toxicology programs in the country. More than 150 students have received MS and PhD degrees through this research-intensive interdisciplinary program. Students affiliate with the program through one of several departments: Animal, Dairy and Veterinary Sciences (ADVS); Biology (BIOL); Chemistry and Biochemistry (CAB); Civil and Environmental Engineering (CEE); or Plants, Soils, and Climate (PSC). The USDA Poisonous Plants Laboratory also provides facilities and research projects for study.

Admission Requirements

Students with a degree in life sciences, physical science, medical science, or engineering and with adequate preparation in chemistry, biology, physics, and/or mathematics are encouraged to apply. Admission to the program requires compliance with the general admission requirements of the School of Graduate Studies, a faculty sponsor, and acceptance into the sponsoring professor's home department. Applicants should have a minimum GPA of 3.0 from completed degree programs. International students must receive a minimum TOEFL score of 250.

Major Research Areas

Molecular and Biochemical Toxicology

Modern molecular biological techniques are used to determine the mechanisms of toxicity and carcinogenesis by examining how various natural and synthetic compounds interact with the cellular genome and epigenome. Resultant mutations in oncogenes and tumor suppressor genes are being investigated. Other ongoing studies examine the mechanisms of cancer chemoprevention, chemical metabolism, effects of toxicants on macromolecular syntheses, and metabolic intermediates. A comprehensive research program in poisonous plants is another program emphasis at the USDA-ARS Poisonous Plants Laboratory, just north of the USU campus.

Environmental Toxicology

Utah State University has a comprehensive research program in several aspects of environmental toxicology. For example, Utah State University faculty pioneered the use of white-rot fungi to degrade environmental contaminants. Several members of the faculty study the effects of air pollution on human health, as well as develop models to predict episodes of high particulate matter. Models are developed and tested for dealing with the migration of chemicals in the environment, especially those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

#### Financial Assistance

Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

#### Course Requirements

Students in the PhD program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3  
(taught alternate fall semesters)

BIOL 5600 - Comparative Animal Physiology 3 or

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

#### STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

#### Toxicology Program Faculty

##### Professors

Steven D. Aust, free radical toxicology and bioremediation (CAB)

Roger A. Coulombe, Jr., (Director) molecular and environmental toxicology, cancer chemoprevention, air pollution (ADVS)

William J. Doucette, fate of environmental chemicals, phytoremediation (CEE)

R. Ryan Dupont, biological waste treatment (CEE)

Jeffery O. Hall, veterinary toxicology (ADVS)

Ronald C. Sims, environmental engineering (CEE)

##### Research Professor

Darwin L. Sorensen, aquatic toxicology (CEE)

##### Associate Professors

Paul R. Grossl, soil chemistry and phytoremediation (PSC)

Randy Martin, atmospheric chemistry, air pollution (CEE)

##### Assistant Professor

Abby Benninghoff, epigenetics, fetal basis of adult health and disease, carcinogenesis and cancer prevention, environmental toxicology (ADVS)

Collaborators at USDA Poisonous Plants Laboratory

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Kip E. Panter, poisonous plants

James A. Pfister, behavioral toxicology

Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

## Veterinary Medicine - DVM

[Return to: Academic Departments and Programs](#)

[College of Agriculture and Applied Sciences](#)

[Department of Animal, Dairy and Veterinary Sciences](#)

The Professional Program in Veterinary Medicine is administered by the Department of Animal, Dairy and Veterinary Sciences (ADVS) at Utah State University (USU). In partnership with the Washington State University (WSU) College of Veterinary Medicine (CVM), Utah State University offers a professional degree in veterinary medicine. The program operates under WSU's American Veterinary Medical Association (AVMA) accreditation and leads to the degree of Doctor of Veterinary Medicine (DVM). The joint USU/WSU DVM Program will accept 20 students from Utah and 10 non-resident students per year. Students spend their first two years receiving pre-clinical training at USU's Logan campus. They spend the final two years at WSU's College of Veterinary Medicine in Pullman, Washington completing the clinical portion of their veterinary education. USU's Professional Program in Veterinary Medicine has dedicated, internationally recognized faculty members and state-of-the-art teaching, animal and research facilities. WSU's College of Veterinary Medicine is one of the nation's top veterinary schools. It has one of the best-equipped teaching hospitals in the world and distinguished faculty members who are recognized as leaders in the field and respected worldwide. Why experience only one university, enjoy an exceptional educational experience by attending two world-class universities for your veterinary education. The inaugural class for the USU/WSU DVM Program will start their veterinary education in the fall of 2012.

For further information go to: [vetmed.usu.edu](http://vetmed.usu.edu).

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## Agribusiness - BS

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[College of Agriculture and Applied Sciences](#)

[Department of Applied Economics](#)

The Agribusiness major provides a foundation for employment in the agricultural sector and in businesses and institutions serving agriculture and rural regions,

such as banks and financial institutions, production, marketing and buying cooperatives, value-added food producers, real estate and land management, agricultural chemical production and sales, and farms and ranches. Graduates of this program are employed in a variety of agribusiness operations throughout the United States. Agribusiness graduates have achieved prominence in positions in wholesale and retail sales and service, stock and commodity brokerage, real estate appraisal, banking and farm credit, insurance, and in farm and ranch operations. Classwork provides training in basic business and economics, as well as the specific management tools required for agricultural enterprises.

The Agribusiness Major can be very versatile and, with careful selection of elective credits, students can be well trained for a wide variety of agribusiness careers. For example, students who graduate in the AgSystems Option of the degree will be well trained to work in the agribusiness equipment sector of the economy or to work in production agriculture. Students who plan to work in production agriculture on a farm or ranch can obtain a Minor in either Animal and Dairy Science or in Agronomy to compliment the Agribusiness Major. Students seeking a career path in the food manufacturing, processing or retailing industries should take elective course work from the Nutrition, Dietetics and Food Science Department, which will give them great training for careers in those sectors. Students who want to pursue a career in the banking industry, or in management, or a large agribusiness corporation should take additional course work from the Huntsman School of Business where they can obtain a Business Minor and additional training in finance, management or marketing. Great opportunities abound for students with Bachelor of Science in Agribusiness from USU.

To graduate with a bachelor's degree in Agribusiness, a student must have a major GPA of 2.5 or higher, as well as a grade of C or better in each course required for the major. Agribusiness majors with a dual major must satisfy the admission and graduation requirements of both majors. All required courses must be taken for a letter grade.

Students must complete the General Education requirements

Students must also complete the University Studies requirements

Several of the required courses listed for this major will meet general education and university studies requirements. For more detailed information about courses and the recommended sequence for taking them, see the APEC academic advisor in the College of Agriculture and Applied Sciences Student Services Center.

Note:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC).

#### Agribusiness Major Requirements

All courses required for the Agribusiness Major should be taken for a letter grade. Students must earn a grade of C or better in each course.

Required Courses:

Applied Economics Core:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3 or

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Agribusiness Requirements:

APEC 4010 - Intermediate Microeconomics 3 or

ECN 3010 - Managerial Economics (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

APEC 5000 - Macroeconomics and Trade 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5950 - Senior Project 3

MGT 2050 - Legal and Ethical Environment of Business 3

College of Agriculture and Applied Sciences or Huntsman School of Business electives 12

Agribusiness Major, Agricultural Systems Option

All courses required for the Agribusiness Major, Agricultural Systems Option should be taken for a letter grade. Students must earn a grade of C or better in each course. With some additional coursework, students may earn a dual major in Agricultural Systems Technology. Note: Student transcripts and diplomas will list only the Agribusiness Major, not the Agricultural Systems Option.

Required Courses:

Applied Economics Core:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

STAT 2300 - Business Statistics (QL) 4

Agribusiness/Agricultural Systems Option Requirements:

APEC 4010 - Intermediate Microeconomics 3 or

ECN 3010 - Managerial Economics (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5950 - Senior Project 3

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 3030 - Metal Welding Processes and Technology in Agriculture 3 or

ASTE 4100 - Agricultural Structures and Environment (QI) 3

ASTE 3080 - Compact Power Units for Agricultural and Turfgrass Applications 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

ASTE 4900 - Senior Project Research and Creative Opportunity 1-6

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

PSC 4000 - Soil and Water Conservation 4

Note:

1 These 12 credits must be selected from courses offered by departments within the College Agriculture and Applied Sciences, excluding courses offered by the Department of Applied Economics. If a student obtains permission from the academic advisor for the Agribusiness Major, these 12 credits may be taken from the Huntsman School of Business. Six of the 12 credits must be chosen from upper-division courses (i.e., courses numbered 3000 or above).

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Agribusiness Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

Agribusiness Minor Requirements (15 credits)

A minimum of 9 credits of Applied Economics courses must be taken, including the following courses:

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3  
OR

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

Select the balance of credits from the following courses:

APEC 3020 - Firm Finance and Records Analysis (DSS) 3  
OR

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

ACCT 2010 - Financial Accounting Principles 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

MGT 2350 - Small Business Management 3

MIS 2100 - Principles of Management Information Systems 3

Return to: Academic Departments and Programs

Agricultural Economics - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

The Agricultural Economics major emphasizes the development of quantitative skills in and a deeper understanding of economic theory. While this program provides a solid base for individuals desirous of careers in agricultural businesses, it is also an excellent preparation for graduate studies in economics,

agricultural economics, natural resources, business, or law. The Agricultural Economics degree provides an excellent background for work in federal, state, and local government, as well as in the private sector. Graduates of this program are now working in positions involving the analysis of prices and markets, preparation of economic feasibility studies, and preparing economic forecasts.

To graduate with a bachelor's degree in Agricultural Economics, a student must have a major GPA of 2.5 or higher, as well as a grade of C or better in each course required for the major. All required courses must be taken for a letter grade.

Students must complete the General Education requirements

Students must also complete the University Studies requirements

Several of the required courses listed for this major will meet general education and university studies requirements. For more detailed information about courses and the recommended sequence for taking them, see the APEC academic advisor in the College of Agriculture and Applied Sciences Student Services Center.

Note:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC) for the University Studies Depth requirements

Agricultural Economics Major Requirements

All courses required for the Agricultural Economics Major should be taken for a letter grade. Students must earn a grade of C or better in each course.

Required Courses:

Applied Economics Core:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3 or

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Agricultural Economics Requirements:

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

APEC 4010 - Intermediate Microeconomics 3

APEC 5000 - Macroeconomics and Trade 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3 or

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 5330 - Applied Econometrics (QI) 3

APEC 5560 - Natural Resource and Environmental Economics 3

APEC 5950 - Senior Project 3

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

ECN 4020 - Intermediate Macroeconomics 3

ECN 5300 - Industrial Organization-Game Theory 3

Note:

1 The regular calculus series (MATH 1210 and MATH 1220) is recommended for students contemplating

graduate studies in economics. MATH 1210 will fulfill the MATH 1100 requirement.

Agricultural Economics Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (16 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1320 - Civilization: Humanities (BHU) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Second Semester (15 credits)

APEC 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

Breadth Physical Sciences (BPS) course 3

Elective course 3

Sophomore Year (28 credits)

First Semester (16 credits)

ACCT 2010 - Financial Accounting Principles 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4

USU 1350 - Integrated Life Science (BLS) 3

Elective course 3

Second Semester (12 credits)

ACCT 2020 - Managerial Accounting Principles 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Junior Year (30 credits)

First Semester (15 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3 or

MIS 3200 - Business Communication (CI) 3

Breadth Physical Sciences (BPS) course 3

Elective course 3

Second Semester (15 credits)

APEC 4010 - Intermediate Microeconomics 3

APEC 5000 - Macroeconomics and Trade 3

ASTE 3440 - Science, Technology, and Modern Society (DSC) 3

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

Depth Humanities/Creative Arts (DHA) course 3

Elective courses 6

Second Semester (15 credits)

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5330 - Applied Econometrics (QI) 3

APEC 5560 - Natural Resource and Environmental Economics 3

APEC 5950 - Senior Project 3

Elective course 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Agricultural Economics Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

Agricultural Economics Minor Requirements (15 credits)

A minimum of 9 credits of Applied Economics courses must be taken, including the following courses:

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

APEC 4010 - Intermediate Microeconomics 3

Select the balance of credits from the following courses:

APEC 5000 - Macroeconomics and Trade 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5560 - Natural Resource and Environmental Economics 3

Return to: Academic Departments and Programs

Applied Economics - MAE

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

Required Core Courses (12 credits)

APEC 5000 - Macroeconomics and Trade 3 or

ECN 5000 - Advanced Macroeconomic Topics 3

APEC 6100 - Microeconomic Theory I 3 or

APEC 7130 - Microeconomic Theory I 3

APEC 6300 - Quantitative Analysis for Business and Policy Decisions 3 or

APEC 7350 - Mathematical Economics I 3

APEC 6330 - Applied Econometrics 3 or

APEC 7310 - Econometrics I 3

Elective Courses (21 credits)

Students select a minimum of 9 credits from the following courses:

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

APEC 6500 - Introduction to Natural Resource Economics 3

APEC 6510 - Introduction to Environmental Economics 3

APEC 6700 - Regional and Community Economic Development 3

APEC 6710 - Community Planning and Impact Analysis 3

APEC 7140 - Microeconomic Theory II 3

APEC 7320 - Econometrics II 3

APEC 7360 - Mathematical Economics II 3

Other Elective Courses

Students select a maximum of 12 credits of courses from other departments. These must be approved by the students committee.

Return to: Academic Departments and Programs

Applied Economics - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

To complete an MS degree in Applied Economics, students are required to:

(1) Complete the Applied Core:

APEC 6100 - Microeconomic Theory I 3

APEC 6300 - Quantitative Analysis for Business and Policy Decisions 3

APEC 6330 - Applied Econometrics 3

(2) Complete a Specialization in:

(a) Agricultural Economics:

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

Choose 9 (Plan A) or 12 (Plan B) credits from the following:

Any APEC 5000-7000 level courses as approved by your committee 3-12

ASTE 6200 - Principles and Practices of Extension Education 3

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ECN 5300 - Industrial Organization-Game Theory 3

ECN 6310 - Economics for Decision Making 2-3 (3 credits required)

FIN 6440 - Financial Decision Making 3

MGT 6410 - Enterprise Creation 2

MGT 6430 - Enterprise Growth and Management 2

MGT 6520 - Enterprise Branding and Marketing 3

MGT 6560 - Market Analysis and Decision Making 3

NDFS 6510 - Food Laws and Regulations 2

(b) Natural Resource Economics:

APEC 6500 - Introduction to Natural Resource Economics 3

APEC 6510 - Introduction to Environmental Economics 3

Choose 9 (Plan A) or 12 (Plan B) credits from the following:

Any APEC 5000-7000 level courses as approved by your committee 3-12

ENVS 5300 - Natural Resources Law and Policy 2

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6530 - Natural Resources Administration 3

POLS 5200 - Global Environment 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

SOC 4640 - Managing Community Conflict 3

(c) Regional Economic Development:

APEC 6700 - Regional and Community Economic Development 3

APEC 6710 - Community Planning and Impact Analysis 3

Choose 9 (Plan A) or 12 (Plan B) credits from the following:

Any APEC 5000-7000 level courses as approved by your committee 3-12

ENVS 6200 - Bioregional Analysis and Planning 5

ENVS 6210 - Bioregional Management and Policy 5

POLS 6020 - Public Policy Analysis 3

POLS 6040 - Public Choice 3

SOC 6150 - Social Statistics II 3

SOC 6650 - Developing Societies 3

SOC 6700 - Advanced Rural Sociology 3

SOC 6720 - Applied Community Development 3

(3) Submit and orally defend a thesis (Plan A) or research report (Plan B)

APEC 6970 - Thesis Research 1-9 (6 credits-Plan A) or (3 credits-Plan B)

Return to: Academic Departments and Programs

Economics - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

PhD students who are going from a BS to the PhD are required to complete 70 credits as follows:

Complete the core in the first year (Fall and Spring semester) 24 credits

(1)

APEC 7130 - Microeconomic Theory I 3

APEC 7140 - Microeconomic Theory II 3

APEC 7310 - Econometrics I 3

APEC 7320 - Econometrics II 3

APEC 7350 - Mathematical Economics I 3

APEC 7360 - Mathematical Economics II 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

(2)

Perform successfully on a written qualifying examination based on the core (Summer semester).

(3)

Complete two of the following concentrations (6 credits each concentration) 12 credits.

Theoretical Applications (choose two courses)

APEC 7150 - Microeconomic Theory III 3

APEC 7330 - Econometrics III 3

ECN 5020 - Macroeconomic Theory 3

Environmental and Natural Resource Economics (choose two courses)

APEC 7400 - International Trade and the Environment 3

APEC 7500 - Resource Economics 3

APEC 7510 - Environmental Economics 3

Agricultural Economics

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

Community and Economic Development

APEC 6700 - Regional and Community Economic Development 3

APEC 6710 - Community Planning and Impact Analysis 3

(4)

Complete the following additional courses (12 credits):

APEC 7950 - Department of Economics Graduate Seminar 1 (3 credits required)

Take 9 credits of 6000 or above elective courses approved by the student committee

(5)

Complete a dissertation, successfully orally defend it, and submit it to the School of Graduate Studies.

APEC 7970 - Dissertation Research 1-9 (22 credits)

PhD students who are going from an MS to the PhD are required to complete 50 credits as follows:

(1)

Complete the core in the first year ( Fall and Spring semester) 24 credits

APEC 7130 - Microeconomic Theory I 3

APEC 7140 - Microeconomic Theory II 3

APEC 7310 - Econometrics I 3

APEC 7320 - Econometrics II 3

APEC 7350 - Mathematical Economics I 3

APEC 7360 - Mathematical Economics II 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

(2)

Perform successfully on a written qualifying examination based on the core (Summer semester).

(3)

Complete one of the following concentrations (6 credits each concentration) 6 credits.

Theoretical Applications (choose two courses)

APEC 7150 - Microeconomic Theory III 3

APEC 7330 - Econometrics III 3

ECN 5020 - Macroeconomic Theory 3

Environmental and Natural Resource Economics (choose two courses)

APEC 7400 - International Trade and the Environment 3

APEC 7500 - Resource Economics 3

APEC 7510 - Environmental Economics 3

Agricultural Economics

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

Community and Economic Development

APEC 6700 - Regional and Community Economic Development 3

APEC 6710 - Community Planning and Impact Analysis 3

(4)

Complete the following additional courses (8 credits)

APEC 7950 - Department of Economics Graduate Seminar 1 (2 credits required)

Take 6 credits of 6000 or above elective courses approved by students committee.

(5)

Complete a dissertation, successfully orally defend it, and submit it to the School of Graduate Studies.

APEC 7970 - Dissertation Research 1-9 (12 credits required)

Return to: Academic Departments and Programs

Economics and Statistics (Applied Economics) - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

Masters Program in Economics and Statistics

The Master of Science (MS) degree in Economics and Statistics is offered through the Department of Applied Economics, College of Agriculture and Applied Sciences (in collaboration with the Department of Mathematics and Statistics, College of Science), is primarily intended to prepare students for subsequent doctoral study in Economics. Consequently, students are required to take the same first-year core theory and econometrics courses as the PhD students. Our graduates in Economics and

Statistics are well-prepared to continue their studies at the doctoral level, particularly in programs with a strong quantitative emphasis. Graduates have recently continued their studies at a variety of institutions, including Brown University, the University of Oregon, Harvard Law School, University of California at Irvine, and George Mason University.

To complete an MS degree in Economics and Statistics, students are required to:

(1)

Complete the following courses (24 credits)

APEC 7130 - Microeconomic Theory I 3

APEC 7140 - Microeconomic Theory II 3

APEC 7310 - Econometrics I 3

APEC 7320 - Econometrics II 3

APEC 7350 - Mathematical Economics I 3 (Taught in a 3 week intensive course just prior to fall semester)

APEC 7360 - Mathematical Economics II 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

(2)

Submit and orally defend a thesis (Plan A) or research paper (Plan B)

APEC 6970 - Thesis Research 1-9 (6 credits (Plan A) or 3 credits (Plan B))

(3)

Complete 3 credits of electives for Plan B only.

Elective course must be in APEC, ECN, MATH, or STAT

Return to: Academic Departments and Programs

Environmental and Natural Resource Economics - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

The Environmental and Natural Resource Economics major emphasizes the use of economics as a tool in evaluating tradeoffs for many natural resource and environmental policy issues. Students will learn how to value non market goods, such as: clean air or recreational opportunities. This major will prepare students to work in many local, state or federal agencies which deal with air, water, public lands and recreation. Students will also be trained to work for private firms who may often take an advocacy position on an environmental or natural resource policy issue.

The following curriculum is required for the Bachelor of Science degree in environmental and natural resource economics (ENRE). Students enrolled in the ENRE major should consult with their advisor to determine which breadth, depth and elective courses they should complete. ENRE majors are required to complete a minor or track in environmental policy or a natural science. Students should consult with an advisor to develop an individualized plan of study that includes the appropriate minor or track.

To graduate with a bachelor's degree in Environmental and Natural Resource Economics, a student must have a major GPA of 2.5 or higher, as well as a grade of C or better in each course required for the major. All required courses must be taken for a letter grade.

Students must complete the General Education Requirements

Students must also complete the University Studies Depth Requirements

Several of the required courses listed for this major will meet general education and university studies requirements. For more detailed information about courses and the recommended sequence for taking them, see the APEC academic advisor in the College of Agriculture and Applied Sciences Student Services Center.

Environmental and Natural Resource Economics Major Requirements

Required Courses

Applied Economics Core:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3 or

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

STAT 2300 - Business Statistics (QL) 4

Environmental and Natural Resource Economics Requirements:

APEC 4010 - Intermediate Microeconomics 3

APEC 5000 - Macroeconomics and Trade 3

APEC 5330 - Applied Econometrics (QI) 3

APEC 5560 - Natural Resource and Environmental Economics 3

APEC 5950 - Senior Project 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

Recommended Minor or Track for ENRE Majors

Ecology Track (20 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3  
 WILD 4600 - Conservation Biology 3  
 WILD 4700 - Ecological Foundations of Restoration 3  
 WILD 4000 - Principles of Rangeland Management 3 or  
 WILD 5300 - Wildlife Damage Management Principles 3  
 Environmental Policy and Management Track (15 credits)  
 ENVS 4000 - Human Dimensions of Natural Resource  
 Management (DSS) 3  
 ENVS 4130 - Recreation Policy and Planning 3  
 ENVS 4500 - Wildland Recreation Behavior (CI) 3  
 ENVS 5550 - Sustainability: Concepts and Measurement 3  
 ENVS 6320 - Water Law and Policy in the United States 3  
 Watershed Science Minor (19 credits)  
 WATS 3700 - Fundamentals of Watershed Science (CI) 3  
 WATS 4490 - Small Watershed Hydrology (QI) 4  
 WATS 4530 - Water Quality and Pollution 3  
 WATS 3820 - Climate and Climate Change (DSC/QI) 3  
 Plus two of the following courses:  
 WATS 4500 - Limnology: Ecology of Inland Waters 3  
 WATS 5150 - Fluvial Geomorphology 3  
 WATS 5640 - Riparian Ecology and Management 3  
 Minimum University Requirements  
 Total Credits  
 120  
 Grade Point Average (most majors require higher GPA)  
 2.00 GPA  
 Credits of C- or better  
 100  
 Credits of upper-division courses (#3000 or above)  
 40

USU Credits (30 USU credits, 20 of which must be upper-  
 division courses, 10 of which must be courses required  
 for student's major)  
 30 USU credits  
 Completion of approved major program of study  
 See college advisor  
 Credits in minor (if required)  
 12  
 Credits in American Institutions (ECN 1500; HIST 1700,  
 HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
 USU 1300)  
 3  
 General Education Requirements and University Studies  
 Depth Requirements  
 Return to: Academic Departments and Programs  
 Environmental and Natural Resource Economics Minor  
 Return to: Academic Departments and Programs  
 College of Agriculture and Applied Sciences  
 Department of Applied Economics  
 Environmental and Natural Resource Economics Minor  
 Requirements (15 credits)  
 A minimum of 9 credits of Applied Economics courses  
 must be taken, including the following courses:  
 APEC 2010 - Introduction to Microeconomics (BSS) 3  
 APEC 3012 - Introduction to Natural Resource and  
 Regional Economics (DSS) 3  
 APEC 5560 - Natural Resource and Environmental  
 Economics 3  
 Select the balance of credits from the following courses:  
 ENVS 3010 - Fundamentals of Natural Resource and  
 Environmental Policy 3  
 ENVS 3500 - Quantitative Assessment of Environmental  
 and Natural Resource Problems (QI) 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 OR

SOC 5640 - Managing Community Conflict (CI) 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

WILD 4000 - Principles of Rangeland Management 3

Return to: Academic Departments and Programs

Food and Agribusiness (International MBA)

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

The Department of Applied Economics participates with the Royal Agricultural University (RAU) in Cirencester, England to offer this degree. The degree is awarded by the RAU. Students study at USU during fall semester, and then study spring semester at the RAU. Students complete a team project and a thesis. The degree is designed to prepare students to be agribusiness managers in an international environment. Applicants for admission to the International MBA are expected to have completed a common body of knowledge core at an AACSB accredited program.

The common body of knowledge includes:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4

Required courses to be completed at USU include:

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

APEC 6330 - Applied Econometrics 3

Note:

During spring semester, courses in finance, marketing and advertising, human resource management, macroeconomics, business strategy, agricultural food policy, and food chain industry are taught at the RAU. Participating students pay USU tuition and are expected to complete the program in 12-18 months.

Return to: Academic Departments and Programs

International Agribusiness - BA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Applied Economics

The International Agribusiness major combines training in agribusiness, economics, management, international politics, and language skills that emphasize the role of trade and development issues that are critical to operating in the increasingly internationalized agribusiness sector. The program provides a foundation for employment in agricultural and agribusiness sectors and in banks and financial institutions, production, marketing and buying cooperatives, value-added food producers, agricultural chemical production and sales, and farms and ranches in domestic and international settings. Classwork provides training in international marketing, management and policy, as well as the specific management tools required for agricultural and agribusiness enterprises.

To graduate with a bachelor's degree in International Agribusiness, a student must have a major GPA of 2.5 or higher, as well as a grade of C or better in each course required for the major. All required courses must be taken for a letter grade.

Students must complete the General Education requirements

Students must also complete the University Studies Depth requirements

Several of the required courses listed for this major will meet general education and university studies requirements. For more detailed information about courses and the recommended sequence for taking them, see the APEC academic advisor in the College of Agriculture and Applied Sciences Student Services Center.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

International Agribusiness Major Requirements

For this major, students must score three or better on the Federal FSI Test or complete a language minor. All the following courses should be taken for a letter grade. Students must earn a grade of C or better in each course.

Required Courses:

Applied Economics Core:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3 or

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

STAT 2300 - Business Statistics (QL) 4

International Agribusiness Requirements:

APEC 4010 - Intermediate Microeconomics 3 or

ECN 3010 - Managerial Economics (DSS) 3

APEC 5000 - Macroeconomics and Trade 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 5020 - Strategic Firm Management (CI) 3

APEC 5950 - Senior Project 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MIS 4550 - Principles of International Business Communications (CI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 3100 - Global Issues 3

Choose one of the two sequences of courses from the Huntsman School of Business:

FIN 3400 - Corporate Finance (QI) 3

FIN 4300 - International Finance 3

Or

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3820 - International Management (DSS) 2

MGT 3830 - International Law 2

International Agribusiness Major Four Year Plan  
(Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (16 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1320 - Civilization: Humanities (BHU) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Second Semester (15 credits)

APEC 2010 - Introduction to Microeconomics (BSS) 3

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Physical Sciences (BPS) course 3

Minor course 3

Sophomore Year (31 credits)

First Semester (16 credits)

ACCT 2010 - Financial Accounting Principles 3

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

MGT 3500 - Fundamentals of Marketing 3

STAT 2300 - Business Statistics (QL) 4

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

ECN 3010 - Managerial Economics (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Junior Year (27 credits)

First Semester (14 credits)

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3

MGT 4540 - Social and New Media 2

Minor courses 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
Second Semester (13 credits)	
MGT 4550 - Brand Management 2	30 USU credits
MGT 4590 - Marketing Strategy 3	Completion of approved major program of study
NDFS 5510 - Food Laws and Regulations 2	See college advisor
Breadth Life Sciences (BLS) course 3	Credits in minor (if required)
Minor course 3	12
Senior Year (30 credits)	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
First Semester (15 credits)	3
APEC 5010 - Firm Marketing and Price Analysis (QI) 3	General Education Requirements and University Studies Depth Requirements
APEC 5015 - Firm Management, Planning, and Optimization (QI) 3	Return to: Academic Departments and Programs
ECN 5400 - International Trade Theory 3	
Minor courses 6	
Second Semester (15 credits)	International Food and Agribusiness - MS
APEC 5000 - Macroeconomics and Trade 3	Return to: Academic Departments and Programs
APEC 5020 - Strategic Firm Management (CI) 3	College of Agriculture and Applied Sciences
APEC 5950 - Senior Project 3	Department of Applied Economics
ASTE 3440 - Science, Technology, and Modern Society (DSC) 3	Plan A
Depth Humanities/Creative Arts (DHA) course 3	Fall Semester (15 credits)
Minimum University Requirements	APEC 5010 - Firm Marketing and Price Analysis (QI) 3
Total Credits	APEC 5015 - Firm Management, Planning, and Optimization (QI) 3
120	APEC 6030 - Agricultural Marketing 3
Grade Point Average (most majors require higher GPA)	APEC 6040 - Agribusiness Production and Supply Chain Management 3
2.00 GPA	APEC 6330 - Applied Econometrics 3
Credits of C- or better	Spring Term at Royal Agricultural University (9 credits)
100	Module 4079 (Food Chain) 1.5
Credits of upper-division courses (#3000 or above)	Module 4092 (Personal and Organizational Change) 2.5
40	Module 4093 (Business Economics) 1

Module 4094 (Financial Management) 1

Module 4096 (Operations Management and Logistics) 1

Module 4098 (Business Strategy) 2

Summer or Fall Semester (6 credits)

APEC 6970 - Thesis Research 1-9 (6 credits required)

Plan B

Fall Semester (15 credits)

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

APEC 6030 - Agricultural Marketing 3

APEC 6040 - Agribusiness Production and Supply Chain Management 3

APEC 6330 - Applied Econometrics 3

Spring Term at Royal Agricultural College (9 credits)

Module 4079 (Food Chain) 1.5

Module 4092 (Personal and Organizational Change) 2.5

Module 4093 (Business Economics) 1

Module 4094 (Financial Management) 1

Module 4096 (Operations Management and Logistics) 1

Module 4098 (Business Strategy) 2

Summer or Fall Semester (6 credits)

APEC 6970 - Thesis Research 1-9 (3 credits required)

Elective Courses (3 credits)

APEC 6300 - Quantitative Analysis for Business and Policy Decisions 3

APEC 6500 - Introduction to Natural Resource Economics 3

APEC 6510 - Introduction to Environmental Economics 3

APEC 6700 - Regional and Community Economic Development 3

APEC 6710 - Community Planning and Impact Analysis 3

Or other approved 5000-6000 level course

Return to: Academic Departments and Programs

Biological Engineering - BS

Return to: Academic Departments and Programs

College of Engineering

Department of Biological Engineering

Admission to the College of Engineering

In addition to the policies of the University concerning admission of students, the following regulations apply to the College of Engineering:

1. Transfer students from other colleges or universities will be referred to the Engineering Admission Committee for evaluation. Criteria considered in admission decisions for transfer students include resources available in the requested department and the transfer GPA, along with an evaluation of the program of the former college or university. Decisions concerning academic standing once the student is admitted to USU will be based solely on USU grades.

2. Students registered on campus (including Undeclared) must be approved by the Engineering Admission Committee before transferring to the College of Engineering. Students in this category must have demonstrated, by courses taken at USU, a potential to succeed in the major of their choice.

Pre-Engineering and Professional Engineering Requirements

Students interested in Engineering careers enter the University with a wide variety of educational backgrounds. Therefore, it is necessary for all students to demonstrate a satisfactory level of proficiency in basic engineering, mathematics, science, and English before they are admitted into a professional engineering program. Specific courses used to evaluate this proficiency are listed on the applications to the Professional Program available in the individual departments or in the College of Engineering Dean's Office. The professional engineering programs consist of the last two years of study listed in the departmental sections of the General Catalog. Students will not be admitted into engineering classes numbered 3000 or higher until they have been admitted into a professional

engineering program. Applications listing the required pre-professional courses and admission standards are available from the various departments and the Engineering Advising Center. The minimum requirements a student must satisfy in order to be eligible to apply for admission to a professional program are:

1. The student must achieve a grade of C- or better in every required preprofessional course. The P/D+, D, F grading option may not be used except in freshman English composition.
2. The student must achieve an overall grade point average of 2.3 or better for all required pre-professional coursework completed at USU.
3. A student can repeat no more than three of the required pre-professional courses in order to satisfy the eligibility requirements. Multiple repeats of the same course are included in the total of three repeats. Audits count as a time taking a class unless prior written approval is obtained from the college academic advisor. Satisfying minimum eligibility requirements does not ensure that a student will be admitted to a professional program in a specific department. The number of students accepted will be based upon the number of students that can be accommodated in upper-division classes. Applicants will be ranked and selected in order of their academic standing in the required pre-professional courses.

#### Program Educational Objectives

Objectives describe what graduates of the Biological Engineering program are expected to attain within a few years of graduation.

The USU Biological Engineering Program Educational Objectives are:

1. Graduates of the program will advance in careers and opportunities in biological engineering and related fields and professions based on a solid educational background in appropriate engineering, mathematics, physical/life sciences, and general studies including communication and ethics.
2. Graduates of the program will pursue advanced degrees in engineering and related professional fields.

#### Student Outcomes

Biological Engineering Program outcomes are aligned with the program outcomes of all academic engineering programs in the U.S. that are provided by the EAC Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

Student Outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to skills, knowledge, and behaviors that students acquire as they progress through the Biological Engineering program.

The USU Biological Engineering Program Student Outcomes are:

- a. An ability to apply knowledge of mathematics, science, and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d. An ability to function on multidisciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

#### The Program

Biological Engineering applies the art and science of engineering principles to the solution of problems in biological systems, including pharmaceuticals, biofuels, and food processing; biomedical; bioenvironmental; and water resources. The department also prepares students for entry into professional schools, such as medicine,

veterinary, and law. The curriculum is designed to prepare students for a wide variety of professional jobs related to biological systems. The objective of the Biological Engineering Program is to provide students with broad-based engineering skills necessary to solve biological-based problems and to design, control, and analyze biological-engineered systems. Students first learn to integrate biological sciences with conventional studies in mathematics and chemistry. These skills are broadened with a liberal exposure to humanities and social sciences, and then sharpened with the study of engineering topics that develop practical problem-solving abilities. The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET, ([www.abet.org](http://www.abet.org)). Passing the Fundamentals of Engineering examination, the first step in becoming a licensed professional engineer, is desired for graduation. After students have made two credible attempts to pass the national exam, a departmental exam will be administered. When passed, this departmental exam will satisfy the graduation requirement. The schedule provided in this guide should be followed as closely as possible, as many of the courses are presented in, and must be taken in, a specific sequence. Students should seek recommendations for coursework from their advisor, and use this guide as an aid in planning a program of study.

### Career Opportunities

The Biological Engineering program is broad based and prepares students to pursue opportunities in the biomedical, environmental, energy, bioproducts, food, and bioprocessing sectors as well as government and municipalities. Students receive a firm grounding in biological engineering and also the opportunity to specialize in their chosen area of biological engineering. Biological engineering and related fields are among the highest job growth areas through the next decade. Graduates of the program are also prepared to pursue advanced degrees in research/academia, medicine/dental, law and business. In recent years the College of Engineering has had an excellent job placement rate.

### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, one year of geometry, and one-half year of trigonometry while in high school. Four years of English and courses in chemistry, physics, and computer drafting are also

recommended. If the suggested mathematics courses are not taken in high school, they must be taken in college prior to starting calculus. This additional work need not cause a delay in graduation if CLEP or AP credit is earned or if summer semester enrollment is used to supplement course credits.

### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314A.

### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations. Preprofessional Program. Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a preprofessional program who are not making satisfactory progress toward acceptance into a professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a preprofessional program must still meet the entrance requirements for admission into a professional program.

### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/math/science courses required for, or used as technical electives in Biological Engineering. Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.
2. No grade less than C- may be applied toward meeting graduation requirements in engineering/math/science classes.
3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior written approval is obtained from the department head. A maximum of three required or elective courses completed as part of a professional program can be repeated in order to meet graduation requirements.

(Courses completed as part of a preprofessional program are not included in this total of three repeats.)

4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)

5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.

6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.

a. Students will be placed on probation if they (i) earn a D+/D/F in an engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree (see No. 2 and 5 above); or (ii) have an upper-division GPA of less than 2.0 (see No. 1 above).

b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes improve all D or D+ grades to C- or better, and/or by raising their upper division GPA above 2.0.

c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a preprofessional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements.

BIOL 1610 and BIOL 3300 (which are required for the major) will fulfill the Breadth Life Science (BLS) requirement

Since both MATH 1210 and MATH 1220 are required for the Biological Engineering major, one of the courses will fulfill the Quantitative Literacy requirement and the other will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

BENG 4880 and BENG 4890 will fulfill the Communication Intensive (CI) requirement

MATH 2250 or STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

Biological Engineering Required Coursework

Suggested Semester Schedule (127-128 credits)

Pre-engineering: Freshman and Sophomore

Freshman Year (34 credits)

Fall Semester (17 credits)

BENG 1000 - Introduction to Undergraduate Research and Engineering Design 1 3

BIOL 1610 - Biology I 4 1,3

CHEM 1210 - Principles of Chemistry I 4 3

CHEM 1215 - Chemical Principles Laboratory I 1 3

MATH 1210 - Calculus I (QL) 4 3

University Studies Breadth course 3

Spring Semester (17 credits)

BENG 1880 - Engineering Quantification of Biological Processes 3 3

ENGR 2270 - Computer Engineering Drafting 2 3

MATH 1220 - Calculus II (QL) 4 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 3

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 3,6

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Sophomore Year (32 credits)

Fall Semester (16 credits)

BENG 2330 - Engineering Properties of Biological Materials 3 3

CEE 2870 - Introduction to Computer Programming for Civil and Environmental Engineers 2

CHEM 2300 - Principles of Organic Chemistry 3 3

CHEM 2315 - Organic Chemistry Laboratory I 1 3

ENGR 2010 - Engineering Mechanics Statics 3 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 3

Spring Semester (16 credits)

BENG 2400 - Biological and Environmental Thermodynamics 3 3

BIOL 3300 - General Microbiology 4 1

ENGR 2030 - Engineering Mechanics Dynamics 3 3

ENGR 2450 - Numerical Methods for Engineers 3 3

ENGR 2210 - Fundamental Electronics for Engineers 3

Professional Engineering: Junior and Senior

Junior Year (32 credits)

Fall Semester (16 credits)

BENG 3200 - Introduction to Unit Operations in Biological Engineering 3

BENG 3870 - Biological Engineering Design I 1

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

STAT 3000 - Statistics for Scientists (QI) 3

University Studies Breadth courses 6

Spring Semester (16 credits)

BENG 3000 - Instrumentation for Biological Systems 3

BENG 3670 - Transport Phenomena in Bio-Environmental Systems 3

BENG 4880 - Biological Engineering Design II (CI) 3

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

Technical Elective course 3 2

Senior Year (32-34 credits)

Fall Semester (14-15 credits)

BENG 4890 - Biological Engineering Design III (CI) 3

BENG 5020 - Biological Modeling and Controls 3

University Studies Depth Humanities and Creative Arts (DHA) course 2-3

ENGR Elective course 3 2

BENG Elective course 3 2

Spring Semester (15 credits)

Technical Elective Courses 6

BENG Elective 3

University Studies Breadth American Institutions (BAI) course 3

University Studies Depth Social Sciences (DSS) course 3

Technical Elective Courses (select 21 or more credits)

Students must select 9-18 credits from the Biological Engineering Electives and Engineering Electives categories.

Biological Engineering Electives (select 6-9 credits)

BENG 5500 - Systems Biology Modeling 3

BENG 5600 - Downstream Processes in Biological Engineering 3

BENG 5610 - Food and Bioprocess Engineering 3

BENG 5810 - Biochemical Engineering 3

BENG 5850 - Biomaterials Engineering 3

BENG 5930 - Special Studies 1-4

Engineering Electives (select 0-12 credits)

CEE 4200 - Engineering Economics 2

ENGR 2140 - Strength of Materials 3

MAE 2160 - Material Science 3

MAE 3040 - Mechanics of Solids 3

Technical Electives (suggested)\* (select 0-9 credits)

AV 4200 - Composite Manufacturing Processes and Repair 3

BENG 4250 - Cooperative Practice 3

BENG 5620 - Metabolic Engineering I 3

BENG 5630 - Synthetic Biological Engineering 3

BENG 5680 - Soil-based Waste Management 2

BENG 5830 - Management and Utilization of Biological Solids and Wastewater 3

BENG 5840 - Introduction to Biophotonics 3

BENG 5890 - Tissue Engineering 3

BENG 5910 - Introduction to Biosensors 3

BENG 5930 - Special Studies 1-4

BIOL 1620 - Biology II (BLS) 4

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3100 - Bioethics (CI) 3

BIOL 5160 - Methods in Biotechnology: Cell Culture 3

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

BIOL 5260 - Methods in Biotechnology: Molecular Cloning 3

CEE 3020 - Structural Analysis 3

CEE 5060 - Mechanics of Composite Materials I 3

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3070 - Physical Chemistry (QI) 3

ECE 2290 - Electrical Circuits 2 3

ECE 2700 - Digital Circuits 4

NDFS 4020 - Advanced Nutrition 3

NDFS 5100 - Sensory Evaluation of Food (QI) 3

NDFS 5110 - Food Microbiology (CI) 3

PEP 4200 - Biomechanics (QI) 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PSC 3000 - Fundamentals of Soil Science 4

PSC 5670 - Environmental Soil Physics 4

TEE 2020 - Computer-Integrated Manufacturing Systems 3

Note:

\* Other technical courses (especially science and engineering) may be accepted with prior written approval from the Department of Biological Engineering.

Suggested Semester Schedule for Prehealth Program

It is possible for students to combine prehealth requirements with requirements for the Biological Engineering major. Some of the prehealth requirements add to the total amount of credits required. This combination may be completed within five years, if the student is very diligent. Medical schools do not accept AP, CLEP, or ACT scores toward fulfillment of English Composition, Chemistry, or Biology requirements. The following schedule is designed to satisfy the requirements without time conflicts. Students who must

deviate from this schedule should be sure to meet often with a College of Engineering advisor.

### Preengineering: First Three Years

#### First Year (33 credits)

#### Fall Semester (17 credits)

BENG 1000 - Introduction to Undergraduate Research and Engineering Design 1 3

BIOL 1610 - Biology I 4 1,3

CHEM 1210 - Principles of Chemistry I 4 3

CHEM 1215 - Chemical Principles Laboratory I 1 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 3

#### Spring Semester (16 credits)

BENG 1880 - Engineering Quantification of Biological Processes 3 3

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1220 - Calculus II (QL) 4 3

#### Second Year (32 credits)

#### Fall Semester (16 credits)

CEE 2870 - Introduction to Computer Programming for Civil and Environmental Engineers 2

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 3

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 3

#### Spring Semester (16 credits)

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

ENGR 2450 - Numerical Methods for Engineers 3 3

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

General education BSS credit: PSY 1010 or SOC 1010

#### Third Year (31 credits)

#### Fall Semester (17 credits)

BENG 2330 - Engineering Properties of Biological Materials 3 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2210 - Fundamental Electronics for Engineers 3

ENGR 2270 - Computer Engineering Drafting 2

University Studies Breadth Creative Arts (BCA) course 3

#### Spring Semester (14 credits)

BENG 2400 - Biological and Environmental Thermodynamics 3 3

BIOL 2420 - Human Physiology 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

ENGR 2030 - Engineering Mechanics Dynamics 3

Professional Engineering: Junior and Senior Years

#### Junior Year (32 credits)

#### Fall Semester (16 credits)

BENG 3200 - Introduction to Unit Operations in Biological Engineering 3

BENG 3870 - Biological Engineering Design I 1

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

Health Profession Elective 3

STAT 3000 - Statistics for Scientists (QI) 3

University Studies Breadth Humanities (BHU) course 3

Spring Semester (16 credits)

BENG 3000 - Instrumentation for Biological Systems 3

BENG 3670 - Transport Phenomena in Bio-  
Environmental Systems 3

BENG 4880 - Biological Engineering Design II (CI) 3

BIOL 3300 - General Microbiology 4 1, 3

University Studies Breadth American Institutions (BAI)  
course 3

Note:

Students should plan to take the MCAT during spring  
prior to their final year.

Senior Year (30-31 credits)

Fall Semester (15 credits)

BENG 4890 - Biological Engineering Design III (CI) 3

BENG 5020 - Biological Modeling and Controls 3

BENG Elective 3

Health Profession Elective 3

General Education Depth Social Science (DSS) 3

Spring Semester (15-16 credits)

BENG Elective 3

ENGR Elective 3

Health Profession Elective 3

Health Profession Elective 4

General Education Depth Humanities and Creative Arts  
(DHA) 2-3

Note:

1 The Breadth Life Sciences (BLS) area in the University  
Studies Program is satisfied by the combination of BIOL  
1610 and BIOL 3300.

2 To emphasize bioprocesses, premedical, etc., contact  
department for suggested technical electives.

3 This course is required for admission to the  
Professional Engineering Program (PEP).

4 These courses are highly recommended, but not  
required, for the premedical program. They fit in the  
schedule during the semesters shown. It is important for  
students to find out the requirements of the schools they  
desire to attend. Students should consult with the  
premedical advisor early in their program.

5 AP English does not satisfy the two semesters of  
English Composition requirement. However, students  
may use AP English for ENGL 1010, and then take ENGL  
2010 and ENGL 3040 (DHA) for the two semesters.

6 Students satisfying PHYS 2210 with AP taken before  
Fall 2011 will not need PHYS 2215.

Biological Engineering Mentors

The following list of faculty interests is provided to help  
students select the appropriate faculty member to  
contact for career and elective selection counseling.

Professors

Foster A. Agblevor, bioprocess engineering

Ronald C. Sims, bioprocess engineering

Associate Professors

David W. Britt, biomedical engineering

Charles Miller, synthetic biology

Jixun Zhan, metabolic engineering

Anhong Zhou, nanobiotechnology

Assistant Professors

Yue Cui, bionanotechnology

Daniel Hyduke, systems biology

Elizabeth Vargis, tissue engineering

Principal Lecturer

Timothy A. Taylor, bioprocess engineering

Requirement Changes

Graduation requirements shown on this sheet are subject  
to change. Students should check with their assigned  
advisor concerning possible changes.

For information contact

Biological Engineering Department; Engineering 402;  
Utah State University; 4105 Old Main Hill; Logan UT  
84322-4105; tel. (435) 797-2576; be.usu.edu/

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

##### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

#### Biological Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Biological Engineering

Students must have a BS from an ABET-accredited  
engineering program in the U.S. or its equivalent in their

home countries or must take the make-up coursework  
required for a BS in engineering at USU. It is assumed  
that the bachelor's degree mathematical training includes  
courses in calculus, linear analysis, and differential  
equations.

Two MS options are available: research (Plan A) and  
technical practice (Plan B).

Return to: Academic Departments and Programs

#### Biological Engineering - PhD

Return to: Academic Departments and Programs

College of Engineering

Department of Biological Engineering

Students who have completed an MS with a thesis (Plan A  
or equivalent) in an engineering discipline are eligible to  
apply for admission to a PhD program. Admission will be  
based on the students' prior academic records and, if  
they are graduates of USU, the recommendations of their  
graduate committees. It is assumed that students are  
adequately prepared in mathematics and engineering  
design courses to compete at the PhD level. If such is not  
the case, a program of courses to make up the deficiency  
will be required.

In addition to any prescribed review courses and  
seminars, the minimum requirements for a PhD program  
include 36 credits of approved graduate courses beyond  
a master's degree, satisfactory completion of  
comprehensive examinations or submission of an  
approved manuscript to a refereed archival journal, and  
the writing of a dissertation based on an original  
research project. The degree requirements beyond a  
master's degree can be met by taking courses in  
engineering design, synthesis, and systems; mathematics;  
and related sciences.

Return to: Academic Departments and Programs

#### Biological Science—Composite Teaching - BA

Return to: Academic Departments and Programs

College of Science

Department of Biology

## Admission Requirements For This Major

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

## The Program

A bachelor's degree in the Biological Science—Composite Teaching Major includes: University Studies, as required by the College of Science; the Composite Teaching Major; and the Secondary Teacher Education Program (STEP). Students majoring in the Biological Science—Composite Teaching Major will complete courses which provide an in-depth understanding of biological principles.

The Biological Science—Composite Teaching Major program is fully accredited by the Utah State Office of Education and the National Council for Accreditation of Teacher Education.

## Career Opportunities

Through the bachelor's degree program in the Biological Science—Composite Teaching Major, students are prepared for public school teaching at the secondary level. Students completing the program are eligible to apply for secondary licensure in the State of Utah. Utah also has reciprocal agreements with many other states.

Students desiring licensure to teach more than biology should consider also completing a teaching minor in an area such as chemistry. Students may also wish to take extra classes to complete a regular Biology degree. In

many instances, this only requires a moderate addition of required coursework. This could enhance a student's opportunities in nonteaching biology-related fields and postgraduate education. For further information, students should contact Dr. Richard Mueller, Eccles Science Learning Center 245L, (435) 797-2479, or by e-mail to: richard.mueller@usu.edu

## Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

## General Education Requirements:

GEO 1110 in conjunction with CHEM 1120 will fulfill the Exploration requirement

The required Biology coursework will fulfill the BLS requirement

The required Physics coursework will fulfill the BPS requirement

## University Studies Depth Requirements:

BIOL 5250 and SCED 4200 will fulfill the Communications Intensive requirement

STAT 3000 will fulfill the Quantitative Intensive requirement

SCED 3210 will fulfill the Social Sciences requirement

## Bachelor of Arts Degree Language Requirement

## Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Biological Science—Composite Teaching Major, BS/BA

To graduate, a candidate for the Biological Science-Composite Teaching Major must accumulate an overall cumulative GPA of 2.75 and a grade of C- or better in BIOL 1610 and BIOL 1620. The Pass-Fail option is not acceptable for any course required for the degree, except where a course is only graded pass/fail but D grades are permitted within the restrictions of the 2.75 GPA. The Biological Science—Composite Teaching Major leads to licensure to teach in secondary schools. Note: All USU teacher education candidates will be required to take and pass the PRAXIS content exam approved by the Utah State Office of Education in their major (and minor if applicable) content area prior to student teaching. The Biological Science—Composite Teaching course requirements are as follows:

Required Courses (30 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 2420 - Human Physiology 4 1

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3065 - Genetics Laboratory 2

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5 1

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

and

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Required Physical Science Courses (20-31 credits)

Chemistry Requirement (9-17 credits) (see footnotes 2,3)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

Geology Requirement (3-4 credits) (see footnote 3)

GEO 1010 - Introduction to Geology (BPS) 3

OR

GEO 1020 - Prehistoric Life 3

OR

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

Physics Requirement (8-10 credits)

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4 4

STAT 3000 - Statistics for Scientists (QI) 3

Required Courses for the Secondary Teacher Education  
Program (STEP) (35 credits)

Note:

To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring. For details, contact Dr. Richard Mueller, Eccles Science Learning Center 245L.

Level 1:

ITLS 4015 - Technology Tools and Integration for  
Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3 5

Level 2:

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3 5

Level 3:

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Note:

1. Students who complete BIOL 4600 do not need to take BIOL 2420, but are encouraged to take another physiology course to broaden their knowledge.

2. To improve employment and career options, the full two-year chemistry sequence required of Biology Emphasis Majors is highly recommended and will meet the requirements for a Chemistry Teaching Minor. See advisor for details.

3. Students who complete the coursework for a Chemistry Teaching Minor will not need to take a geology course, but are encouraged to do so to broaden their knowledge. See advisor for details.

4. Students should be certain that they have the proper background to enroll in MATH 1210. See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

5. SCED 3400 and SCED 4400 are only taught once a year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

Biological Science—Composite Teaching Major Four Year  
Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (29 credits)

First Semester (14 credits)	PHYS 2120 - General Physics - Life Sciences II (BPS) 4
BIOL 1610 - Biology I 4	SCED 3100 - Motivation and Classroom Management 3
CHEM 1110 - General Chemistry I (BPS) 4	SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3
University Studies or MATH prerequisite courses 6	SCED 4300 - Clinical Experience II 1
Second Semester (15 credits)	SCED 4400 - Teaching Science II 3
BIOL 1620 - Biology II (BLS) 4	Senior Year (27 credits)
CHEM 1120 - General Chemistry II (BPS) 4	First Semester (15 credits)
CHEM 1125 - General Chemistry II Laboratory 1	BIOL 3065 - Genetics Laboratory 2
University Studies or MATH prerequisite courses 6	BIOL 3220 - Field Ecology (QI) 2
Sophomore Year (31 credits)	BIOL 5250 - Evolutionary Biology (CI) 3
First Semester (15 credits)	SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3
BIOL 2420 - Human Physiology 4	SCED 4210 - Assessment and Curriculum Design 3
BIOL 3060 - Principles of Genetics (QI) 4	SPED 4000 - Education of Exceptional Individuals 2
MATH 1210 - Calculus I (QL) 4	Second Semester (12 credits)
University Studies course 3	SCED 5500 - Student Teaching Seminar 2
Second Semester (16 credits)	SCED 5630 - Student Teaching in Secondary Schools 10
BIOL 2220 - General Ecology 3	Minimum University Requirements
GEO 1110 - Physical Geology (BPS) 3	Total Credits
GEO 1115 - Physical Geology Laboratory 1	120
STAT 3000 - Statistics for Scientists (QI) 3	Grade Point Average (most majors require higher GPA)
University Studies courses 6	2.00 GPA
Junior Year (31-32 credits)	Credits of C- or better
First Semester (16-17 credits)	100
BIOL 3300 - General Microbiology 4	Credits of upper-division courses (#3000 or above)
PHYS 2110 - General Physics - Life Sciences I 4	40
SCED 3300 - Clinical Experience I 1	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SCED 3400 - Teaching Science I 3	30 USU credits
Upper-division Physiology Elective course with lab 4-5	Completion of approved major program of study
Second Semester (15 credits)	
ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)	

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Biological Science—Composite Teaching - BS

Return to: Academic Departments and Programs

College of Science

Department of Biology

Admission Requirements For This Major

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

The Program

A bachelor's degree in the Biological Science—Composite Teaching Major includes: University Studies, as required by the College of Science; the Composite Teaching Major; and the Secondary Teacher Education Program (STEP). Students majoring in the Biological Science—Composite

Teaching Major will complete courses which provide an in-depth understanding of biological principles.

The Biological Science—Composite Teaching Major program is fully accredited by the Utah State Office of Education and the National Council for Accreditation of Teacher Education.

Career Opportunities

Through the bachelor's degree program in the Biological Science—Composite Teaching Major, students are prepared for public school teaching at the secondary level. Students completing the program are eligible to apply for secondary licensure in the State of Utah. Utah also has reciprocal agreements with many other states.

Students desiring licensure to teach more than biology should consider also completing a teaching minor in an area such as chemistry. Students may also wish to take extra classes to complete a regular Biology degree. In many instances, this only requires a moderate addition of required coursework. This could enhance a student's opportunities in nonteaching biology-related fields and postgraduate education. For further information, students should contact Dr. Richard Mueller, Eccles Science Learning Center 245L, (435) 797-2479, or by e-mail to: richard.mueller@usu.edu

Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

General Education Requirements:

GEO 1110 in conjunction with CHEM 1120 will fulfill the Exploration requirement

The required Biology coursework will fulfill the BLS requirement

The required Physics coursework will fulfill the BPS requirement

University Studies Depth Requirements:

BIOL 5250 and SCED 4200 will fulfill the Communications Intensive requirement

STAT 3000 will fulfill the Quantitative Intensive requirement

SCED 3210 will fulfill the Social Sciences requirement

Biological Science—Composite Teaching Major, BS/BA

To graduate, a candidate for the Biological Science-Composite Teaching Major must accumulate an overall cumulative GPA of 2.75 and a grade of C- or better in BIOL 1610 and BIOL 1620. The Pass-Fail option is not acceptable for any course required for the degree, except where a course is only graded pass/fail but D grades are permitted within the restrictions of the 2.75 GPA. The Biological Science—Composite Teaching Major leads to licensure to teach in secondary schools. Note: All USU teacher education candidates will be required to take and pass the PRAXIS content exam approved by the Utah State Office of Education in their major (and minor if applicable) content area prior to student teaching. The Biological Science—Composite Teaching course requirements are as follows:

Required Courses (30 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 2420 - Human Physiology 4 1

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3065 - Genetics Laboratory 2

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5 1

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

and

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Required Physical Science Courses (20-31 credits)

Chemistry Requirement (9-17 credits) (see footnotes 2,3)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

Geology Requirement (3-4 credits) (see footnote 3)

GEO 1010 - Introduction to Geology (BPS) 3

OR

GEO 1020 - Prehistoric Life 3

OR

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

Physics Requirement (8-10 credits)

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4 4

STAT 3000 - Statistics for Scientists (QI) 3

Required Courses for the Secondary Teacher Education  
Program (STEP) (35 credits)

Note:

To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring. For details, contact Dr. Richard Mueller, Eccles Science Learning Center 245L.

Level 1:

ITLS 4015 - Technology Tools and Integration for  
Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3 5

Level 2:

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3 5

Level 3:

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Note:

1. Students who complete BIOL 4600 do not need to take BIOL 2420, but are encouraged to take another physiology course to broaden their knowledge.

2. To improve employment and career options, the full two-year chemistry sequence required of Biology Emphasis Majors is highly recommended and will meet the requirements for a Chemistry Teaching Minor. See advisor for details.

3. Students who complete the coursework for a Chemistry Teaching Minor will not need to take a geology course, but are encouraged to do so to broaden their knowledge. See advisor for details.

4. Students should be certain that they have the proper background to enroll in MATH 1210. See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

5. SCED 3400 and SCED 4400 are only taught once a year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

Biological Science—Composite Teaching Major Four Year  
Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (29 credits)

First Semester (14 credits)

BIOL 1610 - Biology I 4

CHEM 1110 - General Chemistry I (BPS) 4

University Studies or MATH prerequisite courses 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

University Studies or MATH prerequisite courses 6

Sophomore Year (31 credits)

First Semester (15 credits)

BIOL 2420 - Human Physiology 4

BIOL 3060 - Principles of Genetics (QI) 4

MATH 1210 - Calculus I (QL) 4

University Studies course 3

Second Semester (16 credits)

BIOL 2220 - General Ecology 3

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies courses 6

Junior Year (31-32 credits)

First Semester (16-17 credits)

BIOL 3300 - General Microbiology 4

PHYS 2110 - General Physics - Life Sciences I 4

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

Upper-division Physiology Elective course with lab 4-5

Second Semester (15 credits)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Senior Year (27 credits)

First Semester (15 credits)

BIOL 3065 - Genetics Laboratory 2

BIOL 3220 - Field Ecology (QI) 2

BIOL 5250 - Evolutionary Biology (CI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

Second Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Biology - BA

Return to: Academic Departments and Programs

College of Science

Department of Biology

The student must complete the requirements (below) plus two years of a foreign language.

The Department of Biology offers programs leading to a Bachelor of Science or Bachelor of Arts degree. Majors will complete a core of courses which provide an understanding of biological principles. Upper-division courses provide integration, in-depth study, and an opportunity for specialization within the different degree emphases. Additional coursework in chemistry, physics, statistics, and mathematics provides knowledge and analytical skills in these important related fields. Biology degrees provide a foundation for graduate work or employment in research, industry, or governmental agencies. Biology majors can add a minor area of study, such as business or chemistry, to enhance their employment opportunities.

### Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.
2. Transfer students from other institutions need a 2.25 transfer GPA and students transferring from other USU majors need a 2.25 cumulative GPA for admission to this major in good standing.

For further information contact the Biology Advising Center in Biology-Natural Resources 101. The advisor for Biology majors is Josh Wardle, [josh.wardle@usu.edu](mailto:josh.wardle@usu.edu), (435)797-7906.

Students must complete the General Education Requirements:

PHYS 2120 or PHYS 2220 will fulfill the Exploration requirement in conjunction with one of the General Education categories

The required Biology coursework will fulfill the BLS requirement

The required Chemistry coursework will fulfill the BPS requirement

Students must also complete the University Studies Depth Requirements:

BIOL 5250, along with another course having CI designation, will fulfill the Communications Intensive (CI) requirement

STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

## Requirements

Four different emphases are available within the Biology degree. Within each of these the BIOL 1610 and BIOL 1620 courses must be completed with grades of C- or better and a minimum GPA of 2.25 must be attained in all Biology and Public Health coursework required by the major. The Biology Emphasis is the most flexible option. Electives may be selected in any subdiscipline the student wishes to emphasize (e.g., botany, ecology, zoology, entomology, microbiology, etc.). The Cellular/Molecular and Ecology/Biodiversity emphases provide more directed training that is appropriate for research or other technical employment in academic institutions, government agencies, and the private sector. They also provide excellent preparation for graduate work. The Environmental Emphasis prepares students in the biological and physical sciences as they relate to environmental problems and concerns. This degree serves as a foundation for graduate work and provides practical training for employment at the bachelor's degree level. Emphases will be listed on transcripts to indicate the student's specialization. The course requirements are as follows:

### Biology Emphasis

#### Required Biology Courses (21-22 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4 or

BIOL 5210 - Cell Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3

#### Field Course Requirement (2-3 credits)

Students must take one course from the following list:

BIOL 3220 - Field Ecology (QI) 2

BIOL 4500 - Applied Entomology 3

BIOL 5530 - Insect Systematics and Evolution 3

BIOL 5550 - Freshwater Invertebrates 3

BIOL 5560 - Ornithology 3

#### Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

#### Biology Electives (10 credits)

Students must select an additional 10 credits of 4000-level and above BIOL or PUBH prefix courses as electives. BIOL 3065 (Genetics Laboratory) may also be included toward these elective credits, even though it is a 3000-level course. A maximum of 4 credits from the following courses may be included among the 10 elective credits.

BIOL 4250 - Internship/Co-op 1-2

BIOL 4710 - Teaching Internship 1

BIOL 5800 - Undergraduate Research 1-3

Seminar courses 1-2

#### Required Physical Science Courses (26-33 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

OR

CHEM 2310 - Organic Chemistry I 4 and

CHEM 2320 - Organic Chemistry II 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1  
and

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Cellular/Molecular Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3

Choose two of the following Molecular  
Biology/Biotechnology courses: (6 credits)

BIOL 5160 - Methods in Biotechnology: Cell Culture 3

BIOL 5190 - Molecular Genetics 3

BIOL 5260 - Methods in Biotechnology: Molecular  
Cloning 3

BIOL 5280 - Animal Molecular Biology 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-  
division physiology course with an integrated or separate  
laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the  
following two lecture courses and BIOL 5610 must be  
taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Biology Electives (9 credits)

Students must select an additional 9 credits of 4000-level  
and above BIOL prefix courses as electives. BIOL 3065  
(Genetics Laboratory) and BIOL 3300 (General  
Microbiology) may also be included toward these elective  
credits (even though they are 3000-level courses). A  
maximum of 4 credits from the following courses may be  
included among the 9 elective credits:

BIOL 4250 - Internship/Co-op 1-2

BIOL 4710 - Teaching Internship 1

BIOL 5800 - Undergraduate Research 1-3

Seminar courses 1-2

Required Physical Science Courses (37-39 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1  
and

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Ecology/Biodiversity Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take one upper-division physiology course with an integrated or separate laboratory from the following list:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Clusters (8-11 credits)

Students must take at least one course from each of the following three clusters.

Plant Biology (2-4 credits)

BIOL 4421 - Plant Taxonomy I 2

BIOL 4422 - Plant Taxonomy II 1

BIOL 4430 - Introduction to Plant Pathology 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

Animal Biology (3 credits)

BIOL 4500 - Applied Entomology 3

BIOL 5530 - Insect Systematics and Evolution 3

BIOL 5550 - Freshwater Invertebrates 3

BIOL 5560 - Ornithology 3

BIOL 5570 - Herpetology 3

BIOL 5580 - Mammalogy 3

Ecology/Evolution (3-4 credits)

BIOL 4060 - Exploring Animal Behavior (CI) 3

BIOL 5010 - Biogeography 3

BIOL 5380 - Evolutionary Genetics 4

BIOL 5590 - Animal Community Ecology 4

WILD 4600 - Conservation Biology 3

Electives (2-3 credits)

Students must take one additional course from this list or the clusters above or other upper-division courses approved by advisor.

BIOL 3065 - Genetics Laboratory 2

BIOL 4250 - Internship/Co-op 1-2

BIOL 4410 - Plant Structure 3

BIOL 5310 - Soil Microbiology 3

BIOL 5800 - Undergraduate Research 1-3 (2-3 credits required)

Required Physical Science Courses (33-40 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

OR

CHEM 2310 - Organic Chemistry I 4 and

CHEM 2320 - Organic Chemistry II 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PSC 3000 - Fundamentals of Soil Science 4

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Environmental Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Plant Identification (2-4 credits)

BIOL 4430 - Introduction to Plant Pathology 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Biology Elective Courses (12 credits)

Students must take 12 credits from the following list or others approved by advisor. Up to 3 credits of BIOL 5800 may be included.

BIOL 4250 - Internship/Co-op 1-2

BIOL 4430 - Introduction to Plant Pathology 4

BIOL 4500 - Applied Entomology 3

BIOL 5310 - Soil Microbiology 3

BIOL 5400 - Environmental Toxicology 3

BIOL 5800 - Undergraduate Research 1-3

CEE 5620 - Aquatic Chemistry 3 or

PSC 5620 - Aquatic Chemistry 3

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PSC 3000 - Fundamentals of Soil Science 4

PUBH 3610 - Environmental Management 3

Required Physical Science Courses (31-38 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Biology Major with the Biology Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math prerequisite to MATH 1210 , credits in addition to those listed here may be required 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 4-6

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-7

Junior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Biology Field Elective or Biology Elective course 2-3

University Studies or Biology Elective or Elective courses 6

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Biology Field Elective or Biology Elective course 2-3

University Studies or Biology Elective or Elective courses 6

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 5210 - Cell Biology 3 or

Biology Elective course (3 credits)

BIOL 5250 - Evolutionary Biology (CI) 3

Upper Division Physiology or Biology Elective courses 3-6

University Studies or Biology Elective or Elective courses 6

Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology or Biology Elective courses 3-6

University Studies or Biology Elective or Elective courses 9

Biology Major with the Cellular/Molecular Emphasis  
Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 3-5

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 4-6

Junior Year (30-36 credits)

First Semester (15-18 credits)

CHEM 5700 - General Biochemistry I 3

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective course 3

Upper Division Physiology Elective or Biology Elective or Molecular Biology/Biotechnology courses 5-7

Second Semester (15-18 credits)

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Upper Division Physiology Elective or Biology Elective or Molecular Biology/Biotechnology courses 5-7

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 5210 - Cell Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology or Biology Elective or Molecular Biology/Biotechnology course 3-5

University Studies or Biology Elective or Elective courses 6-7

Second Semester (15-18 credits)

BIOL 5230 - Developmental Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology Elective or Biology Elective or Molecular Biology/Biotechnology course 3-5

University Studies or Biology Elective or Elective courses 6-7

Biology Major with the Ecology/Biodiversity Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

## Freshman Year (30 credits)

### First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisites to MATH 1210, credits in addition to those listed here may be required)  
6

### Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required)  
6

## Sophomore Year (30-36 credits)

### First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 4-6

### Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-7

## Junior Year (30-36 credits)

## First Semester (15-18 credits)

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective course  
2-3

### Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies or Biology Elective or Elective courses  
8-9

## Senior Year (30-36 credits)

### First Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

PSC 3000 - Fundamentals of Soil Science 4

Upper Division Physiology Elective or Biology Elective  
course 3-5

University Studies or Biology Elective or Elective courses  
5-6

### Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology Elective or Biology Elective course 3-5

University Studies or Biology Elective or Elective courses 9-10

Biology Major with the Environmental Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required)  
6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required)  
6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 3-5

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 4-6

Junior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3220 - Field Ecology (QI) 2

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective courses 5-7

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies or Biology Elective or Elective courses 3-5

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 4

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Plant Identification or Biology Elective course 3-4

Upper Division Physiology Elective or Biology Elective course 3-5

University Studies or Biology Elective or Elective course 2

Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Plant Identification or Biology Elective course 3-4

Upper Division Physiology Elective or Biology Elective course 3-5

University Studies or Biology Elective or Elective courses 6

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Biology - BS

Return to: Academic Departments and Programs

College of Science

Department of Biology

The Department of Biology offers programs leading to a Bachelor of Science or Bachelor of Arts degree. Majors will complete a core of courses which provide an understanding of biological principles. Upper-division courses provide integration, in-depth study, and an opportunity for specialization within the different degree emphases. Additional coursework in chemistry, physics, statistics, and mathematics provides knowledge and analytical skills in these important related fields. Biology degrees provide a foundation for graduate work or employment in research, industry, or governmental agencies. Biology majors can add a minor area of study, such as business or chemistry, to enhance their employment opportunities.

Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.

2. Transfer students from other institutions need a 2.25 transfer GPA and students transferring from other USU majors need a 2.25 cumulative GPA for admission to this major in good standing.

For further information contact the Biology Advising Center in Biology-Natural Resources 101. The advisor for Biology majors is Polly Conrad, Biology-Natural Resources 101, (435) 797-7906 or by e-mail to: [polly.conrad@usu.edu](mailto:polly.conrad@usu.edu)

Students must complete the General Education Requirements:

PHYS 2120 or PHYS 2220 will fulfill the Exploration requirement in conjunction with one of the General Education categories

The required Biology coursework will fulfill the BLS requirement

The required Chemistry coursework will fulfill the BPS requirement

Students must also complete the University Studies Depth Requirements:

BIOL 5250, along with another course having CI designation, will fulfill the Communications Intensive (CI) requirement

STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

#### Requirements

Four different emphases are available within the Biology degree. Within each of these the BIOL 1610 and BIOL 1620 courses must be completed with grades of C- or better and a minimum GPA of 2.25 must be attained in all Biology and Public Health coursework required by the major. The Biology Emphasis is the most flexible option. Electives may be selected in any subdiscipline the student wishes to emphasize (e.g., botany, ecology, zoology, entomology, microbiology, etc.). The Cellular/Molecular and Ecology/Biodiversity emphases provide more directed training that is appropriate for research or other technical employment in academic institutions, government agencies, and the private sector. They also provide excellent preparation for graduate work. The Environmental Emphasis prepares students in the biological and physical sciences as they relate to environmental problems and concerns. This degree serves as a foundation for graduate work and provides practical training for employment at the bachelor's degree level. Emphases will be listed on transcripts to indicate the student's specialization. The course requirements are as follows:

#### Biology Emphasis

##### Required Biology Courses (21-22 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4 or

BIOL 5210 - Cell Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3

Field Course Requirement (2-3 credits)

Students must take one course from the following list:

BIOL 3220 - Field Ecology (QI) 2

BIOL 4500 - Applied Entomology 3

BIOL 5530 - Insect Systematics and Evolution 3

BIOL 5550 - Freshwater Invertebrates 3

BIOL 5560 - Ornithology 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Biology Electives (10 credits)

Students must select an additional 10 credits of 4000-level and above BIOL or PUBH prefix courses as electives. BIOL 3065 (Genetics Laboratory) may also be included toward these elective credits, even though it is a 3000-level course. A maximum of 4 credits from the following courses may be included among the 10 elective credits.

BIOL 4250 - Internship/Co-op 1-2

BIOL 4710 - Teaching Internship 1

BIOL 5800 - Undergraduate Research 1-3

Seminar courses 1-2

Required Physical Science Courses (26-33 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

OR

CHEM 2310 - Organic Chemistry I 4 and

CHEM 2320 - Organic Chemistry II 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1  
and

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Cellular/Molecular Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3

Choose two of the following Molecular  
Biology/Biotechnology courses: (6 credits)

BIOL 5160 - Methods in Biotechnology: Cell Culture 3

BIOL 5190 - Molecular Genetics 3

BIOL 5260 - Methods in Biotechnology: Molecular  
Cloning 3

BIOL 5280 - Animal Molecular Biology 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-  
division physiology course with an integrated or separate  
laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the  
following two lecture courses and BIOL 5610 must be  
taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Biology Electives (9 credits)

Students must select an additional 9 credits of 4000-level  
and above BIOL prefix courses as electives. BIOL 3065  
(Genetics Laboratory) and BIOL 3300 (General  
Microbiology) may also be included toward these elective  
credits (even though they are 3000-level courses). A  
maximum of 4 credits from the following courses may be  
included among the 9 elective credits:

BIOL 4250 - Internship/Co-op 1-2

BIOL 4710 - Teaching Internship 1

BIOL 5800 - Undergraduate Research 1-3

Seminar courses 1-2

Required Physical Science Courses (37-39 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Ecology/Biodiversity Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take one upper-division physiology course with an integrated or separate laboratory from the following list:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Clusters (8-11 credits)

Students must take at least one course from each of the following three clusters.

Plant Biology (2-4 credits)

BIOL 4421 - Plant Taxonomy I 2

BIOL 4422 - Plant Taxonomy II 1

BIOL 4430 - Introduction to Plant Pathology 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

Animal Biology (3 credits)

BIOL 4500 - Applied Entomology 3

BIOL 5530 - Insect Systematics and Evolution 3

BIOL 5550 - Freshwater Invertebrates 3

BIOL 5560 - Ornithology 3

BIOL 5570 - Herpetology 3

BIOL 5580 - Mammalogy 3

Ecology/Evolution (3-4 credits)

BIOL 4060 - Exploring Animal Behavior (CI) 3

BIOL 5010 - Biogeography 3

BIOL 5380 - Evolutionary Genetics 4

BIOL 5590 - Animal Community Ecology 4

WILD 4600 - Conservation Biology 3

Electives (2-3 credits)

Students must take one additional course from this list or the clusters above or other upper-division courses approved by advisor.

BIOL 3065 - Genetics Laboratory 2

BIOL 4250 - Internship/Co-op 1-2

BIOL 4410 - Plant Structure 3

BIOL 5310 - Soil Microbiology 3

BIOL 5800 - Undergraduate Research 1-3 (2-3 credits required)

Required Physical Science Courses (33-40 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

OR

CHEM 2310 - Organic Chemistry I 4 and

CHEM 2320 - Organic Chemistry II 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PSC 3000 - Fundamentals of Soil Science 4

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Environmental Emphasis

Required Biology Courses (24 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4

BIOL 5250 - Evolutionary Biology (CI) 3

Plant Identification (2-4 credits)

BIOL 4430 - Introduction to Plant Pathology 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

Physiology Course with Lab Requirement (4-5 credits)

Students must take from the following list one upper-division physiology course with an integrated or separate laboratory:

Courses with integrated laboratories:

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5

BIOL 5300 - Microbial Physiology (QI) 4

Courses with separate lecture and lab; one of the following two lecture courses and BIOL 5610 must be taken to meet the requirement:

BIOL 5100 - Neurobiology 3 or

BIOL 5600 - Comparative Animal Physiology 3

And

BIOL 5610 - Animal Physiology Laboratory (QI) 2

Biology Elective Courses (12 credits)

Students must take 12 credits from the following list or others approved by advisor. Up to 3 credits of BIOL 5800 may be included.

BIOL 4250 - Internship/Co-op 1-2

BIOL 4430 - Introduction to Plant Pathology 4

BIOL 4500 - Applied Entomology 3

BIOL 5310 - Soil Microbiology 3

BIOL 5400 - Environmental Toxicology 3

BIOL 5800 - Undergraduate Research 1-3

CEE 5620 - Aquatic Chemistry 3 or

PSC 5620 - Aquatic Chemistry 3

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PSC 3000 - Fundamentals of Soil Science 4

PUBH 3610 - Environmental Management 3

Required Physical Science Courses (31-38 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Biology Major with the Biology Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math prerequisite to MATH 1210 , credits in addition to those listed here may be required 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 4-6

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-7

Junior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Biology Field Elective or Biology Elective course 2-3

University Studies or Biology Elective or Elective courses 6

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Biology Field Elective or Biology Elective course 2-3

University Studies or Biology Elective or Elective courses 6

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 5210 - Cell Biology 3 or

Biology Elective course (3 credits)

BIOL 5250 - Evolutionary Biology (CI) 3

Upper Division Physiology or Biology Elective courses 3-6

University Studies or Biology Elective or Elective courses 6

Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology or Biology Elective courses 3-6

University Studies or Biology Elective or Elective courses 9

Biology Major with the Cellular/Molecular Emphasis  
Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

#### Freshman Year (30 credits)

##### First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

##### Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required 6

#### Sophomore Year (30-36 credits)

##### First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 3-5

##### Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 4-6

#### Junior Year (30-36 credits)

##### First Semester (15-18 credits)

CHEM 5700 - General Biochemistry I 3

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective course 3

Upper Division Physiology Elective or Biology Elective or Molecular Biology/Biotechnology courses 5-7

##### Second Semester (15-18 credits)

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Upper Division Physiology Elective or Biology Elective or Molecular Biology/Biotechnology courses 5-7

#### Senior Year (30-36 credits)

##### First Semester (15-18 credits)

BIOL 5210 - Cell Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology or Biology Elective or Molecular Biology/Biotechnology course 3-5

University Studies or Biology Elective or Elective courses 6-7

##### Second Semester (15-18 credits)

BIOL 5230 - Developmental Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology Elective or Biology Elective  
or Molecular Biology/Biotechnology course 3-5

University Studies or Biology Elective or Elective courses  
6-7

Biology Major with the Ecology/Biodiversity Emphasis  
Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a  
plan of study tailored to their individual needs and  
interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if  
students need Math courses prerequisites to MATH 1210,  
credits in addition to those listed here may be required)  
6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if  
students need Math courses prerequisite to MATH 1210,  
credits in addition to those listed here may be required)  
6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 4-6

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-7

Junior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3220 - Field Ecology (QI) 2

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective course  
2-3

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 3-4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies or Biology Elective or Elective courses  
8-9

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

PSC 3000 - Fundamentals of Soil Science 4

Upper Division Physiology Elective or Biology Elective course 3-5

University Studies or Biology Elective or Elective courses 5-6

Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Upper Division Physiology Elective or Biology Elective course 3-5

University Studies or Biology Elective or Elective courses 9-10

Biology Major with the Environmental Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required) 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (if students need Math courses prerequisite to MATH 1210, credits in addition to those listed here may be required) 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies or Elective courses 3-5

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3 or

BIOL 3060 - Principles of Genetics (QI) 4

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 4-6

Junior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3220 - Field Ecology (QI) 2

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

University Studies or Biology Elective or Elective courses 5-7

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies or Biology Elective or Elective courses  
3-5

Senior Year (30-36 credits)

First Semester (15-18 credits)

BIOL 3300 - General Microbiology 4 or

Biology Elective course 4

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Plant Identification or Biology Elective course 3-4

Upper Division Physiology Elective or Biology Elective  
course 3-5

University Studies or Biology Elective or Elective course  
2

Second Semester (15-18 credits)

BIOL 5250 - Evolutionary Biology (CI) 3 or

Biology Elective course 3

Plant Identification or Biology Elective course 3-4

Upper Division Physiology Elective or Biology Elective  
course 3-5

University Studies or Biology Elective or Elective courses  
6

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Biology - MS

Return to: Academic Departments and Programs

College of Science

Department of Biology

Course requirements are determined by the student's  
supervisory committee. They will vary depending on the  
research emphasis selected and the background of the  
student.

Return to: Academic Departments and Programs

Biology - PhD

Return to: Academic Departments and Programs

College of Science

Department of Biology

Course requirements are determined by the student's  
supervisory committee. They will vary depending on the  
research emphasis selected and the background of the  
student.

Return to: Academic Departments and Programs

Biology Minor

Return to: Academic Departments and Programs

College of Science

Department of Biology

The Biology minor requires completion of the following courses.

A minimum cumulative GPA of 2.25 is required for these courses, with a C- or better grade in BIOL 1610 and BIOL 1620.

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

Upper-division (3000-level and above) BIOL prefix courses 12

Note:

Although BIOL 2220/NR 2220 is a lower-division course, it may be counted toward the 12 elective credits.

Return to: Academic Departments and Programs

Biomathematics Minor (Biology)

Return to: Academic Departments and Programs

College of Science

Department of Biology

This minor requires mathematics and quantitative biology courses beyond those required for the basic biology degrees. It is an excellent option for students considering graduate work.

Biology majors may take this minor through the Mathematics and Statistics Department. Requirements for the Biomathematics minor include:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

STAT 3000 - Statistics for Scientists (QI) 3

MATH 4230 - Applied Mathematics in Biology (QI) 3 or

BIOL 4230 - Applied Mathematics in Biology (QI) 3

Biology majors must take one course from the biology electives (listed below), and two courses from the mathematics and statistics electives (listed below).

Mathematics and Statistics majors must take two courses from the biology electives, and one course from the mathematics and statistics electives. All other majors must take two courses from each set of electives.

Biology Electives:

BIOL 3220 - Field Ecology (QI) 2

BIOL 5380 - Evolutionary Genetics 4

BIOL 5600 - Comparative Animal Physiology 3

PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3

PUBH 5330 - Industrial Hygiene Chemical Hazard Control (QI) 3

WILD 3810 - Plant and Animal Populations 3

Mathematics and Statistics Electives

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application of Nonlinear Dynamical Systems 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5710 - Introduction to Probability 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5200 - Design of Experiments 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

Return to: Academic Departments and Programs

## Ecology (Biology) - MS

Return to: Academic Departments and Programs

College of Science

Department of Biology

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

### Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

### Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department

heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

### Ecology Course Requirements

#### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems  
and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

## 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

## 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems  
3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3  
or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems  
3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland  
Ecosystem Management 3

## 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center  
webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex  
Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

## 5. Human Ecology

### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

### Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

### Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

### Translational Ecology

ENVS 6410 - Translational Ecology 3

### Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

### Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Ecology (Biology) - PhD

Return to: Academic Departments and Programs

College of Science

Department of Biology

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

### Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate

selects or is assigned a major professor from the department appropriate to his or her interests.

## Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

### Ecology Course Requirements

#### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the

PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

#### 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems  
3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3  
or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems  
3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland  
Ecosystem Management 3

4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center  
webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex  
Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

5. Human Ecology

Policy

ASTE 5260 - Environmental Impacts of Agricultural  
Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural  
Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and  
Biophysical Dimensions 4

Translational Ecology

ENVS 6410 - Translational Ecology 3

Economics and Sustainability

APEC 5560 - Natural Resource and Environmental  
Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement  
3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of  
Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of  
Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change  
3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Medical Assistant - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Science

Department of Biology

The Medical Assistant Program is a certification program that can be completed in one year. The program prepares and trains individuals for a career in health care. Medical Assistants can seek employment with health care providers in offices or other medical settings in both the administrative and clinical procedures. The Medical Assistant Program is an accredited program with the AMT (American Medical Technologists). Upon the successful completion of coursework, students receive a certificate of completion from Utah State University. At that time students are eligible to submit an application and if accepted, sit for the AMT MA certification examination. Only graduates of accredited medical assistant programs are eligible to sit for the AMT MA Certification Examination.

Carla Endres, Ph.D., Director of Allied Health

Utah State University-Eastern-San Juan,  
Carla.endres@usu.edu, (435) 678-8209

Medical Assistant Entrance Requirements

The Utah State University College of Eastern Utah-San Juan Campus has an open admission policy. Applicants will be admitted without regard to race, color, religion, sex, national origin, handicap, marital status, veteran disability status or veteran of the Vietnam era. High school graduation is desired but not required.

### General Admissions Procedures

To be officially admitted to the college as a full-time matriculated student, an applicant must submit the following:

A completed Application for Admission.

A \$25 nonrefundable application fee.

Official transcripts of all previous high school and/or their GED and college work if the student is a transfer student.

Placement and evaluation exam. ACT (American College Test), ACTEN (American College Test Enhanced), SAT(Scholastic Aptitude Test), APCC test , ABLE Test, or ASSET test scores.

Notification of acceptance and resident status will be sent from the Admissions and Records Office. If a student's application is incomplete at the time of registration, the student may be admitted on an individual basis. Students applying for financial aid, must be matriculated before receiving aid.

A declaration of a major is accomplished through the Application for Admission. Students desiring to change their majors after acceptance are required to complete "A Change of Major" form at the Admissions and Records Office.

### Returning Students

A student who has been away for more than 3 years, must submit a new application for admission. No admissions fee will be assessed to returning students. Those who have attended other colleges or universities in the interim will be asked to submit transcripts of all college credits.

### Enrollment Prior to High School Graduation

An academically qualified high school student who wishes to enroll at CEU-SJC must attain an "Approval for Enrollment of High School" form from the Admissions and Records Office. The high school principal must sign the form signifying approval and the form returned to the

Admission and Records Office prior to the registration of the student. Students taking courses under the concurrent enrollment program, after regular high school hours or at night, do not have to complete the "Approval for Enrollment of High School" form.

### Transfer Students

A transfer student from another college or university must submit the following:

A completed Application for Admission.

A \$25 nonrefundable application fee.

Official transcripts of all previous college work. (Official transcripts must be sent directly from the previous school. Hand carried transcripts will not be accepted.)

ACT, ACTEN, SAT, APCC, ABLE or ASSET test scores. If a transfer student has completed 20 hours and has taken an English course equivalent to our English 1010, they will not be required to take the above tests.

A transfer student can not transfer credits with D or E (F) grades or credits from developmental or remedial courses.

The student must be in good standing and eligible to re-enroll at the college or university where they were most recently registered.

Transfer students will not be matriculated until official transcripts of all previous college or university work are submitted to CEU-SJC.

Registration Requirements Checklist (Checklist in PDF format to print and turn in with paperwork)

1. Registration Date and Time-Please visit the USU-EASTERN-San Juan Website for registration information.

2. Advising- Students interested in the Medical Assistant Programs should visit with an advisor prior to registration.

3. Vaccination records and Background Check- A packet including vaccination records and backgrounds check information needs to be on file at Utah State University-Eastern San Juan Campus. Students are advised to keep a copy off all records.

### Immunizations and Background check requirements

Required Immunizations- All immunizations below are required. Administrative and Clinical Experience will not accept students that have not met immunization requirements.

Hepatitis B series: The first of the series needs to be completed Prior to semester one of in the initial weeks of the semester. It can take time to schedule an appointment for vaccination; therefore students are encouraged to begin early. The second injection is given four weeks after the first, and needs to be completed by the middle of the semester. The third injection is completed 4 months after the first and needs to be completed before the end of the second semester.

MMR- Documentation of two MMR immunizations, or a titer indicating immunity, need to be completed prior to the end of Semester one. If you do not have childhood immunization records, it is recommended that you begin these immunizations or obtain a titer before beginning the program.

TB- Documentation of a recent TB test is required during the initial weeks of semester one. You can have this test up to 3 months before starting the program. TB tests are good for one year. If yours expires prior to completion of the program, you will need to repeat it.

Varicella- at least one Chicken pox vaccination or titer indicating immunity

Tdap-at least one pertussis immunization as an adult

Hospital Orientation- Prior to initiating any clinical externship, students are required to attend an orientation with the appropriate Hospital that they will be attending for their clinical experience. At times, this may require students completing experience at more than one hospital to attend orientations for each hospital that they will be working under.

Background Check- You will be required to order and pay for a background check during the first 2 weeks of Semester one. The cost is approximately \$55.

CPR requirement- Students must take a CPR course and receive CPR and first aid cards to meet the CPR requirement. Periodically, CPR courses are offered on campus. Please make arrangements to attend (including notifying other instructors). This must be completed by the middle of Semester one CPR certification is usually valid for 2 years.

\*Students will be required to turn in a packet to USU-Eastern-SJC with all of the above records. Students should keep a copy of all records for their own files.

### National Certification

After the successful completion of the program, students are eligible to apply to sit for the National Certification Exam. Use the link below to access the application. Click on certifications.

<http://www.americanmedtech.org/default.aspx>

The following courses are required for the Certificate of Completion in Medical Assistant:

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3 (Must be completed to award the Certificate of Medical Assistant as an institutional credential)

### Semester One

BIOL 1500 - Anatomy and Physiology (BLS) 3

HEAL 1030 - Medical Assisting: Administrative Competencies 4 (Requires 40 hours of Administrative Competency experience to be scheduled with instructor)

MATH 1030 - Quantitative Reasoning (QL) 3

NURS 1000 - Nursing Assistant 5

NURS 1008 - Medical Terminology 2

### Semester Two

HEAL 1600 - Medical Assisting 6

HEAL 1700 - Medical Assisting Internship 4 (Requires 120 hours of Clinical Competency experience to be scheduled with instructor)

HEAL 1860 - Phlebotomy and Clinical Laboratory 2 (Requires additional Blood Draws for certification)

HEAL 2020 - Emergency First Response 3

Return to: Academic Departments and Programs

Public Health - BS

Return to: Academic Departments and Programs

College of Science

Department of Biology

A four-year program leading to the Bachelor of Science in Public Health is offered by the Department of Biology with options in environmental health, industrial hygiene, or public health education. The industrial hygiene program is accredited by the Applied Science Commission of the Accreditation Board for Engineering and Technology; 111 Market Place, Suite 1050; Baltimore MD 21202-4012; telephone (410) 347-7700. Individuals completing the environmental health option are qualified to take the Registered Environmental Health Specialist/Sanitarian Examination (REHS/RS). Those completing the industrial hygiene option are granted benefits toward both the Certified Industrial Hygienist (CIH) and the Certified Safety Professional (CSP) examinations. Public Health Education graduates are qualified to take the Certified Health Education Specialist (CHES) examination. The Public Health degree requires a core of biology courses similar to that required for the biology degrees; additional biology and public health courses; and chemistry, physics, mathematics, statistics, and allied science and engineering courses appropriate to each emphasis.

### Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.

2. Transfer students from other institutions need a 2.25 transfer GPA and students transferring from other USU majors need a 2.25 cumulative GPA for admission to this major in good standing.

For further information contact the Biology Advising Center in Biology-Natural Resources 101. The advisor for Public Health majors is Carl Farley, Biology-Natural Resources 323, (435)797-2566 or by e-mail to: [carl.farley@usu.edu](mailto:carl.farley@usu.edu)

Students must complete the General Education Requirements:

The required chemistry courses, in conjunction with the required physics courses, will fulfill the Exploration requirement

The required Biology coursework will fulfill the BLS requirement

The required Physics coursework will fulfill the BPS requirement

Students must also complete the University Studies Depth Requirements:

PUBH 5500, along with another course having CI designation (such as NDFS 5110 or ENGL 3080), will fulfill the Communications Intensive (CI) requirement

STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Minimum grades and GPA for graduation: Students must complete the BIOL 1610 and BIOL 1620 courses with grades of C- or better and attain a minimum GPA of 2.25 in all Biology or Public Health coursework required by the major.

Environmental Health Emphasis

Required Biology Courses (19-20 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

BIOL 3300 - General Microbiology 4

Required Physical Science Courses (22-24 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3 1

CHEM 2315 - Organic Chemistry Laboratory I 1 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Required Program Courses (29 credits)

PUBH 3310 - Occupational Health and Safety 3

PUBH 3610 - Environmental Management 3

PUBH 4000 - Public Health Field Experience 3-6 (3 credits required)

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 4310 - Industrial Hygiene Recognition of Hazards 4

PUBH 5000 - Public Health Seminar 1

PUBH 5500 - Public Health Management (CI) 2

PUBH 5730 - Environmental Chemistry of Organic Contaminants 3

NDFS 5110 - Food Microbiology (CI) 3

Required Communication Course (select one course)

ENGL 3080 - Introduction to Technical Communication (CI) 3 or

CMST 1020 - Public Speaking (BHU) 3 or

CMST 2120 - Small Group Communication (HR) 3 or

CMST 3050 - Technical and Professional Communication (DSS) 3

Required Electives (select 10 credits)

BIOL 3220 - Field Ecology (QI) 2

BIOL 3500 - Plagues, Pests, and People (DSC) 3

BIOL 4421 - Plant Taxonomy I 2 and

BIOL 4422 - Plant Taxonomy II 1

(need to take both BIOL 4421 and BIOL 4422)

BIOL 5550 - Freshwater Invertebrates 3

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

NDFS 1250 - Sanitation and Safety 3

PSC 3000 - Fundamentals of Soil Science 4

PUBH 5400 - Environmental Toxicology 3

Industrial Hygiene Emphasis

Required Biology Courses (16-17 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

BIOL 3300 - General Microbiology 4

Required Physical Science Courses (26-28 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3 1

CHEM 2315 - Organic Chemistry Laboratory I 1 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Additional Required Chemistry (3-4 credits)

CHEM 3000 - Quantitative Analysis (QI) 3 and

CHEM 3005 - Quantitative Analysis Laboratory 1

Or

CHEM 3650 - Environmental Chemistry (DSC) 3

Or

PUBH 5730 - Environmental Chemistry of Organic Contaminants 3 2,3,4

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Required Program Courses (30 credits)

PUBH 3310 - Occupational Health and Safety 3

PUBH 3610 - Environmental Management 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 4310 - Industrial Hygiene Recognition of Hazards 4

PUBH 4320 - Industrial Hygiene Chemical Hazard Evaluation 3

PUBH 4330 - Industrial Hygiene Physical Hazards 3

PUBH 4380 - Industrial Hygiene Internship 3-6 (3 credits required)

PUBH 5330 - Industrial Hygiene Chemical Hazard Control (QI) 3

PUBH 5400 - Environmental Toxicology 3

PUBH 5500 - Public Health Management (CI) 2

Required Communication Course (select one course)

ENGL 3080 - Introduction to Technical Communication (CI) 3 or

CMST 1020 - Public Speaking (BHU) 3 or

CMST 2120 - Small Group Communication (HR) 3 or

CMST 3050 - Technical and Professional Communication (DSS) 3

Elective Options (select 5 credits)

BIOL 3060 - Principles of Genetics (QI) 4

CEE 5610 - Environmental Quality Analysis 3

MGT 3110 - Managing Organizations and People (DSS) 3

PUBH 4300 - Industrial Hygiene Seminar 1 (2 credits maximum)

PUBH 4410 - Industrial Safety 3

PUBH 5340 - Industrial Hygiene and Safety Programs 2

PUBH 5670 - Hazardous Chemicals Handling and Safety 2

PUBH 5730 - Environmental Chemistry of Organic Contaminants 3 3,4

PUBH 5790 - Accident and Emergency Management 3

Public Health Education Emphasis

Required Biology Courses (16-17 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

BIOL 3300 - General Microbiology 4

Required Physical Science Courses (13 credits)

CHEM 1110 - General Chemistry I (BPS) 4 4

CHEM 1120 - General Chemistry II (BPS) 4 4

CHEM 1125 - General Chemistry II Laboratory 1

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4 or 4

PHYS 1800 - Physics of Technology (BPS) 4 4

Mathematics and Statistics Requirement (7 credits)

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Required Program Courses (15 credits)

PUBH 3120 - Family and Community Health 3

PUBH 4000 - Public Health Field Experience 3-6 (3 credits maximum)

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5000 - Public Health Seminar 1

PUBH 5500 - Public Health Management (CI) 2

Required Supporting Courses (30 credits)

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

HEP 3900 - Social Marketing in Health Education 3

HEP 4200 - Planning and Evaluation for Health Education (QI) 3

HEP 5300 - Grant Writing for Health Educators 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

PSY 1010 - General Psychology (BSS) 3

SOC 3330 - Medical Sociology (DSS) 3

CMST 1020 - Public Speaking (BHU) 3

Note:

1 Industrial Hygiene and Environmental students considering graduate or professional school and those who want a stronger chemistry background should replace CHEM 2300 and CHEM 2315 with the two-semester Organic Chemistry series (CHEM 2310, CHEM 2315, CHEM 2320, and CHEM 2325, 10 total credits).

2 Industrial Hygiene students taking PUBH 5730 may not be eligible for a minor in Chemistry.

3 PUBH 5730 may satisfy either the additional chemistry requirement or the elective option (but not both).

4 Public Health Education students considering professional school and those who want a stronger background in chemistry and physics are encouraged to take CHEM 1210, CHEM 1215, CHEM 1220, CHEM 1225, CHEM 2310, CHEM 2315, CHEM 2320, CHEM 2325,

CHEM 3700 and CHEM 3710 as a substitute for CHEM 1110 and CHEM 1120, and PHYS 2110 and PHYS 2120 (or PHYS 2210 and PHYS 2220) as a substitute for PHYS 1200 or PHYS 1800.

Public Health Major with the Environmental Health  
Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (If  
students need Math courses prerequisite to MATH 1210,  
Math courses in addition to those specifically listed here,  
may be required) 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (If  
students need Math courses prerequisite to MATH 1210,  
Math courses in addition to those specifically listed here,  
may be required. 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2420 - Human Physiology 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

PUBH 3310 - Occupational Health and Safety 3

University Studies or Elective courses 0-3

Second Semester (15-18 credits)

BIOL 2220 - General Ecology 3

CMST 1020 - Public Speaking (BHU) 3 or

CMST 2120 - Small Group Communication (HR) 3 or

ENGL 3080 - Introduction to Technical Communication  
(CI) 3

PUBH 5000 - Public Health Seminar 1

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-8

Junior Year (30-36 credits)

First Semester (15-18 credits)

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PUBH 4310 - Industrial Hygiene Recognition of Hazards  
4

PUBH 5730 - Environmental Chemistry of Organic  
Contaminants 3

Public Health Elective or University Studies or other  
Elective courses 4-6

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Public Health Elective or University Studies or other  
Elective courses 7-9

Summer Term (3 credits)

PUBH 4000 - Public Health Field Experience 3-6

Senior Year (29-35 credits)

First Semester (15-18 credits)

PUBH 3610 - Environmental Management 3

PUBH 4030 - Communicable Disease Control 3

Public Health Elective or University Studies or other  
Elective courses 9-12

Second Semester (14-17 credits)

NDFS 5110 - Food Microbiology (CI) 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5500 - Public Health Management (CI) 2

Public Health Elective or University Studies or other  
Elective courses 6-9

Public Health Major with the Industrial Hygiene  
Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

University Studies or Math prerequisite courses (If  
students need Math courses prerequisite to MATH 1210,  
Math courses in addition to those specifically listed here,  
may be required.) 6

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

University Studies or Math prerequisite courses (If  
students need Math courses prerequisite to MATH 1210,  
Math courses in addition to those specifically listed here,  
may be required) 6

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2420 - Human Physiology 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

PUBH 3310 - Occupational Health and Safety 3

University Studies or Elective course 0-3

Second Semester (15-18 credits)

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

CMST 1020 - Public Speaking (BHU) 3 or

CMST 2120 - Small Group Communication (HR) 3 or

ENGL 3080 - Introduction to Technical Communication  
(CI) 3

STAT 3000 - Statistics for Scientists (QI) 3

University Studies or Elective courses 5-8

Junior Year (30-36 credits)

First Semester (15-18 credits)

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PUBH 4300 - Industrial Hygiene Seminar 1

PUBH 4310 - Industrial Hygiene Recognition of Hazards 4

Public Health Elective or University Studies or other  
Elective courses 6-8

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 and

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PUBH 4320 - Industrial Hygiene Chemical Hazard  
Evaluation 3

PUBH 4330 - Industrial Hygiene Physical Hazards 3

Public Health Elective or University Studies or other  
Elective course 1-3

Summer Term (3 credits)

PUBH 4380 - Industrial Hygiene Internship 3-6

Senior Year (30-36 credits)

First Semester (15-18 credits)

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PUBH 3610 - Environmental Management 3

PUBH 5330 - Industrial Hygiene Chemical Hazard Control (QI) 3

Public Health Elective or University Studies or other Elective courses 5-8

Second Semester (15-18 credits)

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5400 - Environmental Toxicology 3

PUBH 5500 - Public Health Management (CI) 2

Public Health Elective or University Studies or other Elective courses 7-10

Public Health Major with the Public Health Education Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CHEM 1110 - General Chemistry I (BPS) 4

PSY 1010 - General Psychology (BSS) 3

University Studies or Math prerequisite courses (If students need Math courses prerequisite to MATH 1210, Math courses in addition to those specifically listed here, may be required.) 4

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

CMST 1020 - Public Speaking (BHU) 3

University Studies or Math prerequisite courses (If students need Math courses prerequisite to MATH 1210, Math courses in addition to those specifically listed here, may be required.) 3

Sophomore Year (30-36 credits)

First Semester (15-18 credits)

BIOL 2420 - Human Physiology 4

MATH 1210 - Calculus I (QL) 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

University Studies or Elective courses 4-7

Second Semester (15-18 credits)

BIOL 3300 - General Microbiology 4

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

PUBH 3120 - Family and Community Health 3

University Studies or Elective courses 4-7

Junior Year (30-36 credits)

First Semester (15-18 credits)

HEP 3000 - Drugs and Human Behavior 3

SOC 3330 - Medical Sociology (DSS) 3

STAT 3000 - Statistics for Scientists (QI) 3

Public Health Elective or University Studies or other Elective courses 6-9

Second Semester (15-18 credits)

HEP 5300 - Grant Writing for Health Educators 3

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4 or

PHYS 1800 - Physics of Technology (BPS) 4

PUBH 5000 - Public Health Seminar 1

Public Health Elective or University Studies or other Elective courses 7-10

Summer Term (3 credits)

PUBH 4000 - Public Health Field Experience 3-6

Senior Year (30-36 credits)

First Semester (15-18 credits)

HEP 4200 - Planning and Evaluation for Health Education (QI) 3

PUBH 4030 - Communicable Disease Control 3

PUBH 5500 - Public Health Management (CI) 2

Public Health Elective or University Studies other  
Elective courses 7-10

Second Semester (15-18 credits)

HEP 3900 - Social Marketing in Health Education 3

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

PUBH 4040 - Fundamentals of Epidemiology 3

Public Health Elective or University Studies or other  
Elective courses 7-10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Public Health Minor

Return to: Academic Departments and Programs

College of Science

Department of Biology

The Public Health minor requires completion of the  
following courses.

A minimum cumulative GPA of 2.25 is required for these  
courses, with a C- or better grade in BIOL 1610 and BIOL  
1620.

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

Upper-division (3000-level and above) Public Health  
elective courses 12

Return to: Academic Departments and Programs

Biochemistry - BS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

The following curriculum is required for the BS degree in  
biochemistry. To complete the degree in eight semesters  
(four academic years), students must register for an  
average of 15-16 credits per semester. (Note:  
Biochemistry Majors cannot declare a Chemistry Minor.)

Note: Students may satisfy the CHEM 1210 requirement  
with an AP score of 3 or 4. Both CHEM 1210 and CHEM  
1220 may be satisfied with an AP score of 5.

Students must complete the General Education Requirements:

CHEM 1220 will fulfill the Physical Sciences (BPS) breadth requirement

PHYS 2120 and/or BIOL 1620 will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Suggested Schedule

First Year (30-32 credits)

Fall Semester (15-16 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 6-7

Spring Semester (15-16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1220 - Calculus II (QL) 4

University Studies courses 6-7

Second Year (32 credits)

Fall Semester (16 credits)

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

BIOL 1610 - Biology I 4

PHYS 2110 - General Physics - Life Sciences I 4 or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

University Studies course(s) 3

Spring Semester (16 credits)

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

BIOL 1620 - Biology II (BLS) 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4 or

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

University Studies course(s) 3

Third Year (31-37 credits)

Fall Semester (15-18 credits)

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

CHEM 5700 - General Biochemistry I 3

Advanced Biology Electives (2000 level or higher) 3-4

University Studies courses 5-7

Spring Semester (16-19 credits)

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

STAT 3000 - Statistics for Scientists (QI) 3

Advanced Biology Electives (2000 level or higher) 3-4

University Studies courses 4-7

Fourth Year (29-34 credits)

Fall Semester (14-17 credits)

CHEM 4890 - Undergraduate Biochemistry Seminar (CI) 2

CHEM 5070 - Biophysical Chemistry 3

Advanced elective coursework 6-12

University Studies course(s) 0-3

Spring Semester (12-15 credits)

Advanced elective coursework 6-12

University Studies course(s) 0-3

Preapproved Course Options for Biochemistry Major Electives (18 credits required for major)

Of the 18 credits required, 14 must be at the 3000 level or higher. Other upper-division courses may be substituted if approved by the department. Prerequisites will not be waived. Only courses with a C- grade or better can be applied toward the electives requirement.

ADVS 5350 - Introductory Pharmacology and Pharmacokinetics 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3065 - Genetics Laboratory 2

BIOL 3300 - General Microbiology 4

BIOL 4000 - Human Dissection 1

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4600 - Advanced Human Physiology 5 (Cannot use both BIOL 4600 and BIOL 2420 as Biochemistry Electives. Only one of these courses will count toward the 18 credit total)

BIOL 5100 - Neurobiology 3

BIOL 5150 - Immunology 3

BIOL 5190 - Molecular Genetics 3

BIOL 5210 - Cell Biology 3

BIOL 5230 - Developmental Biology 3

BIOL 5250 - Evolutionary Biology (CI) 3

BIOL 5400 - Environmental Toxicology 3

BIOL 5600 - Comparative Animal Physiology 3

CHEM 4800 - Research Problems (CI) 1-3

CHEM 6730 - Principles of Enzymology 2

CHEM 6740 - Cellular Communication by Small Molecules and Proteins 3

CHEM 6750 - Principles of Structural Biology 3

CHEM 6760 - Principles of Bioenergetics 3

BS Degree in Biochemistry with Honors

A BS degree in Biochemistry with honors can be earned by meeting the following requirements:

Minimum GPA of 3.50 in chemistry courses

Overall GPA of 3.30

Completion of 15 credits of honors work by successfully completing honors contracts in the following courses:

CHEM 4800 - Research Problems (CI) 1-3 (3-6 credits required)

CHEM 4890 - Undergraduate Biochemistry Seminar (CI) 2

3-6 credits selected from Honors courses numbered 3000 or higher in chemistry or related subjects, as appropriate. Three credits may be selected from chemistry courses numbered 6000 or higher 3-6

In addition, select two courses from the following:

CHEM 2320 - Organic Chemistry II 4

CHEM 5070 - Biophysical Chemistry 3

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Biochemistry - MS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Master of Science

To earn an MS in chemistry or biochemistry, a student must meet the general requirements of the School of Graduate Studies (see pages 115-119), conduct research under the direction of a major professor and write a thesis acceptable to a supervisory committee (Plan A) or write a review-of-literature paper (Plan B), and pass an oral examination that is principally a defense of the thesis or the Plan B paper.

Qualified undergraduate chemistry majors at USU may apply in the third year for admission to the MS program. Students may be admitted to this MS program if they have a B average in chemistry, physics, and mathematics courses, and have completed the one-year sequences in general, organic, and physical chemistry (including labs), two courses in analytical or inorganic chemistry, two semesters of physics, math through MATH 2210, and at least 15 credits of their University Studies requirements.

Students should consult with the chairperson of the Graduate Recruiting and Admissions Committee to be certain of their eligibility for this program. The chairperson will then submit an application to the department head and to the School of Graduate Studies for approval. Students must earn a satisfactory score on the GRE exam before the completion of the MS degree. All requirements for the BS degree must be completed within two semesters of admission. The MS coursework

cannot include coursework counted toward the BS degree.

Biochemistry Course Requirements

Every MS and PhD student in the biochemistry program must complete at least four of the graduate biochemistry core courses (CHEM 6730, CHEM 6740, CHEM 6750, and CHEM 6760). Both MS and PhD students must complete a total of at least 15 credits in coursework, exclusive of seminar and research credit. The Program of Study is approved by the student's supervisory committee. A total of 30 credits is required for the MS degree, and a total of 60 credits is required for the PhD. Beginning students who already hold an MS degree need 30 credits to complete the PhD program.

Return to: Academic Departments and Programs

Biochemistry - PhD

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Doctor of Philosophy

To earn the PhD in chemistry or biochemistry, a student must successfully complete a core curriculum of courses and other courses as approved by a supervisory committee. In addition, preliminary examinations (both oral and written) must be passed and research in a field of specialization must be conducted. The final requirement is the writing and defense of a dissertation before the student's supervisory committee.

Biochemistry Course Requirements

Every MS and PhD student in the biochemistry program must complete at least four of the graduate biochemistry core courses (CHEM 6730, CHEM 6740, CHEM 6750, and CHEM 6760). Both MS and PhD students must complete a total of at least 15 credits in coursework, exclusive of seminar and research credit. The Program of Study is approved by the student's supervisory committee. A total of 30 credits is required for the MS degree, and a total of 60 credits is required for the PhD. Beginning students who already hold an MS degree need 30 credits to complete the PhD program.

Return to: Academic Departments and Programs

## Chemistry - BA

Return to: Academic Departments and Programs

### College of Science

#### Department of Chemistry and Biochemistry

Students must complete the General Education Requirements:

CHEM 1220 will fulfill the Physical Sciences (BPS) requirement

PHYS 2220 will fulfill the Exploration requirement

Student must also complete the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

#### Bachelor of Arts Degree Language Requirement

##### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a

prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Chemistry Core Curriculum

In addition to the University Studies requirements for graduation, chemistry majors take a series of core courses spread across a traditional four-year period. The completion of the chemistry core also covers the College of Science requirements for graduation.

#### Chemistry Major Core Requirements Suggested Schedule

##### First Year (30-32 credits)

##### Fall Semester (15-16 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 6-7

##### Spring Semester (15-16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1220 - Calculus II (QL) 4

University Studies courses 6-7

##### Second Year (32-33 credits)

##### Fall Semester (17 credits)

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

MATH 2210 - Multivariable Calculus (QI) 3

Spring Semester (16-17 credits)

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3510 - Intermediate Inorganic Chemistry 2

CHEM 3520 - Inorganic Chemistry Laboratory 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies courses 3-4

Third Year (29-31 credits)

Fall Semester (14-16 credits)

CHEM 3060 - Physical Chemistry (QI) 3

CHEM 3080 - Physical Chemistry Laboratory I (CI) 1

CHEM 3700 - Introductory Biochemistry 3 or

CHEM 5700 - General Biochemistry I 3 \*

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 1 or

STAT 3000 - Statistics for Scientists (QI) 3 1

University Studies courses 4-5

Spring Semester (15 credits)

CHEM 3070 - Physical Chemistry (QI) 3

CHEM 3090 - Physical Chemistry Laboratory II (CI) 1

CHEM 5640 - Instrumental Analysis 3

CHEM 5650 - Instrumental Analysis Laboratory 2

University Studies or elective courses for specific degree emphasis 6

Fourth Year (31-32 credits)

CHEM 4990 - Undergraduate Seminar (CI) 2

Upper-division and advanced elective courses for specific degree emphasis 29-30

Note:

1 The completion of MATH 2250 or STAT 3000 is optional for the Teaching Major.

\* CHEM 5700 cannot be taken as an elective course if the CHEM 3700 option is taken

Degree Requirements

In addition to the chemistry core (with the exception of CHEM 5640, CHEM 5650), students must complete the following:

CHEM 5520 - Advanced Inorganic Chemistry 2 or

CHEM 5640 - Instrumental Analysis 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

## Return to: Academic Departments and Programs

Chemistry - BS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Students must complete the General Education Requirements:

CHEM 1220 will fulfill the Physical Sciences (BPS) requirement

PHYS 2220 will fulfill the Exploration requirement

Student must also complete the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Chemistry Core Curriculum

In addition to the University Studies requirements for graduation, chemistry majors take a series of core courses spread across a traditional four-year period. The completion of the chemistry core also covers the College of Science requirements for graduation.

### Chemistry Major Core Requirements Suggested Schedule

First Year (30-32 credits)

Fall Semester (15-16 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 6-7

Spring Semester (15-16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1220 - Calculus II (QL) 4

University Studies courses 6-7

Second Year (32-33 credits)

Fall Semester (17 credits)

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

MATH 2210 - Multivariable Calculus (QI) 3

Spring Semester (16-17 credits)

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3510 - Intermediate Inorganic Chemistry 2

CHEM 3520 - Inorganic Chemistry Laboratory 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies courses 3-4

Third Year (29-31 credits)

Fall Semester (14-16 credits)

CHEM 3060 - Physical Chemistry (QI) 3

CHEM 3080 - Physical Chemistry Laboratory I (CI) 1

CHEM 3700 - Introductory Biochemistry 3 or

CHEM 5700 - General Biochemistry I 3 \*

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 1 or

STAT 3000 - Statistics for Scientists (QI) 3 1

University Studies courses 4-5

Spring Semester (15 credits)

CHEM 3070 - Physical Chemistry (QI) 3

CHEM 3090 - Physical Chemistry Laboratory II (CI) 1

CHEM 5640 - Instrumental Analysis 3

CHEM 5650 - Instrumental Analysis Laboratory 2

University Studies or elective courses for specific degree emphasis 6

Fourth Year (31-32 credits)

CHEM 4990 - Undergraduate Seminar (CI) 2

Upper-division and advanced elective courses for specific degree emphasis 29-30

Note:

1 The completion of MATH 2250 or STAT 3000 is optional for the Teaching Major.

\* CHEM 5700 cannot be taken as an elective course if the CHEM 3700 option is taken

Chemistry Degree Emphases

Professional Chemistry Emphasis (ACS Certified)

In addition to the chemistry core, students must complete the following:

CHEM 5520 - Advanced Inorganic Chemistry 2

CHEM 5530 - Advanced Synthesis Laboratory 2

Advanced electives, as approved by department 6

Biochemistry Emphasis (ACS Certified)

In addition to the chemistry core, students must complete the following:

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

BIOL 1610 - Biology I 4

Advanced Biology electives, as approved by department 4

Environmental Chemistry Emphasis (ACS Certified)

In addition to the chemistry core, students must complete the following:

CHEM 5670 - Intermediate Environmental Chemistry 3

CHEM 5680 - Environmental Chemistry Laboratory 2

Introductory environmental electives as approved by department 6-7

Advanced environmental electives as approved by department 3

Chemical Education Emphasis (ACS Certified)

In addition to the chemistry core, students must complete the following:

Required courses for the Secondary Teacher Education Program (STEP)-Chemistry and Biochemistry 35

Teaching minor from outside Department of Chemistry and Biochemistry 18-30 (Student is responsible to meet with minor department advisor for minor requirements)

Life Science Emphasis

In addition to the Chemistry Core Requirements (with the exception of CHEM 5640, CHEM 5650), students must complete the following:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4 or

BIOL 2420 - Human Physiology 4

BIOL 3060 - Principles of Genetics (QI) 4 or

BIOL 3300 - General Microbiology 4

CHEM 5710 - General Biochemistry II 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

BS Degree in Chemistry with Honors

This option can be met by completing any ACS certified program and by meeting the following requirements:

Minimum GPA of 3.50 in chemistry courses

Overall GPA of 3.30

Completion of 15 credits of honors work by successfully completing honors contracts in the following courses:

CHEM 4800 - Research Problems (CI) 1-3 (3-6 credits required)

CHEM 4990 - Undergraduate Seminar (CI) 2

Credits selected from Honors courses numbered 3000 or above in chemistry or related subjects, as appropriate.

Three credits may be selected from chemistry courses numbered 6000 or above 3-6

In addition, select two courses from the following:

CHEM 2320 - Organic Chemistry II 4

CHEM 3070 - Physical Chemistry (QI) 3

CHEM 5640 - Instrumental Analysis 3

CHEM 5700 - General Biochemistry I 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Chemistry - MS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Master of Science

To earn an MS in chemistry or biochemistry, a student must meet the general requirements of the School of Graduate Studies (see pages 115-119), conduct research under the direction of a major professor and write a thesis acceptable to a supervisory committee (Plan A) or write a review-of-literature paper (Plan B), and pass an oral examination that is principally a defense of the thesis or the Plan B paper.

Qualified undergraduate chemistry majors at USU may apply in the third year for admission to the MS program. Students may be admitted to this MS program if they have a B average in chemistry, physics, and mathematics courses, and have completed the one-year sequences in general, organic, and physical chemistry (including labs), two courses in analytical or inorganic chemistry, two semesters of physics, math through MATH 2210, and at least 15 credits of their University Studies requirements.

Students should consult with the chairperson of the Graduate Recruiting and Admissions Committee to be certain of their eligibility for this program. The chairperson will then submit an application to the department head and to the School of Graduate Studies for approval. Students must earn a satisfactory score on the GRE exam before the completion of the MS degree. All requirements for the BS degree must be completed within two semesters of admission. The MS coursework cannot include coursework counted toward the BS degree.

Chemistry Course Requirements

Every MS and PhD student in the chemistry program must complete the courses required for their specialization: Analytical—CHEM 7600, CHEM 7610; Inorganic—CHEM 6500, CHEM 6510; Organic—CHEM 6300, CHEM 7300, CHEM 7310; or Physical Chemistry—CHEM 6010, CHEM 6020, CHEM 7020. Both MS and PhD students must complete a total of at least 15 credits in coursework, exclusive of seminar and research credit. The Program of Study is approved by the student's supervisory committee. A total of 30 credits is required for the MS degree and a total of 60 credits is required for

the PhD. Beginning students who already hold an MS degree need 30 credits to complete the PhD program.

Return to: Academic Departments and Programs

## Chemistry - PhD

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Doctor of Philosophy

To earn the PhD in chemistry or biochemistry, a student must successfully complete a core curriculum of courses and other courses as approved by a supervisory committee. In addition, preliminary examinations (both oral and written) must be passed and research in a field of specialization must be conducted. The final requirement is the writing and defense of a dissertation before the student's supervisory committee.

## Chemistry Course Requirements

Every MS and PhD student in the chemistry program must complete the courses required for their specialization: Analytical—CHEM 7600, CHEM 7610; Inorganic—CHEM 6500, CHEM 6510; Organic—CHEM 6300, CHEM 7300, CHEM 7310; or Physical Chemistry—CHEM 6010, CHEM 6020, CHEM 7020. Both MS and PhD students must complete a total of at least 15 credits in coursework, exclusive of seminar and research credit. The Program of Study is approved by the student's supervisory committee. A total of 30 credits is required for the MS degree and a total of 60 credits is required for the PhD. Beginning students who already hold an MS degree need 30 credits to complete the PhD program.

Return to: Academic Departments and Programs

## Chemistry Minor

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

In addition to CHEM 1210, CHEM 1215, CHEM 1220, and CHEM 1225, 10 additional credits in Chemistry prefix

courses at the 2000 level or higher, as approved by department, are required (either CHEM 2300 or CHEM 2310 may be included). (Note: Biochemistry Majors cannot declare a Chemistry Minor.)

No CHEM prefix course may be applied toward a minor in chemistry with an earned grade of less than C-. No CHEM prefix course may be repeated more than one time to improve the grade to a C- or better.

## Chemistry Minor

### Required Courses

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Select 10 credits from the following (as approved by department):

CHEM 2300 - Principles of Organic Chemistry 3 or

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

CHEM 3060 - Physical Chemistry (QI) 3

CHEM 3070 - Physical Chemistry (QI) 3

CHEM 3510 - Intermediate Inorganic Chemistry 2

CHEM 3520 - Inorganic Chemistry Laboratory 1

CHEM 3650 - Environmental Chemistry (DSC) 3

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

CHEM 5700 - General Biochemistry I 3

CHEM 5720 - General Biochemistry Laboratory (CI) 3

(CHEM 5700 cannot be taken as an elective course if CHEM 3700 option is taken)

Return to: Academic Departments and Programs

Chemistry Teaching - BS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Chemistry Core Curriculum

In addition to the University Studies requirements for graduation, chemistry majors take a series of core courses spread across a traditional four-year period. The completion of the chemistry core also covers the College of Science requirements for graduation.

Chemistry Major Core Requirements Suggested Schedule

First Year (30-32 credits)

Fall Semester (15-16 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 6-7

Spring Semester (15-16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1220 - Calculus II (QL) 4

University Studies courses 6-7

Second Year (32-33 credits)

Fall Semester (17 credits)

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3005 - Quantitative Analysis Laboratory 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

MATH 2210 - Multivariable Calculus (QI) 3

Spring Semester (16-17 credits)

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3510 - Intermediate Inorganic Chemistry 2

CHEM 3520 - Inorganic Chemistry Laboratory 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

University Studies courses 3-4

Third Year (29-31 credits)

Fall Semester (14-16 credits)

CHEM 3060 - Physical Chemistry (QI) 3

CHEM 3080 - Physical Chemistry Laboratory I (CI) 1

CHEM 3700 - Introductory Biochemistry 3 or

CHEM 5700 - General Biochemistry I 3 \*

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 1 or

STAT 3000 - Statistics for Scientists (QI) 3 1

University Studies courses 4-5

Spring Semester (15 credits)

CHEM 3070 - Physical Chemistry (QI) 3

CHEM 3090 - Physical Chemistry Laboratory II (CI) 1

CHEM 5640 - Instrumental Analysis 3

CHEM 5650 - Instrumental Analysis Laboratory 2

University Studies or elective courses for specific degree emphasis 6

Fourth Year (31-32 credits)

CHEM 4990 - Undergraduate Seminar (CI) 2

Upper-division and advanced elective courses for specific degree emphasis 29-30

Note:

1 The completion of MATH 2250 or STAT 3000 is optional for the Teaching Major.

\* CHEM 5700 cannot be taken as an elective course if the CHEM 3700 option is taken

### Degree Requirements

In addition to the Chemistry Core Requirements (with the exception of MATH 2250 or STAT 3000, and CHEM 5640 and CHEM 5650), students must complete the following:

Required courses for the Secondary Teacher Education Program (STEP)-Chemistry and Biochemistry 35

Teaching minor from outside Department of Chemistry and Biochemistry 18-30 (Student is responsible to meet with minor department advisor for minor requirements)

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

### Chemistry Teaching Minor

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

In addition to CHEM 1210, CHEM 1215, CHEM 1220, CHEM 1225, CHEM 2300 or CHEM 2310, and CHEM 2315, 3-4 additional credits in Chemistry prefix courses, as approved by the department, are required.

No CHEM prefix course may be applied toward a minor in chemistry with an earned grade of less than C-. No CHEM prefix course may be repeated more than one time to improve the grade to a C- or better.

3-4 additional credits selected from the following are required:

CHEM 2320 - Organic Chemistry II 4 (if CHEM 2310 has been previously selected)

CHEM 3000 - Quantitative Analysis (QI) 3

CHEM 3060 - Physical Chemistry (QI) 3

CHEM 3510 - Intermediate Inorganic Chemistry 2 and

CHEM 3520 - Inorganic Chemistry Laboratory 1

CHEM 3650 - Environmental Chemistry (DSC) 3 or

CHEM 3700 - Introductory Biochemistry 3

Enrollment in the Secondary Teacher Education Program (STEP) 35

Chemistry Teaching Minors are required to complete both Science Clinicals and Methods courses:

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Return to: Academic Departments and Programs

Physical Science (Composite Teaching)(Chemistry) - BS

Return to: Academic Departments and Programs

College of Science

Department of Chemistry and Biochemistry

Students must complete the General Education Requirements and the University Studies Depth Requirements.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS) for the Depth Course requirements.

#### A. Required Physics Courses (16 credits)

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3 or

USU 1360 - Integrated Physical Science (BPS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

#### B. Elective Physics Courses (5 credits)

Select 5 additional credits from PHYS 2710 and/or courses at the 3000 level and above. (Not to include physics courses designated as USU Depth courses.) Research in physics education may be included.

#### C. Required Mathematics and Statistics Courses (11 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

#### D. Required Chemistry Courses (14-15 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3 or

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

#### E. Required Science Courses (9 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

GEO 1110 - Physical Geology (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

Note:

Students seeking this degree must complete the requirements for the Secondary Teacher Education Program (STEP). Admission to the STEP with this major requires a minimum GPA of 2.75 in CHEM 1210, CHEM 1215, CHEM 1220, CHEM 1225, PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225, in addition to Secondary Education Program requirements.

All USU teacher education candidates will be required to take and pass the content exam approved by the Utah State Office of Education in their major content area prior to student teaching.

Secondary Teacher Education Program (STEP)(35 credits)

Prior to enrolling in these courses, students must be approved for admission to the STEP by the Emma Eccles Jones College of Education and Human Services. Students must have a minimum of 60 credits and an overall GPA of 3.0, and minimum ACT scores of: Composite-21, Math-19, English-20. Students must meet the Department of Physics GPA standards; a minimum GPA of 2.75 in PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225. For information on other criteria that must be met for acceptance, students should consult with advisors in the Secondary Education Program, School of Teacher Education and Leadership (TEAL).

#### Level 1 (11 credits)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
SCED 3400 - Teaching Science I 3	3
ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)	General Education Requirements and University Studies Depth Requirements
Level 2 (12 credits)	Return to: Academic Departments and Programs
SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3	
SCED 4210 - Assessment and Curriculum Design 3	Secondary Teacher Education Program (STEP)- Chemistry and Biochemistry
SCED 4300 - Clinical Experience II 1	Return to: Academic Departments and Programs
SCED 4400 - Teaching Science II 3	College of Science
SPED 4000 - Education of Exceptional Individuals 2	Department of Chemistry and Biochemistry
Level 3 (12 credits)	(35 credits)
SCED 5500 - Student Teaching Seminar 2	Prior to enrolling in these courses, students must be approved for admission to the STEP by the Emma Eccles Jones College of Education and Human Services. The teaching major advisor can assist with this process.
SCED 5630 - Student Teaching in Secondary Schools 10	A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). A minimum overall GPA of 2.75 is required for graduation. Specific for admission to any Chemistry Teaching program, a student must have at least a 2.75 GPA in CHEM 1210, CHEM 1215, CHEM 1220, and CHEM 1225.
Minimum University Requirements	All USU teacher education candidates will be required to take and pass the content exam approved by the Utah State Office of Education in their major content area prior to student teaching.
Total Credits	Students who may wish to teach Integrated Science at the middle or junior high school level should talk to their advisor about completing the courses necessary for an Integrated Science endorsement.
120	Level 1 (11 credits)
Grade Point Average (most majors require higher GPA)	ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)
2.00 GPA	SCED 3100 - Motivation and Classroom Management 3
Credits of C- or better	
100	
Credits of upper-division courses (#3000 or above)	
40	
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	
30 USU credits	
Completion of approved major program of study	
See college advisor	
Credits in minor (if required)	
12	

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1 (40 hours minimum)

SCED 3400 - Teaching Science I 3

Level 2 (12 credits)

SPED 4000 - Education of Exceptional Individuals 2 (may be taken anytime)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1 (40 hours minimum)

SCED 4400 - Teaching Science II 3

Level 3 (12 credits)

SCED 5500 - Student Teaching Seminar 2 (2 weeks)

SCED 5630 - Student Teaching in Secondary Schools 10 (13 weeks, full-time)

Note:

The Teaching Science I and II courses (SCED 3400 and SCED 4400) are only taught once per year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

The courses in nonscience majors may differ from those listed here.

Return to: Academic Departments and Programs

Toxicology (Chemistry and Biochemistry) - MS

Return to: Academic Departments and Programs

Director: Roger A. Coulombe, Jr.

Location: Animal Science 213

Phone: (435) 797-1600

FAX: (435) 797-1601

E-mail: [roger@usu.edu](mailto:roger@usu.edu)

WWW: <http://toxicology.usu.edu>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in Toxicology

Graduate Programs

Established in 1962, USU's Interdepartmental Graduate Program in Toxicology is one of the first degree-granting graduate toxicology programs in the country. More than 150 students have received MS and PhD degrees through this research-intensive interdisciplinary program. Students affiliate with the program through one of several departments: Animal, Dairy and Veterinary Sciences (ADVS); Biology (BIOL); Chemistry and Biochemistry (CAB); Civil and Environmental Engineering (CEE); or Plants, Soils, and Climate (PSC). The USDA Poisonous Plants Laboratory also provides facilities and research projects for study.

Admission Requirements

Students with a degree in life sciences, physical science, medical science, or engineering and with adequate preparation in chemistry, biology, physics, and/or mathematics are encouraged to apply. Admission to the program requires compliance with the general admission requirements of the School of Graduate Studies, a faculty sponsor, and acceptance into the sponsoring professor's home department. Applicants should have a minimum GPA of 3.0 from completed degree programs. International students must receive a minimum TOEFL score of 250.

Major Research Areas

Molecular and Biochemical Toxicology

Modern molecular biological techniques are used to determine the mechanisms of toxicity and carcinogenesis by examining how various natural and synthetic compounds interact with the cellular genome and epigenome. Resultant mutations in oncogenes and tumor suppressor genes are being investigated. Other ongoing studies examine the mechanisms of cancer chemoprevention, chemical metabolism, effects of toxicants on macromolecular syntheses, and metabolic intermediates. A comprehensive research program in poisonous plants is another program emphasis at the USDA-ARS Poisonous Plants Laboratory, just north of the USU campus.

Environmental Toxicology

Utah State University has a comprehensive research program in several aspects of environmental toxicology.

For example, Utah State University faculty pioneered the use of white-rot fungi to degrade environmental contaminants. Several members of the faculty study the effects of air pollution on human health, as well as develop models to predict episodes of high particulate matter. Models are developed and tested for dealing with the migration of chemicals in the environment, especially those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

#### Financial Assistance

Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

#### Toxicology - MS

##### Course Requirements

Students in the MS program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3

ADVS 6810 - Seminar in Toxicology 1

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

#### Toxicology Program Faculty

##### Professors

Steven D. Aust, free radical toxicology and bioremediation (CAB)

Roger A. Coulombe, Jr., (Director) molecular and environmental toxicology, cancer chemoprevention, air pollution (ADVS)

William J. Doucette, fate of environmental chemicals, phytoremediation (CEE)

R. Ryan Dupont, biological waste treatment (CEE)

Jeffery O. Hall, veterinary toxicology (ADVS)

Ronald C. Sims, environmental engineering (CEE)

##### Research Professor

Darwin L. Sorensen, aquatic toxicology (CEE)

##### Associate Professors

Paul R. Grossl, soil chemistry and phytoremediation (PSC)

Randy Martin, atmospheric chemistry, air pollution (CEE)

##### Assistant Professor

Abby Benninghoff, epigenetics, fetal basis of adult health and disease, carcinogenesis and cancer prevention, environmental toxicology (ADVS)

##### Collaborators at USDA Poisonous Plants Laboratory

Dale R. Gardner, natural product chemistry

Kip E. Panter, poisonous plants

James A. Pfister, behavioral toxicology

Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

Toxicology (Chemistry and Biochemistry) - PhD

## Return to: Academic Departments and Programs

Director: Roger A. Coulombe, Jr.

Location: Animal Science 213

Phone: (435) 797-1600

FAX: (435) 797-1601

E-mail: [roger@usu.edu](mailto:roger@usu.edu)

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Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in Toxicology

### Graduate Programs

Established in 1962, USU's Interdepartmental Graduate Program in Toxicology is one of the first degree-granting graduate toxicology programs in the country. More than 150 students have received MS and PhD degrees through this research-intensive interdisciplinary program. Students affiliate with the program through one of several departments: Animal, Dairy and Veterinary Sciences (ADVS); Biology (BIOL); Chemistry and Biochemistry (CAB); Civil and Environmental Engineering (CEE); or Plants, Soils, and Climate (PSC). The USDA Poisonous Plants Laboratory also provides facilities and research projects for study.

### Admission Requirements

Students with a degree in life sciences, physical science, medical science, or engineering and with adequate preparation in chemistry, biology, physics, and/or mathematics are encouraged to apply. Admission to the program requires compliance with the general admission requirements of the School of Graduate Studies, a faculty sponsor, and acceptance into the sponsoring professor's home department. Applicants should have a minimum GPA of 3.0 from completed degree programs. International students must receive a minimum TOEFL score of 250.

### Major Research Areas

#### Molecular and Biochemical Toxicology

Modern molecular biological techniques are used to determine the mechanisms of toxicity and carcinogenesis by examining how various natural and synthetic compounds interact with the cellular genome and epigenome. Resultant mutations in oncogenes and tumor

suppressor genes are being investigated. Other ongoing studies examine the mechanisms of cancer chemoprevention, chemical metabolism, effects of toxicants on macromolecular syntheses, and metabolic intermediates. A comprehensive research program in poisonous plants is another program emphasis at the USDA-ARS Poisonous Plants Laboratory, just north of the USU campus.

### Environmental Toxicology

Utah State University has a comprehensive research program in several aspects of environmental toxicology. For example, Utah State University faculty pioneered the use of white-rot fungi to degrade environmental contaminants. Several members of the faculty study the effects of air pollution on human health, as well as develop models to predict episodes of high particulate matter. Models are developed and tested for dealing with the migration of chemicals in the environment, especially those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

### Financial Assistance

Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

### Course Requirements

Students in the PhD program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3

BIOL 5600 - Comparative Animal Physiology 3 or

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

Toxicology Program Faculty

Professors

Steven D. Aust, free radical toxicology and bioremediation (CAB)

Roger A. Coulombe, Jr., (Director) molecular and environmental toxicology, cancer chemoprevention, air pollution (ADVS)

William J. Doucette, fate of environmental chemicals, phytoremediation (CEE)

R. Ryan Dupont, biological waste treatment (CEE)

Jeffery O. Hall, veterinary toxicology (ADVS)

Ronald C. Sims, environmental engineering (CEE)

Research Professor

Darwin L. Sorensen, aquatic toxicology (CEE)

Associate Professors

Paul R. Grossl, soil chemistry and phytoremediation (PSC)

Randy Martin, atmospheric chemistry, air pollution (CEE)

Assistant Professor

Abby Benninghoff, epigenetics, fetal basis of adult health and disease, carcinogenesis and cancer prevention, environmental toxicology (ADVS)

Collaborators at USDA Poisonous Plants Laboratory

Dale R. Gardner, natural product chemistry

Kip E. Panter, poisonous plants

James A. Pfister, behavioral toxicology

Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

Civil and Environmental Engineering - ME

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Graduate Programs

The ME degree emphasizes professional practice and coursework. A minimum of 30 credits of technical and scientific coursework is required. The MS degree emphasizes research and the preparation of a significant publication. A minimum of 30 credits, 6 to 9 of which shall be thesis research, is required for an MS. In special cases, as decided by the student's supervisory committee, a second MS is available with a Plan B option, which requires 30 credits, including 3 credits of CEE 6970 - Thesis Research. The Civil and Environmental Engineering PhD degree, which prepares students for professional engineering careers, requires 72 credits beyond the bachelor's degree, or 42 credits beyond the master's degree, including a technical engineering report. The PhD degree represents high scholarly achievement demonstrated by independent research and competence in an area of specialization approved by the student's supervisory committee.

Return to: Academic Departments and Programs

Civil and Environmental Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Graduate Programs

The ME degree emphasizes professional practice and coursework. A minimum of 30 credits of technical and scientific coursework is required. The MS degree

emphasizes research and the preparation of a significant publication. A minimum of 30 credits, 6 to 9 of which shall be thesis research, is required for an MS. In special cases, as decided by the student's supervisory committee, a second MS is available with a Plan B option, which requires 30 credits, including 3 credits of CEE 6970 - Thesis Research. The Civil and Environmental Engineering PhD degree, which prepares students for professional engineering careers, requires 72 credits beyond the bachelor's degree, or 42 credits beyond the master's degree, including a technical engineering report. The PhD degree represents high scholarly achievement demonstrated by independent research and competence in an area of specialization approved by the student's supervisory committee.

Return to: Academic Departments and Programs

Civil and Environmental Engineering - PhD

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Graduate Programs

The ME degree emphasizes professional practice and coursework. A minimum of 30 credits of technical and scientific coursework is required. The MS degree emphasizes research and the preparation of a significant publication. A minimum of 30 credits, 6 to 9 of which shall be thesis research, is required for an MS. In special cases, as decided by the student's supervisory committee, a second MS is available with a Plan B option, which requires 30 credits, including 3 credits of CEE 6970 - Thesis Research. The Civil and Environmental Engineering PhD degree, which prepares students for professional engineering careers, requires 72 credits beyond the bachelor's degree, or 42 credits beyond the master's degree, including a technical engineering report. The PhD degree represents high scholarly achievement demonstrated by independent research and competence in an area of specialization approved by the student's supervisory committee.

Return to: Academic Departments and Programs

Civil Engineer - CE

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Graduate Programs

The ME degree emphasizes professional practice and coursework. A minimum of 30 credits of technical and scientific coursework is required. The MS degree emphasizes research and the preparation of a significant publication. A minimum of 30 credits, 6 to 9 of which shall be thesis research, is required for an MS. In special cases, as decided by the student's supervisory committee, a second MS is available with a Plan B option, which requires 30 credits, including 3 credits of CEE 6970 - Thesis Research. The Civil and Environmental Engineering PhD degree, which prepares students for professional engineering careers, requires 72 credits beyond the bachelor's degree, or 42 credits beyond the master's degree, including a technical engineering report. The PhD degree represents high scholarly achievement demonstrated by independent research and competence in an area of specialization approved by the student's supervisory committee.

Return to: Academic Departments and Programs

Civil Engineering - BS

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Effective for students beginning degree Summer Sem. 2013 thru Spring Sem. 2014

Admission to the College of Engineering

In addition to the policies of the University concerning admission of students, the following regulations apply to the College of Engineering:

1. Transfer students from other colleges or universities will be referred to the Engineering Admission Committee for evaluation. Criteria considered in admission decisions for transfer students include resources available in the requested department and the transfer GPA, along with an evaluation of the program of the former college or university. Decisions concerning academic standing once

the student is admitted to USU will be based solely on USU grades.

2. Students registered on campus (including Undeclared) must be approved by the Engineering Admission Committee before transferring to the College of Engineering. Students in this category must have demonstrated, by courses taken at USU, a potential to succeed in the major of their choice.

#### Pre-Engineering and Professional Engineering Requirements

Students interested in Engineering careers enter the University with a wide variety of educational backgrounds. Therefore, it is necessary for all students to demonstrate a satisfactory level of proficiency in basic engineering, mathematics, science, and English before they are admitted into a professional engineering program. Specific courses used to evaluate this proficiency are listed on the applications to the Professional Program available in the individual departments or in the Engineering Advising Center. The professional engineering program consists of the last two years of study listed in the departmental sections of the General Catalog. Students will not be admitted into engineering classes numbered 3000 or higher until they have been admitted into a professional engineering program. Applications listing the required pre-professional courses and admission standards are available from the various departments and the office of the Dean of Engineering. The minimum requirements a student must satisfy in order to be considered for admission to a professional program are:

1. The student must achieve a grade of C- or better in every required pre-professional course. The P/D+, D, F grading option may not be used except in freshman English composition.
2. Civil and Environmental Engineering students must achieve an overall grade point average of 2.3 or better for all required pre-professional coursework completed at USU.
3. A student can repeat no more than three of the required pre-professional courses in order to satisfy the eligibility requirements. Multiple repeats of the same course are included in the total of three repeats. Audits count as a time taking a class unless prior written approval is obtained from the college academic advisor. Satisfying minimum eligibility requirements does not ensure that a student will be admitted to a professional

program in a specific department. The number of students accepted will be based upon the number of students that can be accommodated in upper-division classes. Applicants will be ranked and selected in order of their academic standing in the required pre-professional courses.

#### The Program

Civil Engineering is the oldest branch of the engineering field, offering graduates numerous opportunities to attain important positions which have great influence on many of humankind's endeavors. Civil and Environmental Engineering is concerned with planning, designing, constructing, and operating various physical works; developing and utilizing natural resources in an environmentally sound manner; providing the infrastructure which supports the highest quality of life in the history of the world; and protecting public health and renovating impacted terrestrial and aquatic systems from the mismanagement of toxic and hazardous wastes. This includes designing and supervising the construction of bridges, buildings, dams, aqueducts, sport complexes, energy complexes, and other structures; irrigation and transportation systems (highways, canals, rapid transit lines, etc.); developing water resources for municipal, industrial, and recreational use; land reclamation, soil mechanics, and urban planning; and the control of water quality through water purification and proper waste treatment, as well as solving problems of air pollution and solid and hazardous waste management. Projects of this magnitude require engineers who can understand the relationships of environment, resources, and production, and who are able to design and implement programs and procedures which bring these projects into being.

The undergraduate Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

Students in this program take such courses as engineering graphics, surveying, mechanics, dynamics, numerical methods, mechanics of fluids and solids, hydraulics, hydrology, soils, engineering, structural design, and legal aspects of engineering. Students entering the professional program are required to have a basic knowledge of computer skills in the areas of operating systems, spreadsheets, word processing, and a programming language. Course requirements also include basic understanding of engineering principles, analytical geometry and calculus, linear analysis,

principles of chemistry and physics, and physical geology. Students are also provided with a variety of technical electives which can develop areas of specialty and competence. A number of humanities and social sciences courses must also be completed, adding breadth of study and increasing employment opportunities. Passing the Fundamentals of Engineering (FE) examination is the first step in becoming a licensed professional engineer. Students should plan to take the exam the spring of their junior year. Students may graduate after two valid attempts to pass the FE exam. Students in this program will be required to purchase and use an approved scientific calculator.

Graduates of the program are expected to have attained the following outcomes to prepare them to meet the Program Educational Objectives.

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (d) an ability to function on multidisciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

The Program Educational Objectives for the Bachelor of Science degree in Civil Engineering are that within five years:

1. Graduates will be successfully employed in civil engineering or related careers and will become independent thinkers and effective communicators, team members, and decision makers
2. Graduates will incorporate economic, environmental, social, ethical, and sustainability considerations into the practice of civil engineering and will promote public health and safety
3. Graduates will engage in life-long learning by pursuing advanced degrees or additional educational opportunities through coursework, professional conferences and training, or participation in professional societies
4. Graduates will pursue professional licensure or other appropriate certifications

Annual student enrollment and graduation data for the program are available from the USU Office of Analysis, Assessment, and Accreditation: [www.usu.edu/aaa/](http://www.usu.edu/aaa/).

The schedule provided in this guide should be followed as closely as possible, as many of the courses are presented in, and must be taken in, a specific sequence. Students should seek recommendations for coursework from their advisor and use this guide as an aid in planning a program of study.

### Career Opportunities

Graduates in Civil and Environmental Engineering have found employment in supervisory or administrative positions, ranging from supervisor of a construction site to city engineer to top-level executive. Civil engineers work as members of teams with other physical and biological scientists and engineers in aerospace, naval, forestry, medical, and consulting fields, with numerous employment opportunities in private industry; large and small engineering consulting firms; federal, state, county, and city governments; public utilities; regulatory agencies; and educational institutions. Many of the department's past graduates now have their own consulting offices and often hire new graduates from the department.

### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, one year of geometry, and one-half year of trigonometry while in high school, as well as calculus, if possible. Four years of English and courses in chemistry, physics (especially AP

Physics), and mechanical drawing are also recommended. If the suggested mathematics courses are not taken in high school, they must be taken in college prior to starting calculus. This additional work need not cause a delay in graduation if CLEP or AP credit is earned or if summer semester enrollment is used to supplement course credits.

#### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314A.

#### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations.

#### Pre-professional Program

Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a pre-professional program who are not making satisfactory progress toward acceptance into a professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a pre-professional program must still meet the entrance requirements for admission into a professional program.

#### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/ math/science courses required for, or used as technical electives in Civil Engineering. Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.
2. No more than 10 hours of D or D+ credit may be applied toward meeting graduation requirements in engineering/math/science classes.
3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior

written approval is obtained from the department head. A maximum of three required or elective courses completed as part of a professional program can be repeated in order to meet graduation requirements. (Courses completed as part of a pre-professional program are not included in this total of three repeats.)

4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)

5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.

6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.

a. Students will be placed on probation if they (i) earn an F in an engineering/ math/science course which could be used to satisfy graduation requirements for the chosen degree (see No. 5 above); (ii) have more than 10 hours of D credit (see No. 2 above); or (iii) have an upper-division GPA of less than 2.0 (see No. 1 above).

b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes to reduce the number of D credits to 10 or less, and/or by raising their upper-division GPA above 2.0.

c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a pre-professional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements:

GEO 1110 or GEOG 1000 will fulfill the Physical Sciences requirement

BIOL 1010 will fulfill the Life Sciences requirement

MATH 1210 and MATH 1220 will fulfill the Quantitative Literacy (QL) and/or Exploration requirement

Students must also complete the University Studies Depth Requirements:

CEE 4870 and CEE 4880 will fulfill the Communications Intensive (CI) requirement

MATH 2250 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). MGT 3110 (required) will fulfill the DSS requirement.

#### Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. For example, BIOL 1010 is required, even if a BLS class has been taken. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

Undergraduate Course Requirements for Civil Engineering (128-129 credits)

See note 1

Pre-engineering Program: Freshman and Sophomore

Freshman Year (33 credits)

Fall Semester (16 credits)

MATH 1210 - Calculus I (QL) 4 2

CHEM 1210 - Principles of Chemistry I 4 2

CHEM 1215 - Chemical Principles Laboratory I 1 2

CEE 1880 - Civil and Environmental Engineering Orientation and Computer Applications 1 2

CEE 2240 - Engineering Surveying 3 2

University Studies Breadth course 3

Spring Semester (17 credits)

MATH 1220 - Calculus II (QL) 4 2

ENGR 2270 - Computer Engineering Drafting 2 2

BIOL 1010 - Biology and the Citizen (BLS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 2

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 2,7

University Studies Breadth course 3

Sophomore Year (33 credits)

Fall Semester (17 credits)

GEO 1110 - Physical Geology (BPS) 3 2

GEO 1115 - Physical Geology Laboratory 1 2

or

GEOG 1000 - Physical Geography (BPS) 3 2

MATH 2210 - Multivariable Calculus (QI) 3 2

ENGR 2010 - Engineering Mechanics Statics 3 2

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 2

CEE 2870 - Introduction to Computer Programming for Civil and Environmental Engineers 2 2

University Studies Breadth course 3

Spring Semester (16 credits)

ENGR 2030 - Engineering Mechanics Dynamics 3 2

ENGR 2140 - Strength of Materials 3 2

ENGR 2450 - Numerical Methods for Engineers 3 2

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 2

Engineering Science Elective 3

## Professional Engineering Program: Junior and Senior

### Junior Year (31 credits)

#### Fall Semester (14 credits)

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

CEE 3610 - Environmental Management 3

CEE 4200 - Engineering Economics 2

ENGR 3080 - Technical Communication for Engineers (CI) 3 3

Engineering Science Elective 3

#### Spring Semester (17 credits)

CEE 3020 - Structural Analysis 3

CEE 3510 - Civil and Environmental Engineering Hydraulics 3

CEE 3880 - Civil Engineering Design I 1

CEE Group A course 3 4

CEE Group A course 4 4

University Studies Breadth course 3

### Senior Year (31-32 credits)

#### Fall Semester (14 credits)

CEE 4870 - Civil Engineering Design II (CI) 2

CEE Senior Design elective course 3 5

CEE Technical Elective course 3 5

CEE Technical Elective Group B course 3 5

MGT 3110 - Managing Organizations and People (DSS) 3

#### Spring Semester (17-18 credits)

CEE 4880 - Civil Engineering Design III (CI) 2

CEE Group A course 3 4

CEE Group A course 4 4

CEE Group A course 3 4

CEE Technical Elective course 3 5

University Studies Depth Humanities and Creative Arts (DHA) course 2-3

#### Engineering Science Electives (6 credits minimum)

Students in the Civil Engineering program must complete two engineering science electives chosen from the three courses below.

ENGR 2210 - Fundamental Electronics for Engineers 3

MAE 2160 - Material Science 3

MAE 2300 - Thermodynamics I 3

#### Group A Courses

CEE 3080 - Design of Reinforced Concrete Structures 3

CEE 3210 - Introduction to Transportation Engineering 3

CEE 3430 - Engineering Hydrology 3

CEE 3640 - Water and Wastewater Engineering 4 or

CEE 3780 - Solid and Hazardous Waste Management 3 or

CEE 5860 - Air Quality Management 3

CEE 4300 - Engineering Soil Mechanics 4

#### Group B Elective Courses (3 credits required)

CEE 5190 - Geographic Information Systems for Civil Engineers 3

CEE 5220 - Traffic Engineering 3

CEE 5230 - Geometric Design of Highways 3

CEE 5240 - Urban and Regional Transportation Planning 3

CEE 5350 - Foundation Analysis and Design 3

CEE 5380 - Earthquake Engineering 3

CEE 5450 - Hydrologic Modeling 3

CEE 5460 - Water Resources Engineering 3

CEE 5470 - Sedimentation Engineering 3

#### Senior Design Elective Courses (3 credits required)

CEE 3780 - Solid and Hazardous Waste Management 3

CEE 5070 - Structural Steel Design 3

CEE 5230 - Geometric Design of Highways 3

CEE 5350 - Foundation Analysis and Design 3

CEE 5460 - Water Resources Engineering 3

CEE 5470 - Sedimentation Engineering 3

CEE 5500 - Open Channel Hydraulics with an Emphasis on Gradually Varied Flow 3

CEE 5540 - Hydraulic Structures Design 3

Technical Elective Courses (12 credits minimum required)(4)

Students in the Civil Engineering program must complete a senior design elective (see list below). They must also establish proficiency in at least four areas of Civil Engineering by taking a minimum of two courses in each area.

The sum of the Group B class, the Senior Design Elective, and other technical electives from the approved list must be at least 12 credits.

Students will also demonstrate proficiency in one of Geotechnical Engineering, Transportation Engineering, or Water Resources Engineering by taking a Group B course (see list below).

CEE 3670 - Transport Phenomena in Bio-Environmental Systems 3

CEE 3780 - Solid and Hazardous Waste Management 3

CEE 5000 - Irrigation and Drainage of Agricultural Lands 3

CEE 5005 - Irrigation Conveyance and Control Systems 3

CEE 5010 - Matrix Analysis/Finite Element 3

CEE 5050 - Design of Wood and Masonry Structures 3

CEE 5070 - Structural Steel Design 3

CEE 5080 - Numerical Methods in Elasticity 3

CEE 5100 - Infrastructure Evaluation and Renewal 3

CEE 5190 - Geographic Information Systems for Civil Engineers 3

CEE 5220 - Traffic Engineering 3

CEE 5230 - Geometric Design of Highways 3

CEE 5240 - Urban and Regional Transportation Planning 3

CEE 5350 - Foundation Analysis and Design 3

CEE 5380 - Earthquake Engineering 3

CEE 5430 - Groundwater Engineering 3

CEE 5450 - Hydrologic Modeling 3

CEE 5460 - Water Resources Engineering 3

CEE 5470 - Sedimentation Engineering 3

CEE 5500 - Open Channel Hydraulics with an Emphasis on Gradually Varied Flow 3

CEE 5540 - Hydraulic Structures Design 3

CEE 5550 - Hydraulics of Closed Conduits 3

CEE 5690 - Natural Systems Engineering 3

CEE 5720 - Natural Systems Modeling 3

CEE 5860 - Air Quality Management 3

CEE 5870 - Hazardous Waste Incineration 2

CEE 5880 - Remediation Engineering 3

CEE 5900 - Cooperative Practice 3

ENGR 2210 - Fundamental Electronics for Engineers 3 6

MAE 2160 - Material Science 3 6

MAE 2300 - Thermodynamics I 3 6

Environmental Engineering

BIOL 1010 - Biology and the Citizen (BLS) 3

CEE 3610 - Environmental Management 3

And

CEE 3640 - Water and Wastewater Engineering 4 or

CEE 3780 - Solid and Hazardous Waste Management 3 or

CEE 5860 - Air Quality Management 3

Structures

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2140 - Strength of Materials 3

And

CEE 3020 - Structural Analysis 3

CEE 3080 - Design of Reinforced Concrete Structures 3

Fluid Mechanics and Hydraulics

ENGR 2030 - Engineering Mechanics Dynamics 3

And

CEE 3430 - Engineering Hydrology 3

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

CEE 3510 - Civil and Environmental Engineering Hydraulics 3

Geotechnical Engineering

ENGR 2030 - Engineering Mechanics Dynamics 3

GEO 1110 - Physical Geology (BPS) 3 (recommended) or

GEOG 1000 - Physical Geography (BPS) 3

CEE 4300 - Engineering Soil Mechanics 4

and either

CEE 5350 - Foundation Analysis and Design 3 or

CEE 5380 - Earthquake Engineering 3

Transportation Engineering

CEE 3210 - Introduction to Transportation Engineering 3

and one of

CEE 5190 - Geographic Information Systems for Civil Engineers 3

CEE 5220 - Traffic Engineering 3

CEE 5230 - Geometric Design of Highways 3

CEE 5240 - Urban and Regional Transportation Planning 3

Water Resources Engineering

CEE 3430 - Engineering Hydrology 3

and one of

CEE 5450 - Hydrologic Modeling 3

CEE 5460 - Water Resources Engineering 3

CEE 5470 - Sedimentation Engineering 3

Note:

1 Passing the Fundamentals of Engineering Exam is required for graduation. A provision has been made to graduate a student who has made two valid attempts to pass the FE exam. The exam is usually taken during fall semester of the senior year.

2 These courses are required for admission to the Professional Engineering Program (PEP).

3 ENGR 3080 will be a prerequisite to CEE 3880.

4 Students must complete all five of the Group A Courses. The order in which they are taken will dictate the choice of technical elective courses (as they are prerequisites for various technical elective courses).

5 Civil Engineering students are required to complete a Senior Design elective course concurrent with CEE 4870. In addition, they must complete three Technical Elective Courses (one of which must be selected from Group B), for a total of 12 credits. Following is a list of Technical Elective Courses and Senior Design Elective Courses.

6 If a student takes all three Engineering Science classes, the third one counts as a technical elective.

7 Students satisfying PHYS 2210 with AP taken before Fall 2011 will not need PHYS 2215.

Civil and Environmental Engineering Mentors

The following list of faculty interests is provided to help students select the appropriate faculty member to contact for career and elective selection counseling.

C. D. Adams, environmental engineering

N. Allen, irrigation

S. L. Barfuss, hydraulics

P. J. Barr, structures, concrete, bridges

J. A. Bay, geotechnical engineering, soil dynamics

A. B. Bishop, engineering systems and planning

J. A. Caliendo, geotechnical engineering, piles, drilled shafts

A. Chen, transportation, network planning

W. J. Doucette, environmental analytical chemistry

R. R. Dupont, environmental engineering, hazardous waste management

M. W. Halling, structures, earthquake engineering

J. S. Horsburgh, hydroinformatics

M. C. Johnson, hydraulics

J. J. Kaluarachchi, subsurface hydrology, transport process

R. S. Martin, environmental engineering, air pollution

M. J. McFarland, environmental engineering, biosolids

M. McKee, water resource planning and analysis

J. E. McLean, fate and behavior of metals in subsurface

L. S. McNeill, environmental engineering, drinking water

B. T. Neilson, environmental engineering, surface water modeling

R. C. Peralta, groundwater modeling optimization, groundwater remediation

W. J. Rahmeyer, hydraulics, hydraulic structures

J. D. Rice, geotechnical engineering

D. Rosenberg, water resources

D. K. Stevens, environmental engineering, treatment process analysis, water quality

D. G. Tarboton, hydrology, water resources

B. P. Tullis, hydraulics, hydraulic structures

G. E. Urroz, hydraulics, hydraulic structures

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### For information contact

Civil and Environmental Engineering Department;  
Engineering Laboratory 211; Utah State University; 4110  
Old Main Hill; Logan UT 84322-4110; tel. (435) 797-  
2938; marlo@engineering.usu.edu; www.cee.usu.edu/

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

##### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

#### Environmental Engineering - BS

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Effective for students beginning degree Summer Sem. 2013 thru Spring Sem. 2014

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#### The Program

Public demand for increasingly safer environments has resulted in unprecedented demands for competent, well-trained environmental engineers. Expertise must be developed to focus on protection of public health from the mismanagement of toxic and hazardous wastes, and on the management and renovation of impacted terrestrial and aquatic systems.

The undergraduate Environmental Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). The program is based on a strong engineering and science foundation developed in the pre-professional program from which an environmental engineering specialty can be developed in the balance of the four-year program. The four specialty areas from which a student may choose technical elective courses include: Occupational Safety and Health, Solids, Water, and Air. The Senior Design Project required of all Environmental Engineering students will demand that they synthesize the technical information they have learned in their undergraduate program to produce creative engineering solutions to particular problems. With the breadth and depth of training involved in this program, students successfully completing this degree will be well-qualified to productively and competitively enter the environmental engineering field or a graduate environmental engineering program of their choice. Passing the Fundamentals of Engineering (FE) examination is the first step in becoming a licensed professional engineer. Students should plan to take the exam the spring of their junior year. Students may graduate after two valid

attempts to pass the FE exam. Students in this program will be required to purchase and use an approved scientific calculator.

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- (d) an ability to function on multidisciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
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3. Graduates will engage in life-long learning by pursuing advanced degrees or additional educational opportunities through coursework, professional conferences and training, or participation in professional societies

4. Graduates will pursue professional licensure or other appropriate certifications

Annual student enrollment and graduation data for the program are available from the USU Office of Analysis, Assessment, and Accreditation: [www.usu.edu/aaa/](http://www.usu.edu/aaa/).

The schedule provided in this guide should be followed as closely as possible, as many of the courses are presented in, and must be taken in, a specific sequence. Students should seek recommendations for coursework from their advisor and use this guide as an aid in planning a program of study.

### Career Opportunities

Graduates in Civil and Environmental Engineering have found employment in supervisory or administrative positions, ranging from supervisor of a construction site to city engineer to top-level executive. Environmental engineers work as members of teams with other physical and biological scientists and engineers in aerospace, naval, forestry, medical, and consulting fields, with numerous employment opportunities in private industry; large and small engineering consulting firms; federal, state, county, and city governments; public utilities; regulatory agencies; and educational institutions. Many of the department's past graduates now have their own consulting offices and often hire new graduates from the department.

### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, one year of geometry, and one-half year of trigonometry while in high school, as well as calculus, if possible. Four years of English and courses in chemistry, physics (especially AP Physics), and mechanical drawing are also recommended. If the suggested mathematics courses are not taken in high school, they must be taken in college prior to starting calculus. This additional work need not cause a delay in graduation if CLEP or AP credit is earned or if summer semester enrollment is used to supplement course credits.

### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314 A.

### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations.

### Pre-professional Program

Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a pre-professional program who are not making satisfactory progress toward acceptance into a professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a pre-professional program must still meet the entrance requirements for admission into a professional program.

### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/ math/science courses required for, or used as technical electives in Environmental Engineering. Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.
2. No more than 10 hours of D or D+ credit may be applied toward meeting graduation requirements in engineering/math/science classes.
3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior written approval is obtained from the department head. A maximum of three required or elective courses completed as part of a professional program can be repeated in order to meet graduation requirements. (Courses completed as part of a pre-professional program are not included in this total of three repeats.)
4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a

professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)

5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.

6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.

a. Students will be placed on probation if they (i) earn an F in an engineering/ math/science course which could be used to satisfy graduation requirements for the chosen degree (see No. 5 above); (ii) have more than 10 hours of D credit (see No. 2 above); or (iii) have an upper-division GPA of less than 2.0 (see No. 1 above).

b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes to reduce the number of D credits to 10 or less, and/or by raising their upper-division GPA above 2.0.

c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a pre-professional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements:

CHEM 1210 and CHEM 1220 will fulfill the Physical Sciences requirement

BIOL 1010 will fulfill the Life Sciences requirement

MATH 1210 and MATH 1220 will fulfill the Quantitative Literacy (QL) and/or Exploration requirement

Students must also complete the University Studies Depth Requirements:

CEE 4870 and CEE 4880 will fulfill the Communications Intensive (CI) requirement

MATH 2250 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). MGT 3110 (required) will fulfill the DSS requirement.

#### Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. For example, BIOL 1010 is required, even if a BLS class has been taken. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

Undergraduate Course Requirements for Environmental Engineering (129-130 credits)

Pre-engineering Program: Freshman and Sophomore

Freshman Year (33 credits)

Fall Semester (16 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3 1

CEE 1880 - Civil and Environmental Engineering Orientation and Computer Applications 1 1

CEE 2240 - Engineering Surveying 3 1

CHEM 1210 - Principles of Chemistry I 4 1

CHEM 1215 - Chemical Principles Laboratory I 1 1

MATH 1210 - Calculus I (QL) 4 1

Spring Semester (17 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4 1

CHEM 1225 - Chemical Principles Laboratory II 1 1

MATH 1220 - Calculus II (QL) 4 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 1

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 1, 3

University Studies Breadth course 3

Sophomore Year (34 credits)

Fall Semester (17 credits)

CEE 2870 - Introduction to Computer Programming for Civil and Environmental Engineers 2 1

CHEM 2300 - Principles of Organic Chemistry 3 1

ENGR 2010 - Engineering Mechanics Statics 3 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 1

ENGR 2270 - Computer Engineering Drafting 2 1

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 1

Spring Semester (17 credits)

BENG 2400 - Biological and Environmental Thermodynamics 3

CEE 2620 - Environmental Engineering Microbiology 3 1

CEE 2890 - Environmental Engineering Sophomore Seminar 1 1

ENGR 2030 - Engineering Mechanics Dynamics 3 1

PSC 3000 - Fundamentals of Soil Science 4

University Studies Breadth Course 3

Professional Engineering Program: Junior and Senior

Junior Year (31 credits)

Fall Semester (17 credits)

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

CEE 3610 - Environmental Management 3

CEE 3780 - Solid and Hazardous Waste Management 3

CEE 4200 - Engineering Economics 2

ENGR 3080 - Technical Communication for Engineers (CI) 3

STAT 3000 - Statistics for Scientists (QI) 3

Spring Semester (14 credits)

CEE 3430 - Engineering Hydrology 3

CEE 3510 - Civil and Environmental Engineering Hydraulics 3

CEE 3640 - Water and Wastewater Engineering 4

CEE 3670 - Transport Phenomena in Bio-Environmental Systems 3

CEE 3880 - Civil Engineering Design I 1

Senior Year (31-32 credits)

Fall Semester (17 credits)

CEE 4870 - Civil Engineering Design II (CI) 2

CEE 5610 - Environmental Quality Analysis 3

CEE 5860 - Air Quality Management 3

PUBH 3310 - Occupational Health and Safety 3

Technical Elective course 3 2

University Studies Breadth course 3

Spring Semester (14-15 credits)

CEE 4880 - Civil Engineering Design III (CI) 2

Technical Elective course 2 2

Technical Elective course 2 2

University Studies Depth Humanities and Creative Arts (DHA) course 2-3

University Studies Breadth course 3

University Studies Depth Social Science (DSS) course 2-3

Technical Elective Courses

CEE 5250 - Environmental Engineering Cooperative Practice 2

CEE 5430 - Groundwater Engineering 3

CEE 5620 - Aquatic Chemistry 3

CEE 5670 - Hazardous Chemicals Handling and Safety 2

CEE 5680 - Soil-Based Waste Management 2

CEE 5710 - Pollution Prevention and Industrial Ecology 2

CEE 5730 - Environmental Chemistry of Organic Contaminants 3

CEE 5750 - Air Quality Measurements 2

CEE 5830 - Management and Utilization of Biological Solids and Wastewater 3

CEE 5880 - Remediation Engineering 3

PUBH 4310 - Industrial Hygiene Recognition of Hazards 4

PUBH 4320 - Industrial Hygiene Chemical Hazard Evaluation 3

PUBH 4330 - Industrial Hygiene Physical Hazards 3

PUBH 5330 - Industrial Hygiene Chemical Hazard Control (QI) 3

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 4530 - Water Quality and Pollution 3

WATS 5150 - Fluvial Geomorphology 3

Note:

1 These courses are required for admission to the Professional Engineering Program (PEP).

2 Environmental Engineering students must select at least three Technical Elective courses (totaling 7-8 credits) chosen from the list.

3 Students satisfying PHYS 2210 with AP taken before Fall 2011 will not need PHYS 2215.

Civil and Environmental Engineering Mentors

The following list of faculty interests is provided to help students select the appropriate faculty member to contact for career and elective selection counseling.

C. D. Adams, environmental engineering

N. Allen, irrigation

S. L. Barfuss, hydraulics

P. J. Barr, structures, concrete, bridges

J. A. Bay, geotechnical engineering, soil dynamics

A. B. Bishop, engineering systems and planning

J. A. Caliendo, geotechnical engineering, piles, drilled shafts

A. Chen, transportation, network planning

W. J. Doucette, environmental analytical chemistry

R. R. Dupont, environmental engineering, hazardous waste management

M. W. Halling, structures, earthquake engineering

J. S. Horsburgh, hydroinformatics

M. C. Johnson, hydraulics

J. J. Kaluarachchi, subsurface hydrology, transport process

R. S. Martin, environmental engineering, air pollution

M. J. McFarland, environmental engineering, biosolids

M. McKee, water resource planning and analysis

J. E. McLean, fate and behavior of metals in subsurface

L. S. McNeill, environmental engineering, drinking water

B. T. Neilson, environmental engineering, surface water modeling

R. C. Peralta, groundwater modeling optimization, groundwater remediation

W. J. Rahmeyer, hydraulics, hydraulic structures

J. D. Rice, geotechnical engineering

D. Rosenberg, water resources

D. K. Stevens, environmental engineering, treatment process analysis, water quality

D. G. Tarboton, hydrology, water resources

B. P. Tullis, hydraulics, hydraulic structures

G. E. Urroz, hydraulics, hydraulic structures

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### For information contact

Civil and Environmental Engineering Department;  
Engineering Laboratory 211; Utah State University; 4110  
Old Main Hill; Logan UT 84322-4110; tel. (435) 797-  
2938; marlo@engineering.usu.edu; www.cee.usu.edu/

#### Minimum University Requirements

#### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Irrigation Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Civil and Environmental Engineering

Students must have a BS from an ABET-accredited engineering program in the U.S. or its equivalent in their home countries or must take the make-up coursework required for a BS in engineering at USU. It is assumed that the bachelor's degree mathematical training includes courses in calculus, linear analysis, and differential equations.

Three MS options are available: research (Plan A), technical practice (Plan B), and training/extension (Plan C).

### Research Option

Students wishing to gain experience in research may select the research option, particularly if they have a long-term goal of PhD study. The minimum requirements for this option are 30 credits, of which 8 may be awarded for the thesis.

### Technical Practice Option

Some students may not be interested in pursuing a PhD degree or in doing the research necessary for a thesis. For such students, the technical practice (Plan B) option is offered. The requirements for the degree are similar to those for the research option, with the exception of the thesis. The 8 thesis credits are replaced by 4 credits for a significant engineering report or design project and 4 additional credits of coursework. The minimum course requirement for the technical practice option is 30 approved graduate credits.

### Training/Extension Option

Students expecting to terminate their graduate studies at the MS level and wishing to develop an emphasis in the training and/or extension fields of irrigation engineering, may choose the training/extension option (Plan C). The same engineering BS or equivalent requirements noted under the Plan A option apply. The minimum requirements for this degree are 30 approved graduate credits. No report or thesis is required. The degree requirements under this option can be met by taking courses.

Return to: Academic Departments and Programs

Irrigation Engineering - PhD

Return to: Academic Departments and Programs

College of Engineering

## Department of Civil and Environmental Engineering

Students who have completed an MS with a thesis (Plan A or equivalent) in an engineering discipline are eligible to apply for admission to a PhD program. Admission will be based on the students' prior academic records and, if they are graduates of USU, the recommendations of their graduate committees. It is assumed that students are adequately prepared in mathematics and engineering design courses to compete at the PhD level. If such is not the case, a program of courses to make up the deficiency will be required.

In addition to any prescribed review courses and seminars, the minimum requirements for a PhD program include 42 credits of approved graduate courses beyond a master's degree, satisfactory completion of comprehensive examinations or submission of an approved manuscript to a refereed archival journal, and the writing of a dissertation based on an original research project.

The degree requirements beyond a master's degree can be met by taking courses in engineering design, synthesis, and systems; mathematics; and related sciences.

### Research

USU has attained worldwide prestige through the successful professional contributions of its graduates during a period of 80 years. The CEE Department is substantially involved in overseas research and training activities, for example in the Dominican Republic, Armenia, and Tatarstan, concerned with managing irrigation systems, on-farm water management, water resource development, and soil assimilation and recycling of industrial residues. Specific research projects in the irrigation and drainage engineering option include hydraulics of surface irrigation, consumptive use, return flow quantity and quality of irrigation waters, transient flow in tile drainage systems, drain envelopes, sprinkler irrigation, trickle irrigation, crop production and water requirements, salt movement, regional groundwater modeling for optimizing sustainable yield, conveyance system modeling and control, and remote sensing.

### Financial Assistance

The large and diverse departmental research programs make it possible to offer graduate financial support in the form of research assistantships, traineeships, and teaching assistantships for qualified students. Research

assistantships are provided by the CEE Department and by individual research projects. Teaching assistantships are provided by the School of Graduate Studies and by the College of Engineering. Traineeships and research assistantships carry tuition waivers. It is the goal of the CEE Department to provide research and/or teaching support for all qualified students.

#### Additional Information

Two guides are available from the department to assist students: (1) Report, Thesis, and Dissertation Format Guidelines and Policies, and (2) Policies and Procedures for Graduate Study.

Return to: Academic Departments and Programs

#### Toxicology (Civil and Environmental Engineering) - MS

Return to: Academic Departments and Programs

Director: Roger A. Coulombe, Jr.

Location: Animal Science 213

Phone: (435) 797-1600

FAX: (435) 797-1601

E-mail: [roger@usu.edu](mailto:roger@usu.edu)

WWW: <http://toxicology.usu.edu>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in Toxicology

#### Graduate Programs

Established in 1962, USU's Interdepartmental Graduate Program in Toxicology is one of the first degree-granting graduate toxicology programs in the country. More than 150 students have received MS and PhD degrees through this research-intensive interdisciplinary program. Students affiliate with the program through one of several departments: Animal, Dairy and Veterinary Sciences (ADVS); Biology (BIOL); Chemistry and Biochemistry (CAB); Civil and Environmental Engineering (CEE); or Plants, Soils, and Climate (PSC). The USDA Poisonous Plants Laboratory also provides facilities and research projects for study.

#### Admission Requirements

Students with a degree in life sciences, physical science, medical science, or engineering and with adequate preparation in chemistry, biology, physics, and/or mathematics are encouraged to apply. Admission to the program requires compliance with the general admission requirements of the School of Graduate Studies, a faculty sponsor, and acceptance into the sponsoring professor's home department. Applicants should have a minimum GPA of 3.0 from completed degree programs. International students must receive a minimum TOEFL score of 250.

#### Major Research Areas

##### Molecular and Biochemical Toxicology

Modern molecular biological techniques are used to determine the mechanisms of toxicity and carcinogenesis by examining how various natural and synthetic compounds interact with the cellular genome and epigenome. Resultant mutations in oncogenes and tumor suppressor genes are being investigated. Other ongoing studies examine the mechanisms of cancer chemoprevention, chemical metabolism, effects of toxicants on macromolecular syntheses, and metabolic intermediates. A comprehensive research program in poisonous plants is another program emphasis at the USDA-ARS Poisonous Plants Laboratory, just north of the USU campus.

##### Environmental Toxicology

Utah State University has a comprehensive research program in several aspects of environmental toxicology. For example, Utah State University faculty pioneered the use of white-rot fungi to degrade environmental contaminants. Several members of the faculty study the effects of air pollution on human health, as well as develop models to predict episodes of high particulate matter. Models are developed and tested for dealing with the migration of chemicals in the environment, especially those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

#### Financial Assistance

Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

Toxicology - MS

#### Course Requirements

Students in the MS program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3

ADVS 6810 - Seminar in Toxicology 1

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

#### Toxicology Program Faculty

##### Professors

Steven D. Aust, free radical toxicology and bioremediation (CAB)

Roger A. Coulombe, Jr., (Director) molecular and environmental toxicology, cancer chemoprevention, air pollution (ADVS)

William J. Doucette, fate of environmental chemicals, phytoremediation (CEE)

R. Ryan Dupont, biological waste treatment (CEE)

Jeffery O. Hall, veterinary toxicology (ADVS)

Ronald C. Sims, environmental engineering (CEE)

Research Professor

Darwin L. Sorensen, aquatic toxicology (CEE)

Associate Professors

Paul R. Grossl, soil chemistry and phytoremediation (PSC)

Randy Martin, atmospheric chemistry, air pollution (CEE)

Assistant Professor

Abby Benninghoff, epigenetics, fetal basis of adult health and disease, carcinogenesis and cancer prevention, environmental toxicology (ADVS)

Collaborators at USDA Poisonous Plants Laboratory

Dale R. Gardner, natural product chemistry

Kip E. Panter, poisonous plants

James A. Pfister, behavioral toxicology

Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

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### Major Research Areas

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those with potential routes for human exposure. Basic biological, chemical, and physical methods are explored for hazardous waste management programs.

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Graduate students are eligible for competitive fellowships, teaching assistantships, and research assistantships. Out-of-state fees are waived, and in many cases, in-state fees are also waived. Hourly employment, which often permits waiver of out-of-state fees, is also available.

The Toxicology Graduate Program participates in the WICHE Western Regional Graduate Degree Program (WRGP). Residents of participating states may enroll in this program without paying nonresident tuition. To facilitate this process, applicants should inform the Toxicology Program of their WRGP status upon application.

### Course Requirements

Students in the PhD program are required to complete the following core courses:

ADVS 5650 - Science Communication 3

ADVS 6350 - Introductory Pharmacology and Pharmacokinetics 3

ADVS 6400 - Environmental Toxicology 3 or

BIOL 6400 - Environmental Toxicology 3 or

PUBH 6400 - Environmental Toxicology 3

ADVS 6600 - Advanced and Molecular Toxicology 3

BIOL 5600 - Comparative Animal Physiology 3 or

CHEM 5700 - General Biochemistry I 3

CHEM 5710 - General Biochemistry II 3

STAT 5200 - Design of Experiments 3

Note:

Additional coursework may be required, at the discretion of the student's advisory committee.

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Bryan L. Stegelmeier, veterinary pathology

Kevin Welch, molecular toxicology

Return to: Academic Departments and Programs

American Sign Language Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Students must complete the following requirements to receive a minor in American Sign Language. Learning American Sign Language can benefit students of any major as they will be able to communicate with deaf people/clients/personnel within their chosen professions. The minor in ASL provides an excellent background for students who wish to further their education by getting into the field of Deaf Education or Interpreting or related professions.

Students must earn a grade of B- or better in all of the courses required for the minor.

ASL Minor (21 credits)

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1 (2 credits required)

COMD 3910 - American Sign Language II 4

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

Return to: Academic Departments and Programs

American Sign Language Teaching Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

ASL Teaching Minor (23-24 credits)

This minor prepares students to teach American Sign Language in secondary schools. Students must also choose an approved secondary education teaching major.

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1

COMD 3910 - American Sign Language II 4

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

TEAL 4745 - Second Language/Literacy Acquisition and Development 3

STEP Program in Secondary Education (35 credits)

In addition to completing the minor requirements, students must be admitted to the Secondary Teacher Education Program (STEP) and complete the 35 credits of coursework including student teaching.

Note: If the major requires two methods courses, the student is required to take both courses.

STEP Level 1 Courses (11 credits)

COMD 4300 - Clinical Experience in Teaching American Sign Language 1 or

Clinical experience in the teaching major 1

COMD 4800 - Methods of Teaching American Sign Language 3 or

Methods course in the teaching major 3

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

STEP Level II Courses (12 credits)

COMD 4300 - Clinical Experience in Teaching American Sign Language 1 or

Clinical experience in the teaching major 1

COMD 4800 - Methods of Teaching American Sign Language 3 or

Methods course in the teaching major 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

STEP Level III Courses (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10 (or content specific SCED 5630) Students will student teach in both their major and their minor but ONLY register for student teaching in their teaching major.

Return to: Academic Departments and Programs

Audiology - AuD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

The Department of Communicative Disorders and Deaf Education at Utah State University offers a clinical Doctorate of Audiology (AuD). The program provides students with a broad yet in-depth academic and practicum-based curriculum to prepare them for applied audiology in a variety of settings. Graduates have the skills to function at a high level of expertise in such environments as clinics, hospitals, private practice, research laboratories, hearing conservation programs, schools, the military, etc.

The program is a four-year post-baccalaureate residency program, the first of its kind in the Intermountain West and Pacific states. Utah State University is the birthplace of educational audiology. In addition, USU is in the forefront of research in telehealth applications in audiology. The AuD will enable graduates to enter the field at a professional level and begin a rewarding career of service in this evolving allied healthcare discipline.

The program meets the mandate of the American Speech-Language-Hearing Association (ASHA) to have audiology students move from master's-level to doctoral-level training as the entry-level requirement within the profession of audiology. Specifically, the AuD requires three years of coursework, one year of intensive clinical practicum, and a doctoral-level clinically-related project to meet the requirements currently recommended for the AuD by ASHA and the American Academy of Audiology (AAA). Students at USU will participate in didactic and

experiential learning in clinical, educational, telehealth, and rehabilitative audiology.

## Course Requirements

### A. Required Courses

All requirements for the undergraduate major in Communicative Disorders and Deaf Education must be taken in addition to the following graduate courses:

COMD 6370 - Educational Audiology 3

COMD 7200 - Introduction to Clinical Practice 1-4 1 (4 credits required)

COMD 7300 - Intermediate Clinical Practicum 1-4 1 (4 credits required)

COMD 7310 - Psychoacoustics and Instrumentation 3

COMD 7320 - Amplification I 3 (3 credits required)

COMD 7340 - Pediatric Audiology 2-3 (3 credits required)

COMD 7380 - Advanced Audiology 2

COMD 7400 - Advanced Clinical Practicum 1-4 (2 credits required)

COMD 7410 - Noise and Hearing Conservation 2

COMD 7420 - Amplification II 3

COMD 7430 - Electrophysiology 3

COMD 7460 - Adult Aural Rehabilitation 3

COMD 7470 - Audiological Management and Counseling 3

COMD 7490 - Medical Aspects of Audiology 3

COMD 7520 - Introduction to Cochlear Implants 2-3 (3 credits required)

COMD 7530 - Balance Evaluation and Management 3

COMD 7800 - Clinical Externship in Audiology 1-9 1 (12 credits required)

COMD 7820 - Clinical Research in Audiology 1

COMD 7850 - Externship Seminar 3 1 (6 credits required)

COMD 7860 - Practice Management in Audiology 2

COMD 7870 - Clinical Research Project 1-6 1 (12 credits required)

EDUC 6570 - Introduction to Educational and Psychological Research 3

EDUC 6600 - Research Design and Analysis I 3

### B. Elective Courses

COMD 6680 - SKI\*HI Training 1-3

COMD 6780 - Socio-Cultural Aspects of Deafness 3

SPED 6500 - Interdisciplinary Workshop 1-3

## Graduate Courses in Audiology

### Year One:

#### Fall Semester

COMD 7200 - Introduction to Clinical Practice 1-4 (2 credits required)

COMD 7310 - Psychoacoustics and Instrumentation 3

COMD 7380 - Advanced Audiology 2

COMD 7820 - Clinical Research in Audiology 1

#### Spring Semester

COMD 5330 - Aural Rehabilitation 3 or

EDUC 6570 - Introduction to Educational and Psychological Research 3

COMD 7200 - Introduction to Clinical Practice 1-4 (2 credits required)

COMD 7320 - Amplification I 3 (3 credits required)

COMD 7340 - Pediatric Audiology 2-3 (3 credits required)

COMD 7490 - Medical Aspects of Audiology 3

#### Summer Semester

EDUC 6570 - Introduction to Educational and Psychological Research 3

### Year Two:

#### Fall Semester

COMD 7300 - Intermediate Clinical Practicum 1-4 (2 credits required)

COMD 7420 - Amplification II 3

COMD 7430 - Electrophysiology 3

EDUC 6600 - Research Design and Analysis I 3

Spring Semester

COMD 6370 - Educational Audiology 3

COMD 7300 - Intermediate Clinical Practicum 1-4 (2 credits required)

COMD 7460 - Adult Aural Rehabilitation 3

COMD 7530 - Balance Evaluation and Management 3

COMD 7820 - Clinical Research in Audiology 1

Summer Semester (Optional)

COMD 7300 - Intermediate Clinical Practicum 1-4 (2 credits required)

Note:

1 In order to earn the required number of credits, students must take this course, which is repeatable for credit, during more than one semester.

Return to: Academic Departments and Programs

Communicative Disorders (Online Post-Bachelor's Degree) - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Online Post-bachelor's Degree in Communicative Disorders, BA/BS

Nationally there is a critical need for master's-level or doctoral level professionals in the field of communicative disorders. Many individuals already holding bachelor's degrees who would like to pursue these professions are lacking the required undergraduate prerequisites needed in order to be considered for admission into graduate programs. The Department of Communicative Disorders and Deaf Education at Utah State University has developed an online second bachelor's degree program

to help fulfill this need. In order to be accepted into this program, students must have received a bachelor's degree from an accredited U.S. or Canadian university in another discipline. This second bachelor's degree program consists of 12 COMD online courses. The entire program may be completed during three semesters, but can be "stretched out" over a longer period if desired. All courses will be taught on the Internet by Regional Campuses and Distance Education (RCDE).

A 3.0 cumulative GPA within the first bachelor's degree is strongly recommended. However, students having a GPA below 3.0 will still be considered for admission. All students should make note of the following policy:

Admission into graduate school programs is very competitive. A competitive grade point average from this second bachelor's degree program will greatly increase the likelihood of being admitted into graduate school. For this reason, students in USU's second bachelor's degree program must maintain at least a 3.0 GPA in order to continue in the program. Students who fall below the 3.0 GPA at the end of any semester will not be allowed to continue until they raise their GPA back to 3.0 or higher by retaking courses.

Applicants may transfer to USU up to 5 credits of undergraduate communicative disorders courses. These credits must have been completed as part of a CAA-ASHA accredited program. In order to use these courses to replace equivalent courses within USU's program, permission must be granted by USU's COMD 2nd bachelor's degree advisor.

Required Courses

It is strongly recommended (but not required) that the following courses be taken in the order shown below.

Semester 1

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 3100 - Fundamentals of Anatomy for Speech and Language 3

COMD 3500 - Phonetics/Developmental Phonology 3

COMD 5100 - Language Science (CI) 3

Semester 2

COMD 3120 - Disorders of Articulation and Phonology 3

COMD 3400 - Acoustics and Anatomy of the Ear 3

COMD 4450 - Assessment and Treatment of  
Communicative Disorders in the Pediatric Population 3

COMD 5900 - Independent Study 1-6  
(Observation/Graduate Preparation (2 credits required)

Semester 3

COMD 3700 - Basic Audiology 3

COMD 5070 - Speech Science 3

COMD 5200 - Language Assessment and Intervention for  
Children Birth to Age Five 3

COMD 5330 - Aural Rehabilitation 3

American Institutions Course:

Candidates for a second bachelor's degree who did not satisfy American Institutions requirements in the first bachelor's degree, must satisfy any deficiencies in these requirements before receiving the second bachelor's degree. These courses are typically the general education courses completed as part of a bachelor's degree.

Strongly Recommended Courses (not included in this program)

The following non-COMD courses are strongly recommended and may be required for certain graduate schools. Most graduate schools require a statistics course as a requirement for admission to graduate school. If students have not already completed a statistics course, they should do so. If you have not completed courses of this type as a part of another university degree, you should discuss this in more detail with your advisor. Some of these non-COMD courses may not be available online at USU or taught every semester.

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

COMD 3010 - American Sign Language I (CI) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGL 3530 - Children's Literature 3

MATH 1010 - Intermediate Algebra 4 or

MATH 1050 - College Algebra (QL) 4

PSY 1010 - General Psychology (BSS) 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

SPED 4000 - Education of Exceptional Individuals 2

STAT 1040 - Introduction to Statistics (QL) 3

Return to: Academic Departments and Programs

Communicative Disorders (Online Post-Bachelor's Degree) - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Online Post-bachelor's Degree in Communicative Disorders, BA/BS

Nationally there is a critical need for master's-level or doctoral level professionals in the field of communicative disorders. Many individuals already holding bachelor's degrees who would like to pursue these professions are lacking the required undergraduate prerequisites needed in order to be considered for admission into graduate programs. The Department of Communicative Disorders and Deaf Education at Utah State University has developed an online second bachelor's degree program to help fulfill this need. In order to be accepted into this program, students must have received a bachelor's degree from an accredited U.S. or Canadian university in another discipline. This second bachelor's degree program consists of 12 COMD online courses. The entire program may be completed during three semesters, but can be "stretched out" over a longer period if desired. All courses will be taught on the Internet by Regional Campuses and Distance Education (RCDE).

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below 3.0 will still be considered for admission. All students should make note of the following policy:

Admission into graduate school programs is very competitive. A competitive grade point average from this second bachelor's degree program will greatly increase the likelihood of being admitted into graduate school. For this reason, students in USU's second bachelor's degree program must maintain at least a 3.0 GPA in order to continue in the program. Students who fall below the 3.0 GPA at the end of any semester will not be allowed to continue until they raise their GPA back to 3.0 or higher by retaking courses.

Applicants may transfer to USU up to 5 credits of undergraduate communicative disorders courses. These credits must have been completed as part of a CAA-ASHA accredited program. In order to use these courses to replace equivalent courses within USU's program, permission must be granted by USU's COMD 2nd bachelor's degree advisor.

#### Required Courses

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COMD 3500 - Phonetics/Developmental Phonology 3

COMD 5100 - Language Science (CI) 3

##### Semester 2

COMD 3120 - Disorders of Articulation and Phonology 3

COMD 3400 - Acoustics and Anatomy of the Ear 3

COMD 4450 - Assessment and Treatment of Communicative Disorders in the Pediatric Population 3

COMD 5900 - Independent Study 1-6  
(Observation/Graduate Preparation (2 credits required))

##### Semester 3

COMD 3700 - Basic Audiology 3

COMD 5070 - Speech Science 3

COMD 5200 - Language Assessment and Intervention for Children Birth to Age Five 3

COMD 5330 - Aural Rehabilitation 3

#### American Institutions Course:

Candidates for a second bachelor's degree who did not satisfy American Institutions requirements in the first bachelor's degree, must satisfy any deficiencies in these requirements before receiving the second bachelor's degree. These courses are typically the general education courses completed as part of a bachelor's degree.

#### Strongly Recommended Courses (not included in this program)

The following non-COMD courses are strongly recommended and may be required for certain graduate schools. Most graduate schools require a statistics course as a requirement for admission to graduate school. If students have not already completed a statistics course, they should do so. If you have not completed courses of this type as a part of another university degree, you should discuss this in more detail with your advisor. Some of these non-COMD courses may not be available online at USU or taught every semester.

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

COMD 3010 - American Sign Language I (CI) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGL 3530 - Children's Literature 3

MATH 1010 - Intermediate Algebra 4 or

MATH 1050 - College Algebra (QL) 4

PSY 1010 - General Psychology (BSS) 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

SPED 4000 - Education of Exceptional Individuals 2

## STAT 1040 - Introduction to Statistics (QL) 3

### Minimum University Requirements

#### Total Credits

120

#### Grade Point Average (most majors require higher GPA)

2.00 GPA

#### Credits of C- or better

100

#### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

#### Completion of approved major program of study

See college advisor

#### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

### Communicative Disorders and Deaf Education - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

### Bachelor of Arts Degree Language Requirement

## Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Bachelor's Degree in Communicative Disorders and Deaf Education

There are two areas of focus available within the department: (1) communicative disorders, which includes courses in audiology and speech-language pathology, and (2) education of the deaf and hard of hearing. Though the BS or BA is available in both tracks, the student should be aware that there is no professional employment licensure in either communicative disorders or education of the deaf and hard of hearing at the bachelor's level.

## Option 1: Audiology and Speech-Language Pathology

Any accepted student at Utah State University may major in Communicative Disorders and Deaf Education (COMDDE) during the freshman and/or sophomore years. However, during the fall semester of the junior year, the student must formally apply for admission into the COMDDE undergraduate professional preparation program. Application forms for admission into COMDDE will be disseminated in class during the first fall of the junior year. As part of the application process, each student will complete the Emma Eccles Jones College of Education and Human Services Writing Examination. The student will be accepted if cumulative grade point average is 3.0 or higher, University Studies credits are within 15 credits of completion, and the Emma Eccles Jones College of Education and Human Services Writing Examination has been taken and passed. Students who are accepted into the undergraduate program must maintain the acceptance standards each semester in order to continue in the major. While a minimum 3.0 GPA gains a student acceptance into our bachelor's degree program, graduate schools, including USU, have a much higher GPA expectation.

Transfer students or students applying for admission into the program subsequent to the fall semester of their junior year must receive approval from the assistant department head before beginning their matriculation in major classes.

Admission into the Emma Eccles Jones College of Education and Human Services teacher education program is necessary before the student may take licensure courses taught in the School of Teacher Education and Leadership and the Department of Special Education and Rehabilitation, which are supportive of the major. Admission into the teacher education program is also required prior to taking the Communicative Disorders clinical practicum coursework. Application to the teacher education program typically takes place at the beginning of the graduate program.

### Course Requirements

Each student in audiology and speech-language pathology must complete a component of professional training, which includes departmental and extra-departmental coursework. This professional training component includes the following courses:

#### A. Lower-division Core Courses (13 credits)

MATH 1010 - Intermediate Algebra 4 or

MATH 1050 - College Algebra (QL) 4

CHEM 1010 - Introduction to Chemistry (BPS) 3 or

PHYS 1010 - Elementary Physics (BPS) 3

STAT 1040 - Introduction to Statistics (QL) 3

PSY 1010 - General Psychology (BSS) 3

B. Extra-departmental Core Courses (10 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3 (or equivalent)

BIOL 2320 - Human Anatomy 4

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 (or equivalent)

C. Course Required for State Licensure (2 credits)

SPED 4000 - Education of Exceptional Individuals 2

D. Communicative Disorders Major Core Requirements (40 credits)

COMD 2400 - Orientation and Observation 1

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 2600 - Introduction to Communication Disorders 2

COMD 3010 - American Sign Language I (CI) 4

COMD 3100 - Fundamentals of Anatomy for Speech and Language 3

COMD 3400 - Acoustics and Anatomy of the Ear 3

COMD 3500 - Phonetics/Developmental Phonology 3

COMD 3700 - Basic Audiology 3

COMD 4450 - Assessment and Treatment of Communicative Disorders in the Pediatric Population 3

COMD 5070 - Speech Science 3

COMD 5100 - Language Science (CI) 3

COMD 5200 - Language Assessment and Intervention for Children Birth to Age Five 3

COMD 5210 - Cultural and Linguistic Diversity in Communicative Disorders 3

COMD 5330 - Aural Rehabilitation 3

E. Upper-division Electives, Preapproved by Department (12 credits)

Required Courses for Communicative Disorders and Deaf Education Majors (Audiology and Speech-Language Pathology)

The following Breadth and Depth courses are required or recommended for a degree in COMDDE. Students may progress through the program or have more flexibility if they have high ACT scores, CLEP credit, concurrent enrollment credit, AP credit, and/or transfer credit; or if they attend during summer semesters. All students should meet with the academic advisor prior to registering to work out a specific individualized plan.

Communications Literacy (CL1 and CL2) (6 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

and

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Quantitative Literacy (QL) (3-4 credits)

STAT 1040 - Introduction to Statistics (QL) 3

Breadth American Institutions (BAI) (3 credits)

See General Education Requirements

Breadth Creative Arts (BCA) (3 credits)

see General Education Requirements

Breadth Humanities (BHU)

see General Education Requirements

Breadth Life Sciences (BLS)

One of the following courses:

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1500 - Anatomy and Physiology (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth Physical Sciences (BPS)

One of the following courses:

CHEM 1010 - Introduction to Chemistry (BPS) 3

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

PHYS 1010 - Elementary Physics (BPS) 3

PHYS 1020 - Energy (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3

Breadth Social Sciences (BSS)

PSY 1010 - General Psychology (BSS) 3

and

FCHE 1500 - Human Development Across the Lifespan (BSS) 3 (or equivalent)

Exploration Requirement

Choose an additional class from one of the following General Education categories: QL, BAI, BCA, BHU, BLS, BPS, or BSS.

or

FCHE 1500 or an Equivalent BSS

University Studies Depth Education Requirements

Beyond the General Education requirements, all students who receive a bachelor's degree must complete two Communications Intensive, one Quantitative Intensive, and 2 credits minimum in each of two of the three depth categories.

Communications Intensive (CI) (2 courses)

COMD 3010 - American Sign Language I (CI) 4

COMD 5100 - Language Science (CI) 3

Quantitative Intensive (QI) (1 course)

STAT 2000 - Statistical Methods (QI) 4

PSY 3010 - Psychological Statistics (QI) 4

SOC 3120 - Social Statistics I (QI) 3

Depth Life and Physical Sciences (DSC) (1 course)

See University Studies Depth Requirements

Depth Humanities and Creative Arts (DHA) (1 course)

see University Studies Depth Requirements

Acceptable Related Courses (choose 3 courses)

Students must select three acceptable related courses. Please meet with a COMD advisor for an updated list of COMD-related courses. It is very important that students meet often with their academic advisor to ensure that requirements are met in a timely manner.

Option 2: Education of the Deaf and Hard of Hearing  
Bilingual Bicultural Teacher Preparation

The bilingual bicultural teacher preparation program does not view deafness as a disability to be treated, but rather as a cultural and linguistic difference. Therefore, students are prepared to be teachers, not clinicians. For this reason, the undergraduate program in Deaf Education is a composite major, not in “communicative disorders,” but rather in teacher education (i.e., Deaf Education and Elementary Education). For the teacher, deafness is not a disorder to be treated. Teachers must have the knowledge and skills necessary to teach literacy and all academic subjects. The language of instruction emphasized in this program is American Sign Language. Deaf children receiving a quality education learn the same academic content in each grade that hearing children learn, and students preparing to teach deaf children must be prepared to teach all school subjects and have the same expectations of deaf children as they do of hearing children. For this reason, students majoring in Deaf Education and Elementary Education take courses in both the Deaf Education program and the Elementary Education program.

Note:

Students wishing to obtain teacher certification in Deaf Education and Elementary Education must complete the undergraduate requirements for the composite major and complete a two-semester graduate program, during which student teaching requirements are fulfilled. There is no certification available at the bachelor’s degree level.

University Studies Requirements for Composite Deaf Education and Elementary Education Major and

Composite Deaf Education and Early Childhood Education Major

Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in these courses.)

STAT 1040 - Introduction to Statistics (QL) 3

(MATH 1050 or Math ACT score of 25 or higher is required to apply to the Teacher Education Program.)

Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

## Exploration Requirement (3-4 credits)

Students in the Deaf Education and Elementary Education or Deaf Education and Early Childhood Education composite majors should fulfill this requirement by completing PHYS 1200 (BPS).

## Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in these courses.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

## Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

## Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Students completing the composite Deaf Education and Elementary Education major must apply for admission to teacher education along with Elementary Education majors. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by (1) the student's GPA in a set of core courses, (2) ACT scores or PPST test results, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are the CIL (Computer and

Information Literacy) exams, a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Content Knowledge Exam with a score of 150 or higher prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

Students in the composite majors must work closely with both the Elementary Education academic advisor and the Deaf Education academic advisor, in order to ensure requirements and deadlines for admission are met.

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

#### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

#### Communicative Disorders and Deaf Education - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

#### Department of Communicative Disorders and Deaf Education

#### Bachelor's Degree in Communicative Disorders and Deaf Education

There are two areas of focus available within the department: (1) communicative disorders, which includes courses in audiology and speech-language pathology, and (2) education of the deaf and hard of hearing. Though the BS or BA is available in both tracks, the student should be aware that there is no professional employment licensure in either communicative disorders or education of the deaf and hard of hearing at the bachelor's level.

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#### Course Requirements

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##### A. Lower-division Core Courses (13 credits)

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MATH 1050 - College Algebra (QL) 4

CHEM 1010 - Introduction to Chemistry (BPS) 3 or

PHYS 1010 - Elementary Physics (BPS) 3

STAT 1040 - Introduction to Statistics (QL) 3

PSY 1010 - General Psychology (BSS) 3

##### B. Extra-departmental Core Courses (10 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3 (or equivalent)

BIOL 2320 - Human Anatomy 4

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 (or equivalent)

##### C. Course Required for State Licensure (2 credits)

SPED 4000 - Education of Exceptional Individuals 2

##### D. Communicative Disorders Major Core Requirements (40 credits)

COMD 2400 - Orientation and Observation 1

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 2600 - Introduction to Communication Disorders 2

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COMD 3100 - Fundamentals of Anatomy for Speech and Language 3

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COMD 3500 - Phonetics/Developmental Phonology 3

COMD 3700 - Basic Audiology 3

COMD 4450 - Assessment and Treatment of Communicative Disorders in the Pediatric Population 3

COMD 5070 - Speech Science 3

COMD 5100 - Language Science (CI) 3

COMD 5200 - Language Assessment and Intervention for Children Birth to Age Five 3

COMD 5210 - Cultural and Linguistic Diversity in Communicative Disorders 3

COMD 5330 - Aural Rehabilitation 3

##### E. Upper-division Electives, Preapproved by Department (12 credits)

Required Courses for Communicative Disorders and Deaf Education Majors (Audiology and Speech-Language Pathology)

The following Breadth and Depth courses are required or recommended for a degree in COMDDE. Students may progress through the program or have more flexibility if they have high ACT scores, CLEP credit, concurrent enrollment credit, AP credit, and/or transfer credit; or if they attend during summer semesters. All students should meet with the academic advisor prior to registering to work out a specific individualized plan.

Communications Literacy (CL1 and CL2) (6 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

and

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Quantitative Literacy (QL) (3-4 credits)

STAT 1040 - Introduction to Statistics (QL) 3

Breadth American Institutions (BAI) (3 credits)

See General Education Requirements

Breadth Creative Arts (BCA) (3 credits)

see General Education Requirements

Breadth Humanities (BHU)

see General Education Requirements

Breadth Life Sciences (BLS)

One of the following courses:

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1500 - Anatomy and Physiology (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth Physical Sciences (BPS)

One of the following courses:

CHEM 1010 - Introduction to Chemistry (BPS) 3

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

PHYS 1010 - Elementary Physics (BPS) 3

PHYS 1020 - Energy (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3

Breadth Social Sciences (BSS)

PSY 1010 - General Psychology (BSS) 3

and

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 (or equivalent)

Exploration Requirement

Choose an additional class from one of the following General Education categories: QL, BAI, BCA, BHU, BLS, BPS, or BSS.

or

FCHD 1500 or an Equivalent BSS

University Studies Depth Education Requirements

Beyond the General Education requirements, all students who receive a bachelor's degree must complete two Communications Intensive, one Quantitative Intensive, and 2 credits minimum in each of two of the three depth categories.

Communications Intensive (CI) (2 courses)

COMD 3010 - American Sign Language I (CI) 4

COMD 5100 - Language Science (CI) 3

Quantitative Intensive (QI) (1 course)

STAT 2000 - Statistical Methods (QI) 4

PSY 3010 - Psychological Statistics (QI) 4

SOC 3120 - Social Statistics I (QI) 3

Depth Life and Physical Sciences (DSC) (1 course)

See University Studies Depth Requirements

Depth Humanities and Creative Arts (DHA) (1 course)

see University Studies Depth Requirements

Acceptable Related Courses (choose 3 courses)

Students must select three acceptable related courses. Please meet with a COMD advisor for an updated list of COMD-related courses. It is very important that students meet often with their academic advisor to ensure that requirements are met in a timely manner.

Option 2: Education of the Deaf and Hard of Hearing Bilingual Bicultural Teacher Preparation

The bilingual bicultural teacher preparation program does not view deafness as a disability to be treated, but

rather as a cultural and linguistic difference. Therefore, students are prepared to be teachers, not clinicians. For this reason, the undergraduate program in Deaf Education is a composite major, not in “communicative disorders,” but rather in teacher education (i.e., Deaf Education and Elementary Education). For the teacher, deafness is not a disorder to be treated. Teachers must have the knowledge and skills necessary to teach literacy and all academic subjects. The language of instruction emphasized in this program is American Sign Language. Deaf children receiving a quality education learn the same academic content in each grade that hearing children learn, and students preparing to teach deaf children must be prepared to teach all school subjects and have the same expectations of deaf children as they do of hearing children. For this reason, students majoring in Deaf Education and Elementary Education take courses in both the Deaf Education program and the Elementary Education program.

Note:

Students wishing to obtain teacher certification in Deaf Education and Elementary Education must complete the undergraduate requirements for the composite major and complete a two-semester graduate program, during which student teaching requirements are fulfilled. There is no certification available at the bachelor’s degree level.

University Studies Requirements for Composite Deaf Education and Elementary Education Major and Composite Deaf Education and Early Childhood Education Major

Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in these courses.)

STAT 1040 - Introduction to Statistics (QL) 3

(MATH 1050 or Math ACT score of 25 or higher is required to apply to the Teacher Education Program.)

Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Deaf Education and Elementary Education or Deaf Education and Early Childhood Education composite majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in these courses.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Students completing the composite Deaf Education and Elementary Education major must apply for admission to teacher education along with Elementary Education majors. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by (1) the student's GPA in a set of core courses, (2) ACT scores or PPST test results, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are the CIL (Computer and Information Literacy) exams, a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Content Knowledge Exam with a score of 150 or higher prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

Students in the composite majors must work closely with both the Elementary Education academic advisor and the

Deaf Education academic advisor, in order to ensure requirements and deadlines for admission are met.

## Minimum University Requirements

### Total Credits

120

### Grade Point Average (most majors require higher GPA)

2.00 GPA

### Credits of C- or better

100

### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

### Completion of approved major program of study

See college advisor

### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Communicative Disorders and Deaf Education - MA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

## Master's Degrees

Generally, all students will complete the requirements as specified below. In some instances students will have had some of the coursework required in the graduate curriculum as part of the undergraduate training at another institution. In those cases, the program will be individualized to meet national licensure through the American Speech-Language-Hearing Association (ASHA) or Council on Education of the Deaf (CED) and state educational licensure from the State of Utah. In no instance will students amass fewer than 36 graduate credits.

At the end of their programs, all graduate students must successfully complete a Plan A thesis, Plan B project, or Plan C comprehensive examination. Plan C is an option for the MA and MEd programs only. All Speech-Language Pathology and Audiology graduate students must take the ASHA national exam (Educational Testing Service-Praxis test). When they register, they must list USU as a recipient of their examination scores. Before a letter of completion will be sent to the School of Graduate Studies, students must also provide the department with written proof that they have registered for the exam.

## Speech-Language Pathology

The program in speech-language pathology is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The Utah State Office of Education has also approved the program. Students completing the master's curriculum are eligible for certification from ASHA and licensure from the State of Utah Board of Education. Additionally, these students will have met the academic and practicum requirements for professional licensure from the State of Utah. Upon graduation, students are prepared for employment in both educational and health care settings, where qualified providers of diagnostic and treatment services for individuals with communicative disorders are needed.

## Course Requirements

### Graduate Courses in Speech-Language Pathology

#### Year One:

#### Summer Semester (7-11 credits)

COMD 6020 - Language Assessment and Intervention for School-age Children and Adolescents 3

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6150 - Phonological Assessments and Intervention  
3

Fall Semester (11-14 credits)

COMD 6030 - Disorders of Fluency-Stuttering 3

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6130 - Neural Bases of Communication and Motor  
Speech Disorders 1-4

COMD 6230 - Introduction to Research in Communicative  
Disorders 3

Spring Semester (10-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6120 - Adult Language Disorders 3

COMD 6140 - Dysphagia 1-3

COMD 6220 - Severe Communication Impairments 3

Summer Semester (8-12 credits)

COMD 6300 - Externship in Speech-Language Pathology  
1-12

Year Two:

Fall Semester (9-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6200 - Internship in Public Schools-Speech-  
Language Pathology 4-5

COMD 6810 - Voice, Resonance, and Craniofacial  
Disorders 1-4

Spring Semester (12 credits)

COMD 6300 - Externship in Speech-Language Pathology  
1-12

COMD 6900 - Independent Study 1-9

COMD 6970 - Thesis 1-7

Return to: Academic Departments and Programs

Communicative Disorders and Deaf Education - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Communicative Disorders and Deaf  
Education

Master's Degrees

Generally, all students will complete the requirements as specified below. In some instances students will have had some of the coursework required in the graduate curriculum as part of the undergraduate training at another institution. In those cases, the program will be individualized to meet national licensure through the American Speech-Language-Hearing Association (ASHA) or Council on Education of the Deaf (CED) and state educational licensure from the State of Utah. In no instance will students amass fewer than 36 graduate credits.

At the end of their programs, all graduate students must successfully complete a Plan A thesis, Plan B project, or Plan C comprehensive examination. Plan C is an option for the MA and MEd programs only. All Speech-Language Pathology and Audiology graduate students must take the ASHA national exam (Educational Testing Service-Praxis test). When they register, they must list USU as a recipient of their examination scores. Before a letter of completion will be sent to the School of Graduate Studies, students must also provide the department with written proof that they have registered for the exam.

Speech-Language Pathology

The program in speech-language pathology is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The Utah State Office of Education has also approved the program. Students completing the master's curriculum are eligible for certification from ASHA and licensure from the State of Utah Board of Education. Additionally, these students will have met the academic and practicum requirements for professional licensure from the State of Utah. Upon graduation, students are prepared for employment in both educational and health care settings, where qualified providers of diagnostic and treatment services for individuals with communicative disorders are needed.

Course Requirements

## Graduate Courses in Speech-Language Pathology

### Year One:

#### Summer Semester (7-11 credits)

COMD 6020 - Language Assessment and Intervention for School-age Children and Adolescents 3

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6150 - Phonological Assessments and Intervention 3

#### Fall Semester (11-14 credits)

COMD 6030 - Disorders of Fluency-Stuttering 3

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6130 - Neural Bases of Communication and Motor Speech Disorders 1-4

COMD 6230 - Introduction to Research in Communicative Disorders 3

#### Spring Semester (10-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6120 - Adult Language Disorders 3

COMD 6140 - Dysphagia 1-3

COMD 6220 - Severe Communication Impairments 3

#### Summer Semester (8-12 credits)

COMD 6300 - Externship in Speech-Language Pathology 1-12

### Year Two:

#### Fall Semester (9-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6200 - Internship in Public Schools-Speech-Language Pathology 4-5

COMD 6810 - Voice, Resonance, and Craniofacial Disorders 1-4

#### Spring Semester (12 credits)

COMD 6300 - Externship in Speech-Language Pathology 1-12

COMD 6900 - Independent Study 1-9

COMD 6970 - Thesis 1-7

Education of the Deaf and Hard of Hearing

Bilingual Bicultural Teacher Preparation Track

The program in Education of the Deaf and Hard of Hearing is accredited by the Council on Education of the Deaf (CED) and is also approved by the Utah State Office of Education. Students completing this program may be licensed by the Utah State Office of Education as teachers of the deaf and hard of hearing and they also meet the requirements for licensure by CED. Students who complete the curriculum are prepared to provide services as teachers of the deaf and hard of hearing in any setting in which such services are provided.

It is recommended that students applying to the teacher preparation program already hold or be eligible for a teaching license in elementary education, special education, or a secondary education subject area.

This will allow students to have dual certification upon completion of the Deaf Education graduate program. Students may, however, be admitted to the graduate program without a teaching license, and upon completion of the MEd will be eligible for CED certification and State of Utah licensure in Deaf Education only.

The following courses or their equivalent are required for all students seeking the MEd in education of the deaf and hard of hearing:

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 3010 - American Sign Language I (CI) 4

COMD 3050 - Practicum and Methods in Teaching Children who are Deaf and Hard of Hearing 1-3

COMD 3080 - American Sign Language Practicum 1

COMD 3910 - American Sign Language II 4

COMD 4630 - Teaching Speech to Deaf and Hard of Hearing Children 3

COMD 4750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 4760 - Early Intervention for Children who are Deaf and Hard of Hearing 3

COMD 4770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 3

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4790 - Psychological Principles and Individuals who are Deaf and Hard of Hearing 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

COMD 5620 - Teaching School Subjects to Students who are Deaf and Hard of Hearing 3

COMD 5630 - Literacy Methods in Early Childhood Deaf Education 3

COMD 6640 - Seminar: Issues in Deaf Education 3

COMD 6650 - Strategies for Teaching English Language to Children who are Deaf and Hard of Hearing 3

COMD 6700 - Practicum in Education of Children who are Deaf and Hard of Hearing 1-3

COMD 6800 - Student Teaching--Day-School Program 6-12

COMD 6820 - Principles of Intervention for Children who are Deaf and Hard of Hearing 3

COMD 6830 - Student Teaching-Residential 6-12 1

COMD 6850 - Seminar in Communicative Disorders and Deaf Education 1-3

### Bilingual Bicultural Early Intervention Track

This early intervention graduate program is for students wishing to work with families who have deaf children who are between birth and 3 years of age. It is preferred for students to have completed the necessary background in Early Childhood and Family, Consumer,

and Human Development (FCHD) with a Deaf Education Emphasis. However, students who have a bachelor's degree in special education, early childhood education, education of the deaf, or a related field can also apply for this program.

This track prepares students to help families make communication methodology choices that are appropriate for the child and family, while working with children and families using whatever communication methods are most appropriate for them. If the family choice is "Bi-Bi" (Bilingual-Bicultural), this track provides training in this area. The most fundamental aspects of Bi-Bi Early Intervention Programming are: (1) early accessible communication, (2) providing language for the child in the mode that is completely accessible to the child (vision, e.g., American Sign Language) while also helping the child optimize his or her auditory and spoken language potentials, (3) helping the child and family fully participate and feel comfortable in both the deaf and hearing worlds, and (4) preparing highly trained and highly qualified early intervention professionals who can provide resources and information to any and all families who have a child with a hearing loss. Early Intervention specialists (i.e., parent advisors) graduating from this program do not specialize in or promote only American Sign Language or only an auditory/spoken form of communication. Graduates understand the benefit of all communication choices and have a balanced program that provides them with the training necessary to serve all families, regardless of communication choice.

### Required Graduate Courses

COMD 6340 - Auditory Learning and Spoken Language for Children with Hearing Loss 3

COMD 6640 - Seminar: Issues in Deaf Education 3

COMD 6730 - Multiple Disabilities and Syndromes 2

COMD 6750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 6760 - Early Intervention for Children who are Deaf and Hard of Hearing 3

COMD 6780 - Socio-Cultural Aspects of Deafness 3

COMD 6850 - Seminar in Communicative Disorders and Deaf Education 1-3 (2 credits maximum)

COMD 5880 - Methods and Procedures in Early Intervention 3

COMD 6910 - American Sign Language III: Linguistics of ASL 4

COMD 6920 - American Sign Language IV: Academic Use of ASL 4

COMD 6950 - Practicum in Early Intervention 1-6 (3 credits maximum)

COMD 7340 - Pediatric Audiology 2-3 (2 credits maximum)

Note:

In addition to the above requirements, students who have a bachelor's degree from Utah State University in an area other than FCHD with the Deaf Education emphasis may need to complete necessary prerequisite courses for this program.

In order to earn an MEd degree from the Deaf Education Early Intervention Program, the student must complete a practicum in a parent infant program and also pass a comprehensive written and oral examination. The candidate must also demonstrate the ability to work with families of infants and young children who are deaf and/or hard of hearing, using appropriate communication methods for the children and their families.

1 Students live out-of-state on the campus of a quality bilingual bicultural school for deaf children. Student teachers have experience teaching with certified, qualified bilingual teachers, and are immersed in the language and culture of the deaf community, deaf children, and deaf professionals. Student teachers not only have classroom teaching experience, but also have the opportunity to assist with extracurricular activities, such as school plays, sports, tutoring, field trips, and recreational activities provided after school for the deaf children.

Listening and Spoken Language Track

This family-centered early intervention program is for graduate students who wish to work with young children with hearing loss who are developing listening and spoken language skills. Today, with universal newborn hearing screening, early diagnosis, fitting of advanced hearing technology (e.g., digital hearing aids, cochlear implants), and enrollment in early intervention and

preschool programs, most children with hearing loss can use spoken language for communication. Graduate students in this emphasis complete specialized coursework to earn a Master of Education (MEd) degree to obtain depth and expertise in working with children and families, with the goal of helping children with hearing loss succeed in mainstream educational placement and experience full integration with their hearing peers. Graduate students also complete coursework in partnership with the Department of Special Education and Rehabilitation to complete the requirements for the Early Childhood Special Education 0-5 Teaching License and Hearing Impairment Endorsement, issued by the Utah State Office of Education. In this unique program, graduate students gain hands-on practicum experiences in every semester of their graduate program for all aspects of services provided to children from birth to Kindergarten. As an interdisciplinary program, graduate students also gain theoretical knowledge and practical experience in audiology and speech/language pathology services.

Course Requirements:

Deaf Education Specialization Core

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

COMD 6730 - Multiple Disabilities and Syndromes 2

COMD 6780 - Socio-Cultural Aspects of Deafness 3

COMD 7340 - Pediatric Audiology 2-3

EDUC 6570 - Introduction to Educational and Psychological Research 3

Listening and Spoken Language Area of Concentration Coursework

COMD 6320 - Language Learning and Literacy Acquisition in Children with Hearing Loss 3

COMD 6340 - Auditory Learning and Spoken Language for Children with Hearing Loss 3

COMD 6580 - Family-Centered Practices for Children who are DHH 2

COMD 6630 - Teaching Speech to Deaf and Hard of Hearing Children 3

COMD 6700 - Practicum in Education of Children who are Deaf and Hard of Hearing 1-3

COMD 6770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 1-3

COMD 6900 - Independent Study 1-9

COMD 7520 - Introduction to Cochlear Implants 2-3

Early Childhood Special Education Licensure

SPED 5230 - Student Teaching in Special Education: Alternative Preparation 3-15

SPED 5700 - Orientation to Teaching Young Children with Disabilities 2

SPED 5720 - Assessment for Eligibility, Programming and IEP Development 3

SPED 5740 - Effective Instruction I 2

SPED 5760 - Effective Instruction II 2

SPED 5770 - Early Childhood Development and its Relationship to Teaching Young Children with Disabilities 2

SPED 5780 - Foundations in Special Education and Legal Issues 3

SPED 5850 - Field Based Applications of Effective Instruction I 1

SPED 5860 - Field Based Applications of Effective Instruction II 1

SPED 5870 - Field Based Applications of Effective Instruction III 1

SPED 6560 - Improvement of Instruction 1-4

Return to: Academic Departments and Programs

Communicative Disorders and Deaf Education - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Master's Degrees

Generally, all students will complete the requirements as specified below. In some instances students will have had

some of the coursework required in the graduate curriculum as part of the undergraduate training at another institution. In those cases, the program will be individualized to meet national licensure through the American Speech-Language-Hearing Association (ASHA) or Council on Education of the Deaf (CED) and state educational licensure from the State of Utah. In no instance will students amass fewer than 36 graduate credits.

At the end of their programs, all graduate students must successfully complete a Plan A thesis, Plan B project, or Plan C comprehensive examination. Plan C is an option for the MA and MEd programs only. All Speech-Language Pathology and Audiology graduate students must take the ASHA national exam (Educational Testing Service-Praxis test). When they register, they must list USU as a recipient of their examination scores. Before a letter of completion will be sent to the School of Graduate Studies, students must also provide the department with written proof that they have registered for the exam.

Speech-Language Pathology

The program in speech-language pathology is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The Utah State Office of Education has also approved the program. Students completing the master's curriculum are eligible for certification from ASHA and licensure from the State of Utah Board of Education. Additionally, these students will have met the academic and practicum requirements for professional licensure from the State of Utah. Upon graduation, students are prepared for employment in both educational and health care settings, where qualified providers of diagnostic and treatment services for individuals with communicative disorders are needed.

Course Requirements

Graduate Courses in Speech-Language Pathology

Year One:

Summer Semester (7-11 credits)

COMD 6020 - Language Assessment and Intervention for School-age Children and Adolescents 3

COMD 6100 - Advanced Clinical Practicum in Speech-Language Pathology 1-4

COMD 6150 - Phonological Assessments and Intervention  
3

Fall Semester (11-14 credits)

COMD 6030 - Disorders of Fluency-Stuttering 3

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6130 - Neural Bases of Communication and Motor  
Speech Disorders 1-4

COMD 6230 - Introduction to Research in Communicative  
Disorders 3

Spring Semester (10-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6120 - Adult Language Disorders 3

COMD 6140 - Dysphagia 1-3

COMD 6220 - Severe Communication Impairments 3

Summer Semester (8-12 credits)

COMD 6300 - Externship in Speech-Language Pathology  
1-12

Year Two:

Fall Semester (9-13 credits)

COMD 6100 - Advanced Clinical Practicum in Speech-  
Language Pathology 1-4

COMD 6200 - Internship in Public Schools-Speech-  
Language Pathology 4-5

COMD 6810 - Voice, Resonance, and Craniofacial  
Disorders 1-4

Spring Semester (12 credits)

COMD 6300 - Externship in Speech-Language Pathology  
1-12

COMD 6900 - Independent Study 1-9

COMD 6970 - Thesis 1-7

Return to: Academic Departments and Programs

Early Childhood Education and Deaf Education  
(Composite) - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Communicative Disorders and Deaf  
Education

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in  
one or more foreign languages. Specifically, the BA  
requirement may be completed in one of the following  
ways:

Demonstration of proficiency in one foreign language by  
successful completion of one course at the 2020-level or  
higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language  
by successful completion of COMD 4920 and COMD 4780,  
and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by  
successful completion of the 1020 course level in one  
language and the 2010 course level in the second  
language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher)  
foreign language grammar or literature course requiring  
the 2020 course level (or its equivalent) as a  
prerequisite. Conversation courses cannot be considered  
for satisfying this requirement.

For nonnative English-speaking students only, the  
following options are available:

Successful completion of the Intensive English Language  
Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough  
to meet the University admission criteria.

## Provisional Admission Process and Requirements

### Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

### Elementary/Early Childhood Areas of Emphasis

Students majoring in Elementary Education or Early Childhood Education are required to complete an area of Emphasis. All students majoring in Elementary Education or Early Childhood Education must complete an area of Emphasis consisting of 9-12 credits. (For the K-6 Licensure Program 9 credits are required, while 12 credits are required for all other programs.) The area of Emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education,

Health/Wellness/Nutrition, School Library Media, a Foreign Language, or Dual Language Immersion (DLI).

### University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

#### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

#### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Deaf Education and Early Childhood Education Major

Early Childhood Education Requirements (50 credits)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a C will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (courses taken concurrently during fall or spring semester) (14 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (4 credit maximum)

ELED 3005 - Beginning Classroom Management 1

ELED 3100 - Classroom Reading Instruction 3

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

PSY 3660 - Educational Psychology for Teachers 2

Transition (11 credits)

SPED 4000 - Education of Exceptional Individuals 2

ITLS 4015 - Technology Tools and Integration for Teachers 1-3

FCHD 4550 - Preschool Methods and Curriculum 3 1

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 1

Level III (courses taken concurrently during fall, spring, or summer semester) (19 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (3 credits required)

Note:

1 Level II must be completed prior to taking this course.

Deaf Education Requirements (47-49 credits)

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1 (1-3 credits allowed)

COMD 3910 - American Sign Language II 4

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

Note:

COMD 2500, COMD 3010, COMD 3910, and COMD 5610 should be completed prior to the Deaf Education blocks.

Fall Deaf Education Block:

COMD 4750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 4770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 3

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 5740 - Teaching Reading to Deaf and Hard of Hearing Children 3

Spring Deaf Education Block:

COMD 4790 - Psychological Principles and Individuals who are Deaf and Hard of Hearing 3

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

COMD 5600 - Classroom Teaching Using American Sign Language 3

COMD 5620 - Teaching School Subjects to Students who are Deaf and Hard of Hearing 3

COMD 5630 - Literacy Methods in Early Childhood Deaf Education 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Early Childhood Education and Deaf Education (Composite) - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Provisional Admission Process and Requirements

Provisional Admission Process and Requirements

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admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

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University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to

fulfill the University Studies requirements. The following sections list the specific courses to choose from:

Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

#### Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Deaf Education and Early Childhood Education Major

Early Childhood Education Requirements (50 credits)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a C will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (courses taken concurrently during fall or spring semester) (14 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (4 credit maximum)

ELED 3005 - Beginning Classroom Management 1

ELED 3100 - Classroom Reading Instruction 3

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

PSY 3660 - Educational Psychology for Teachers 2

Transition (11 credits)

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ITLS 4015 - Technology Tools and Integration for Teachers 1-3

FCHD 4550 - Preschool Methods and Curriculum 3 1

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 1

Level III (courses taken concurrently during fall, spring, or summer semester) (19 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (3 credits required)

Note:

1 Level II must be completed prior to taking this course.

Deaf Education Requirements (47-49 credits)

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1 (1-3 credits allowed)

COMD 3910 - American Sign Language II 4

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

Note:

COMD 2500, COMD 3010, COMD 3910, and COMD 5610 should be completed prior to the Deaf Education blocks.

Fall Deaf Education Block:

COMD 4750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 4770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 3

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 5740 - Teaching Reading to Deaf and Hard of Hearing Children 3

Spring Deaf Education Block:

COMD 4790 - Psychological Principles and Individuals who are Deaf and Hard of Hearing 3

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

COMD 5600 - Classroom Teaching Using American Sign Language 3

COMD 5620 - Teaching School Subjects to Students who are Deaf and Hard of Hearing 3

COMD 5630 - Literacy Methods in Early Childhood Deaf Education 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Elementary Education and Deaf Education (Composite) - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Communicative Disorders and Deaf Education

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Provisional Admission Process and Requirements

Provisional Admission Process and Requirements

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provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

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University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Deaf Education and Elementary Education Major

Elementary Education Major (61 credits) (includes Teaching Support Courses)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a C will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (courses taken concurrently during fall or spring semester) (17 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (6 credits required)

ELED 3005 - Beginning Classroom Management 1

SPED 4000 - Education of Exceptional Individuals 2

PSY 3660 - Educational Psychology for Teachers 2

ITLS 4015 - Technology Tools and Integration for Teachers 1-3

ELED 3100 - Classroom Reading Instruction 3

Level III (courses taken concurrently during fall or spring semester) (16 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (Student Teaching—taken during Master's Program)

Teaching Support Courses

MUSC 3260 - Elementary School Music 2

PEP 3050 - Physical Education in the Elementary School 3

Deaf Education Requirements (44-46 credits)

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1 (1-3 credits maximum)

COMD 3910 - American Sign Language II 4

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

Note:

COMD 3010, COMD 3910, and COMD 5610 should be completed prior to the Deaf Education blocks.

Fall:

COMD 4750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 4770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 3

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 5740 - Teaching Reading to Deaf and Hard of Hearing Children 3

Spring:

COMD 4790 - Psychological Principles and Individuals who are Deaf and Hard of Hearing 3

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

COMD 5600 - Classroom Teaching Using American Sign Language 3

COMD 5620 - Teaching School Subjects to Students who are Deaf and Hard of Hearing 3

COMD 5630 - Literacy Methods in Early Childhood Deaf Education 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

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Elementary Education and Deaf Education (Composite) - BS

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Department of Communicative Disorders and Deaf Education

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Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

## Elementary/Early Childhood Areas of Emphasis

Students majoring in Elementary Education or Early Childhood Education are required to complete an area of Emphasis. All students majoring in Elementary Education or Early Childhood Education must complete an area of Emphasis consisting of 9-12 credits. (For the K-6 Licensure Program 9 credits are required, while 12 credits are required for all other programs.) The area of Emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education, Health/Wellness/Nutrition, School Library Media, a Foreign Language, or Dual Language Immersion (DLI).

## University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Deaf Education and Elementary Education Major

Elementary Education Major (61 credits) (includes Teaching Support Courses)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a C will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (courses taken concurrently during fall or spring semester) (17 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (6 credits required)

ELED 3005 - Beginning Classroom Management 1

SPED 4000 - Education of Exceptional Individuals 2

PSY 3660 - Educational Psychology for Teachers 2

ITLS 4015 - Technology Tools and Integration for Teachers 1-3

ELED 3100 - Classroom Reading Instruction 3

Level III (courses taken concurrently during fall or spring semester) (16 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (Student Teaching—taken during Master's Program)

Teaching Support Courses

MUSC 3260 - Elementary School Music 2

PEP 3050 - Physical Education in the Elementary School 3

Deaf Education Requirements (44-46 credits)

COMD 3010 - American Sign Language I (CI) 4

COMD 3080 - American Sign Language Practicum 1 (1-3 credits maximum)

COMD 3910 - American Sign Language II 4

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3

Note:

COMD 3010, COMD 3910, and COMD 5610 should be completed prior to the Deaf Education blocks.

Fall:

COMD 4750 - Language and Literacy Development and Assessment of Individuals who are Deaf and Hard of Hearing Children: Preschool 3

COMD 4770 - Audiology and Teachers of Children who are Deaf and Hard of Hearing 3

COMD 4780 - Socio-Cultural Aspects of Deafness 3

COMD 4910 - American Sign Language III: Linguistics of ASL (CI) 4

COMD 5740 - Teaching Reading to Deaf and Hard of Hearing Children 3

Spring:

COMD 4790 - Psychological Principles and Individuals who are Deaf and Hard of Hearing 3

COMD 4920 - American Sign Language IV: Academic Use of ASL 4

COMD 5600 - Classroom Teaching Using American Sign Language 3

COMD 5620 - Teaching School Subjects to Students who are Deaf and Hard of Hearing 3

COMD 5630 - Literacy Methods in Early Childhood Deaf Education 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Computer Science - BA

Return to: Academic Departments and Programs

College of Engineering

Department of Computer Science

The department offers a degree program with emphases in Science (SC), Digital Systems (DS), Software Development (SD), and Bioinformatics (BI). The objectives are to train computer scientists who can relate to science, computer design, or information-based business disciplines. Other areas of emphasis will be considered on an individual basis.

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements.

In addition to their major requirements, students in the Computer Science major must complete the following minimum university requirements stated below:

In addition to the Bachelor of Arts Language Requirement, students seeking a BA in Computer Science must fill all of the stated major requirements.

#### Bachelor of Arts Degree Language Requirement

##### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### First Semester Schedule (15-16 credits)

Depending upon emphasis, a new student's first semester schedule is configured from the following:

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 7-8

#### Computer Science Major

Computer Science deals with information structures and processes as they are represented and implemented in modern high-speed digital computers, and with information processing systems designed to implement useful applications of computing.

The program in computer science provides a solid foundation of knowledge about computers and teaches a mode of thinking that permits continuing growth on the part of graduates. Prospective students should have an aptitude for mathematics and logic and an interest in analysis and deduction.

Computer science is one of the fastest growing fields of study in our society. Excellent employment opportunities are available to computer science graduates. All of the major corporations hire computer science graduates. Graduates in Computer Science work for numerous Utah-based corporations, as well as Google, Microsoft, IBM, Hewlett-Packard, etc.

The Computer Science bachelor's degree is a four-year degree with areas of emphasis in Science (SC), Digital Systems (DS), Software Development (SD), and Bioinformatics (BI). In addition, by working with a departmental advisor, students may develop a plan of study tailored to their own unique career objectives.

#### Science Emphasis

The Science Emphasis (SC) is designed for those who plan to pursue scientific or technical careers, research, or graduate education in computer science. Students choosing the science emphasis take courses in programming languages, advanced algorithms, and math courses in calculus, linear analysis, and multi-variable calculus. Additional courses include a variety of upper-

division computer science courses, chosen in consultation with an advisor. This emphasis might be termed the "typical" computer science degree.

### Digital Systems Emphasis

The Digital Systems Emphasis (DS) is available for those interested in both the hardware and software aspects of computer systems. In addition to computer science and mathematics courses, students in this emphasis take electrical engineering courses in electronics, circuits, digital fundamentals, microcomputer systems, and digital system design. The curriculum for students in this emphasis is similar to that for students in the computer engineering major in the Electrical and Computer Engineering Department.

### Software Development Emphasis

The Software Development Emphasis (SD) is designed to give students expertise in all major areas of software engineering, including project management, development processes, group work, requirement capture and analysis, software design, programming, testing, standards, and documentation. Students completing this option are prepared to create sophisticated, reliable, and secure software for a broad range of applications. Students in this option take courses in computer science emphasizing software development processes, conceptual modeling, database design, testing, and security, along with broadening courses in operations research, statistics, and management.

### Bioinformatics Emphasis

The Bioinformatics Emphasis (BI) is designed for students who wish to pursue careers in the computer science aspects of bioinformatics. Students in this emphasis gain a strong background in core computer science areas, such as programming, theory of computing, and software development. In addition, they follow a course of study in biology, biological modeling, and statistics. Through this background and course of study, students are provided with the computational skills and the scientific understanding necessary for work in bioinformatics.

### Science Emphasis

Students in the SC emphasis must complete the following courses. Courses used to fulfill a requirement in this

category may not be used to fill a requirement in another category:

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 3310 - Discrete Mathematics 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two options:

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 or

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Select one of the following two courses:

STAT 3000 - Statistics for Scientists (QI) 3

MATH 5710 - Introduction to Probability 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 3530 - Environmental Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select 25 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100, CS 5200, CS 5300, CS 5410, or CS 5600.

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

Complete one of the following two-semester science-plus-breadth sequences:

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

USU 1350 - Integrated Life Science (BLS) 3

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

USU 1350 - Integrated Life Science (BLS) 3

Digital Systems Emphasis

Students in the DS emphasis must complete the following courses:

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

ECE 2250 - Electrical Circuits 1 3

ECE 2700 - Digital Circuits 4

ECE 3710 - Microcontroller Hardware and Software 4

ECE 5780 - Real-Time Systems 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

STAT 3000 - Statistics for Scientists (QI) 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two options:

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

OR

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select 13 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100 ,CS 5200 , CS 5300 ,CS 5410 or CS 5600 .

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

USU 1350 - Integrated Life Science (BLS) 3

Software Development Emphasis

Students in the SD emphasis must complete the following courses:

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3

STAT 2300 - Business Statistics (QL) 4

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select at least 7 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100, CS 5200, CS 5300, CS 5410 or CS 5600.

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

Complete one of the following science plus breadth sequences:

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

USU 1350 - Integrated Life Science (BLS) 3

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PHYS 2500 - Introduction to Computer Methods in Physics 2

USU 1350 - Integrated Life Science (BLS) 3

Bioinformatics Emphasis

Students in the BI emphasis must complete the following courses:

BENG 5630 - Synthetic Biological Engineering 3

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3065 - Genetics Laboratory 2

BIOL 3100 - Bioethics (CI) 3

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

CS 4700 - Programming Languages 3

CS 5660 - Bioinformatics I 3

CS 6670 - Advanced Bioinformatics 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

MATH 3310 - Discrete Mathematics 3

MATH 4230 - Applied Mathematics in Biology (QI) 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two courses:

MATH 5710 - Introduction to Probability 3

STAT 3000 - Statistics for Scientists (QI)

3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Select at least six credits from the following courses:

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Courses Required for Advanced Standing

In order to achieve advanced standing (enter the professional program), students must achieve a minimum cumulative GPA of 2.2 and a minimum GPA of 2.2 (and a grade of C- or better) among courses in one of the following core emphasis course sequences, or their

equivalent, as determined by the Computer Science Department:

Science Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Digital Systems Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

ECE 2700 - Digital Circuits 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Software Development Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Bioinformatics Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Note:

For a more complete statement of requirements, please contact the department directly. Requirements may change from time to time.

Computer Science Major: Bioinformatics Emphasis Four Year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (29 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

Second Semester (14 credits)

BIOL 1620 - Biology II (BLS) 4

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

Sophomore Year (33 credits)

First Semester (17 credits)

CHEM 1110 - General Chemistry I (BPS) 4

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

Gen Ed (BCA) 3

Second Semester (16 credits)

BIOL 3060 - Principles of Genetics (QI) 4

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

STAT 3000 - Statistics for Scientists (QI) 3

Junior Year (30 credits)

First Semester (15 credits)

BIOL 3065 - Genetics Laboratory 2

CS 3100 - Operating Systems and Concurrency 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

Gen Ed (BAI) 3

Second Semester (15 credits)

BENG 5630 - Synthetic Biological Engineering 3

CS 4700 - Programming Languages 3

CS 5660 - Bioinformatics I 3

MATH 4230 - Applied Mathematics in Biology (QI) 3

Gen Ed (BHU) 3

Senior Year (28 credits)

First Semester (16 credits)

CS 3000 approved elective 3

CS 5000 approved elective 4

CS 6670 - Advanced Bioinformatics 3

Gen Ed (BSS) 3

Univ Studies (DSS) 3

Second Semester (12 credits)

BIOL 3100 - Bioethics (CI) 3

CS 5000 approved elective 3

Gen Ed (DHA) 3

Elective course 3

Note:

\* Required for admission to the professional program.  
GPA in these classes must be at least 2.2 or greater.

Computer Science Major: Digital Systems Emphasis Four  
Year Plan (Suggested Schedule)

Students should work closely with their advisor to select  
your classes.

This suggested schedule is subject to change.

Students may attempt a class no more than 3 times,  
according to USU policy.

Freshman Year (29 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (15 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface  
Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Sophomore Year (31 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web  
Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications  
Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Second Semester (16 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

ECE 2700 - Digital Circuits 4

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

MATH 2270 - Linear Algebra (QI) 3

Junior Year (30 credits)

## First Semester (15 credits)

CS 4700 - Programming Languages 3

ECE 2250 - Electrical Circuits 1 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Gen Ed (BSS) 3

## Second Semester (15 credits)

CS 5050 - Advanced Algorithms 3

CS 5000 approved elective course 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of these PHIL 3530 or PHIL 3520 will meet both the ethics requirement for the CS major and the DHA) (Additionally, students may opt to fulfill the ethics requirement with either PHIL 1120 or PHIL 2400. Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU) (Regardless of how students fill the ethics requirement, both the DHA and BHU are required)

STAT 3000 - Statistics for Scientists (QI) 3

Gen Ed (BAI) 3

## Senior Year (30 credits)

### First Semester (14 credits)

CS 5000 approved elective course 3

CS 5000 approved elective course 4

ECE 3710 - Microcontroller Hardware and Software 4

Gen Ed (BCA) 3

### Second Semester (16 credits)

CS 3000 approved elective course 3

CS 5000 approved elective course 3

ECE 5780 - Real-Time Systems 4

Gen Ed (BHU) 3

Gen Ed (DSS) 3

Note:

\* Required for admission to the professional program. GPA in these classes must be 2.2 or greater.

## Computer Science Major: Science Emphasis Four year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

### Freshman Year (30 credits)

#### First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

#### Second Semester (16 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

Gen Ed (BCA) 3

Gen Ed (BSS) 3

### Sophomore Year (32 credits)

#### First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 2210 - Multivariable Calculus (QI) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (17 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3 (Students in the SCIENCE emphasis who have met all the requirements for advanced standing except MATH 3310 will be admitted into CS 3450 and CS 3810.)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Junior Year (30 credits)

First Semester (15 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2270 - Linear Algebra (QI) 3

Gen Ed (BAI) 3

Second Semester (15 credits)

CS 3xxx approved elective course 3

CS 4700 - Programming Languages 3

MATH 2280 - Ordinary Differential Equations (QI) 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of these PHIL 3530 or PHIL 3520 courses will meet both the ethics requirement for the CS major and the DHA. Additionally, students may opt to fulfill the ethics requirement with either PHIL 1120 or PHIL 2400. Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU. Regardless of how

students fill the ethics requirement, both the DHA and BHU are required.)

Elective course 3

Senior Year (28 credits)

First Semester (15 credits)

CS5xxx approved elective course 3

CS5xxx approved elective course 4

MATH 5710 - Introduction to Probability 3 or

STAT 3000 - Statistics for Scientists (QI) 3

University Studies (DSS) 3

Elective course 2

Second Semester (13 credits)

CS 5xxx approved elective course 3

CS 5xxx approved elective course 3

Gen Ed (BHU) 3

Elective course 4

Note:

\* Required for admission to the professional program. GPA in these classes must be 2.2 or greater.

Computer Science Major: Software Development Emphasis Four Year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (30 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (16 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface  
Development in C# 3 \*

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1220 - Calculus II (QL) 4 \*

Gen Ed (BSS) 3

Sophomore Year (30 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web  
Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications  
Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (15 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and  
Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Junior Year (31 credits)

First Semester (16 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers  
(CI) 3

PHYS 2710 - Introductory Modern Physics 3

STAT 2300 - Business Statistics (QL) 4

Second Semester (15 credits)

CS 3xxx approved elective course 3

CS 3430 - Computational Science: Python and Perl  
Programming (DSC/QI) 3

CS 4700 - Programming Languages 3

MGT 3700 - Operations Management 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of the PHIL  
3530 or PHIL 3520 courses will meet both the ethics  
requirement for the CS major and the DHA. Additionally,  
students may opt to fulfill the ethics requirement with  
either PHIL 1120 or PHIL 2400. Either of these 2 classes  
will meet both the ethics requirement for the CS major  
and the BHU. Regardless of how students fill the ethics  
requirement, both the DHA and BHU are required)

Senior Year (29 credits)

First Semester (15 credits)

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

MGT 3110 - Managing Organizations and People (DSS) 3

Gen Ed (BCA) 3

Elective course 3

Second Semester (14 credits)

CS 5xxx approved elective course 4

CS 5xxx approved elective course 3

Gen Ed (BHU) 3

Elective course 4

Note:

\* Required for admission to the professional program.  
GPA in these classes must be 2.2 or greater.

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

#### General Education Requirements and University Studies Depth Requirements

##### Courses Required for Advanced Standing

In order to achieve advanced standing (enter the professional program), students must achieve a minimum cumulative GPA of 2.3, and a minimum GPA of 2.3 (and a grade of C- or better) among courses in the following core sequence. Students are allowed a total of three repeats in the required courses in the preprofessional program. Note that these requirements are built into the Major Requirements.

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

#### Summary of Departmental Admission and Retention Requirements

Admission requirements of the Department of Computer Science for freshmen are the same as those described for the University. Transfer students with a 2.3 GPA may apply for admission to the department.

Before a student can register for a Computer Science course, he or she must earn a grade of C- or better in all prerequisite courses. All required classes for the major must be completed with a grade of C- or better. Except for CS 3000, which is a pass/fail course, all required courses for the CS major, regardless of department, may not be taken pass-fail, and a Computer Science major must have advanced standing or written permission to register for Computer Science courses at the 3000-level or above.

In addition to completing the required courses listed below, students must comply with the following regulations, in order to graduate with a bachelor's degree in Computer Science.

Once students attain advanced standing (admission to the professional program), they must maintain a minimum overall cumulative GPA of 2.3. The cumulative GPA will be computed using all USU credits, as well as transfer credits (if those transfer credits are applied to any USU requirements, including major requirements).

Students must attain a minimum grade of C- in all courses fulfilling Computer Science major requirements.

Students may have no more than one 5000-level Computer Science course with a grade less than C- on their transcript.

At most three classes in the preprofessional classes may be repeated.

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

ECE 2700 - Digital Circuits 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Computer Science Suggested Four-Year Plan

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (30 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science--CS 1 3 \*

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (16 credits)

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3

MATH 1220 - Calculus II (QL) 4 \*

General Education Course (BAI) 3

General Education Course (BSS) 3

Sophomore Year (32 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (17 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

General Education Course (BCA) 3

Junior Year (30-31 credits)

First Semester (15 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5000 - Theory of Computability 3 or

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2270 - Linear Algebra (QI) 3

CS 3--- Approved Elective 3

Second Semester (15 credits)

CS 4700 - Programming Languages 3 or

CS 5300 - Compiler Construction 4

CS 5--- Approved Elective 3

CS 5--- Approved Elective 3

PHIL 3520 - Business Ethics (DHA) 3

STAT 3000 - Statistics for Scientists (QI) 3

Senior Year (28 credits)

First Semester (16 credits)

CS 3--- Approved Elective 3

CS 5--- Approved Elective 3

CS 5--- approved elective 4

Technical Elective 3

University Studies (DSS) 3

Second Semester (12 credits)

CS 5--- Approved Elective 3

CS 5--- approved elective 3

General Education Course (BHU) 3

Technical Elective 3

BIOL 3100 - Bioethics (CI) 3

CS 5000 approved elective 3

Gen Ed (DHA) 3

Elective course 3

Note:

\* Required for admission to the professional program.  
GPA in these classes must be at least 2.2 or greater.

\*\*\*PHIL3520 will meet both the ethics requirement for the CS major and the DHA.

Additionally, students may opt to fulfill the ethics requirement with either PHIL1120 or 2400.

Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU.

Regardless of how students fill the ethics requirement, both the DHA and BHU are required.

Students may attempt a class no more than 3 times, according to USU policy.

This is a suggested schedule. Work closely with your advisor to select your classes.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Computer Science - BS

### Return to: Academic Departments and Programs

### College of Engineering

### Department of Computer Science

The department offers a degree program with emphases in Science (SC), Digital Systems (DS), Software Development (SD), and Bioinformatics (BI). The objectives are to train computer scientists who can relate to science, computer design, or information-based business disciplines. Other area of emphasis will be considered on an individual basis.

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements.

In addition to their major requirements, students in the Computer Science major must complete the minimum university requirements stated below:

### Bachelor of Science Degree

### First Semester Schedule (15-16 credits)

Depending upon emphasis, a new student's first semester schedule is configured from the following:

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MATH 1210 - Calculus I (QL) 4

University Studies courses 7-8

### Computer Science Required Courses

### Computer Science Major

Computer Science deals with information structures and processes as they are represented and implemented in modern high-speed digital computers, and with information processing systems designed to implement useful applications of computing.

The program in computer science provides a solid foundation of knowledge about computers and teaches a mode of thinking that permits continuing growth on the part of graduates. Prospective students should have an

aptitude for mathematics and logic and an interest in analysis and deduction.

Computer science is one of the fastest growing fields of study in our society. Excellent employment opportunities are available to computer science graduates. All of the major corporations hire computer science graduates. Graduates in Computer Science work for numerous Utah-based corporations, as well as Google, Microsoft, IBM, Hewlett-Packard, etc.

The Computer Science bachelor's degree is a four-year degree with areas of emphasis in Science (SC), Digital Systems (DS), Software Development (SD), and Bioinformatics (BI). In addition, by working with a departmental advisor, students may develop a plan of study tailored to their own unique career objectives.

### Science Emphasis

The Science Emphasis (SC) is designed for those who plan to pursue scientific or technical careers, research, or graduate education in computer science. Students choosing the science emphasis take courses in programming languages, advanced algorithms, and math courses in calculus, linear analysis, and multi-variable calculus. Additional courses include a variety of upper-division computer science courses, chosen in consultation with an advisor. This emphasis might be termed the "typical" computer science degree.

### Digital Systems Emphasis

The Digital Systems Emphasis (DS) is available for those interested in both the hardware and software aspects of computer systems. In addition to computer science and mathematics courses, students in this emphasis take electrical engineering courses in electronics, circuits, digital fundamentals, microcomputer systems, and digital system design. The curriculum for students in this emphasis is similar to that for students in the computer engineering major in the Electrical and Computer Engineering Department.

### Software Development Emphasis

The Software Development Emphasis (SD) is designed to give students expertise in all major areas of software engineering, including project management, development processes, group work, requirement capture and analysis, software design, programming, testing, standards, and documentation. Students completing this option are prepared to create

sophisticated, reliable, and secure software for a broad range of applications. Students in this option take courses in computer science emphasizing software development processes, conceptual modeling, database design, testing, and security, along with broadening courses in operations research, statistics, and management.

### Bioinformatics Emphasis

The Bioinformatics Emphasis (BI) is designed for students who wish to pursue careers in the computer science aspects of bioinformatics. Students in this emphasis gain a strong background in core computer science areas, such as programming, theory of computing, and software development. In addition, they follow a course of study in biology, biological modeling, and statistics. Through this background and course of study, students are provided with the computational skills and the scientific understanding necessary for work in bioinformatics.

### Science Emphasis

Students in the SC emphasis must complete the following courses. Courses used to fulfill a requirement in this category may not be used to fill a requirement in another category:

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 3310 - Discrete Mathematics 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two options:

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 or

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Select one of the following two courses:

STAT 3000 - Statistics for Scientists (QI) 3

MATH 5710 - Introduction to Probability 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 3530 - Environmental Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select 25 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100, CS 5200, CS 5300, CS 5410, or CS 5600.

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

Complete one of the following two-semester science-plus-breadth sequences:

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

USU 1350 - Integrated Life Science (BLS) 3

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

USU 1350 - Integrated Life Science (BLS) 3

Digital Systems Emphasis

Students in the DS emphasis must complete the following courses:

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

ECE 2250 - Electrical Circuits 1 3

ECE 2700 - Digital Circuits 4

ECE 3710 - Microcontroller Hardware and Software 4

ECE 5780 - Real-Time Systems 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

STAT 3000 - Statistics for Scientists (QI) 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two options:

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

OR

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select 13 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100 ,CS 5200 , CS 5300 ,CS 5410 or CS 5600 .

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

USU 1350 - Integrated Life Science (BLS) 3

Software Development Emphasis

Students in the SD emphasis must complete the following courses:

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

CS 4700 - Programming Languages 3

CS 5050 - Advanced Algorithms 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3

STAT 2300 - Business Statistics (QL) 4

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following four courses:

PHIL 1120 - Social Ethics (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Advisor-approved course

Select at least 7 credits from the following courses:

In this category, students must include at least one of the following capstone courses: CS 5100, CS 5200, CS 5300, CS 5410 or CS 5600.

With advisor approval, students may also take CS 6000-level courses to fill this requirement.

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows  
Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern  
Recognition, and Image Processing 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Science Plus Breadth Sequence

Complete one of the following science plus breadth  
sequences:

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

USU 1350 - Integrated Life Science (BLS) 3

OR

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PHYS 2500 - Introduction to Computer Methods in  
Physics 2

USU 1350 - Integrated Life Science (BLS) 3

Bioinformatics Emphasis

Students in the BI emphasis must complete the following  
courses:

BENG 5630 - Synthetic Biological Engineering 3

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3065 - Genetics Laboratory 2

BIOL 3100 - Bioethics (CI) 3

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and  
Architecture 3

CS 4700 - Programming Languages 3

CS 5660 - Bioinformatics I 3

CS 6670 - Advanced Bioinformatics 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2250 - Linear Algebra and Differential Equations  
(QI) 4

MATH 3310 - Discrete Mathematics 3

MATH 4230 - Applied Mathematics in Biology (QI) 3

Select one of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2412 - Introduction to Graphical User Interface Development in C# 3

Select one of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Select one of the following two courses:

MATH 5710 - Introduction to Probability 3

STAT 3000 - Statistics for Scientists (QI) 3

Select one of the following four courses:

CMST 3250 - Organizational Communication (CI) 3

ENGL 3080 - Introduction to Technical Communication (CI) 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MIS 3200 - Business Communication (CI) 3

Select three credits from the following courses:

Students may also use courses from the list of CS 5000-level electives that are not otherwise used to fill major requirements.

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4250 - Cooperative Work Experience 1-9

CS 4720 - Computer Networking I 3

CS 4950 - Undergraduate Research 1-4

Select at least six credits from the following courses:

CS 5000 - Theory of Computability 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5410 - Game Development 4

CS 5450 - Multimedia Systems 4

CS 5460 - Computer Security I 3

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CS 5890 - Topics in Computer Science 1-4

CS 5950 - Independent Study 3

Courses Required for Advanced Standing

In order to achieve advanced standing (enter the professional program), students must achieve a minimum cumulative GPA of 2.2 and a minimum GPA of 2.2 (and a grade of C- or better) among courses in one of the following core emphasis course sequences, or their equivalent, as determined by the Computer Science Department:

Science Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Digital Systems Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

ECE 2700 - Digital Circuits 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Software Development Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Bioinformatics Emphasis

CS 1400 - Introduction to Computer Science–CS 1 3

CS 1405 - Introduction to Computer Science–CS 1 Lab 1

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

Note:

For a more complete statement of requirements, please contact the department directly. Requirements may change from time to time.

### Computer Science Major: Bioinformatics Emphasis Four Year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

#### Freshman Year (29 credits)

##### First Semester (15 credits)

BIOL 1610 - Biology I 4

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

##### Second Semester (14 credits)

BIOL 1620 - Biology II (BLS) 4

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

#### Sophomore Year (33 credits)

##### First Semester (17 credits)

CHEM 1110 - General Chemistry I (BPS) 4

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

#### Gen Ed (BCA) 3

##### Second Semester (16 credits)

BIOL 3060 - Principles of Genetics (QI) 4

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

STAT 3000 - Statistics for Scientists (QI) 3

#### Junior Year (30 credits)

##### First Semester (15 credits)

BIOL 3065 - Genetics Laboratory 2

CS 3100 - Operating Systems and Concurrency 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

#### Gen Ed (BAI) 3

##### Second Semester (15 credits)

BENG 5630 - Synthetic Biological Engineering 3

CS 4700 - Programming Languages 3

CS 5660 - Bioinformatics I 3

MATH 4230 - Applied Mathematics in Biology (QI) 3

#### Gen Ed (BHU) 3

##### Senior Year (28 credits)

##### First Semester (16 credits)

CS 3000 approved elective 3

CS 5000 approved elective 4

CS 6670 - Advanced Bioinformatics 3

#### Gen Ed (BSS) 3

Univ Studies (DSS) 3

## Second Semester (12 credits)

BIOL 3100 - Bioethics (CI) 3

CS 5000 approved elective 3

Gen Ed (DHA) 3

Elective course 3

Note:

\* Required for admission to the professional program.  
GPA in these classes must be at least 2.2 or greater.

Computer Science Major: Digital Systems Emphasis Four  
Year Plan (Suggested Schedule)

Students should work closely with their advisor to select  
your classes.

This suggested schedule is subject to change.

Students may attempt a class no more than 3 times,  
according to USU policy.

## Freshman Year (29 credits)

### First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

### Second Semester (15 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface  
Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

## Sophomore Year (31 credits)

## First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web  
Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications  
Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

### Second Semester (16 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

ECE 2700 - Digital Circuits 4

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

MATH 2270 - Linear Algebra (QI) 3

## Junior Year (30 credits)

### First Semester (15 credits)

CS 4700 - Programming Languages 3

ECE 2250 - Electrical Circuits 1 3

ENGR 3080 - Technical Communication for Engineers  
(CI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

Gen Ed (BSS) 3

### Second Semester (15 credits)

CS 5050 - Advanced Algorithms 3

CS 5000 approved elective course 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of these  
PHIL 3530 or PHIL 3520 will meet both the ethics  
requirement for the CS major and the DHA) (Additionally,  
students may opt to fulfill the ethics requirement with

either PHIL 1120 or PHIL 2400. Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU) (Regardless of how students fill the ethics requirement, both the DHA and BHU are required)

STAT 3000 - Statistics for Scientists (QI) 3

Gen Ed (BAI) 3

Senior Year (30 credits)

First Semester (14 credits)

CS 5000 approved elective course 3

CS 5000 approved elective course 4

ECE 3710 - Microcontroller Hardware and Software 4

Gen Ed (BCA) 3

Second Semester (16 credits)

CS 3000 approved elective course 3

CS 5000 approved elective course 3

ECE 5780 - Real-Time Systems 4

Gen Ed (BHU) 3

Gen Ed (DSS) 3

Note:

\* Required for admission to the professional program.  
GPA in these classes must be 2.2 or greater.

Computer Science Major: Science Emphasis Four year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (30 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (16 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface Development in C# 3 \*

MATH 1220 - Calculus II (QL) 4 \*

Gen Ed (BCA) 3

Gen Ed (BSS) 3

Sophomore Year (32 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 2210 - Multivariable Calculus (QI) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (17 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3 (Students in the SCIENCE emphasis who have met all the requirements for advanced standing except MATH 3310 will be admitted into CS 3450 and CS 3810.)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Junior Year (30 credits)

First Semester (15 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2270 - Linear Algebra (QI) 3

Gen Ed (BAI) 3

Second Semester (15 credits)

CS 3xxx approved elective course 3

CS 4700 - Programming Languages 3

MATH 2280 - Ordinary Differential Equations (QI) 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of these PHIL 3530 or PHIL 3520 courses will meet both the ethics requirement for the CS major and the DHA. Additionally, students may opt to fulfill the ethics requirement with either PHIL 1120 or PHIL 2400. Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU. Regardless of how students fill the ethics requirement, both the DHA and BHU are required.)

Elective course 3

Senior Year (28 credits)

First Semester (15 credits)

CS5xxx approved elective course 3

CS5xxx approved elective course 4

MATH 5710 - Introduction to Probability 3 or

STAT 3000 - Statistics for Scientists (QI) 3

University Studies (DSS) 3

Elective course 2

Second Semester (13 credits)

CS 5xxx approved elective course 3

CS 5xxx approved elective course 3

Gen Ed (BHU) 3

Elective course 4

Note:

\* Required for admission to the professional program. GPA in these classes must be 2.2 or greater.

Computer Science Major: Software Development  
Emphasis Four Year Plan (Suggested Schedule)

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (30 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science–CS 1 3 \*

CS 1405 - Introduction to Computer Science–CS 1 Lab 1 \*

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (16 credits)

CS 1410 - Introduction to Computer Science–CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3 \* or

CS 2412 - Introduction to Graphical User Interface Development in C# 3 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1220 - Calculus II (QL) 4 \*

Gen Ed (BSS) 3

Sophomore Year (30 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures–CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 \* or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3 \*

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (15 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Junior Year (31 credits)

First Semester (16 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

PHYS 2710 - Introductory Modern Physics 3

STAT 2300 - Business Statistics (QL) 4

Second Semester (15 credits)

CS 3xxx approved elective course 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 4700 - Programming Languages 3

MGT 3700 - Operations Management 3

PHIL 3530 - Environmental Ethics (DHA) 3 or

PHIL 3520 - Business Ethics (DHA) 3 (Either of the PHIL 3530 or PHIL 3520 courses will meet both the ethics

requirement for the CS major and the DHA. Additionally, students may opt to fulfill the ethics requirement with either PHIL 1120 or PHIL 2400. Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU. Regardless of how students fill the ethics requirement, both the DHA and BHU are required)

Senior Year (29 credits)

First Semester (15 credits)

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

MGT 3110 - Managing Organizations and People (DSS) 3

Gen Ed (BCA) 3

Elective course 3

Second Semester (14 credits)

CS 5xxx approved elective course 4

CS 5xxx approved elective course 3

Gen Ed (BHU) 3

Elective course 4

Note:

\* Required for admission to the professional program. GPA in these classes must be 2.2 or greater.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

#### Courses Required for Advanced Standing

In order to achieve advanced standing (enter the professional program), students must achieve a minimum cumulative GPA of 2.3, and a minimum GPA of 2.3 (and a grade of C- or better) among courses in the following core sequence. Students are allowed a total of three repeats in the required courses in the preprofessional program. Note that these requirements are built into the Major Requirements.

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 2610 - Developing Dynamic, Database-Driven, Web  
Applications 3

CS 3000 - Undergraduate Seminar 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

Summary of Departmental Admission and Retention  
Requirements

Admission requirements of the Department of Computer Science for freshmen are the same as those described for the University. Transfer students with a 2.3 GPA may apply for admission to the department.

Before a student can register for a Computer Science course, he or she must earn a grade of C- or better in all prerequisite courses. All required classes for the major must be completed with a grade of C- or better. Except for CS 3000, which is a pass/fail course, all required courses for the CS major, regardless of department, may not be taken pass-fail, and a Computer Science major must have advanced standing or written permission to register for Computer Science courses at the 3000-level or above.

In addition to completing the required courses listed below, students must comply with the following regulations, in order to graduate with a bachelor's degree in Computer Science.

Once students attain advanced standing (admission to the professional program), they must maintain a minimum overall cumulative GPA of 2.3. The cumulative GPA will be computed using all USU credits, as well as transfer credits (if those transfer credits are applied to any USU requirements, including major requirements).

Students must attain a minimum grade of C- in all courses fulfilling Computer Science major requirements.

Students may have no more than one 5000-level Computer Science course with a grade less than C- on their transcript.

At most three classes in the preprofessional classes may be repeated.

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 3000 - Undergraduate Seminar 1

ECE 2700 - Digital Circuits 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 3310 - Discrete Mathematics 3

One of the following two courses:

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3 or

CS 2412 - Introduction to Graphical User Interface Development in C# 3

One of the following two courses:

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3 or

CS 2612 - Developing Database-Driven Web Applications Using ASP.NET 3

### Computer Science Suggested Four-Year Plan

Work closely with your advisor to select your classes.

Students may attempt a class no more than 3 times, according to USU policy.

This suggested schedule is subject to change.

Freshman Year (30 credits)

First Semester (14 credits)

CS 1400 - Introduction to Computer Science--CS 1 3 \*

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 \*

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4 \*

USU 1350 - Integrated Life Science (BLS) 3

Second Semester (16 credits)

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3 \*

CS 2410 - Introduction to Graphical User Interface Development in Java 3

MATH 1220 - Calculus II (QL) 4 \*

General Education Course (BAI) 3

General Education Course (BSS) 3

Sophomore Year (32 credits)

First Semester (15 credits)

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3 \*

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 3000 - Undergraduate Seminar 1 \*

MATH 3310 - Discrete Mathematics 3 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Second Semester (17 credits)

CS 3450 - Introduction to Software Engineering (CI) 3

CS 3810 - Computer Systems Organization and Architecture 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

General Education Course (BCA) 3

Junior Year (30-31 credits)

First Semester (15 credits)

CS 3100 - Operating Systems and Concurrency 3

CS 5000 - Theory of Computability 3 or

CS 5050 - Advanced Algorithms 3

ENGR 3080 - Technical Communication for Engineers (CI) 3

MATH 2270 - Linear Algebra (QI) 3

CS 3--- Approved Elective 3

Second Semester (15 credits)

CS 4700 - Programming Languages 3 or

CS 5300 - Compiler Construction 4

CS 5--- Approved Elective 3

CS 5--- Approved Elective 3

PHIL 3520 - Business Ethics (DHA) 3

STAT 3000 - Statistics for Scientists (QI) 3

Senior Year (28 credits)

First Semester (16 credits)

CS 3--- Approved Elective 3

CS 5--- Approved Elective 3	Credits of C- or better
CS 5--- approved elective 4	100
Technical Elective 3	Credits of upper-division courses (#3000 or above)
University Studies (DSS) 3	40
Second Semester (12 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
CS 5--- Approved Elective 3	
CS 5--- approved elective 3	30 USU credits
General Education Course (BHU) 3	Completion of approved major program of study
Technical Elective 3	See college advisor
BIOL 3100 - Bioethics (CI) 3	Credits in minor (if required)
CS 5000 approved elective 3	12
Gen Ed (DHA) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Elective course 3	
Note:	3
* Required for admission to the professional program. GPA in these classes must be at least 2.2 or greater.	General Education Requirements and University Studies Depth Requirements
***PHIL3520 will meet both the ethics requirement for the CS major and the DHA.	Return to: Academic Departments and Programs
Additionally, students may opt to fulfill the ethics requirement with either PHIL1120 or 2400.	
Either of these 2 classes will meet both the ethics requirement for the CS major and the BHU.	Computer Science - MCS
Regardless of how students fill the ethics requirement, both the DHA and BHU are required.	Return to: Academic Departments and Programs
Students may attempt a class no more than 3 times, according to USU policy.	College of Engineering
This is a suggested schedule. Work closely with your advisor to select your classes.	Department of Computer Science
Minimum University Requirements	The Master of Computer Science (MCS) is a terminal degree with coursework requirements similar to the PhD, but lacking the PhD's requirement for original research. Students completing an MCS degree must fulfill the following requirements:
Total Credits	Complete at least 60 credits of graduate coursework beyond the BS/CS or 30 credits of graduate coursework beyond the MS/CS with a minimum class grade of B- and a minimum cumulative GPA of 3.2.
120	
Grade Point Average (most majors require higher GPA)	No more than 15 credits of coursework numbered below 6000 may be used for the MCS.
2.00 GPA	

Complete at least 12 credits of 7000-level computer science coursework.

Successfully meet the departmental placement requirement.

Successfully complete and submit a research report proposal.

Successfully complete and defend a research report, based on original work (CS 7970, 6 credits).

Complete 1 credit of CS 6900.

Return to: Academic Departments and Programs

## Computer Science - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Computer Science

Whether Plan A, Plan B, or Plan C (see School of Graduate Studies general requirements), all MS/CS students must meet the following general requirements:

Complete four Computer Science courses numbered 6000 and above. CS 6250 and CS 6900 are not accepted for these four courses. CS 6950 can count as only one of these four courses, and in that case must be taken for at least 3 credits in a single semester.

Complete 1 credit of CS 6900.

No more than 3 total credits in CS 5950, CS 6950, and CS 7950 and 1 credit of CS 6900 may be used to satisfy the MS degree requirements. CS 6250 cannot be used to meet MS coursework requirements. A maximum of 15 credits of committee-approved coursework below the 6000-level may be used for the MS degree.

Students completing a Plan A MS degree must fulfill the following requirements:

Complete at least 24 credits of graduate coursework. The total GPA must be at least 3.0, and no more than two class grades below B- and none below C may be included.

Successfully meet the departmental placement requirement.

Successfully complete and submit a graduate thesis proposal.

Successfully complete and defend a graduate thesis, based on original work (CS 6970, 6 credits).

Students completing a Plan B MS degree must fulfill the following requirements:

Complete at least 32 credits of graduate coursework. The total GPA must be at least 3.0, and no more than two class grades below B- and none below C may be included.

Successfully meet the departmental placement requirement.

Successfully complete and submit a graduate report proposal.

Successfully complete and defend a graduate report (CS 6970, 2 credits).

Students completing a Plan C MS degree must fulfill the following requirements:

Complete at least 37 credits of graduate coursework. The total GPA must be at least 3.0, and no more than two class grades below B- and none below C may be included. CS 6970 cannot be included

Successfully meet the departmental placement requirement.

Successfully complete one pair of courses representing a sequence offered by the department.

The sequences include:

CS 5050 - Advanced Algorithms 3 and

CS 6050 - Computational Geometry: Algorithms and Applications 3

CS 5200 - Distributed and Network Programming 4 and

CS 6200 - Distributed System Design 3

CS 5300 - Compiler Construction 4 and

CS 6300 - Supercompilers for Sequential and Parallel Computers 3

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3 and

CS 6650 - Neural Networks 3

CS 5700 - Object-Oriented Software Development 3 and

CS 6700 - Object-Oriented Models, Methods, and Tools 3

CS 5800 - Introduction to Database Systems 3 and

CS 7670

CS 6100 - MultiAgent Systems 3 and

CS 7100 - Advanced MultiAgent Systems 3

CS 6450 and

CS 7450

CS 7350 - Patterns in Computer Software Systems 3 and

CS 7380 - Software Testing 3

Two of:

CS 5500 - Parallel Programming 3

CS 6500 - Advances in Parallel Systems 3

CS 6550 - Parallel Computing Systems 3

CS 7550 - Interconnection Networks for Parallel  
Computer Systems 3

Two of:

CS 5650 - CVPRIP I: Computer Vision, Pattern  
Recognition, and Image Processing 3

CS 6630 - Fuzzy Logic and its Application 3

CS 6650 - Neural Networks 3

CS 7650 - Advanced CVP RIP: Computer Vision, Pattern  
Recognition and Image Processing 3

CS 7680 - Advanced Computer Vision 3

Two of:

CS 5660 - Bioinformatics I 3

CS 5670 - Bioinformatics II 3

CS 6670 - Advanced Bioinformatics 3

Return to: Academic Departments and Programs

Computer Science - PhD

Return to: Academic Departments and Programs

College of Engineering

Department of Computer Science

The Doctor of Philosophy in Computer Science is, above all else, a degree of quality. Simply completing a number of graduate courses or years of study is not sufficient to receive the degree. The successful candidate must demonstrate a breadth of understanding in computer science, as well as a depth of understanding in his or her chosen area(s) of emphasis. Also, students must show an ability to do creative research. This research should be carried out over a significant period of time (i.e., at least one year or three semesters). Thus, each successful PhD candidate will produce a significant piece of original research, presented in a written dissertation and defended in an oral examination. This work should be of such quality that one or more journal or conference articles can be derived from it.

Students completing a PhD/CS must fulfill the following requirements:

Complete at least 90 credits of graduate coursework (including at least 27 credits of dissertation/research) beyond a BS/CS or at least 60 credits (including at least 27 credits of dissertation research) beyond an MS/CS with a minimum class grade of B and a minimum cumulative GPA of 3.5.

If an MS/CS is completed first, then no more than 15 credits of the 60 credits required for the PhD may be taken in coursework numbered below the 6000 level. If an MS/CS is not completed first, then no more than 21 credits of the 90 credits required for the PhD may be taken in coursework numbered below the 6000 level.

Complete at least 12 credits of 7000-level computer science coursework.

Complete 2 credits of PhD Seminar (CS 7900).

Complete 9 credits of department-approved courses outside the department.

Pass a set of comprehensive written examinations and an oral examination showing depth and breadth of knowledge in computer science and the student's area(s) of emphasis.

Successfully complete and defend a research proposal.

Successfully complete and defend a dissertation (CS 7970), for at least 27 credits).

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## Computer Science Minor

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[College of Engineering](#)

[Department of Computer Science](#)

Requirements for a minor in computer science are listed below. Before beginning any minor, a student must meet with a Computer Science Department advisor and have an "Undergraduate Change of Matriculation Form" signed. All courses counted toward the minor must be completed with a grade of C- or better. The cumulative GPA in Computer Science Minor courses must be at least 2.5. There may be no more than three repeats of Computer Science courses (whether counted for the minor or not).

Computer Science Minor (16-18 credits)

### A. Required Courses (10 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

### B. Computer Science Electives (6-8 credits)

Two additional CS classes must be selected from the following:

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2610 - Developing Dynamic, Database-Driven, Web Applications 3

CS 3100 - Operating Systems and Concurrency 3

CS 3200 - Mobile Application Development 3

CS 3430 - Computational Science: Python and Perl Programming (DSC/QI) 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 4700 - Programming Languages 3

Any CS class numbered 5000 or above 3-4

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## Art - BA

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[Caine College of the Arts](#)

[Department of Art and Design](#)

The BA degree is a general art degree for the student who is not interested in specializing in one area of art. Students who desire to receive a BA degree in Art must meet the university language requirements and must earn a minimum of 50 semester credits in Art, 33-34 credits in University Studies courses, this allows for approximately 36 elective credits. A GPA of 2.5 is required for the BA degree. No grade less than C is acceptable in any art class. Art classes may be retaken for a higher grade. This degree does not fulfill the requirements for entrance into the graduate schools of art.

Students must complete the General Education requirements

Students must also complete the University Studies requirements

For most students, courses taken for the major will fulfill the Communications Intensive (CI) requirement

Students must take one course having a QI designation to fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

[Bachelor of Arts Degree Language Requirement](#)

[Bachelor of Arts Degree](#)

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Department of Art and Design Curriculum

Foundation Courses

Students in the BS, BA, and BFA degree programs need to complete the following foundation curriculum.

Suggested Sequence:

Freshman year—first semester:

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3 or

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

Freshman year—second semester:

ART 1130 - Three-Dimensional Design 3 or

ART 2110 - Drawing II 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

Core Classes

Students in the BA and BS degree programs need to complete 12 credits from the following core classes:

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2400 - Introduction to Graphic Design 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 1050 - Introduction to Photography 3 or

ART 2810 - Photography I 3

The remaining 20 semester credits can be taken as art electives.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

## General Education Requirements and University Studies Depth Requirements

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### Art - BFA

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Art and Design

The BFA is a professional art degree requiring above-average accomplishment in art. Only students demonstrating considerable promise will be accepted for this more demanding professional degree program. Admission to the Art and Design Department BA/BS program does not guarantee admission to the BFA program. Entrance to the BFA program is by application only. Each emphasis area specifies classes that must be completed, along with the common foundation courses, prior to application to the BFA program. For most students, this will occur at the end of their sophomore year. Transfer students may make application during the spring semester prior to their planned entrance into the department.

Students must complete the General Education requirements

Students must also complete the University Studies requirements

For most students, courses taken for the major will fulfill the Communications Intensive (CI) requirement

Students must take one course having a QI designation to fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

To graduate with a BFA degree, students must meet the following minimum requirements:

A career total GPA of at least 2.75 must be attained.

Students must maintain a minimum GPA of at least 2.75 in the Art Foundation and Art Basic Core classes.

No grade lower than a C will be accepted in any art class.

In any emphasis area class, no grade lower than a B- is acceptable. Emphasis classes may be retaken for a higher grade.

A minimum of 78 semester credits in art must be completed for the BFA degree. This includes 6 credits of upper-division art history. During the spring semester of their senior year, students must take ART 4910 (Senior BFA Exhibition). Students must also fulfill the standard University Studies requirement of 45-46 credits. Any student unable to complete the necessary requirements for the BFA may still qualify for the BS degree.

Department of Art and Design Curriculum

Foundation Courses

Students in the BS, BA, and BFA degree programs need to complete the following foundation curriculum.

Suggested Sequence:

Freshman year—first semester:

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3 or

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

Freshman year—second semester:

ART 1130 - Three-Dimensional Design 3 or

ART 2110 - Drawing II 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

Subsequent curriculum requirements are specific to these individual emphasis areas:

Art Education

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: admission granted by art education instructor

Minimum GPA for Graduation: 2.75, core/foundation courses; 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

The art education curriculum prepares students to teach art in the public schools. Students graduate with a Bachelor of Fine Arts (BFA) degree in art and obtain a secondary education teaching license. The BFA degree requires 78 credits in Art and Art History courses. A minimum of 33 credits must be completed in the foundation and core area:

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3 or

ART 1130 - Three-Dimensional Design 3 or

ART 2110 - Drawing II 3

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2400 - Introduction to Graphic Design 3

ART 2650 - Introduction to Ceramics 3

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ART 1050 - Introduction to Photography 3 or

ART 2810 - Photography I 3

Required Senior Capstone Class (2 credits)

ART 4910 - Senior BFA Exhibition 2

In Addition, 6 credits are required in upper-division art history courses.

A minimum of 21 art credits must be taken in a studio specialization area.

The secondary education teaching license requires the following courses:

ART 3000 - Secondary Art Methods I 3

ART 3300 - Clinical Experience I 1

(ART 3000 and ART 3300 must be taken concurrently)

ART 4000 - Secondary Art Methods II 3

ART 4300 - Clinical Experience II 1

(ART 4000 and ART 4300 must be taken concurrently)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

ART 5500 - Student Teaching Seminar 2

ART 5630 - Student Teaching in Secondary Schools 10

Optional additional courses for K-12 certification: FCHD 1500, or PSY 1100, ART 3700, PSY 3660

Ceramics

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART courses

Contemporary ceramics represents the extension and synthesis of clay sculpture and vessel traditions. Students are acquainted with the technology of ceramic materials and firing processes, while developing sound craftsmanship as a means to personal expression. Enrichment is provided through the ceramics collection of the Nora Eccles Harrison Museum, numerous ceramics exhibitions, and visiting guest artists. Juniors and seniors in the program may compete for one of the Ellen Stoddard Eccles Scholarships, an endowed scholarship fund set aside especially for undergraduate ceramics majors. Students must complete the following courses for a Ceramics emphasis:

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 3610 - Intermediate Sculpture 3 or

ART 4610 - Sculpture Projects 3 or

ART 4630 - Figure Study for Sculpture 3 or

ART 4660 - Advanced Sculpture Studio 1-9 (3 credits required)

ART 3650 - Intermediate Ceramics: Handbuilding 3

ART 3660 - Intermediate Ceramics: Throwing on the Potter's Wheel 3

ART 4640 - Technology of Ceramic Art 3 (12 credits required) (4 semesters)

ART 4650 - Advanced Ceramic Studio 3-6 (12 credits required)

ART 4910 - Senior BFA Exhibition 2

CHEM 1010 - Introduction to Chemistry (BPS) 3 or

CHEM 1110 - General Chemistry I (BPS) 4

GEO 1010 - Introduction to Geology (BPS) 3 or

GEO 1110 - Physical Geology (BPS) 3

Two upper division Art History courses 6

The remainder of the 78 semester credits can be taken as art electives (7 credits)

Choose two of the following courses (6 credits)

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2400 - Introduction to Graphic Design 3

ART 2810 - Photography I 3

Drawing and Painting

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.5, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

The drawing and painting emphasis includes the two-dimensional study of form and space, as well as the exploration of drawing and painting media, graphic elements, and visual dynamics. It is an essential

discipline for all artists, as it provides the fundamental visual skills needed in their search for a personal idiom. At the same time, drawing and painting are also vehicles of creative expression, visual adventure, and self-discovery. The curriculum emphasizes an analysis of historical approaches to drawing and painting, and the exploration of new ideas, techniques, and materials. Basic courses are designed to foster a respect for the craft of drawing and painting, and subsequent courses encourage application of the craft to expressive goals. Central to the focus of drawing and painting study at USU is the development of a personal portfolio reflecting the specific interests of the individual. Students must complete the following courses for a drawing and painting emphasis:

ART 4200, ART 4210 and ART 4260 are repeatable for credit, so students are encouraged to fulfill their art electives by repeating these courses.

Students must complete the following courses for a drawing and painting emphasis:

ART 1050 - Introduction to Photography 3 or

ART 2810 - Photography I 3

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 3200 - Painting II 3

ART 3230 - Lithography 3 or

ART 3240 - Intaglio 3 or

ART 3250 - Relief Prints 3

ART 3270 - Color: Theory and Practice 3

ART 4200 - Advanced Drawing and Painting Studio 3-6 (6 credits required)

ART 4210 - Figure Painting 3

ART 4260 - Life Drawing 3

ART 4270 - Special Topics: Drawing and Painting 3 (6 credits required) (2 semesters)

ART 4910 - Senior BFA Exhibition 2

ARTH 3750 - Contemporary Art (CI) 3

One additional upper division Art History course (required) 3

The remainder of the 78 semester credits can be taken as art electives (10 credits)

Choose two of the following courses (6 credits)

ART 2400 - Introduction to Graphic Design 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

Graphic Design

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

Graphic design is the study of visual communications and the art of presenting information. Visual elements, such as animation, photography, illustration, symbols, and type, are designed or arranged using various techniques and materials. Materials range from traditional ink, paper, and printing presses to video and the Internet, using the latest computer software and hardware. Students in graphic design complete a variety of courses that involve working with symbols, trademarks, typography, layout, and all formats of print and publication design. Illustration, digital imaging, motion graphics, animation, and interactive media are also part of the graphic design curriculum. Seniors may specialize in one or more of these areas of study and create a professional portfolio specific to their interests. Graphic Design emphasis students should complete the following courses:

ART 2400 - Introduction to Graphic Design 3

ART 3370 - Illustration Concepts 3

ART 3400 - Typography 3

ART 3420 - Communication Arts Seminar 1 (3 credits required)

ART 4410 - Graphic Interface Design I 3

ART 4420 - Brand Identity Design 3

ART 4440 - Type, Image, and Visual Continuity 3

ART 4450 - Senior Capstone 3

Two upper-division Art History courses (3000 or 4000-level) 6

The remainder of the 78 semester credits can be taken as art electives (6 credits)

Choose four of the following courses (12 credits)

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 2810 - Photography I 3

Choose four of the following emphasis courses (12 credits)

ART 3410 - History of Graphic Design Studio 3

ART 4430 - Graphic Interface Design II 3

ART 4460 - Motion Design 3

ART 4470 - Special Topics in Graphic Design and Illustration 1-9

ART 4900 - Advanced Internship/Coop 1-9 (3 credits required)

Photography

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

Found throughout all of contemporary life, photographic images shape the way we document, interpret, and direct our lives. As an art form, photography constantly reinvents our concept of beauty, reality, and culture. Within the program in photography, students learn the aesthetic and technical skills of the medium. The

fundamentals of craft and the "hands on" application of knowledge at each level enables the student to pursue a variety of photographic professions. Requirements for the Photography emphasis include:

ART 2400 - Introduction to Graphic Design 3

ART 2810 - Photography I 3

ART 3810 - Photography II 3

ART 4810 - Digital Imaging 3

ART 4865 - Nineteenth Century Photographic Processes 3

ART 4825 - Color Photography 3

ART 4835 - Theory of Photography 3

ART 4845 - The Moving Image and Video Art 3

ART 4855 - View Camera and Large Format 3

ART 4875 - Photographic Studio 3

ART 4885 - Photographic Portfolio 3

ART 4910 - Senior BFA Exhibition 2

ARTH 3820 - History of Early Photography 3

ARTH 3830 - History of Contemporary Photography 3

The remainder of the 78 semester credits can be taken as art electives (10 credits)

Choose three of the following courses (9 credits)

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

Printmaking

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

Students in the printmaking emphasis have the opportunity to explore all aspects of traditional and contemporary printmaking. After an introduction to the basics of intaglio, lithographic, silkscreen, and relief processes, students are encouraged to continue their development in a specific area of interest. Independent studio projects will investigate the wide field of printmaking, providing a framework for the student to become engaged in a creative pursuit involving both technical and aesthetic considerations. Requirements for the Printmaking emphasis include:

ART 2230 - Basic Printmaking 3

ART 3230 - Lithography 3

ART 3240 - Intaglio 3

ART 3250 - Relief Prints 3

ART 3270 - Color: Theory and Practice 3

ART 4250 - Advanced Printmaking Studio 1-9 (13 credits required)

ART 4910 - Senior BFA Exhibition 2

Two additional upper division Art History courses, 3000 level and above (required) 6

The remainder of the 78 semester credits can be taken as art electives (12 credits)

Choose four of the following courses (12 credits)

ART 2200 - Painting I 3

ART 2400 - Introduction to Graphic Design 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 2810 - Photography I 3

Sculpture

Minimum GPA for Admission: 2.75, USU; 2.75 Career

Additional Admission Requirement: portfolio and application review

Minimum GPA for Graduation: 2.75, major; 2.75, USU; 2.75 Career

Minimum Grade Accepted: B- in emphasis courses; C in remaining ART and ARTH courses

Sculpture is the three-dimensional expression of ideas. Its range extends from discrete, permanent objects to ephemeral, multi-media environments. Students in the sculpture emphasis develop a base of knowledge in traditional approaches to the creation of form. After gaining competency in figure modeling, as well as in stone or wood carving, they explore both site-specific sculpture and sculptural installations. Intermediate and advanced students investigate specific problems involving technical, aesthetic, and conceptual considerations, while developing their own direction, based on both experience with form, materials, and techniques, and an understanding of traditional concerns and contemporary issues in the vast field encompassed today by sculpture.

The following courses are required for students in the sculpture emphasis:

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 3610 - Intermediate Sculpture 3

ART 3650 - Intermediate Ceramics: Handbuilding 3

ART 4260 - Life Drawing 3

ART 4610 - Sculpture Projects 3

ART 4630 - Figure Study for Sculpture 3 (6 credits required)

ART 4660 - Advanced Sculpture Studio 1-9 (12 credits required)(4 semesters)

ART 4910 - Senior BFA Exhibition 2

Two additional upper division Art History courses (required) 6

The remainder of the 78 semester credits can be taken as art electives (10 credits)

Choose two of the following courses (6 credits)

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2400 - Introduction to Graphic Design 3

ART 2810 - Photography I 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

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Art - BS

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Caine College of the Arts

Department of Art and Design

The BS degree is a general art degree for the student who is not interested in specializing in one area of art. This degree requires 50 semester credits in Art courses, 33-34 credits in University Studies courses, and allows for approximately 36 elective credits. A GPA of 2.5 is required for the BS degree. No grade less than C is acceptable in any art class. Art classes may be retaken for

a higher grade. This degree does not fulfill the requirements for entrance into graduate schools of art.

Students must complete the General Education requirements

Students must also complete the University Studies requirements

For most students, courses taken for the major will fulfill the Communications Intensive (CI) requirement

Students must take one course having a QI designation to fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

Department of Art and Design Curriculum

Foundation Courses

Students in the BS, BA, and BFA degree programs need to complete the following foundation curriculum.

Suggested Sequence:

Freshman year—first semester:

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3 or

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

Freshman year—second semester:

ART 1130 - Three-Dimensional Design 3 or

ART 2110 - Drawing II 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

Core Classes

Students in the BA and BS degree programs need to complete a minimum of 12 credits from the following core classes:

ART 2200 - Painting I 3

ART 2230 - Basic Printmaking 3

ART 2400 - Introduction to Graphic Design 3

ART 2600 - Basic Sculpture 3

ART 2650 - Introduction to Ceramics 3

ART 1050 - Introduction to Photography 3 or

ART 2810 - Photography I 3

The remaining 20 semester credits can be taken as art electives.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Art - MFA

Return to: Academic Departments and Programs

## Caine College of the Arts

### Department of Art and Design

The Master of Fine Arts degree is the terminal degree in the visual arts field. The MFA program is designed to allow students to mature to a level of professional competence in the making of art. Related studies augment a rigorous studio program. The prospective student must exhibit both academic excellence and a well-developed personal artistic vision.

#### Admission Requirements

All applicants are required to have earned a BFA or BS degree in Art or BID degree in Interior Design, or its equivalent, including a minimum of 12 credits of art history. Students must submit either MAT or GRE scores. GPA in art courses must have been at least 3.0 on a 4-point scale. MAT scores should be at or above the 40th percentile. Applicants taking the GRE should have verbal and quantitative scores at or above the 40th percentile.

#### Degree Requirements

Students must earn 60 credits, to include:

42 credits of graduate level studio art and design classes as determined by the student in consultation with his or her major professor, including a minimum of 6 credits of studio art outside of the declared emphasis area;

ARTH 6900, ART 6900 and ART 6910

6 credits outside the Art and Design Department as specified by the supervisory committee; and

3 credits of Research and Thesis, which concludes with an MFA thesis exhibition and an oral defense.

Students must pass a first-year review at the end of the first year of completion of study (12-24 credits). The MFA thesis is a visual presentation, the equivalent of a written dissertation in other disciplines. The thesis exhibition is the single most important feature of the MFA program; the culmination of at least two years, and often three or more years, of intensive study in a single discipline. The student must also submit visual documentation of the thesis, in the form of a digital image portfolio.

The MFA program is a resident program; it is not possible to complete the requirements for graduation by correspondence. Students must complete a minimum of four semesters in residence as full-time students. For

students not serving as graduate assistants who are otherwise employed on campus, 9 credits per semester is the minimum for full-time status. (12 credits is considered a maximum.) For students employed on campus, full-time status is dependent upon the number of hours per week that the student works. For instance, for a graduate student who is employed on campus for 20 hours per week (.50 FTE), 6 credits is considered full time. Students in their last semester who require fewer credits to complete their Program of Study may also be considered full-time. A minimum of five semesters is thus required to complete the 60-credit program; most students require three years.

Return to: Academic Departments and Programs

### Art History - BA

Return to: Academic Departments and Programs

## Caine College of the Arts

### Department of Art and Design

The Bachelor of Arts in Art History, as defined by NASAD (the National Association of Schools of Art and Design), "requires a thorough grounding in the liberal arts with a concentration of coursework in art and art history," including "a general knowledge of the monuments and principal artists of all major art periods of the past...augmented by study in greater depth and precision of several cultures and periods...[and] study at the advanced level...including theory, analysis and criticism. Upon completion of the program, students are asked to assemble a portfolio of their work documenting their progress and demonstrating the development of their research and writing skills.

Students must complete the General Education requirements

Students must also complete the University Studies Depth Requirements

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Freshman Year (30 credits)

Fall Semester

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

Studio art foundation course 3

Quantitative Literacy course (QL) 3

Spring Semester

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth courses (BCA, BPS) 6

Sophomore Year (32 credits)

Fall Semester

Upper division course in art history 6

Foreign language (1010) 4

Quantitative Intensive (QI) 3

Breadth courses (BSS) 3

Spring Semester

Elective 3

Upper division courses in art history 6

Foreign Language (1020) 4

Breadth Course (BAI) 3

Junior Year (28 credits)

Fall Semester

Upper division courses in art history or approved interdisciplinary field 6

Foreign language (2010) 4

Depth course (DSS) 3

Elective 1

Spring Semester

Foreign language (2020) 4

Elective course 4

Upper Division Art History (CI) 3

Depth Life/Physical Science course (DSC) 3

Senior Year (30 credits)

Fall Semester

Upper division electives 6

Elective courses 6

Upper Division Art History (CI) 3

Spring Semester

ARTH 4900 - Senior Capstone Research Seminar in Art History 3

Upper division elective 9

Elective course 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Art History Minor

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Art and Design

A minor in art history requires

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

Plus 12 credits from the art history group, for example:

ARTH 3820 - History of Early Photography 3

ARTH 3830 - History of Contemporary Photography 3

ARTH 3720 - Renaissance Art (CI) 3

ARTH 3740 - Modern Art (CI) 3

ARTH 3750 - Contemporary Art (CI) 3

ARTH 4790 - Art History Seminar and Special Problems 1-6

Note:

USU does not offer an art teaching minor for secondary teachers. Students choosing to train for teaching art in secondary schools must complete the art education major listed under art specialties and must comply with all requirements listed by the Secondary Education Program of the School of Teacher Education and Leadership (TEAL).

Return to: Academic Departments and Programs

Art Minor

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Art and Design

To plan a minor in Art, students should meet with an advisor.

One half of the credits taken for the Art Minor must be taken at Utah State University.

Generally, the minimum requirements include:

ART 1020 - Drawing I 3

ART 1120 - Two-Dimensional Design 3

ART 1130 - Three-Dimensional Design 3

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3 or

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

Credits in any ART classes 12

Return to: Academic Departments and Programs

Interior Design - BID

Return to: Academic Departments and Programs

Caine College of the Arts

Interior Design Program

Students must complete the General Education requirements

Students must also complete the University Studies requirements

ID 4740 and another course having a CI designation will fulfill the Communications Intensive (CI) requirement

ID 3730 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DHA) and Social Sciences (DSS)

Course Requirements

Minimum GPA for Admission: Any student admitted to USU may take lower-division Interior Design classes.

Additional Matriculation Requirements

Freshman/First-Year Review: Students interested in continuing in the program must submit an application packet, available from the Interior Design Office, which will be used to determine matriculation into the program. The final selection of students to matriculate into the program is a decision of the Interior Design faculty. All packets are due by April 1st for acceptance into courses the following year. Successful applicants are notified no later than June 1st.

Sophomore/Second-Year Review: All students desiring to continue into the junior/third year classes in the Interior Design Program are required to submit a portfolio for review. The final selection of students to matriculate into upper division courses in the program is a decision of the Interior Design faculty.

Transfer Students: Transfer students who desire to enter the program are required to submit an application/portfolio packet, available from the Interior Design Office, by April 1st for the following fall semester. The final selection of students to matriculate into the program is a decision of the Interior Design faculty. Successful applicants are notified no later than June 1st.

Minimum GPA for Graduation: 2.5, major; 2.0, Career

Minimum Grade Accepted: C in major requirements: BID Degree—ARTH 2710 or ARTH 2720, MGT 3110, MIS 3200, MGT 3500, ID courses.

These are sample plans. They outline University and major requirements in very general terms. While there are requirements that are sequential, many are flexible and do not need to be completed exactly in the order listed. Students should always check with their faculty and professional advisors to be sure they are meeting the requirements appropriately. To make an appointment with a professional advisor, call Sally Peterson (435) 797-8096.

Bachelor of Interior Design Requirements

Freshman Year (32 credits)

Fall Semester (16 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 1750 - Design in Everyday Living (BCA) 3

ID 1770 - History of Interior Furnishings and Architecture I 3

ID 1760 - Rapid Visualization in Interior Design 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Studies Breadth course 3

Spring Semester (16 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 1780 - History of Interior Furnishings and Architecture II 3

ID 1790 - Interior Design Theory 3

University Studies Breadth course 3

University Studies Quantitative Literacy (QL) course 3

Creative Elective 3

Note:

Submit first-year application packet by April 1.

Sophomore Year (32 credits)

Fall Semester (16 credits)

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

ID 1700 - Interior Design Professional Seminar 1

ID 2710 - Architectural Graphics I 3

ID 2750 - Computer Aided Drafting and Design I 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Studies Breadth course 3

Spring Semester (16 credits)

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ID 1700 - Interior Design Professional Seminar 1

ID 2720 - Architectural Graphics II 3

ID 2730 - Interior Space Planning and Human Dimensions 3

ID 2760 - Computer Aided Drafting and Design II 3

University Studies Breadth course 3

submit work for second-year portfolio review

Junior Year (26 credits)

Fall Semester (12 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 3730 - Interior Materials and Construction (QI) 3

ID 3770 - Residential Design Studio 3

ID 3790 - Architectural Systems 3

Elective 2

Spring Semester (14 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 3710 - Interior Design Pre-Internship 1

ID 3760 - Commercial Design Studio 3

ID 4710 - Interior Design Advanced Internship I 3

ID 4790 - Computer Applications of Modeling in Interior Design 3

MIS 3200 - Business Communication (CI) 3

Senior Year (30 credits)

Fall Semester (16 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 4730 - Environmental Design for Interiors 3

ID 4750 - Senior Design Studio I 3

MGT 3500 - Fundamentals of Marketing 3

Depth Life and Physical Sciences (DSC) course 3

Elective 3

Spring Semester (14 credits)

ID 1700 - Interior Design Professional Seminar 1

ID 4740 - Business and Professional Practices in Interior Design (CI) 3

ID 4760 - Senior Design Studio II 3

ID 4770 - Senior Exhibit 1

MGT 3110 - Managing Organizations and People (DSS) 3

Elective 3

-

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

General Theatre Studies Minor

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Theatre Arts

The General Theatre Studies Minor is designed to serve students who have experience in theatre and a strong interest in remaining actively involved, but do not have the time to commit to a theatre major. A limited number of minors are accepted each year, so early application is advised.

Admission into the Department of Theatre Arts General Studies Minor requires a 2.75 GPA and a separate application and interview with the Department Head. Acceptance is competitive and not guaranteed.

Annual Reviews are held for each minor student to determine satisfactory progress. These reviews determine if students will: (A) continue in the program (to continue, students must have demonstrated satisfactory progress and met the appropriate benchmarks); (B) be placed on programmatic probation (if a student fails to meet all benchmarks or has not made satisfactory progress, but in the opinion of the faculty has the potential to recover and meet the requirement within one semester's time, they may be placed on probation); (C) be discontinued from the program (if a student currently on probation fails to meet requirements within the specified time, or if their conduct is such that the faculty do not have confidence that the student will be able to meet requirements, even during a probationary period).

Required Theatre Arts Courses (19.5 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (1.5 credits required)

THEA 3710 - Theatre History and Literature I (CI/DHA) 3 OR

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Theatre Elective(s) 3

NOTE:

Students must complete THEA 1513 and THEA 2203 and then enroll in THEA 2555 at least one semester per year until program of study is complete.

Return to: Academic Departments and Programs

Theatre Arts - BA

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Theatre Arts

The BA Degree Program is designed for those students who prefer a more comprehensive liberal arts background in theatre in preparation for further graduate study. This program provides students with the flexibility to pursue an additional major. The BA Degree requires foreign language training.

Students must apply for the BA Degree Program as part of their separate application to the department, and have an interview with the BA faculty. Acceptance is competitive and not guaranteed.

Minimum GPA for Admission: 2.75 overall

Minimum Grade Accepted: B- in all major courses

Number of Required Credits: 44

Minimum GPA for Graduation: 2.75 overall

Other Requirements: Must complete University requirements for Bachelor of Arts (BA) degree.

Theater Arts Departmental Requirements:

Students are expected to participate in production practicum every semester except the semester they are enrolled in THEA 1513 and THEA 2203.

Usher at one department production in the Morgan Theatre, and one in either the Black Box or Caine Lyric Theatre each semester unless involved in the production as actor or run crew. Students take completion slips to be signed by the House Manager and submit them to the office following the close of the production.

Attend all production strikes.

#### Bachelor of Arts Degree Language Requirement

##### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Design/Technology Electives (select 1 course minimum)

THEA 2510 - Scene Painting 3

THEA 2530 - Theatre and Studio Sound 3	Credits of upper-division courses (#3000 or above)
THEA 3510 - Scene Design I 3	40
THEA 3520 - Costume Design I 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
THEA 3540 - Lighting Design I 3	30 USU credits
THEA 3550 - Stage Management 3	Completion of approved major program of study
THEA 3560 - Period Styles/Historic Interiors (DHA) 3	See college advisor
THEA 3570 - Historic Clothing (DHA) 3	Credits in minor (if required)
Literature/History Electives (select 3 courses minimum)	12
ENGL 2300 - Introduction to Shakespeare (BHU) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
ENGL 4300 - Shakespeare 3	3
ENGL 4360 - Studies in Drama/Film 3	General Education Requirements and University Studies Depth Requirements
HIST 3160 - Classical Drama and Society 3	Return to: Academic Departments and Programs
THEA 4710 - Contemporary Theatre (CI/DHA) 3	Theatre Arts - BFA
THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3	Return to: Academic Departments and Programs
THEA 5720 - Special Topics in Theatre History and Literature 3	Caine College of the Arts
Theatre Electives (select 2 courses minimum)	Department of Theatre Arts
THEA 1113 - Voice for Actors I 2	BFA DEGREE
THEA 1210 - Movement for Actors 2	Students are expected to develop professional attitudes, standards and work habits to move on to graduate studies or directly into the professional world. Students choose an area of emphasis within the BFA Degree. Emphasis programs offered are: Acting, Theatre Design and Technology, and Theatre Education. Design/Technology has programs of concentration in Costume Design, Film Production, Lighting Design, Technical Production, Scene Design, Sound Design and Stage Management. Theatre Education has a Traditional Certification program and an Applied Theatre program. The number of required credits for the BFA Degree varies from 65-78, depending on the Emphasis area.
THEA 1223 - Stage Makeup 2	
THEA 2500 - Drafting for Theatre I 3	
THEA 4760 - Playwriting 3	
THEA 5610 - Directing II 3	
Minimum University Requirements	
Total Credits	
120	
Grade Point Average (most majors require higher GPA)	
2.00 GPA	
Credits of C- or better	
100	Acceptance into the BFA Degree Program requires a separate departmental application, an audition or

portfolio review, and an interview with emphasis area faculty. Acceptance is competitive and not guaranteed.

Minimum GPA for admission is 2.75

Minimum grade accepted in Theatre courses is B-

Courses required for major cannot be taken on a pass/fail basis, except practicum (THEA 2555)

Retention reviews are held for each BFA student to determine satisfactory progress. These are done via audition and review in Acting, portfolio reviews in Design/Tech, and benchmark reviews in Theatre Education. These reviews determine if students will: (A) continue in the program (to continue, students must have demonstrated satisfactory progress and met the appropriate benchmarks); (B) be placed on programmatic probation (if a student fails to meet all benchmarks or has not made satisfactory progress, but in the opinion of the faculty has the potential to recover and meet the requirement within one semester's time, they may be placed on probation); or (C) be discontinued from the program (if a student currently on probation fails to meet requirements within the specified time, or if their conduct is such that the faculty do not have confidence that the student will be able to meet requirements, even during a probationary period).

Students not retained in the program must select another major, or apply to another Degree program within the department. Students dismissed from the program may apply for re-admission only with permission of the faculty at such a time that the student has demonstrated significant improvement from the time of their dismissal.

NOTE: Theatre programs and requirements are subject to change based on the needs of the department and the students.

#### Theatre Arts Departmental Requirements

Students are expected to participate in production practicum every semester except the semesters they are enrolled in THEA 1513 and THEA 2203.

Usher for two department productions each semester, unless involved in the production as an actor or run crew member. During semesters that have performances in the Morgan Theatre, one usher assignment must be done for the Morgan Theatre production. Usher completion slips must be signed by the House Manager and returned to the office the work day following completion of the assignment.

Attend production strikes as required. Strike calls are posted for each production with crew assignments for that strike.

#### Acting Emphasis (77 Credits)

The Acting program is for students desiring to become professional performers, either through continuing graduate studies or directly upon completion of the degree. The BFA Acting program is intended to be a 4-year continuous program that is completed without interruption. BFA Acting students are required to audition for all Department of Theatre Arts productions and accept roles as cast.

Students must apply for the BFA Acting Emphasis as part of their application to the Department, audition, and be interviewed by the Acting faculty. Acceptance is competitive and not guaranteed.

Retention in the BFA Acting program requires the student to maintain minimum BFA grade requirements, have a successful jury review audition bi-annually with the BFA Performance faculty, meet all department requirements, and be in compliance with additional requirements specified in the BFA guidelines found in the Student Handbook. Acting students are required to attend all acting Capstone Projects.

#### Required Theatre Core (20 credits)

THEA 1223 - Stage Makeup 2

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

#### Required Acting Courses (27 credits)

THEA 1000 - Acting I: Introduction to Acting 3

THEA 1010 - Acting II: Audition Preparation 2

THEA 1050 - Orientation for Actors 1

THEA 2000 - Acting III: Scene Study-Text as Action 3

THEA 2010 - Acting IV: Shakespeare 3

THEA 3000 - Acting V: Acting for the Musical Theatre 3

THEA 3010 - Acting VI: Classical Comedy 3

THEA 3030 - Acting VII: Contemporary Playwrights 3

THEA 4000 - Acting VIII: Acting for the Camera 3

THEA 4010 - Acting IX-Modern Masters:  
Chekhov/Ibsen/Shaw 3

Required Voice Courses (8 credits)

THEA 1113 - Voice for Actors I 2

THEA 2100 - Voice for Actors II: Speech and IPA 2

THEA 2110 - Voice for Actors III: Dialects 2

THEA 3100 - Voice for Actors IV: Extreme Vocal  
Choices/Voice Over 2

Required Dance Courses (14 credits)

THEA 1210 - Movement for Actors 2

THEA 2200 - Ballet 2

THEA 2210 - Jazz 2

THEA 2220 - Advanced Movement for Actors 2

THEA 3200 - Stage Combat 2

THEA 3210 - Tap 2

THEA 4200 - Period and Social Dance 2

Required Literature Courses (6 credits)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3 or

THEA 4720 - Musical Theatre History and Literature:  
Roots Through the Golden Age 3

Capstone Project Requirements (2 credits)

All students must complete a Capstone project during  
their Senior year. The Capstone project will be  
determined by the Head of Acting. Students must be

enrolled in THEA 5910 during the semester in which the  
project is presented.

Theatre Design and Technology Emphasis

The Theatre Design and Technology Program is for  
students interested in the operations, aesthetics and  
physical settings of theatre production.

Students accepted into the Design/Tech emphasis choose  
a specific area of concentration as part of their  
application for admission to the Department of Theatre  
Arts. Those concentration areas are: Costume Design,  
Film Production, Light Design, Scene Design, Technical  
Production, Sound Design, or Stage Management.  
Students applying for the Design/Tech emphasis  
interview and have a portfolio review with emphasis  
area faculty. Acceptance is competitive and not  
guaranteed.

Design/Tech students are required to assist with all  
department productions.

Retention in the BFA Design/Tech program requires  
students to maintain minimum BFA grade requirements,  
have a successful annual portfolio review with the BFA  
Design/Tech faculty, meet all department requirements  
and be in compliance with additional requirements  
specified in the BFA guidelines found in the Student  
Handbook.

Costume Design Concentration (76 credits)

Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits  
required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA)  
3

Note: Students should complete THEA 1513 and THEA  
2203 before taking THEA 2555

### Required Design/Technical Courses (32 credits)

THEA 1223 - Stage Makeup 2

THEA 2510 - Scene Painting 3

THEA 3510 - Scene Design I 3

THEA 3520 - Costume Design I 3

THEA 3540 - Lighting Design I 3

THEA 3560 - Period Styles/Historic Interiors (DHA) 3

THEA 3570 - Historic Clothing (DHA) 3

THEA 4520 - Costume Design II 3

THEA 5550 - Rendering and Painting for Theatre Design 3

THEA 5960 - Special Topics in Theatre Production 2 (3 specialty courses required- 6 credits total)

### Required Production Assignments (6 credits required)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (2 costume construction assignments @ 1 credit)

THEA 4555 - Production Assignments 2 (makeup/hair and assistant design assignments @ 2 credits each)

### Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

### Elective Courses (select 3 courses minimum)

ART 1010 - Exploring Art (BCA) 3

ART 1020 - Drawing I 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

FCSE 2040 - Intermediate Clothing Construction Skills, Principles and Alterations 3

FCSE 3040 - Advanced Clothing Studies: Patternmaking 3

THEA 3530 - Theatre Props and Crafts 2

THEA 4510 - Scene Design II 3

THEA 4540 - Lighting Design II 3

THEA 5590 - Design Studies for Theatre 2

THEA 5980 - Theatre Internship 2-8

### Capstone Project Requirements (2 credits)

All students must complete a Capstone Project during their Senior year. Capstone projects are chosen as part of the production assignment process. Students must be enrolled in THEA 5910 during the semester in which the project is presented.

### Film Production Concentration (90 credits)

### Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3 \*

THEA 1513 - Stagecraft 3 \*

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2555 - Production Practicum .5

THEA 3610 - Directing I 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

\* Course equivalent may be taken from either institution

### Required Design/Technical Courses (22 credits)

THEA 2510 - Scene Painting 3

THEA 3530 - Theatre Props and Crafts 2

THEA 3510 - Scene Design I 3

THEA 3520 - Costume Design I 3 or

THEA 3540 - Lighting Design I 3

THEA 4510 - Scene Design II 3 or

THEA 4520 - Costume Design II 3 or

THEA 4540 - Lighting Design II 3

THEA 5900 - Special Projects 2-3

THEA 5910 - Capstone Project 2

THEA 5960 - Special Topics in Theatre Production 2 \*

\*Course equivalent may be taken from either institution

Required Design/Technical Courses - SLCC (44 credits)

Lighting Design Concentration (73 credits)

Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Required Design/Technical Courses (29 credits)

THEA 1223 - Stage Makeup 2

THEA 2500 - Drafting for Theatre I 3

THEA 2510 - Scene Painting 3

THEA 3510 - Scene Design I 3

THEA 3520 - Costume Design I 3

THEA 3540 - Lighting Design I 3

THEA 3560 - Period Styles/Historic Interiors (DHA) 3

THEA 3570 - Historic Clothing (DHA) 3

THEA 3580 - Computer-Aided Design for Theatre 3

THEA 4540 - Lighting Design II 3

Required Production Assignments (6 credits required)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (2 assignments @ 1 credit each)

THEA 4555 - Production Assignments 2 (2 assignments(master electrician and assistant design) @ 2 credits each)

Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

Elective courses (select 3 courses minimum)

ART 1050 - Introduction to Photography 3

ART 2810 - Photography I 3

TEE 2300 - Electronic Fundamentals (QI) 4

TEE 2310 - AC/DC Circuits 2

TEE 2360 - Digital Circuits 3

THEA 4510 - Scene Design II 3

THEA 4520 - Costume Design II 3

THEA 5590 - Design Studies for Theatre 2

THEA 5960 - Special Topics in Theatre Production 2 (Repeatable if different topics)

THEA 5980 - Theatre Internship 2-8 Asst. ME, Design Asst. 2

Capstone Project Requirements (2 credits)

All students must complete a Capstone Project during their Senior year. Capstone projects are chosen as part of the production assignment process. Students must be

enrolled in THEA 5910 during the semester in which the project is presented.

Production Technology Concentration (70 credits)

Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Required Design/Technical Courses (26 credits)

THEA 2500 - Drafting for Theatre I 3

THEA 2510 - Scene Painting 3

THEA 2530 - Theatre and Studio Sound 3

THEA 3530 - Theatre Props and Crafts 2

THEA 3540 - Lighting Design I 3

THEA 3550 - Stage Management 3

THEA 4540 - Lighting Design II 3

TEE 1200 - Computer-Aided Drafting and Design 3

TEE 1640 - Introduction to Welding 3

Required Production Assignments (8 credits)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (2 board op assignments @ 1 credit each)

THEA 4555 - Production Assignments 2 (1 master electrician, 1 sound engineer and 1 assistant stage manager assignment @2 credits each)

Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

Elective Courses (select 3 courses minimum)

TEE 1030 - Material Processing Systems 3

TEE 1040 - Construction and Estimating 3

TEE 2030 - Wood-Based Manufacturing Systems 3

TEE 2300 - Electronic Fundamentals (QI) 4

TEE 2310 - AC/DC Circuits 2

TEE 2360 - Digital Circuits 3

THEA 1223 - Stage Makeup 2

THEA 5960 - Special Topics in Theatre Production 2 (Repeatable if different topics)

Capstone Project Requirements (2 credits)

All students must complete a Capstone Project during their Senior year. Students must be enrolled in THEA 5910 during the semester in which the project is presented. Students apply for a sound engineer, master electrician or stage manager assignment. Capstone projects are chosen as part of the production assignment process.

Scene Design Concentration (70-72 credits)

Required Theatre Core (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Required Design/Technical Courses (32 credits)

THEA 2500 - Drafting for Theatre I 3

THEA 2510 - Scene Painting 3

THEA 3510 - Scene Design I 3

THEA 3520 - Costume Design I 3

THEA 3530 - Theatre Props and Crafts 2

THEA 3540 - Lighting Design I 3

THEA 3560 - Period Styles/Historic Interiors (DHA) 3

THEA 3570 - Historic Clothing (DHA) 3

THEA 3580 - Computer-Aided Design for Theatre 3

THEA 4510 - Scene Design II 3

THEA 5550 - Rendering and Painting for Theatre Design 3

Required Production Assignments (7 credits)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (scene painting assignment @ 1 credit)

THEA 4555 - Production Assignments 2 (1 props design, 1 scenic charge, and 1 assistant design assignment @2 credits each)

Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

Elective Courses (select 2 courses minimum)

ART 1020 - Drawing I 3

THEA 1223 - Stage Makeup 2

THEA 4520 - Costume Design II 3

THEA 4540 - Lighting Design II 3

THEA 5590 - Design Studies for Theatre 2

THEA 5960 - Special Topics in Theatre Production 2 (Repeatable if different topics)

THEA 5980 - Theatre Internship 2-8 Asst. Scenic Artist, Props Master of Design Asst.

Capstone Project Requirements (2 credits)

All students must complete a Capstone Project during their Senior year. Students must be enrolled in THEA 5910 during the semester in which the project is presented. Capstone projects are chosen as part of the production assignment process.

Sound Design Concentration (64-70 credits)

Required Theater Core (27 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

Note: Students should complete THEA 1513 and THEA 2203 before they enroll in practicum.

Required Theatre Design/Technology Courses (12 credits)

THEA 2500 - Drafting for Theatre I 3

THEA 2530 - Theatre and Studio Sound 3

THEA 3540 - Lighting Design I 3

THEA 3550 - Stage Management 3

Required Music/Technology Courses (11 credits)

MUSC 1100 - Fundamentals of Music (BCA) 3

MUSC 2180 - Computer Applications in Music 2

MUSC 3360 - Audio Engineering I 3

MUSC 3370 - Audio Engineering II 3

Required Production Assignments (6 credits)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (1 Concert Reinforcement assignment and 1 Assistant Sound Design assignment @ 1 credit each)

THEA 4555 - Production Assignments 2 (2 Musical Reinforcement assignments @ 2 credits each, 1 small and 1 large musical)

Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

MUSC 3110 - Music History I: Origins through Baroque 3

MUSC 3120 - Music History II: Classical and Romantic Periods 3

MUSC 3190 - Music History III: Music of the Twentieth Century (CI) 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

Electives Courses (select 3 courses minimum)

TEE 2300 - Electronic Fundamentals (QI) 4

TEE 2310 - AC/DC Circuits 2

TEE 2360 - Digital Circuits 3

THEA 3580 - Computer-Aided Design for Theatre 3

THEA 5960 - Special Topics in Theatre Production 2 (Repeatable if different topics)

THEA 5980 - Theatre Internship 2-8 Design Asst. or Sound Engineer

Capstone Project Requirements (2 credits)

All students must complete a Capstone project during their Senior year. Students must be enrolled in THEA 5910 during the semester in which the project is presented. Students apply for a sound design assignment. Capstone projects are chosen as part of the production assignment process.

Stage Management Concentration (67-71 credits)

Required Theatre Arts Core Courses (24 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (3 credits minimum)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Required Production Area Courses (18 credits)

THEA 2530 - Theatre and Studio Sound 3

THEA 3510 - Scene Design I 3

THEA 3540 - Lighting Design I 3

THEA 3550 - Stage Management 3

THEA 3560 - Period Styles/Historic Interiors (DHA) 3 or

THEA 3570 - Historic Clothing (DHA) 3

Required Assignments (5 credits)

All design/tech students apply for production assignments in December for the following academic year. Assignments are made by the design faculty in January. These assignments are in addition to the practicum requirement and are completed outside of practicum work hours.

THEA 3555 - Production Projects 1 (3 assistant stage manager assignments @1 credit each)

THEA 4555 - Production Assignments 2 (stage manager assignment)

Obtain First Aid and CPR Certification

Literature Electives (select 1 course minimum)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 4300 - Shakespeare 3

THEA 4710 - Contemporary Theatre (CI/DHA) 3

THEA 4720 - Musical Theatre History and Literature: Roots Through the Golden Age 3

Management/Leadership Electives (select 2 courses minimum) (or complete Management Minor or Hospitality and Tourism Management Minor (12-15 credits)

BUS 3110 - Management Fundamentals (DSS) 3

BUS 3710 - Interpersonal and Team Skills 3

MGT 2350 - Small Business Management 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3250 - Introduction to Human Resource Management 3

MGT 3710 - Team Management 2

Music Electives (select 1 option)

MUSC 1100 - Fundamentals of Music (BCA) 3 or

Provide evidence of music reading proficiently

Theatre Electives (select 3 courses minimum)

THEA 1223 - Stage Makeup 2

THEA 2510 - Scene Painting 3

THEA 3530 - Theatre Props and Crafts 2

THEA 4820 - Company Workshop 3

THEA 5610 - Directing II 3

THEA 5900 - Special Projects 2-3 (stage manager assignment, 2 credits required)

THEA 5980 - Theatre Internship 2-8 (assistant stage manager assignment, 2 credits required)

Capstone Project Requirements (2 credits)

All students must complete a Capstone Project during their Senior year. Capstone projects are chosen as part of the production assignment process. Students must be enrolled in THEA 5910 during the semester in which the project is presented.

Theatre Education Emphasis

The Theatre Education curriculum prepares students to pursue a wide range of careers in theatre pedagogy and applied theatre. Students choose either a Traditional Certification Program or an Applied Theatre Program. Those who pursue the certification track qualify to receive a teaching license from the Utah State Board of Education, and may also qualify for a license in a secondary teaching area if they pursue a teaching minor.

Students must apply for admission to the Theatre Education Emphasis and choose one of the tracks as part of their application to the Department and interview with Theatre Education faculty. Acceptance is competitive and not guaranteed.

Retention in the program requires students to maintain a B- in all courses and pass an annual benchmark review in five areas: pedagogy, artistry, academics, leadership/service, and professionalism. Prior to each benchmark review, students submit a self-assessment letter to the Director of Theatre Education, and meet individually with the theatre education faculty to discuss their progress.

The Traditional Certification Program requires completion of the STEP program, a minimum 2.75 GPA, and an annual benchmark review.

Traditional Certification Program (55.5 credits)

## Required Theatre Core (23.5 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (2.5 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA) 3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

## Required Theatre Education Courses (15 credits)

THEA 3370 - Applied Theatre 3

THEA 3380 - Drama Across the Curriculum, Grades K-12 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

THEA 4350 - Theatre for Young Audiences 3

## Required Dramatic Literature Course (3 credits)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

## Required Theatre Elective Courses (12 credits)

These electives should be chosen in one theatre emphasis area based on the interest and talents of the student, in consultation with their Advisor.

## Required Senior Course

THEA 5390 - Student Teaching Seminar 2

## Required Secondary Teacher Education Program (STEP)

The Secondary Teacher Education Program (STEP) prepares and licenses students to teach in public secondary schools. The program consists of three successive semesters of education courses, culminating in supervised student teaching in both the major and minor subject areas.

STEP requires admission to the Secondary Education Program of the School of Teacher Education and Leadership (TEAL). The three levels of the STEP Secondary Teacher Education program are offered Fall and Spring only. Each level must be completed before advancing to the next level.

## Level 1 Courses (10 credits)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

THEA 3300 - Clinical Experience in Teaching I 1

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

## Level 2 Courses (12 credits)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

THEA 4300 - Clinical Experience in Teaching II 1

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

## Level 3 Courses (12 credits)

SCED 5630 - Student Teaching in Secondary Schools 10

THEA 5390 - Student Teaching Seminar 2

Applied Theatre Concentration (Non-Certification) (69.5credits)

## Required Theatre Core (23.5 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 2555 - Production Practicum .5 (2.5 credits required)

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA) 3

THEA 3720 - Theatre History and Literature II (CI/DHA)  
3

Note: Students should complete THEA 1513 and THEA 2203 before taking THEA 2555

Required Theatre Education Courses (15 credits)

THEA 3370 - Applied Theatre 3

THEA 3380 - Drama Across the Curriculum, Grades K-12  
3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

THEA 4350 - Theatre for Young Audiences 3

Required Dramatic Literature (3 credits)

ENGL 2300 - Introduction to Shakespeare (BHU) 3

Required Theatre Elective Courses (14 credits)

NOTE: 9 credits must be upper division

Ideally these electives should be chosen in one theatre emphasis area based on the interest and talents of the student, in consultation with their Advisor.

Required Field Work in Theatre (12 credits)

Field work in Theatre comprises of an approved professional internship with a theatre or educational institution. Field research is also an option. 12 internship credits of internship requires the equivalent of 6 months full time employment. Credit is not expected to be completed all at once.

THEA 5940 - Fieldwork in Theatre Arts 1-13 (12 credits required)

Capstone Project Requirements (2 credits)

All students must complete a CapstoneProject during their Senior year.

Students must be enrolled in THEA 5910 during the semester in which the project is presented. All projects will be chosen in consultation with the student's advisor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Theatre Arts - MFA

Return to: Academic Departments and Programs

Total Required Graduate Credits: 60

Committee Requirements

During (or upon the completion of) the first semester of this degree, the student will:

Complete and sign the MFA Graduate Student Code contract.

Nominate an MFA Supervisory Committee of at least three members (one from outside of the Theatre Design area) and submit the list of members to the Department Head for approval.

Submit the Department Head approved Committee to the Graduate School for approval.

Schedule a Supervisory Committee meeting.

Develop a 3-year Program of Study with the approval of the Supervisory Committee.

Prior to graduation, the student will:

Complete all courses and requirements as determined by the Supervisory Committee.

Earn successful MFA Continuance Evaluation ratings.

Successfully complete an MFA Plan-B Defense process with the Supervisory Committee.

#### Required Courses

Introductory Course - Taken during the first semester (1 credit)

THEA 6010 - Introduction to Graduate Study in Theatre 1

Advanced Literature Courses (5-6 credits)

THEA 6250 - Playwriting 3

THEA 6320 - Storytelling in Education 3

THEA 6710 - Contemporary Theatre Studies 2

THEA 6720 - Specialized Theatre History and Literature Topics 2

Advanced Design Courses (in areas of specialization) (select 16-17 credits)

THEA 6500 - Drafting for Theatre 2

THEA 6510 - Advanced Scene Design for Theatre 2

THEA 6520 - Advanced Costume Design for Theatre 2

THEA 6530 - Specialized Theatre Props and Crafts 2

THEA 6540 - Advanced Lighting for Theatre Design 2

THEA 6550 - Rendering in Theatre Design 2

THEA 6555 - Scene Painting 2

THEA 6580 - Computer Aided Design for Theatre 2

THEA 6790 - Seminar in Drama 1-4

THEA 6900 - Research Studies 1-4

THEA 6960 - Special Topics in Theatre Production 2

Other courses not listed here may be approved by committee.

#### Cognate Skill Coursework (6 credits)

A minimum of two courses is required to develop skills or increase knowledge in a field related to the area of specialization. Courses are subject to approval by the Graduate Study Committee. Students in any of the Design or Advanced Technical Practice specializations will take courses in: art, engineering and technology education, welding, furniture construction or cabinetry, or landscape architecture. Students may petition to take coursework in other disciplines, upon justification of relevance to the course of study.

THEA 5590 - Design Studies for Theatre 2

Design Studies (complete 2 credits each semester) (12 credits)

THEA 6590 - Design Studies for Theatre 2

Graduate Projects (9-10 credits)

THEA 6920 - Graduate Projects in Theatre 2-3

Theatre Internship (6 credits)

THEA 6980 - Theatre Internship 2-8

Two internships are required, taken during summers at recognized professional theatre companies. All internships must be approved by the Supervisory Committee. Documentation of the Internship must be approved and submitted to the Theatre Department prior to the internship. A letter of satisfactory performance from the appropriate company supervisor should be submitted to the department.

Culminating Courses taken during the final semester (4 credits)

THEA 6930 - Theatre Production Portfolio 1

THEA 6970 - Thesis 1-3 (3 credits required)

Note:

The option to cancel a student project, or to allow work to proceed but disqualify it as an MFA project based upon insufficient preparation or validity, rests with the department's Graduate Study Committee, the student's Supervisory Committee chairperson (advisor), and the

Artistic Director of Utah State Theatre. This rule is designed to protect the priorities of the department and the integrity of its productions.

Return to: Academic Departments and Programs

Theatre Arts Teaching Minor

Return to: Academic Departments and Programs

Required Theatre Arts Department Courses (18 credits)

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

THEA 1713 - Playscript Analysis (BHU) 3

THEA 2203 - Costume Construction and Technology 3

THEA 3610 - Directing I 3

THEA 3710 - Theatre History and Literature I (CI/DHA)  
3

OR

THEA 3720 - Theatre History and Literature II (CI/DHA)  
3

Theatre Education Courses (9 credits)

THEA 3380 - Drama Across the Curriculum, Grades K-12  
3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

THEA 4350 - Theatre for Young Audiences 3

Theatre Arts Department Requirements

Usher at one department production in the Morgan Theatre and one department production in either the Black Box or Caine Lyric Theatres each semester. (Students take completion slips to be signed by the House Manager and submit them to the office following the close of the production.)

Attend all production strikes.

Return to: Academic Departments and Programs

Economics - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Economics Major

As the Economics major provides a strong grounding in economic theory, it helps open career opportunities that involve policy analysis. The Economics major has been a

very popular dual major for Finance and Accounting majors because of the added theoretical and analytical dimension that advanced studies in economics can contribute to Finance and Accounting majors. This combination is excellent preparation for students interested in advanced studies in Accounting or Finance.

The Economics major also provides students in the humanities, and social and natural sciences with an opportunity to learn policy analysis tools. Whether the students are directly interested in policy or simply interested in the impact of policy within their chosen primary major, economics introduces a robust and empirically verified paradigm for explaining the behavior of social systems and their interaction with cultural, biological, and physical resources.

To graduate with a bachelor's degree in Economics, a student must have a minimum GPA of 2.5 in courses required for the major and a grade of C or better in each course required for the major. A C grade or better in ECN 1500, ECN 2010, ECN 3010, ECN 3400, ECN 4020, ENGL 2010, MATH 1050 and STAT 2300 and an overall GPA of 2.67 or higher is required for admission into some MGT courses required for the managerial emphasis. Economics majors with a dual major must satisfy the admission and graduation requirements of both majors. All required courses must be taken for a letter grade, and students must earn a C or better in each of these courses. For information regarding elective requirements, students should contact their academic advisor.

#### University Studies Requirements for Economics Major

Students must complete the General Education Requirements:

For most students, courses taken for the major will meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

For most students, courses taken for the major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Economics Major (without area of Emphasis)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level and above) 6

Economics Major (Economic Theory Emphasis):

The Economic Theory Emphasis is designed for students who are interested in preparing for graduate studies in economics or finance and for students who are preparing for a career that requires training in quantitative economic analysis. Graduates have employment opportunities in business and government, as well as opportunities for continuing their education in graduate economics programs or in professional schools. Economists are often involved in policy analysis for government agencies and nongovernmental organizations.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5100 - History of Economic Thought 3

ECN 5330 - Applied Econometrics (QI) 3

ECN 5700 - Economics of Public Choice 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level or above) 12

Economics Major (Managerial Economics Emphasis):

The Managerial Economics Emphasis is for students who are planning for careers in business. The program can serve as a terminal program for those planning to enter the job market on graduation or as excellent preparation for students who intend to pursue an MBA or MPA.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3010 - Managerial Economics (DSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5300 - Industrial Organization-Game Theory 3

ECN 5330 - Applied Econometrics (QI) 3

FIN 3400 - Corporate Finance (QI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level and above) 6

Economics Major (Prelaw Economics Emphasis):

The Prelaw Economics Emphasis is for students who plan to attend law school or pursue a career related to political science, and who want to obtain a strong foundation in economics. The large number of elective credits included in this emphasis area provides enough flexibility for students to custom design their program of study to meet individual interests and educational goals. Several students have taken advantage of this flexibility to design a dual major with Economics and Political Science.

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3170 - Law and Economics 3 or

POLS 3170 - Law and Economics 3

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 5700 - Economics of Public Choice 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

POLS 1100 - United States Government and Politics (BAI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level or above) 6

POLS electives (3000-level or above) 3

Economics Major (International Economics and Trade Emphasis):

The International Economics and Trade Emphasis was created in response to a growing demand for students trained in international economics and trade, resulting from increased globalization and interdependence among countries. In addition, this emphasis helps facilitate the international focus of the Huntsman School of Business.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3010 - Managerial Economics (DSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

ECN 5330 - Applied Econometrics (QI) 3

ECN 5400 - International Trade Theory 3

ECN 5600 - Financial Economics 3

FIN 3400 - Corporate Finance (QI) 3

FIN 4300 - International Finance 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

POLS 3100 - Global Issues 3

STAT 2300 - Business Statistics (QL) 4

Economics Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (31 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required)

Breadth Physical Science (BPS) course 3

Elective course 3

Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

STAT 2300 - Business Statistics (QL) 4

Breadth Humanities (BHU) course 3

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

Breadth Creative Arts (BCA) course 3

Elective course 3

Second Semester (15 credits)

ECN 3010 - Managerial Economics (DSS) 3

Breadth Life Science (BLS) course 3

Elective courses 9

Junior Year (30 credits)

First Semester (15 credits)

ECN 4020 - Intermediate Macroeconomics 3

ECN Elective course 3

Communication Intensive (CI) course 3

Elective courses 6

Second Semester (15 credits)

ECN Elective course 3

Communication Intensive (CI) course 3

Upper Division Elective course 3

Elective courses 6

Senior Year (29-30 credits)

BUS 4250 is recommended during the Senior Year

First Semester (14-15 credits)

Depth Humanities and Creative Arts (DHA) course 2-3

Quantitative Intensive (QI) course 3

Upper Division Elective 3

Elective courses 6

Second Semester (15 credits)

Depth Life and Physical Science (DSC) course 3

Upper Division Electives 4

Elective courses 8

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Economics - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

## Economics Major

As the Economics major provides a strong grounding in economic theory, it helps open career opportunities that involve policy analysis. The Economics major has been a very popular dual major for Finance and Accounting majors because of the added theoretical and analytical dimension that advanced studies in economics can contribute to Finance and Accounting majors. This combination is excellent preparation for students interested in advanced studies in Accounting or Finance.

The Economics major also provides students in the humanities, and social and natural sciences with an opportunity to learn policy analysis tools. Whether the students are directly interested in policy or simply interested in the impact of policy within their chosen primary major, economics introduces a robust and empirically verified paradigm for explaining the behavior of social systems and their interaction with cultural, biological, and physical resources.

To graduate with a bachelor's degree in Economics, a student must have a minimum GPA of 2.5 in courses required for the major and a grade of C or better in each course required for the major. A C grade or better in ECN 1500, ECN 2010, ECN 3010, ECN 3400, ECN 4020, ENGL 2010, MATH 1050 and STAT 2300 and an overall GPA of 2.67 or higher is required for admission into some MGT courses required for the managerial emphasis.

Economics majors with a dual major must satisfy the admission and graduation requirements of both majors. All required courses must be taken for a letter grade, and students must earn a C or better in each of these courses. For information regarding elective requirements, students should contact their academic advisor.

### University Studies Requirements for Economics Major

Students must complete the General Education Requirements:

For most students, courses taken for the major will meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

For most students, courses taken for the major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories:

Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Economics Major (without area of Emphasis)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level and above) 6

Economics Major (Economic Theory Emphasis):

The Economic Theory Emphasis is designed for students who are interested in preparing for graduate studies in economics or finance and for students who are preparing for a career that requires training in quantitative economic analysis. Graduates have employment opportunities in business and government, as well as opportunities for continuing their education in graduate economics programs or in professional schools. Economists are often involved in policy analysis for government agencies and nongovernmental organizations.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5100 - History of Economic Thought 3

ECN 5330 - Applied Econometrics (QI) 3

ECN 5700 - Economics of Public Choice 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level or above) 12

Economics Major (Managerial Economics Emphasis):

The Managerial Economics Emphasis is for students who are planning for careers in business. The program can serve as a terminal program for those planning to enter the job market on graduation or as excellent preparation for students who intend to pursue an MBA or MPA.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3010 - Managerial Economics (DSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5300 - Industrial Organization-Game Theory 3

ECN 5330 - Applied Econometrics (QI) 3

FIN 3400 - Corporate Finance (QI) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level and above) 6

Economics Major (Prelaw Economics Emphasis):

The Prelaw Economics Emphasis is for students who plan to attend law school or pursue a career related to political science, and who want to obtain a strong foundation in economics. The large number of elective credits included in this emphasis area provides enough flexibility for students to custom design their program of study to meet individual interests and educational goals. Several students have taken advantage of this flexibility to design a dual major with Economics and Political Science.

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3170 - Law and Economics 3 or

POLS 3170 - Law and Economics 3

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5020 - Macroeconomic Theory 3

ECN 5700 - Economics of Public Choice 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

POLS 1100 - United States Government and Politics (BAI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

ECN electives (3000-level or above) 6

POLS electives (3000-level or above) 3

Economics Major (International Economics and Trade Emphasis):

The International Economics and Trade Emphasis was created in response to a growing demand for students trained in international economics and trade, resulting from increased globalization and interdependence among countries. In addition, this emphasis helps facilitate the international focus of the Huntsman School of Business.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3010 - Managerial Economics (DSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 4020 - Intermediate Macroeconomics 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

ECN 5330 - Applied Econometrics (QI) 3

ECN 5400 - International Trade Theory 3

ECN 5600 - Financial Economics 3

FIN 3400 - Corporate Finance (QI) 3

FIN 4300 - International Finance 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

POLS 3100 - Global Issues 3

STAT 2300 - Business Statistics (QL) 4

Economics Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (31 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required)

Breadth Physical Science (BPS) course 3

Elective course 3

Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

STAT 2300 - Business Statistics (QL) 4

Breadth Humanities (BHU) course 3

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

Breadth Creative Arts (BCA) course 3

Elective course 3

Second Semester (15 credits)

ECN 3010 - Managerial Economics (DSS) 3

Breadth Life Science (BLS) course 3

Elective courses 9

Junior Year (30 credits)

First Semester (15 credits)

ECN 4020 - Intermediate Macroeconomics 3

ECN Elective course 3

Communication Intensive (CI) course 3

Elective courses 6

Second Semester (15 credits)

ECN Elective course 3

Communication Intensive (CI) course 3

Upper Division Elective course 3

Elective courses 6

Senior Year (29-30 credits)

BUS 4250 is recommended during the Senior Year

First Semester (14-15 credits)

Depth Humanities and Creative Arts (DHA) course 2-3

Quantitative Intensive (QI) course 3

Upper Division Elective 3

Elective courses 6

Second Semester (15 credits)

Depth Life and Physical Science (DSC) course 3

Upper Division Electives 4

Elective courses 8

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Economics - MA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

Economics MS/MA

### Introduction

The Master of Science (MS) and Master of Arts (MA) degrees in Economic Theory offered through the Department of Economics and Finance, Huntsman School of Business, are primarily intended to prepare students for subsequent doctoral study in Economics. Students that choose to do an MA are required to satisfy the foreign language requirement by earning an additional 15 credits in the study of a foreign language.

Our graduates in Economics are well prepared to continue their studies at the doctoral level. Graduates have recently continued their studies at a variety of institutions, including Brown University, the University of Oregon, Harvard Law School, University of California at Irvine, and George Mason University.

### Admission Requirements

Admission to the master's program in the Department of Economics and Finance requires a minimum grade point average (GPA) of 3.0 (4.0 = A) for the last 60 semester credits earned prior to applying for the program. Educational requirements include a bachelor's degree, courses in intermediate microeconomic theory, econometrics/statistics, and mathematical economics/calculus. Student's whose prior academic performance warrants admission, although some of these courses have not been taken, may be admitted provisionally. Such a student will be required to make up deficiencies by enrolling in appropriate courses prior to beginning the master's program.

The Graduate Record Examination (GRE) is required. GRE scores should be included with the application. Scores must be at or above the 50th percentile for the verbal portion of the examinations and above the 60th percentile for the quantitative portion. A TOEFL score is also required of all students whose native tongue is not English. Application forms and more information about application requirements can be found online at

<http://www.usu.edu/graduateschool/> or by phoning 435-797-1189.

### Program Requirements

A student must earn a minimum of 30 credits above a bachelor's degree. For Plan A students (thesis), these credit requirements include a minimum of 6 thesis research credits. For Plan B students, these credit requirements include a minimum of 3 thesis research credits.

The Typical Plan of Study (POS) is as follows:

#### FALL SEMESTER

##### Required

APEC 6100 - Microeconomic Theory I or

APEC 7130 - Microeconomic Theory I

APEC 7350 - Mathematical Economics I (taught two weeks prior to beginning of semester)

ECN 7310 - Econometrics I

APEC 7360 - Mathematical Economics II

##### Electives

ECN 5300 - Industrial Organization-Game Theory

ECN 5500 - Public Finance (CI)

ECN 5400 - International Trade Theory

#### SPRING SEMESTER

##### Required

ECN 5020 - Macroeconomic Theory

ECN 7320 - Econometrics II

##### Electives

ECN 5700 - Economics of Public Choice

APEC 7140 - Microeconomic Theory II

ECN 5000 - Advanced Macroeconomic Topics

#### SUMMER SEMESTER

ECN 6970 - Thesis Research

Other elective credits may be substituted with the approval of the student's graduate committee.

## Financial Assistance

Your completed application automatically places you in the pool for both assistantships and scholarships.

The Department of Economics and Finance offers a number of competitive graduate assistantships ranging from \$3,200 to \$9,000. Non-resident students are eligible to compete for a tuition waiver for the out-of-state portion of tuition. In addition, students have the opportunity to enroll in the university's health care program with Blue Cross/Blue Shield at a subsidized rate. A GRE score above the 80th percentile is generally required in order to be competitive for a departmental assistantship.

The Huntsman School of Business also offers several graduate scholarships. A GRE score above the 80th percentile on both the verbal and quantitative parts of the exam is generally required in order to be considered for these scholarships. You should apply by March 1 to be considered for a scholarship.

## Application Information

To apply, go to <http://www.usu.edu/graduateschool/> and begin the application process by clicking on the Future Students link near the middle of the screen. From there you'll be able to navigate through the application process, and you will also find more information about the requirements for successfully completing your application. The general application deadline is June 30th. However, early application will increase your chance of receiving a departmental assistantship.

## For More Information

Tyler Bowles, Director of Graduate Programs

Department of Economics and Finance

3565 Old Main Hill, Logan, Utah 84322-3565

Phone: 435-797-2378, email: [randy.simmons@usu.edu](mailto:randy.simmons@usu.edu)

website:

<http://huntsman.usu.edu/economicsandfinance/>

Go to "Degrees and Majors" (on the left of your screen)

Return to: Academic Departments and Programs

Economics - MS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

Economics MS/MA

## Introduction

The Master of Science (MS) and Master of Arts (MA) degrees in Economic Theory offered through the Department of Economics and Finance, Huntsman School of Business, are primarily intended to prepare students for subsequent doctoral study in Economics. Students that choose to do an MA are required to satisfy the foreign language requirement by earning an additional 15 credits in the study of a foreign language.

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The Graduate Record Examination (GRE) is required. GRE scores should be included with the application. Scores must be at or above the 50th percentile for the verbal portion of the examinations and above the 60th percentile for the quantitative portion. A TOEFL score is also required of all students whose native tongue is not English. Application forms and more information about application requirements can be found online at <http://www.usu.edu/graduateschool/> or by phoning 435-797-1189.

## Program Requirements

A student must earn a minimum of 30 credits above a bachelor's degree. For Plan A students (thesis), these credit requirements include a minimum of 6 thesis research credits. For Plan B students, these credit requirements include a minimum of 3 thesis research credits.

The Typical Plan of Study (POS) is as follows:

#### FALL SEMESTER

##### Required

APEC 6100 - Microeconomic Theory I or

APEC 7130 - Microeconomic Theory I

APEC 7350 - Mathematical Economics I (taught two weeks prior to beginning of semester)

ECN 7310 - Econometrics I

APEC 7360 - Mathematical Economics II

##### Electives

ECN 5300 - Industrial Organization-Game Theory

ECN 5500 - Public Finance (CI)

ECN 5400 - International Trade Theory

#### SPRING SEMESTER

##### Required

ECN 5020 - Macroeconomic Theory

ECN 7320 - Econometrics II

##### Electives

ECN 5700 - Economics of Public Choice

APEC 7140 - Microeconomic Theory II

ECN 5000 - Advanced Macroeconomic Topics

#### SUMMER SEMESTER

ECN 6970 - Thesis Research

Other elective credits may be substituted with the approval of the student's graduate committee.

#### Financial Assistance

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#### For More Information

Tyler Bowles, Director of Graduate Programs

Department of Economics and Finance

3565 Old Main Hill, Logan, Utah 84322-3565

Phone: 435-797-2378, email: [randy.simmons@usu.edu](mailto:randy.simmons@usu.edu)

website:

<http://huntsman.usu.edu/economicsandfinance/>

Go to "Degrees and Majors" (on the left of your screen)

Return to: Academic Departments and Programs

Economics Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

## Minor Requirements

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN electives (3000-level or above) 6 1

Note:

1 For a list of acceptable electives, students should contact their advisor.

Return to: Academic Departments and Programs

Finance - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

University Studies Requirements for Finance Major

Students must complete the General Education Requirements:

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

ECN 1500 will fulfill the American Institutions requirement

Courses taken for their major will meet the Exploration requirement for students in the Huntsman School of Business

Students must also complete the University Studies Depth Requirements:

For most students, courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

## Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Huntsman School of Business Acumen (39-40 credits)

Finance majors in the Department of Economics and Finance must complete the following business acumen in addition to the specific courses listed for the major. A grade of at least C is required in ECN 1500 and STAT 2300. (Students should check with their undergraduate advisor concerning the need for students in the economics major to complete the business acumen.)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions  
and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information  
Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

### Finance Major

Finance is concerned with how individuals and firms allocate resources over time. Solutions to allocation problems rely upon the existence of capital markets that allow the exchange of resources over time, and firms that allow individuals to transform current resources into resources available in the future. In particular, finance deals with the financial management of firms, investment management, and the management of financial institutions. Before continuing with the following courses, students must receive a grade of B- or better in FIN 3400 and at least a grade of C in ENGL 2010.

### Required Courses (12-13 credits)

ECN 3010 - Managerial Economics (DSS) 3 or ECN 4010 - Intermediate Microeconomics 3

MATH 1100 - Calculus Techniques (QL) 3 or MATH 1210 - Calculus I (QL) 4

MATH 1210 - Calculus I (QL) 4

Select 4 of the following courses to complete (12 credits):

ECN 5600 - Financial Economics 3

FIN 4300 - International Finance 3

FIN 4420 - Insurance 3

FIN 4430 - Real Estate Finance 3

FIN 4450 - Advanced Corporate Finance 3

FIN 4480 - Derivatives Market 3

FIN 4490 - Hedge Funds and Private Equity 3

FIN 4495 - Investment Banking 3

FIN 5250 - Banking Regulation 3

FIN 5440 - Cases in Finance 3

Students in the Finance Major are encouraged to select additional electives from the following list.

The interests and career goals of the student should determine which electives are selected.

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ECN 4020 - Intermediate Macroeconomics 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5200 - Money and Banking 3

ECN 5310 - Mathematical Methods for Economics and Finance II (QI) 3

ECN 5330 - Applied Econometrics (QI) 3

### Finance Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (31 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required)

Breadth Physical Science (BPS) course 3

Elective course 3

Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4

Breadth Humanities (BHU) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 3200 - Business Communication (CI) 3

Breadth Life Science (BLS) course 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ECN 3010 - Managerial Economics (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

Communication Intensive (CI) course 3

Dept Life and Physical Science (DSC) course 3

Elective course 3

Second Semester (15 credits)

FIN 4410 - Financial Institutions 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3

FIN Elective courses 3

Elective course 3

Senior Year (28-30 credits)

BUS 4250 is recommended during the Senior Year

First Semester (14-15 credits)

FIN 4460 - Investments 3

MGT 3500 - Fundamentals of Marketing 3

FIN Elective courses 3

Depth Humanities and Creative Arts (DHA) course 2-3

Elective course 3

Second Semester (14-15 credits)

FIN Elective courses 6

Elective courses 8-9

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Finance - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

University Studies Requirements for Finance Major

Students must complete the General Education Requirements:

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

ECN 1500 will fulfill the American Institutions requirement

Courses taken for their major will meet the Exploration requirement for students in the Huntsman School of Business

Students must also complete the University Studies Depth Requirements:

For most students, courses taken for their major will fulfill the Communications Intensive (CI) and

Quantitative Intensive (QI) requirements for students in the Huntsman School of Business

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (39-40 credits)

Finance majors in the Department of Economics and Finance must complete the following business acumen in addition to the specific courses listed for the major. A grade of at least C is required in ECN 1500 and STAT 2300. (Students should check with their undergraduate advisor concerning the need for students in the economics major to complete the business acumen.)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

## Finance Major

Finance is concerned with how individuals and firms allocate resources over time. Solutions to allocation problems rely upon the existence of capital markets that allow the exchange of resources over time, and firms that allow individuals to transform current resources into resources available in the future. In particular, finance deals with the financial management of firms, investment management, and the management of financial institutions. Before continuing with the following courses, students must receive a grade of B- or better in FIN 3400 and at least a grade of C in ENGL 2010.

### Required Courses (12-13 credits)

ECN 3010 - Managerial Economics (DSS) 3 or ECN 4010 - Intermediate Microeconomics 3

MATH 1100 - Calculus Techniques (QL) 3 or MATH 1210 - Calculus I (QL) 4

MATH 1210 - Calculus I (QL) 4

Select 4 of the following courses to complete (12 credits):

ECN 5600 - Financial Economics 3

FIN 4300 - International Finance 3

FIN 4420 - Insurance 3

FIN 4430 - Real Estate Finance 3

FIN 4450 - Advanced Corporate Finance 3

FIN 4480 - Derivatives Market 3

FIN 4490 - Hedge Funds and Private Equity 3

FIN 4495 - Investment Banking 3

FIN 5250 - Banking Regulation 3

FIN 5440 - Cases in Finance 3

Students in the Finance Major are encouraged to select additional electives from the following list.

The interests and career goals of the student should determine which electives are selected.

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ECN 4020 - Intermediate Macroeconomics 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3

ECN 5200 - Money and Banking 3

ECN 5310 - Mathematical Methods for Economics and Finance II (QI) 3

ECN 5330 - Applied Econometrics (QI) 3

### Finance Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

### Freshman Year (31 credits)

#### First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required)

Breadth Physical Science (BPS) course 3

Elective course 3

#### Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4

Breadth Humanities (BHU) course 3

### Sophomore Year (30 credits)

#### First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 3200 - Business Communication (CI) 3

Breadth Life Science (BLS) course 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ECN 3010 - Managerial Economics (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

Communication Intensive (CI) course 3

Dept Life and Physical Science (DSC) course 3

Elective course 3

Second Semester (15 credits)

FIN 4410 - Financial Institutions 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3

FIN Elective courses 3

Elective course 3

Senior Year (28-30 credits)

BUS 4250 is recommended during the Senior Year

First Semester (14-15 credits)

FIN 4460 - Investments 3

MGT 3500 - Fundamentals of Marketing 3

FIN Elective courses 3

Depth Humanities and Creative Arts (DHA) course 2-3

Elective course 3

Second Semester (14-15 credits)

FIN Elective courses 6

Elective courses 8-9

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Finance Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

A student from outside the Huntsman School of Business who desires to pursue a finance minor must recognize that there are several prerequisites to the required courses, which may themselves have prerequisites. As an alternative, students from outside the Huntsman School may want to consider the Huntsman School minor in Business.

#### Required Courses (9 credits)

FIN 3400 - Corporate Finance (QI) 3

FIN 4410 - Financial Institutions 3

FIN 4460 - Investments 3

#### Elective Course (6 credits)

Select two of the following courses to complete:

ECN 5600 - Financial Economics 3

FIN 4300 - International Finance 3

FIN 4420 - Insurance 3

FIN 4430 - Real Estate Finance 3

FIN 4450 - Advanced Corporate Finance 3

FIN 4480 - Derivatives Market 3

FIN 4490 - Hedge Funds and Private Equity 3

FIN 4495 - Investment Banking 3

FIN 5250 - Banking Regulation 3

FIN 5440 - Cases in Finance 3

Return to: Academic Departments and Programs

Financial Economics - MS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Economics and Finance

#### Introduction

The Master of Science in Financial Economics (MSFE) is designed as a terminal, professional degree in financial economics. The curriculum includes courses in the key areas of finance and the supporting areas of economics

and quantitative methods. It is intended to prepare students for a wide range of careers both within and outside the financial industry, including risk management, asset management, macroeconomic and financial forecasting, trading, and financial and economic research.

#### Why an MSFE at Utah State University?

The MSFE is offered by the Jon M. Huntsman School of Business through the Department of Economics and Finance. Based on the maxim, if you do not have a focus you do not have a strategy, the department has focused its faculty and related resources on financial economics and the supporting areas of quantitative analysis. The MSFE, therefore, is both unique and distinguished as a result of its disciplined focus on these areas of analysis.

Faculty: Since the fall of 2009 the department has hired ten new faculty members. Six of these individuals have extensive training in finance or financial-macroeconomics and are producing cutting-age research in these areas. The faculty includes three members with a CFA. It is unique to have so many members of a finance and economics faculty with professional credentials in addition to the more academic and research focused doctorate degree.

See

<http://www.huntsman.usu.edu/economicsandfinance/html/faculty-and-staff> for additional information about individual members of our faculty.

CFA: The MSFE curriculum is designed to help students pass the first CFA exam (i.e., Level I exam) at the end of their second semester in the program. The CFA is the most internationally recognized and credible credential for financial professionals and is earned by passing a series of analytically rigorous exams. The department has been providing competitive scholarships to undergraduate students to offset part of the cost of taking the exam. This scholarship program will be extended to MSFE students. Further, the department will make available study-guide material to help students prepare for the exam.

Bloomberg Terminals and Training: Bloomberg is synonymous with real-time financial information. Every major financial institution hosts Bloomberg terminals. Due to the expense, however, very few universities provide access to Bloomberg. The Department of Economics and Finance at the Huntsman School of Business is one of these select few. These terminals not

only support class-room instruction and faculty research, but provide a means for students to become certified in the use of Bloomberg – a skill that provides value to future employers on day one of your professional career.

**A Research Portfolio:** The MSFE program includes the requirement that each student complete a Plan B paper. It is a little unusual for a professional master's degree to require a Plan B paper. But we think it is important for students to demonstrate that they have the creativity, discipline, and analytical ability necessary to complete such a project. Students will receive guidance as they write their papers through a faculty committee formed specifically for this purpose. The ideal student will have passed the Level 1 CFA exam, be Bloomberg certified, and completed a Plan B paper by the time they enter the job market with their freshly minted master's in financial economics from the Huntsman School of Business.

**Opportunity to help manage real money:** Thanks to Zions Bank, MSFE students are provided the opportunity to manage an actual \$5.0 million fixed income portfolio. Students will make asset allocation, trading, risk management, and credit decisions over the two semesters of the program under the direction of a faculty member who is an experienced financial professional. This valuable experiential learning will help you apply what you learn and allow you to stand out in the marketplace.

### Admission Requirements

Admission to the MSFE program in the Department of Economics and Finance requires a minimum grade point average (GPA) of 3.0 (4.0 = A) for the last 60 semester credits earned prior to applying for the program. Educational requirements include bachelor's degree, courses in intermediate microeconomics and macroeconomics, econometrics or statistics, mathematical economics/calculus, and corporate finance. Students whose prior academic performance warrants admission but who have not taken some of these courses may be admitted provisionally. Such a student will be required to make up deficiencies by enrolling in appropriate courses prior to beginning the program. These preparatory courses are offered in the summer semester.

Either the GRE or the GMAT is required. GRE scores should be included with the application. Scores must be at or above the 50th percentile for the verbal portion of the examinations and above the 60th percentile for the

quantitative portion. A TOEFL score is also required of all students whose native language is not English. Application forms and more information about application requirements can be found online at <http://www.usu.edu/graduateschool/> or by phoning 435-797-1189.

### Program Requirements

As noted above, the program is structured as a Plan B master's degree. Therefore, a student must earn a minimum of 30 credits above a bachelor's degree. These credit requirements include 27 credit hours of course work (i.e., nine, three credit courses) and three thesis credits. It is anticipated that most students will complete the thesis credits (i.e., the Plan B paper) over the course of the summer semester following their fall entrance into the program.

The Typical Plan of Study (POS) is as follows:

#### FALL SEMESTER

APEC 7350 - Mathematical Economics I (taught two weeks prior to the beginning of the semester)

ECN 6600 - Advanced Financial Economics

ECN 7310 - Econometrics I

FIN 5300 - Fixed Income

FIN 6410 - Corporate Finance

#### SPRING SEMESTER

FIN 6320 - Computational Methods in Finance

FIN 6460 - Investment Analysis

FIN 6470 - Derivative Markets

Electives

#### SUMMER SEMESTER

ECN 6970 - Thesis Research

Based on a student's prior preparation, these courses may be waived by the Graduate Director. If one or more of these courses are waived, a student may fulfill the 30 credit hour requirement by taking one or more of the following courses:

FIN 5470 - Investing Practicum I

FIN 5475 - Investing Practicum II

## FIN 5800 - Financial Analysis

### Financial Assistance

Your completed application automatically places you in the pool for both assistantships and scholarships.

The Department of Economics and Finance offers a number of competitive graduate assistantships ranging from \$3,200 to \$9,000. Non-resident students are eligible to compete for a tuition waiver for the out-of-state portion of tuition. In addition, students have the opportunity to enroll in the university's health care program with Blue Cross/Blue Shield at a subsidized rate. A GRE score above the 80th percentile is generally required in order to be competitive for a departmental assistantship.

The Huntsman School of Business also offers several graduate scholarships. A GRE score above the 80th percentile on both the verbal and quantitative parts of the exam is generally required in order to be considered for these scholarships. You should apply by March 1 to be considered for a scholarship.

### Application Information

To apply, go to <http://www.usu.edu/graduateschool/> and clicking on Apply in the left column. From there you'll be able to navigate through the application process and find more information about the requirements for successfully completing the application. The general application deadline is June 30th. However, early application will increase your chance of receiving a departmental assistantship.

### For More Information

Tyler Bowles, Professor of Economics

Department of Economics and Finance

3565 Old Main Hill, Logan, Utah 84322-3565

Phone: 435-797-1310, email: [randy.simmons@usu.edu](mailto:randy.simmons@usu.edu)

Return to: Academic Departments and Programs

### Quantitative Finance Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

## Department of Economics and Finance

The following courses are required for the Quantitative Finance Minor. Students enrolled in majors within the Jon M. Huntsman School of Business may take many of these courses as part of the business core, as part of their major requirements, or as part of their electives. Also, other majors across campus include some of these courses within major requirements. Therefore, to complete the Quantitative Finance Minor, students need to complete only the courses listed below which they have not already completed for their major.

This minor is available to students enrolled in any major, including students majoring in finance and/or economics.

### Minor Requirements

ECN 4010 - Intermediate Microeconomics 3

ECN 4310 - Mathematical Methods in Economics and Finance I (QI) 3 or

MATH 5570 - Actuarial Math I 3

ECN 5310 - Mathematical Methods for Economics and Finance II (QI) 3 or

MATH 5580 - Actuarial Math II (CI) 3

ECN 5330 - Applied Econometrics (QI) 3 or

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

ECN 5600 - Financial Economics 3

FIN 3400 - Corporate Finance (QI) 3

FIN 4460 - Investments 3

MATH 1100 - Calculus Techniques (QL) 3 or

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Return to: Academic Departments and Programs

### Computer Engineering - BS

Return to: Academic Departments and Programs

College of Engineering

Department of Electrical and Computer Engineering

Effective for students beginning degree Summer Sem. 2015 thru Spring Sem. 2016

### Admission to the College of Engineering

In addition to the policies of the University concerning admission of students, the following regulations apply to the College of Engineering:

1. Transfer students from other colleges or universities will be referred to the Engineering Admission Committee for evaluation. Criteria considered in admission decisions for transfer students include resources available in the requested department and the transfer GPA, along with an evaluation of the program of the former college or university. Decisions concerning academic standing once the student is admitted to USU will be based solely on USU grades.
2. Students registered on campus (including Undeclared) must be approved by the Engineering Admission Committee before transferring to the College of Engineering. Students in this category must have demonstrated, by courses taken at USU, a potential to succeed in the major of their choice.
3. Admission requirements for students desiring to major in Electrical Engineering or Computer Engineering are the same as those governing admission to the College of Engineering, except that students must also be "calculus ready". That is, they must (1) achieve a score of 27 or higher on the Math ACT test; or (2) complete MATH 1050 and MATH 1060 or MATH 1210 with a grade of B or better; or (3) achieve an AP score of at least 3 on the AB Calculus or BC Calculus test.

### Pre-Engineering and Professional Engineering Requirements

Students interested in Engineering careers enter the University with a wide variety of educational backgrounds. Therefore, it is necessary for all students to demonstrate a satisfactory level of proficiency in basic engineering, mathematics, science, and English before they are admitted into a professional engineering program. Specific courses used to evaluate this proficiency are listed on the applications to the Professional Program available in the individual departments or in the Engineering Advising Center. The professional engineering programs consist of the last two years of study listed in the departmental sections of the General Catalog. Students will not be admitted into engineering classes numbered 3000 or higher until they

have been admitted into a professional engineering program. Applications listing the required pre-professional courses and admission standards are available from the various departments and the Engineering Advising Center. The minimum requirements a student must satisfy in order to be eligible to apply for admission to a professional program are:

1. The student must achieve a grade of C- or better in every required preprofessional course. The P/D+, D, F grading option may not be used except in freshman English composition.
2. The student must achieve an overall grade point average of 2.8 or better for all required pre-professional coursework completed at USU.
3. A student can repeat no more than three of the required pre-professional courses in order to satisfy the eligibility requirements. Multiple repeats of the same course are included in the total of three repeats. Audits count as a time taking a class unless prior written approval is obtained from the college academic advisor.

Satisfying minimum eligibility requirements does not ensure that a student will be admitted to a professional program in a specific department. The number of students accepted will be based upon the number of students that can be accommodated in upper-division classes. Applicants will be ranked and selected in order of their academic standing in the required pre-professional courses.

### The Program

The Computer Engineering program helps to prepare students for careers as practicing engineers by offering a balanced curriculum of classwork, laboratory work and design experiences. Coursework includes basic science (with an emphasis on physics), mathematics, computer programming, English, humanities and social sciences. Building upon this foundation, core engineering courses help provide students with a solid foundation in circuit analysis, design and analysis of electronic circuits and the design of digital circuits, computer systems, and networking. Throughout these engineering courses, an emphasis is placed on computer-based tools and experience is provided using modern laboratory equipment.

The major includes courses in senior design, in which students use the skills they are acquiring in the design,

analysis, and implementation of a significant project. The design process also includes a significant writing component, in which students exercise technical writing and project documentation skills. Students frequently work in teams on these projects, both within the department, as well as with teams of students from other engineering departments. Senior projects may be done with industry sponsorship, or in conjunction with an internship at a company.

Many students obtain experience and earn summer income by taking internships at engineering companies. Several companies actively recruit USU students. These internships provide excellent experience for students, as well as potential employer contacts.

The computer engineering degree builds upon the core engineering concepts by providing greater depth in programming, operating systems and computer architectures. These topics help prepare students for positions in computer-related work.

Students also have the flexibility to choose from among a wide variety of technical electives, covering such engineering areas as communications, electromagnetics, antenna design, computer architecture, controls, optics, microprocessor interfacing, real-time processing, electronics, and controls, as well as options in computer science, physics, mathematics, and other fundamental sciences.

In cooperation with other departments, all students are encouraged to complete one or more minors in mathematics, computer science, physics, or other appropriate fields of interest to the student.

### Computer Engineering Objectives and Outcomes

For purposes of program assessment and improvements, the following program educational objectives have been established by the department:

PEO1: Graduates will succeed in pursuing their chosen career path. The primary indicator of success is that graduates will establish a reputation among their peers for engineering expertise and sound ethical judgment. Other indicators of success include:

- (a) achieving professional advancement with increasing responsibility;
- (b) engaging in technology-based entrepreneurial activities;

(c) engaging in advanced study in engineering graduate programs or related areas.

PEO2: Graduates will engage in a continuous process of life-long learning. Evidence of such engagement includes activities such as:

- (d) staying abreast of emerging technologies;
- (e) obtaining new skills or developing proficiencies with tools and programming/hardware description languages;
- (f) actively participating in professional communities.

The educational outcomes of the Computer Engineering Program is to provide students with:

- (a) An ability to apply knowledge of mathematics, science and engineering
- (b) An ability to design and conduct experiments, as well as to analyze and interpret data
- (c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, health and safety, manufacturability, and sustainability
- (d) An ability to function on multidisciplinary teams
- (e) An ability to identify, formulate, and solve engineering problems.
- (f) An understanding of professional and ethical responsibility
- (g) An ability to communicate effectively
- (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, and societal context
- (i) A recognition of the need for, and an ability to engage in, lifelong learning
- (j) A knowledge of contemporary issues
- (k) An ability to use the techniques, skill, and modern engineering tools necessary for engineering practice

The computer engineering major is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### Career Opportunities

Electrical and computer engineers design, analyze, program, and supervise the production and manufacturing of electrical equipment, such as computers, computer peripherals, digital multimedia equipment, robotics, cell phones, radar, test equipment, and many other products used in modern society. They contribute in important ways to transportation industries (automotive and aeronautical), the computer industry, and national defense. Engineers are also employed in technical sales and support positions for business and scientific equipment. Many engineers work for private industry, or form their own companies. Others work for large corporations, such as Micron, IBM, Microsoft, Intel, Novell, Agilent, and Hewlett-Packard.

Engineering also forms a strong foundation for graduate studies in other areas, such as bioengineering, law, business, or (with additional courses in biology and chemistry) medicine. The job placement rate for students graduating from USU's computer engineering program is nearly 100 percent.

#### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, pre-calculus (including trigonometry), and calculus if possible. Four years of English and courses in computer programming, physics, and chemistry are also recommended. If the suggested pre-calculus mathematics courses are not taken in high school, they must be taken in college prior to starting calculus.

#### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314A.

#### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations.

#### Preprofessional Program

Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a pre-professional program who are not making satisfactory progress toward acceptance into a

professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a pre-professional program must still meet the entrance requirements for admission into a professional program.

#### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/ math/science courses required for, or used as technical electives in the chosen major. Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.
2. No more than 10 hours of D or D+ credit may be applied toward meeting graduation requirements in engineering/math/science classes.
3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior written approval is obtained from the department head. A maximum of three required or elective courses completed as part of a professional program can be repeated in order to meet graduation requirements. (Courses completed as part of a pre-professional program are not included in this total of three repeats.)
4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)
5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.
6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.
  - a. Students will be placed on probation if they (i) earn a an F in an engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree (see No.5 above); (ii) have more than 10

hours of D credit (see No. 2 above) or (iii) have an upper-division GPA of less than 2.0 (see No. 1 above).

b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes to reduce the number of D credits to 10 or less, and/or by raising their upper-division GPA above 2.0.

c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a pre-professional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements

PHYS 2220 will fulfill the Physical Science (BPS) requirement for students in the Computer Engineering major.

Since both MATH 1210 and MATH 1220 are required for the Computer Engineering major, one of the courses will fulfill the Quantitative Literacy requirement and the other will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

ENGL 3080 and ECE 4850 will fulfill the Communication Intensive (CI) requirement

MATH 2270 or MATH 2280 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the

College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

Pre-professional Program

Suggested Semester Schedule

Freshman Year (33 credits)

Fall Semester (17 credits)

CS 1400 - Introduction to Computer Science--CS 1 3 \*

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 1

MATH 1210 - Calculus I (QL) 4 \*

University Studies Breadth courses 9

Spring Semester (16 credits)

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3 \*

ECE 2700 - Digital Circuits 4 \*

MATH 1220 - Calculus II (QL) 4 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 \*

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 \*5

Sophomore Year (32 credits)

Fall Semester (17 credits)

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3 \*

ECE 2250 - Electrical Circuits 1 3 \*

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 \*

MATH 2270 - Linear Algebra (QI) 3 \*

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 \*

PHYS 2225 - Physics for Scientists and Engineers Lab II 1 \*5

## Spring Semester (15 credits)

CS 3100 - Operating Systems and Concurrency 3

ECE 2290 - Electrical Circuits 2 3 \*

MATH 2280 - Ordinary Differential Equations (QI) 3 \*

Math/Science Elective Course 3

University Studies Breadth Course 3

Professional Program

## Suggested Semester Schedule

Because of the variation in schedules, it is recommended that students meet with an advisor to work out a schedule for their junior and senior years. The following courses are required for students selecting the Professional Program in Computer Engineering.

## Junior Year (30 credits)

See note 2

## Fall Semester (16 credits)

ECE 3620 - Continuous-Time Systems and Signals 3

ECE 3710 - Microcontroller Hardware and Software 4

ECE 5720 - Computer Systems Programming and Architecture 3

MATH 3310 - Discrete Mathematics 3

University Studies Depth Social Sciences (DSS) Course 3

## Spring Semester (14 credits)

Coding Intensive Elective 3

ECE 3410 - Microelectronics I 4

ECE 3810 - Engineering Professionalism 1

ENGL 3080 - Introduction to Technical Communication (CI) 3 \*\*

MATH 5710 - Introduction to Probability 3 or

STAT 3000 - Statistics for Scientists (QI) 3

## Senior Year (31-32 credits)

## Fall Semester (17 credits)

ECE 4820 - Engineering Design I 1 \*\*\*

ECE 4830 - Engineering Communications I 1

ECE 5600 - Introduction to Computer Networks 3

Coding Intensive Elective 3

Core CMPE Elective 3

High-Level Technical Elective Course 3

University Studies Breadth Course 3

## Spring Semester (14-15 credits)

ECE 4840 - Engineering Design II (CI) 2

ECE 4850 - Engineering Communications II (CI) 1

Core CMPE Elective 3

High Level Tech Elective 3

High Level Tech Elective 3

University Studies Depth Humanities and Creative Arts (DHA) Course 2-3

Capstone Courses (select 3-4 credits)

1. Only select and declare a course as a capstone if you are committed to that topic for your senior project. Otherwise enroll in ECE 4820. You can always take one of the courses below unconnected to your senior project (not as a capstone).

2. Interdisciplinary teams are encouraged. Other members of your team don't have to be in the same capstone course, but they may work on different areas of the same project related to their capstone course.

3. The capstone professor will be there to guide you on what to do for your capstone, but there will be work outside of class to learn the technical details for your proposal.

4. All students who choose to use a capstone course other than ECE 4820 must complete a Capstone Course Declaration and turn it into the Advising Office at the beginning of the semester they take the capstone course.

ECE 4820 - Engineering Design I 1

ECE 5220 - Electro-optical Engineering 3

ECE 5230 - Spacecraft Systems Engineering 3

ECE 5240 - Space System Design 3

ECE 5600 - Introduction to Computer Networks 3

ECE 5630 - Digital Signal and Image Processing 3

ECE 5640 - Real-Time Processors 4

ECE 5680 - Transceiver Systems Engineering 3

ECE 5750 - Computer Architecture 3

ECE 5770 - Microcomputer Interfacing 4

ECE 5780 - Real-Time Systems 4

ECE 5810 - Microwaves I 3

ECE 5850 - Antennas I 3

High-Level Technical Elective Courses (select 21 credits)

Students must complete a total of at least 21 credits within high-level technical electives. Courses listed in this departmental section as Core Computer Engineering Electives, Coding Intensive Electives, or High Level Tech Electives may be used to fulfill this requirement.

Core Computer Engineering Electives (select 6 credits from Track 1, 2, or 3)

Track 1: System Design---General Purpose and Embedded System

ECE 5750 - Computer Architecture 3

ECE 5760 - Hardware and Embedded Systems Security 4

ECE 5780 - Real-Time Systems 4

Track 2: Digital VLSI

ECE 5460 - VLSI Design Automation 3

ECE 5470 - VLSI Design 3

ECE 5930 - Special Topics in Electrical and Computer Engineering 1-4

Track 3: Analog and Mixed-Signal VLSI

ECE 5420 - Microelectronics II 3

ECE 5440 - Analog VLSI I 3

Coding Intensive Electives related to Computer Engineering (select 6 credits)

CS 5300 - Compiler Construction 4

CS 5410 - Game Development 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

ECE 5460 - VLSI Design Automation 3

ECE 5640 - Real-Time Processors 4

ECE 5750 - Computer Architecture 3

ECE 5760 - Hardware and Embedded Systems Security 4

ECE 5780 - Real-Time Systems 4

High Level Technical Electives (select 9 credits)

CEE 4200 - Engineering Economics 2

CS 4700 - Programming Languages 3

CS 5000 - Theory of Computability 3

CS 5050 - Advanced Algorithms 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5450 - Multimedia Systems 4

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

ECE 3640 - Discrete-Time Systems and Signals 3

ECE 3870 - Electromagnetics I 4

Any 5000-level course in ECE

ECE 4250 - Internship/Co-op 3

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2030 - Engineering Mechanics Dynamics 3

ENGR 2140 - Strength of Materials 3

MAE 2160 - Material Science 3

MAE 2300 - Thermodynamics I 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5310 - Introduction to Modern Algebra 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application of Nonlinear Dynamical Systems 3

MATH 5510 - Introduction to Topology 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5720 - Introduction to Mathematical Statistics 3

MATH 5760 - Stochastic Processes 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Math and Science Electives (select 3 credits)

BIOL 1610 - Biology I 4

BIOL 2420 - Human Physiology 4

BIOL 3300 - General Microbiology 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

ENGR 2450 - Numerical Methods for Engineers 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 3110 - Modern Geometry 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

PHYS 2710 - Introductory Modern Physics 3

PHYS 3550 - Intermediate Classical Mechanics 3 3

PHYS 3600 - Electromagnetism I 3

PHYS 3700 - Thermal Physics 3 4

PHYS 3710 - Intermediate Modern Physics 3

PHYS 3750 - Foundations of Wave Phenomena 3

PHYS 4600 - Electromagnetism II 3

PHYS 4650 - Optics I 3

PHYS 4680 - Optics II 3

PHYS 4700 - Quantum Mechanics I 3

PHYS 4710 - Quantum Mechanics II 3

Note:

1 Students desiring a Computer Science minor must take CS 1405 as a freshman. With careful course selection, a CS minor can be built in.

2 Some of the junior classes can be delayed until the senior year, but this may limit a student's choice of electives during his or her senior year.

3 Students cannot receive credit for both Engineering Mechanics and Physics Mechanics.

4 Students cannot receive credit for both Engineering Thermodynamics and Physics Thermodynamics.

5 Students satisfying PHYS 2210 and/or PHYS 2220 with AP taken before Fall 2011 will not need PHYS 2215/PHYS 2225.

\*These classes are required for admission to the Professional Engineering Program (PEP). Courses are listed under the semesters in which they best fit.

\*\*ENGR 3080 must be taken before or concurrently with ECE 3810 .

\*\*\* ECE 4820 and a capstone course must be taken during the same semester if a capstone course is selected; otherwise ECE 4820 and ECE 4830 must be taken during the same semester. If a capstone course is

chosen, the one credit from ECE 4820 must be made up with an ECE elective.

### Electrical and Computer Engineering Minors

#### Minors

Students should have all minors approved by the minor department. Minors may be filled by using the Technical Electives credits for courses in the chosen minor area. All courses required for the minors must be completed with grades of C- or better.

#### Mathematics Minor

Required courses include MATH 1210, MATH 1220, MATH 2210, MATH 2270, MATH 2280 and two additional courses (6 credits) numbered above 4000, excluding MATH 4300, MATH 4400, MATH 4500, MATH 5570 and MATH 5580.

#### Physics Minor

PHYS 2210, PHYS 2215, PHYS 2220, and PHYS 2225, plus 10 credits selected from PHYS 2500, PHYS 2710, and/or PHYS courses at the 3000 level and above (not to include PHYS courses designated as USU Depth courses).

#### Computer Science Minor

A minimum of 16 credits (with a cumulative GPA of 2.5 or higher and a C- or better in each class) is required. Before beginning any minor, a student must meet with a Computer Science Department advisor and have an "Undergraduate Change of Matriculation Form" signed. Students must complete CS 1400, CS 1405, CS 1410, CS 2420 and two additional computer science classes from the following list: CS 2410, CS 2610, CS 3100, CS 3200, CS 3430, CS 3450, CS 4700, and any CS class numbered 5000 or above. Students should contact the Computer Science Department for information about classes that may not be used toward the Computer Science Minor ([http://catalog.usu.edu/preview\\_program.php?catoid=8&poid=4738&hl=%22CS%22](http://catalog.usu.edu/preview_program.php?catoid=8&poid=4738&hl=%22CS%22)).

#### Electrical Engineering Mentors

The following list of faculty interests is provided to help students select the appropriate faculty member to contact for career and elective selection counseling.

D. J. Baker, remote sensing, space science and engineering

R. Baktur, electromagnetics

S. E. Budge, image processing, signal processing

B. Cetiner, microwaves, electromagnetics

K. Chakraborty, electromagnetics

T. Chantem, real time and embedded systems

D. L. Cripps, control systems, electromagnetics

R. Davidson, space

R. Gerdes, cyber security

J. H. Gunther, digital communication, signal processing

H. S. Hinton, fiber optics

R.Q. Hu, wireless communications

T. K. Moon, digital signal processing, communications

Z. Pantic, power

S. Roy, VLSI design, VLSI optimization

R. Sharma, controls

C. M. Swenson, space systems

C. Winstead, analog VLSI

R. Zane, power

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### For Information Contact:

Electrical and Computer Engineering Department;  
Engineering Laboratory 149; Utah State University; 4120  
Old Main Hill; Logan UT 84322-4120; tel. (435) 797-  
2840; [info@ece.usu.edu](mailto:info@ece.usu.edu); [www.ece.usu.edu](http://www.ece.usu.edu)

#### Minimum University Requirements

#### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Computer Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Electrical and Computer Engineering

Master of Science (MS)

The MS degree requires substantial thesis or project work in a specific area and prepares students for advanced study or advanced work in that area. The MS degree has two options. Under Plan A, the student completes a thesis. Under Plan B, the student prepares an engineering project report.

If a student initially chooses an MS degree, changing to the ME degree is only possible by approval of the major professor, ECE graduate committee, and the department head.

The MS degree requires successful completion of 30 credits of 5000-level or above coursework in a program

approved by the student's supervisory committee, with the following stipulations:

Master of Science (Computer Engineering)

At least 12 credits (excluding thesis and ECE 6800 seminar) must be completed in Electrical or Computer Engineering.

At least two sequences in Electrical or Computer Engineering or Computer Science, with at least one of the sequences in core Computer Engineering courses, must be completed.

MS Plan A students must complete 6 credits of Thesis Research (ECE 6970).

MS Plan B students must complete 3 credits of Thesis Research (ECE 6970) and 3 credits of Design Project (ECE 6950).

No more than 15 credits of ECE 5000-level courses or CS 5000-level courses, or non-ECE/CS courses, or Independent Study courses may be applied toward the MS in Computer Engineering degree.

MS Students must have a thesis or project proposal approved by their committee when a project has been identified.

All MS Students

One credit of ECE 6800 (Electrical Engineering Colloquium) must be completed as soon as possible.

Each master's student must form a committee and have a program of study approved by the end of his or her first semester.

Any exceptions to the master's requirements must be approved by the student's committee and the ECE Graduate Committee.

A course in technical and professional writing, or equivalent writing experience, is required for MS students prior to beginning the thesis. This may be fulfilled as a requirement for a bachelor's degree. MS students may, at the discretion of their supervisors, be required to hire an editor to bring the thesis or paper into acceptable form.

Additional information on the MS in Computer Engineering is available on the ECE departmental website ([ece.usu.edu](http://ece.usu.edu)).

## Return to: Academic Departments and Programs

### Electrical Engineering - BS

## Return to: Academic Departments and Programs

### College of Engineering

#### Department of Electrical and Computer Engineering

Effective for students beginning degree Summer Sem. 2015 thru Spring Sem. 2016

#### Admission to the College of Engineering

In addition to the policies of the University concerning admission of students, the following regulations apply to the College of Engineering:

1. Transfer students from other colleges or universities will be referred to the Engineering Admission Committee for evaluation. Criteria considered in admission decisions for transfer students include resources available in the requested department and the transfer GPA, along with an evaluation of the program of the former college or university. Decisions concerning academic standing once the student is admitted to USU will be based solely on USU grades.
2. Students registered on campus (including Undeclared) must be approved by the Engineering Admission Committee before transferring to the College of Engineering. Students in this category must have demonstrated, by courses taken at USU, a potential to succeed in the major of their choice.
3. Admission requirements for students desiring to major in Electrical Engineering or Computer Engineering are the same as those governing admission to the College of Engineering, except that students must also be "calculus ready". That is, they must (1) achieve a score of 27 or higher on the Math ACT test; or (2) complete MATH 1050 and MATH 1060 or MATH 1210 with a grade of B or better; or (3) achieve an AP score of at least 3 on the AB Calculus or BC Calculus test.

#### Pre-Engineering and Professional Engineering Requirements

Students interested in Engineering careers enter the University with a wide variety of educational backgrounds. Therefore, it is necessary for all students to demonstrate a satisfactory level of proficiency in basic

engineering, mathematics, science, and English before they are admitted into a professional engineering program. Specific courses used to evaluate this proficiency are listed on the applications to the Professional Program available in the individual departments or in the Engineering Advising Center. The professional engineering programs consist of the last two years of study listed in the departmental sections of the General Catalog. Students will not be admitted into engineering classes numbered 3000 or higher until they have been admitted into a professional engineering program. Applications listing the required pre-professional courses and admission standards are available from the various departments and the Engineering Advising Center. The minimum requirements a student must satisfy in order to be eligible to apply for admission to a professional program are:

1. The student must achieve a grade of C- or better in every required preprofessional course. The P/D+, D, F grading option may not be used except in freshman English composition.
2. The student must achieve an overall grade point average of 2.8 or better for all required pre-professional coursework completed at USU.
3. A student can repeat no more than three of the required pre-professional courses in order to satisfy the eligibility requirements. Multiple repeats of the same course are included in the total of three repeats. Audits count as a time taking a class unless prior written approval is obtained from the college academic advisor.

Satisfying minimum eligibility requirements does not ensure that a student will be admitted to a professional program in a specific department. The number of students accepted will be based upon the number of students that can be accommodated in upper-division classes. Applicants will be ranked and selected in order of their academic standing in the required pre-professional courses.

#### The Program

The Electrical Engineering program helps to prepare students for careers as practicing engineers by offering a balanced curriculum of classwork, laboratory work and design experiences. Coursework covers basic science (with an emphasis on physics), mathematics, computer programming, English, humanities and social sciences. Building upon this foundation, core engineering courses

help provide students with a solid foundation in circuit analysis, design and analysis of electronic circuits and the design of digital circuits and microprocessor-based systems. Throughout these engineering courses, an emphasis is placed on computer-based tools and experience is provided using modern laboratory equipment.

The major includes courses in senior design, in which students use the skills they are acquiring in the design, analysis, and implementation of a significant project. The design process also includes a significant writing component, in which students exercise technical writing and project documentation skills. Students frequently work in teams on these projects, both within the department, as well as with teams of students from other engineering departments. Senior projects may be done with industry sponsorship, or in conjunction with an internship at a company.

Many students obtain experience and earn summer income by taking internships at engineering companies. Several companies actively recruit USU students. These internships provide excellent experience for students, as well as potential employer contacts.

The electrical engineering degree option builds upon the core engineering concepts by including electromagnetics, with elective options for controls, signal processing, electronics, communications, and systems design. These topics are important in most conventional engineering areas, including communications, transportation, and defense industries.

Students also have the flexibility to choose from among a wide variety of technical electives, covering such engineering areas as communications, electromagnetics, antenna design, computer architecture, controls, optics, microprocessor interfacing, real-time processing, electronics, and controls, as well as options in computer science, physics, mathematics, and other fundamental sciences.

In cooperation with other departments, all students are encouraged to complete one or more minors in mathematics, computer science, physics, or other appropriate fields of interest to the student.

### Electrical Engineering Objectives and Outcomes

For purposes of program assessment and improvements, the following program educational objectives have been established by the department:

PEO1: Graduates will succeed in pursuing their chosen career path. The primary indicator of success is that graduates will establish a reputation among their peers for engineering expertise and sound ethical judgment. Other indicators of success include:

- (a) achieving professional advancement with increasing responsibility;
- (b) engaging in technology-based entrepreneurial activities;
- (c) engaging in advanced study in engineering graduate programs or related areas.

PEO2: Graduates will engage in a continuous process of life-long learning. Evidence of such engagement includes activities such as:

- (d) staying abreast of emerging technologies;
- (e) obtaining new skills or developing proficiencies with tools and programming/hardware description languages;
- (f) actively participating in professional communities.

The educational outcomes of the Electrical Engineering Program is to provide students with:

- (a) An ability to apply knowledge of mathematics, science and engineering
- (b) An ability to design and conduct experiments, as well as to analyze and interpret data
- (c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, health and safety, manufacturability, and sustainability
- (d) An ability to function on multidisciplinary teams
- (e) An ability to identify, formulate, and solve engineering problems.
- (f) An understanding of professional and ethical responsibility
- (g) An ability to communicate effectively
- (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, and societal context
- (i) A recognition of the need for, and an ability to engage in, lifelong learning

(j) A knowledge of contemporary issues

(k) An ability to use the techniques, skill, and modern engineering tools necessary for engineering practice

The electrical engineering major is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### Career Opportunities

Electrical and computer engineers design, analyze, program, and supervise the production and manufacturing of electrical equipment, such as computers, computer peripherals, digital multimedia equipment, robotics, cell phones, radar, test equipment, and many other products used in modern society. They contribute in important ways to transportation industries (automotive and aeronautical), the computer industry, and national defense. Engineers are also employed in technical sales and support positions for business and scientific equipment. Many engineers work for private industry, or form their own companies. Others work for large corporations, such as Micron, IBM, Microsoft, Intel, Novell, Agilent, and Hewlett-Packard.

Engineering also forms a strong foundation for graduate studies in other areas, such as bioengineering, law, business, or (with additional courses in biology and chemistry) medicine. The job placement rate for students graduating from USU's electrical engineering program is nearly 100 percent.

### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, pre-calculus (including trigonometry), and calculus if possible. Four years of English and courses in computer programming, physics, and chemistry are also recommended. If the suggested pre-calculus mathematics courses are not taken in high school, they must be taken in college prior to starting calculus.

### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314A.

### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations.

### Preprofessional Program

Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a pre-professional program who are not making satisfactory progress toward acceptance into a professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a pre-professional program must still meet the entrance requirements for admission into a professional program.

### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/ math/science courses required for, or used as technical electives in the chosen major.

Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.

2. No more than 10 hours of D or D+ credit may be applied toward meeting graduation requirements in engineering/math/science classes.

3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior written approval is obtained from the department head. A maximum of three required or elective courses completed as part of a professional program can be repeated in order to meet graduation requirements. (Courses completed as part of a pre-professional program are not included in this total of three repeats.)

4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)

5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.

6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.

a. Students will be placed on probation if they (i) earn a an F in an engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree (see No.5 above); (ii) have more than 10 hours of D credit (see No. 2 above) or (iii) have an upper-division GPA of less than 2.0 (see No. 1 above).

b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes to reduce the number of D credits to 10 or less, and/or by raising their upper-division GPA above 2.0.

c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a pre-professional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements

PHYS 2220 will fulfill the Physical Science (BPS) requirement for students in the Electrical Engineering major.

Since both MATH 1210 and MATH 1220 are required for the Electrical Engineering major, one of the courses will fulfill the Quantitative Literacy requirement and the other will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

ENGL 3080 and ECE 4850 will fulfill the Communication Intensive (CI) requirement

MATH 2270 or MATH 2280 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

## Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

### Pre-professional Program

Suggested Semester Schedule (125-126 credits)

Freshman Year (32 credits)

Fall Semester (16 credits)

CS 1400 - Introduction to Computer Science--CS 1 3 \*

MATH 1210 - Calculus I (QL) 4 \*

University Studies Breadth courses 9

Spring Semester (16 credits)

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3 \*

ECE 2700 - Digital Circuits 4 \*

MATH 1220 - Calculus II (QL) 4 \*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 \*

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 \*4

Sophomore Year (32 credits)

Fall Semester (17 credits)

ECE 2250 - Electrical Circuits 1 3 \*

MATH 2210 - Multivariable Calculus (QI) 3 \*

MATH 2270 - Linear Algebra (QI) 3 \*

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4 \*

PHYS 2225 - Physics for Scientists and Engineers Lab II 1  
\*4

University Studies Breadth courses 3

Spring Semester (15 credits)

ECE 2290 - Electrical Circuits 2 3 \*

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3 \*

ENGR 2450 - Numerical Methods for Engineers 3 \*

MATH 2280 - Ordinary Differential Equations (QI) 3 \*

University Studies Breadth course 3

Professional Program

Because of the variations in schedules, it is recommended  
that students meet with an advisor to work out a  
schedule for their junior and senior years. The following  
courses are required for students selecting the  
Professional Program in Electrical Engineering.

Suggested Semester Schedule

Junior Year (30-31 credits)

See note 1

Fall Semester (16-17 credits)

ECE 3620 - Continuous-Time Systems and Signals 3

ECE 3710 - Microcontroller Hardware and Software 4

ECE 3810 - Engineering Professionalism 1 \*\*

ENGL 3080 - Introduction to Technical Communication  
(CI) 3 \*\*

MATH 5710 - Introduction to Probability 3

University Studies Depth Humanities and Creative Arts  
(DHA) course 2-3

Spring Semester (14 credits)

ECE 3410 - Microelectronics I 4

ECE 3640 - Discrete-Time Systems and Signals 3

ECE 3870 - Electromagnetics I 4

Depth Social Science 3

Senior Year (31 credits)

Fall Semester (16 credits)

ECE 4820 - Engineering Design I 1 \*\*\*

ECE 4830 - Engineering Communications I 1

ECE Elective courses 12

Technical Elective course 2

Spring Semester (15 credits)

ECE 4840 - Engineering Design II (CI) 2 2

ECE 4850 - Engineering Communications II (CI) 1

ECE elective courses 9

Math/Science elective course 3

Capstone Courses (select 3-4 credits)

1. Only select and declare a course as a capstone if you  
are committed to that topic for your senior project.  
Otherwise enroll in ECE 4820. You can always take one  
of the courses below unconnected to your senior project  
(not as a capstone).

2. Interdisciplinary teams are encouraged. Other  
members of your team don't have to be in the same  
capstone course, but they may work on different areas of  
the same project related to their capstone course.

3. The capstone professor will be there to guide you on  
what to do for your capstone, but there will be work  
outside of class to learn the technical details for your  
proposal.

ECE 4820 - Engineering Design I 1 \*\*\*

ECE 5220 - Electro-optical Engineering 3

ECE 5230 - Spacecraft Systems Engineering 3

ECE 5240 - Space System Design 3

ECE 5600 - Introduction to Computer Networks 3

ECE 5630 - Digital Signal and Image Processing 3

ECE 5640 - Real-Time Processors 4

ECE 5680 - Transceiver Systems Engineering 3

ECE 5750 - Computer Architecture 3

ECE 5770 - Microcomputer Interfacing 4

ECE 5780 - Real-Time Systems 4

ECE 5810 - Microwaves I 3

ECE 5850 - Antennas I 3

Technical Elective Courses (select 28 or more credits)

Electrical Engineering Electives (select 21-25 credits)

Note:

Also, any ECE 5000-level course (including ECE 5930 when topic relates to electrical engineering) may be counted as an Electrical Engineering Elective.

Math and Science Electives (select 3-7 credits)

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5310 - Introduction to Modern Algebra 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application of Nonlinear Dynamical Systems 3

MATH 5510 - Introduction to Topology 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5720 - Introduction to Mathematical Statistics 3

MATH 5760 - Stochastic Processes 3

AP Biology 3

BIOL 1610 - Biology I 4

BIOL 2420 - Human Physiology 4

BIOL 3300 - General Microbiology 4

AP Chemistry 8

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 2310 - Organic Chemistry I 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

PHYS 2710 - Introductory Modern Physics 3

PHYS 3550 - Intermediate Classical Mechanics 3 2

PHYS 3600 - Electromagnetism I 3

PHYS 3700 - Thermal Physics 3 3

PHYS 3710 - Intermediate Modern Physics 3

PHYS 3750 - Foundations of Wave Phenomena 3

PHYS 4600 - Electromagnetism II 3

PHYS 4650 - Optics I 3

PHYS 4680 - Optics II 3

PHYS 4700 - Quantum Mechanics I 3

PHYS 4710 - Quantum Mechanics II 3

PHYS 5700 - Introduction to Microfabrication 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Technical Electives (select 0-4 credits)

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

CS 3100 - Operating Systems and Concurrency 3

CS 3450 - Introduction to Software Engineering (CI) 3

CS 4700 - Programming Languages 3

CS 5000 - Theory of Computability 3

CS 5050 - Advanced Algorithms 3

CS 5100 - Graphical User Interfaces and Windows Programming 4

CS 5200 - Distributed and Network Programming 4

CS 5300 - Compiler Construction 4

CS 5400 - Computer Graphics I 4

CS 5450 - Multimedia Systems 4

CS 5500 - Parallel Programming 3

CS 5600 - Intelligent Systems 4

CS 5650 - CVPRIP I: Computer Vision, Pattern Recognition, and Image Processing 3

CS 5700 - Object-Oriented Software Development 3

CS 5800 - Introduction to Database Systems 3

CS 5850 - Systems Analysis 3

CEE 4200 - Engineering Economics 2

ECE 4250 - Internship/Co-op 3

ENGR 2010 - Engineering Mechanics Statics 3 2

ENGR 2030 - Engineering Mechanics Dynamics 3

ENGR 2140 - Strength of Materials 3

MAE 2160 - Material Science 3

MAE 2300 - Thermodynamics I 3 3

Note:

1 Some of the junior classes can be delayed until the senior year, but this may limit a student's choice of electives during his or her senior year.

2 Students cannot receive credit for both Engineering Mechanics and Analytical Mechanics.

3 Students cannot receive credit for both Engineering Thermodynamics and Thermal Physics.

4 Students satisfying PHYS 2210 and /or PHYS 2220 with AP taken before Fall 2011 will not need PHYS 2215/PHYS 2225.

\*These classes are required for admission to the Professional Engineering Program (PEP). Courses are listed under the semesters in which they best fit.

\*\*ENGR 3080 must be taken before or concurrently with ECE 3810.

\*\*\* ECE 4820 and a capstone course must be taken during the same semester if a capstone course is selected; otherwise ECE 4820 and ECE 4830 must be taken during the same semester. If a capstone course is chosen, the one credit from ECE 4820 must be made up with an ECE elective.

Electrical and Computer Engineering Minors

Minors

Students should have all minors approved by the minor department. Minors may be filled by using the Technical Electives credits for courses in the chosen minor area. All courses required for the minors must be completed with grades of C- or better.

Mathematics Minor

Required courses include MATH 1210, MATH 1220, MATH 2210, MATH 2270, MATH 2280 and two additional courses (6 credits) numbered above 4000, excluding MATH 4300, MATH 4400, MATH 4500, MATH 5570 and MATH 5580.

Physics Minor

PHYS 2210, PHYS 2215, PHYS 2220, and PHYS 2225, plus 10 credits selected from PHYS 2500, PHYS 2710, and/or PHYS courses at the 3000 level and above (not to include PHYS courses designated as USU Depth courses).

Computer Science Minor

A minimum of 16 credits (with a cumulative GPA of 2.5 or higher and a C- or better in each class) is required. Before beginning any minor, a student must meet with a Computer Science Department advisor and have an "Undergraduate Change of Matriculation Form" signed. Students must complete CS 1400, CS 1405, CS 1410, CS 2420 and two additional computer science classes from the following list: CS 2410, CS 2610, CS 3100, CS 3200, CS 3430, CS 3450, CS 4700, and any CS class numbered 5000 or above. Students should contact the Computer Science Department for information about classes that may not be used toward the Computer Science Minor ([http://catalog.usu.edu/preview\\_program.php?catoid=8&poid=4738&hl=%22CS%22](http://catalog.usu.edu/preview_program.php?catoid=8&poid=4738&hl=%22CS%22)).

Electrical Engineering Mentors

The following list of faculty interests is provided to help students select the appropriate faculty member to contact for career and elective selection counseling.

D. J. Baker, remote sensing, space science and engineering

R. Baktur, electromagnetics

S. E. Budge, image processing, signal processing

B. Cetiner, microwaves, electromagnetics

K. Chakraborty, electromagnetics

T. Chantem, real time and embedded systems

D. L. Cripps, control systems, electromagnetics

R. Davidson, space

R. Gerdes, cyber security

J. H. Gunther, digital communication, signal processing

H. S. Hinton, fiber optics

R.Q. Hu, wireless communications

T. K. Moon, digital signal processing, communications

Z. Pantic, power

S. Roy, VLSI design, VLSI optimization

R. Sharma, controls

C. M. Swenson, space systems

C. Winstead, analog VLSI

R. Zane, power

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

For Information Contact:

Electrical and Computer Engineering Department;  
Engineering Laboratory 149; Utah State University; 4120  
Old Main Hill; Logan UT 84322-4120; tel. (435) 797-  
2840; info@ece.usu.edu; www.ece.usu.edu

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Electrical Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Electrical and Computer Engineering

Master of Engineering (ME)

The ME degree is based on coursework and is designed to give graduates a strong practical foundation.

If a student initially chooses an MS degree, changing to the ME degree is only possible by approval of the major professor, ECE graduate committee, and the department head.

The ME degree requires successful completion of 30 credits of 5000-level or above coursework in a program approved by the student's supervisory committee, with the following stipulations:

#### Master of Science (Electrical Engineering)

At least 3 credits of ECE coursework must be completed at the 7000 level.

At least 12 credits of ECE coursework (excluding thesis and ECE 6800 seminar) must be completed at or above the 6000 level.

MS Plan A students must complete 6 credits of Thesis Research (ECE 6970).

MS Plan B students must complete 3 credits of Thesis Research (ECE 6970) and 3 credits of Design Project (ECE 6950).

No more than 15 credits of ECE 5000-level courses, Independent Study courses, or non-ECE courses may be applied toward the MS in Electrical Engineering degree.

MS students must have a one- to two-page, double-spaced thesis or project proposal approved by their committee when a project has been identified.

#### All ME Students

One credit of ECE 6800 (Electrical Engineering Colloquium) must be completed as soon as possible.

Each master's student must form a committee and have a program of study approved by the end of his or her first semester.

Any exceptions to the master's requirements must be approved by the student's committee and the ECE Graduate Committee.

Additional information on the ME in Electrical Engineering or Computer Engineering is available on the ECE departmental website ([ece.usu.edu](http://ece.usu.edu)).

Return to: Academic Departments and Programs

Electrical Engineering - PhD

Return to: Academic Departments and Programs

College of Engineering

#### Department of Electrical and Computer Engineering

To qualify for a PhD degree, a student is expected either to complete at least 42 credits of coursework beyond the requirements for a BS degree; or to complete at least 18 credits of coursework beyond the requirements for an MS degree, plus complete enough credits of dissertation research to have a total of 72 credits beyond the BS degree or 42 credits beyond the MS degree. Completion of this coursework generally requires six semesters of study beyond the BS degree and three semesters beyond the MS degree. Eighteen credits beyond the BS degree and nine credits beyond the MS degree may be taken in courses outside the Electrical and Computer Engineering Department.

After a student has completed at least 42 credits of coursework beyond the BS degree, or at least 18 credits of coursework beyond the MS degree, he or she must pass a comprehensive examination, as well as pass a dissertation research proposal defense. The comprehensive examination will be given only after a student has applied and received permission to take the exam. Near the end of the program, the results of the original (publishable) research work will be presented and publicly defended as a dissertation.

Additional information on the ME in Electrical Engineering or Computer Engineering is available on the ECE departmental website ([ece.usu.edu](http://ece.usu.edu)).

Return to: Academic Departments and Programs

Engineering - ME (Electrical Engineering or Computer Engineering Specialization)

Return to: Academic Departments and Programs

College of Engineering

Department of Electrical and Computer Engineering

Master of Engineering (ME)

The ME degree is based on coursework and is designed to give graduates a strong practical foundation.

If a student initially chooses an MS degree, changing to the ME degree is only possible by approval of the major professor, ECE graduate committee, and the department head.

The ME degree requires successful completion of 30 credits of 5000-level or above coursework in a program approved by the student's supervisory committee, with the following stipulations:

Master of Engineering (Electrical Engineering or Computer Engineering Specialization)

To obtain the specialization in Electrical Engineering or Computer Engineering, at least 9 credits of ECE coursework must be taken in the desired specialization area.

At least 18 credits of ECE coursework must be completed at or above the 5000 level.

At least one ECE depth course (having a graduate-level prerequisite) is required.

At least 15 credits of 6000-level or above coursework (excluding ECE 6800) are required.

No more than 15 credits of ECE 5000-level or Independent Study courses may be applied toward the ME degree.

At least 3 credits of Professional Experience (ECE 6250 Internship or a lab-intensive course) are required. Only 3 credits of ECE 6250 Internship are allowed and must have prior approval.

A maximum of 12 credits outside of the Electrical and Computer Engineering Department may be allowed, based upon a comprehensive academic plan. Courses must be approved by the Master of Engineering advisor.

All ME Students

One credit of ECE 6800 (Electrical Engineering Colloquium) must be completed as soon as possible.

Each master's student must form a committee and have a program of study approved by the end of his or her first semester.

Any exceptions to the master's requirements must be approved by the student's committee and the ECE Graduate Committee.

Additional information on the ME in Electrical Engineering or Computer Engineering is available on the ECE departmental website ([ece.usu.edu](http://ece.usu.edu)).

Dual ME/MBA Program

A two-year ME/MBA program is also offered for engineers who would like to add to their technical knowledge as well as develop business skills. Upon completion of the six-semester program, each student will have earned a Master of Engineering (ME) degree as well as a Master of Business Administration (MBA). Application deadline for the program will be January 1st for the following fall semester. Students will first apply to the ME program. If accepted, students will advance to the MBA program at the end of the ME program year.

Return to: Academic Departments and Programs

Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Electrical and Computer Engineering

Master of Science (MS)

The MS degree requires substantial thesis or project work in a specific area and prepares students for advanced study or advanced work in that area. The MS degree has two options. Under Plan A, the student completes a thesis. Under Plan B, the student prepares an engineering project report.

If a student initially chooses an MS degree, changing to the ME degree is only possible by approval of the major professor, ECE graduate committee, and the department head.

The MS degree requires successful completion of 30 credits of 5000-level or above coursework in a program approved by the student's supervisory committee, with the following stipulations:

Master of Science (Electrical Engineering)

At least 3 credits of ECE coursework must be completed at the 7000 level.

At least 12 credits of ECE coursework (excluding thesis and ECE 6800 seminar) must be completed at or above the 6000 level.

MS Plan A students must complete 6 credits of Thesis Research (ECE 6970).

MS Plan B students must complete 3 credits of Thesis Research (ECE 6970) and 3 credits of Design Project (ECE 6950).

No more than 15 credits of ECE 5000-level courses, Independent Study courses, or non-ECE courses may be applied toward the MS in Electrical Engineering degree.

MS students must have a thesis or project proposal approved by their committee when a project has been identified.

All MS Students

One credit of ECE 6800 (Electrical Engineering Colloquium) must be completed as soon as possible.

Each master's student must form a committee and have a program of study approved by the end of his or her first semester.

Any exceptions to the master's requirements must be approved by the student's committee and the ECE Graduate Committee.

A course in technical and professional writing, or equivalent writing experience, is required for MS students prior to beginning the thesis. This may be fulfilled as a requirement for a bachelor's degree. MS students may, at the discretion of their supervisors, be required to hire an editor to bring the thesis or paper into acceptable form.

Additional information on the MS in Electrical Engineering is available on the ECE departmental website ([ece.usu.edu](http://ece.usu.edu)).

Return to: Academic Departments and Programs

Engineering Education - PhD

Return to: Academic Departments and Programs

College of Engineering

Department of Engineering Education

This degree is the culmination of a multi-year initiative to refocus the department and develop a new emphasis in engineering education. This new focus was supported by a ten million dollar grant from the National Science Foundation to establish the National Center for Engineering and Technology Education at Utah State.

Because the new emphasis in engineering education within the department is sufficiently different than the technology education program, a new doctoral degree with a very different set of requirements is warranted.

This program will produce graduates who:

Are familiar with the theory and practice of engineering education and are adept at these aspects within their specific area of engineering specialization.

Have the ability to conduct research in engineering education in areas such as engineering epistemologies, engineering learning mechanisms, engineering learning systems, engineering diversity and inclusiveness, and engineering assessment.

Have the ability to develop/implement/assess engineering curricula at both the high school and university levels.

Return to: Academic Departments and Programs

American Studies - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

Students must complete the General Education requirements

Students must also complete the University Studies requirements

ENGL 5690 or HIST 5690 (required Capstone Course), plus another course having CI designation, will fulfill the Communications Intensive requirement

For most students, a course taken for the major will fulfill the Quantitative Intensive requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### American Studies Major and Minor

Many key issues tied to the roots, development, and expression of American culture transcend the boundaries of traditional subject areas and are best explored from a variety of perspectives or disciplines. The American Studies major and minor provide students with the opportunity to integrate studies in various fields into a broader understanding of American culture and its antecedents. Although housed in the Department of English, the American Studies Program permits students to choose relevant courses for their cognate areas from a variety of participating departments throughout the University.

For admission and graduation, students must have and maintain a minimum grade point average of 2.75. All courses used to fulfill either the major or minor requirements must be taken on an A-B-C-D-F basis, and major or minor courses passed with less than a C grade must be repeated. However, up to 3 credits of internship credit, which is recorded as P/F, may be used to partially fulfill the major requirements. Transfer students are required to take at least 15 credits of major subject courses and 10 credits of minor subject courses in residence at USU.

#### American Studies BS/BA

Minimum GPA for Admission: 2.50, major; 2.50, USU; 2.50, Career

Minimum GPA for Graduation: 2.50, major courses; 2.0, USU; 2.0, Career

Minimum Grade Accepted: C in major courses

To obtain a degree in American Studies, students must complete a total of 39 credits for major and 18 credits in a required minor. These include 9 credits of English department Core/Explore courses, 12 credits of core requirements that introduce foundations of American literature, region, and culture; 12 credits chosen from the 3000 or 4000 level that expose students to the diversity of American culture; and 6 credits of upper-division work (3000 or 4000 level) that allow students to approach American literature, history, and culture through various genres, historical periods and regions.

The American Studies final course, a senior capstone, encourages graduating students to reflect on their overall coursework, synthesizing the perspectives they have gained about American culture in an extended research project reflecting their interdisciplinary academic experience.

In addition to completing the required English and history classes, students must complete a required minor or equivalent (minimum of 18 hours).

Students cannot use the same class to meet more than one requirement in American Studies major.

#### Credits in Residence

Students must complete 21 credits of major-applicable coursework at Utah State University.

#### Course Requirements

## A. Required Exploratory Core Courses (9 credits)

### 1. Literature (3 credits)

Select one course from the list of Literary History courses:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

### 2. Culture (3 credits)

Select one course from the list:

ENGL 2210 - Introduction to Folklore (BHU) 3

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 2210 - Introduction to Folklore (BHU) 3

ENGL 2630 - Survey of American Culture (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ANTH 2720 - Survey of American Folklore 3

HIST 2720 - Survey of American Folklore 3

ENGL 3070 - Perspectives in Folklore (DHA) 3

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3620 - Native American Studies 3

ENGL 3700 - Regional Folklore (CI) 3

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3

HIST 3710 - Folklore Colloquium (CI) 3

RELS 3710 - Folklore Colloquium (CI) 3

### 3. Writing (3 credits)

Select one course from the list:

ENGL 3400 - Professional Writing (CI) 3

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

## B. American Studies Degree Emphasis

### 1. Foundations Requirements (12 credits)

Choose four courses from the following (student choices must cover all three disciplines, i.e., Literature, History, and Folklore):

English:

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

History

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Folklore

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3 or

HIST 3710 - Folklore Colloquium (CI) 3 or

RELS 3710 - Folklore Colloquium (CI) 3

ENGL 4700 - Folk Material Culture 3 or

HIST 4700 - Folk Material Culture 3

ENGL 4750 - Advanced Folklore Workshop: Fife Conference 3 or

HIST 4750 - Advanced Folklore Workshop: Fife Conference 3

ENGL 5700 - Folk Narrative 3 or

HIST 5700 - Folk Narrative 3 or

ANTH 5700 - Folk Narrative 3

## 2. Midlevel Requirements (12 credits)

Choose four additional courses in English and History Departments. Choices must include both History and English or Folklore.

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3 or

HIST 3710 - Folklore Colloquium (CI) 3 or

RELS 3710 - Folklore Colloquium (CI) 3

ENGL 4310 - American Writers 3

ENGL 4340 - Studies in Prose 3 1

ENGL 4350 - Studies in Poetry 3 1

ENGL 4360 - Studies in Drama/Film 3 1

ENGL 4700 - Folk Material Culture 3 or

HIST 4700 - Folk Material Culture 3

ENGL 4750 - Advanced Folklore Workshop: Fife Conference 3 or

HIST 4750 - Advanced Folklore Workshop: Fife Conference 3

ENGL 5300 - Special Topics in Literary Studies (CI) 3 1

ENGL 5700 - Folk Narrative 3 or

ANTH 5700 - Folk Narrative 3 or

HIST 5700 - Folk Narrative 3

HIST 3670 - Slavery in the Atlantic World (CI) 3

HIST 3720 - Colonial America 3

HIST 3730 - The New American Nation 3

HIST 3740 - United States in the Age of Jefferson and Jackson 3

HIST 3750 - Civil War and Reconstruction 3

HIST 3760 - The United States, 1900-1945 (DHA/CI) 3

HIST 3770 - Contemporary America, 1945-Present 3

HIST 3840 - Twentieth Century American West 3

HIST 3850 - History of Utah (DHA/CI) 3

HIST 3950 - Environmental History (DHA/CI) 3

HIST 4550 - Women and Gender in America (DHA/CI) 3 or

WGS 4550 - Women and Gender in America (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

HIST 4630 - The History of Mexican Americans 3

HIST 4710 - American Indian History 3

HIST 4720 - The Civil Rights Movement (DHA/CI) 3

HIST 4730 - History of Black America (CI) 3

HIST 4810 - American Military History 3

Note:

1 Topics must be American

## 3. Upper Level Requirements (6 credits)

Regional Course (choose one):

ENGL 3630 - The Farm in Literature and Culture (CI/DHA) 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 4610 - Western American Literature 3

ENGL 4640 - Studies in the American West (CI) 3 or

HIST 4640 - Studies in the American West (CI) 3

Capstone Seminar (required for all majors):

ENGL 5690 - American Studies Capstone Seminar (CI) 3 or

HIST 5690 - American Studies Capstone Seminar (CI) 3

Note:

Courses cannot be double-counted. For instance, a student may use ENGL 3700 or HIST 3700 to fulfill only one of the following requirements: the culture component of the exploratory core courses, the American Studies foundational folklore requirement, the American Studies Midlevel requirement, the American Studies Regional Course requirement, or a folklore minor.

4. Required Minor or Equivalent (minimum of 18 credit hours above major requirements):

Students will choose a minor in fields already offering minors, such as Folklore, Sociology, Anthropology, Political Science, Environmental Studies, Geography, Ethnic Studies, Asian Studies, British and Commonwealth Studies, Latin American Studies, or Women and Gender Studies.

Or, by petition, a student may focus in one of the fields that do not offer minors, such as Creative Writing, Philosophy, Technical and Professional Writing (suggested course of study available), Fine Arts (Music History and/or Art History). In this case, however, students will do the work of a minor but a minor will not be listed on their diplomas.

American Studies Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirement courses 9

University QL General Education Requirement 3

Second Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

History Foundation course 3

Folk Foundation course 3

Sophomore Year (30 credits)

First Semester (15 credits)

University Breadth General Education Requirements 6

English Core Writing Exploration course 3

English Core Literature Exploration course 3

Elective course 3

Second Semester (15 credits)

English Core Cultural Exploration course 3

English Literature Foundation course 3

Additonal Foundation course 3

Required Minor course 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

English Midlevel Literature/Folklore course 3

History Midlevel course 3

Required Minor course 3

University QI Graduation Requirement 3

Elective course 3

Second Semester (15 credits)	See college advisor
Additional Midlevel courses 6	Credits in minor (if required)
Required Minor course 3	12
University CI Graduation Requirement 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Elective course 3	
Senior Year (30 credits)	3
First Semester (15 credits)	General Education Requirements and University Studies Depth Requirements
Upper Level Regional course 3	
Required Minor course 3	Return to: Academic Departments and Programs
University CI Graduation Requirement 3	
University DSS Graduation Requirement 3	American Studies - BS
Elective course 3	Return to: Academic Departments and Programs
Second Semester (15 credits)	College of Humanities and Social Sciences
ENGL 5690 - American Studies Capstone Seminar (CI) 3	Department of English
Required Minor Upper Division courses 6	Students must complete the General Education requirements
University DSC Graduation Requirement 3	Students must also complete the University Studies requirements
Elective course 3	
Minimum University Requirements	ENGL 5690 or HIST 5690 (required Capstone Course), plus another course having CI designation, will fulfill the Communications Intensive requirement
Total Credits	
120	For most students, a course taken for the major will fulfill the Quantitative Intensive requirement
Grade Point Average (most majors require higher GPA)	
2.00 GPA	Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)
Credits of C- or better	
100	American Studies Major and Minor
Credits of upper-division courses (#3000 or above)	
40	Many key issues tied to the roots, development, and expression of American culture transcend the boundaries of traditional subject areas and are best explored from a variety of perspectives or disciplines. The American Studies major and minor provide students with the opportunity to integrate studies in various fields into a broader understanding of American culture and its antecedents. Although housed in the Department of English, the American Studies Program permits students
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	
30 USU credits	
Completion of approved major program of study	

to choose relevant courses for their cognate areas from a variety of participating departments throughout the University.

For admission and graduation, students must have and maintain a minimum grade point average of 2.75. All courses used to fulfill either the major or minor requirements must be taken on an A-B-C-D-F basis, and major or minor courses passed with less than a C grade must be repeated. However, up to 3 credits of internship credit, which is recorded as P/F, may be used to partially fulfill the major requirements. Transfer students are required to take at least 15 credits of major subject courses and 10 credits of minor subject courses in residence at USU.

#### American Studies BS/BA

Minimum GPA for Admission: 2.50, major; 2.50, USU; 2.50, Career

Minimum GPA for Graduation: 2.50, major courses; 2.0, USU; 2.0, Career

Minimum Grade Accepted: C in major courses

To obtain a degree in American Studies, students must complete a total of 39 credits for major and 18 credits in a required minor. These include 9 credits of English department Core/Explore courses, 12 credits of core requirements that introduce foundations of American literature, region, and culture; 12 credits chosen from the 3000 or 4000 level that expose students to the diversity of American culture; and 6 credits of upper-division work (3000 or 4000 level) that allow students to approach American literature, history, and culture through various genres, historical periods and regions.

The American Studies final course, a senior capstone, encourages graduating students to reflect on their overall coursework, synthesizing the perspectives they have gained about American culture in an extended research project reflecting their interdisciplinary academic experience.

In addition to completing the required English and history classes, students must complete a required minor or equivalent (minimum of 18 hours).

Students cannot use the same class to meet more than one requirement in American Studies major.

#### Credits in Residence

Students must complete 21 credits of major-applicable coursework at Utah State University.

#### Course Requirements

##### A. Required Exploratory Core Courses (9 credits)

##### 1. Literature (3 credits)

Select one course from the list of Literary History courses:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

##### 2. Culture (3 credits)

Select one course from the list:

ENGL 2210 - Introduction to Folklore (BHU) 3

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 2210 - Introduction to Folklore (BHU) 3

ENGL 2630 - Survey of American Culture (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ANTH 2720 - Survey of American Folklore 3

HIST 2720 - Survey of American Folklore 3

ENGL 3070 - Perspectives in Folklore (DHA) 3

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3620 - Native American Studies 3

ENGL 3700 - Regional Folklore (CI) 3

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3

HIST 3710 - Folklore Colloquium (CI) 3

RELS 3710 - Folklore Colloquium (CI) 3

### 3. Writing (3 credits)

Select one course from the list:

ENGL 3400 - Professional Writing (CI) 3

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

### B. American Studies Degree Emphasis

#### 1. Foundations Requirements (12 credits)

Choose four courses from the following (student choices must cover all three disciplines, i.e., Literature, History, and Folklore):

English:

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

History

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Folklore

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3 or

HIST 3710 - Folklore Colloquium (CI) 3 or

RELS 3710 - Folklore Colloquium (CI) 3

ENGL 4700 - Folk Material Culture 3 or

HIST 4700 - Folk Material Culture 3

ENGL 4750 - Advanced Folklore Workshop: Fife Conference 3 or

HIST 4750 - Advanced Folklore Workshop: Fife Conference 3

ENGL 5700 - Folk Narrative 3 or

HIST 5700 - Folk Narrative 3 or

ANTH 5700 - Folk Narrative 3

#### 2. Midlevel Requirements (12 credits)

Choose four additional courses in English and History Departments. Choices must include both History and English or Folklore.

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3 or

HIST 3710 - Folklore Colloquium (CI) 3 or

RELS 3710 - Folklore Colloquium (CI) 3

ENGL 4310 - American Writers 3

ENGL 4340 - Studies in Prose 3 1

ENGL 4350 - Studies in Poetry 3 1

ENGL 4360 - Studies in Drama/Film 3 1

ENGL 4700 - Folk Material Culture 3 or

HIST 4700 - Folk Material Culture 3

ENGL 4750 - Advanced Folklore Workshop: Fife Conference 3 or

HIST 4750 - Advanced Folklore Workshop: Fife Conference 3

ENGL 5300 - Special Topics in Literary Studies (CI) 3 1

ENGL 5700 - Folk Narrative 3 or

ANTH 5700 - Folk Narrative 3 or

HIST 5700 - Folk Narrative 3

HIST 3670 - Slavery in the Atlantic World (CI) 3

HIST 3720 - Colonial America 3

HIST 3730 - The New American Nation 3

HIST 3740 - United States in the Age of Jefferson and Jackson 3

HIST 3750 - Civil War and Reconstruction 3

HIST 3760 - The United States, 1900-1945 (DHA/CI) 3

HIST 3770 - Contemporary America, 1945-Present 3

HIST 3840 - Twentieth Century American West 3

HIST 3850 - History of Utah (DHA/CI) 3

HIST 3950 - Environmental History (DHA/CI) 3

HIST 4550 - Women and Gender in America (DHA/CI) 3 or

WGS 4550 - Women and Gender in America (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

HIST 4630 - The History of Mexican Americans 3

HIST 4710 - American Indian History 3

HIST 4720 - The Civil Rights Movement (DHA/CI) 3

HIST 4730 - History of Black America (CI) 3

HIST 4810 - American Military History 3

Note:

1 Topics must be American

3. Upper Level Requirements (6 credits)

Regional Course (choose one):

ENGL 3630 - The Farm in Literature and Culture (CI/DHA) 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

ENGL 4610 - Western American Literature 3

ENGL 4640 - Studies in the American West (CI) 3 or

HIST 4640 - Studies in the American West (CI) 3

Capstone Seminar (required for all majors):

ENGL 5690 - American Studies Capstone Seminar (CI) 3 or

HIST 5690 - American Studies Capstone Seminar (CI) 3

Note:

Courses cannot be double-counted. For instance, a student may use ENGL 3700 or HIST 3700 to fulfill only one of the following requirements: the culture component of the exploratory core courses, the American Studies foundational folklore requirement, the American Studies Midlevel requirement, the American Studies Regional Course requirement, or a folklore minor.

4. Required Minor or Equivalent (minimum of 18 credit hours above major requirements):

Students will choose a minor in fields already offering minors, such as Folklore, Sociology, Anthropology, Political Science, Environmental Studies, Geography, Ethnic Studies, Asian Studies, British and Commonwealth Studies, Latin American Studies, or Women and Gender Studies.

Or, by petition, a student may focus in one of the fields that do not offer minors, such as Creative Writing, Philosophy, Technical and Professional Writing (suggested course of study available), Fine Arts (Music History and/or Art History). In this case, however, students will do the work of a minor but a minor will not be listed on their diplomas.

American Studies Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirement courses 9

University QL General Education Requirement 3

Second Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

History Foundation course 3

Folk Foundation course 3

Sophomore Year (30 credits)

First Semester (15 credits)

University Breadth General Education Requirements 6

English Core Writing Exploration course 3

English Core Literature Exploration course 3

Elective course 3

Second Semester (15 credits)

English Core Cultural Exploration course 3

English Literature Foundation course 3

Additonal Foundation course 3

Required Minor course 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

English Midlevel Literature/Folklore course 3

History Midlevel course 3

Required Minor course 3

University QI Graduation Requirement 3

Elective course 3

Second Semester (15 credits)

Additional Midlevel courses 6

Required Minor course 3

University CI Graduation Requirement 3

Elective course 3

Senior Year (30 credits)

First Semester (15 credits)

Upper Level Regional course 3

Required Minor course 3

University CI Graduation Requirement 3

University DSS Graduation Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 5690 - American Studies Capstone Seminar (CI) 3

Required Minor Upper Division courses 6

University DSC Graduation Requirement 3

Elective course 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

American Studies - MA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

MA/MS in American Studies Requirements

Those applicants who have been admitted to the American Studies degree program will work out a program of study with either the American Studies Director or the Folklore Director. Generally, students develop their programs with a focus in American literature, folklore, or history. Interdisciplinary connections with many other departments at USU are possible. Students may choose the American Studies Standard specialization, with or without a concentration in creative nonfiction writing on the cultures and landscapes of the American West; or the Folklore specialization, with or without a concentration in public sector folklore. The American Studies degree requires 30 credits.

Students in the American Studies Standard specialization must take ENGL 6600/HIST 6600 (American Studies Theory and Method) early in their course of study. Students must also take at least one course in a department other than English. Students selecting the Creative Nonfiction concentration will follow the same requirements as the students in the American Studies Standard specialization, with the following exception: all

students in the Creative Nonfiction concentration are required to take two courses in which a major part of their coursework focuses on some form of creative nonfiction. If approved, it is possible for one course in either fiction or poetry writing to be applied toward this concentration.

Students in the Folklore specialization must take a minimum of five folklore courses specifically (15 credit hours). ENGL 6700/HIST 6700 (Folklore Theory and Method) is required early in their course of study, preferably the first semester. Students must also take ENGL 6720/HIST 6720 (Folklore Fieldwork). Internships and Directed Studies do not count toward the minimum required Folklore courses unless approved by the Folklore Director. Students selecting the Public Sector Folklore concentration will follow the same requirements as the students in the Folklore specialization, with the following exception: all students in the Public Sector Folklore concentration are required to take ENGL 6730/ HIST 6730 (Public Folklore), and ENGL 6900 (Graduate Internship).

Of special interest to students in American Studies are the Western Historical Quarterly published at USU, which often provides editorial and clerical positions for graduate students. Also, The Mountain West Center for Regional Studies sponsors lectures and programs and provides research assistance for students working in the field of regional studies. The Merrill-Cazier Library is a regional depository for federal publications and receives 60,000 to 70,000 government titles each year. The library's Special Collections division contains thousands of historical photographs, an immense store of pioneer diaries and papers, and a strong collection of books and manuscripts relating to the West, the pioneers, the Mormons, cowboys, and cowboy poetry. The Fife Folklore Archives, one of the best folklore archives in the country, contains over 3,400 books on folklore and folklore-related topics. The Special Collections division also serves as the national depository for the American Folklore Society's Papers, more than 50 linear feet of records and documents accumulated during the 114-year history of the organization.

Return to: Academic Departments and Programs

American Studies - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

### MA/MS in American Studies Requirements

Those applicants who have been admitted to the American Studies degree program will work out a program of study with either the American Studies Director or the Folklore Director. Generally, students develop their programs with a focus in American literature, folklore, or history. Interdisciplinary connections with many other departments at USU are possible. Students may choose the American Studies Standard specialization, with or without a concentration in creative nonfiction writing on the cultures and landscapes of the American West; or the Folklore specialization, with or without a concentration in public sector folklore. The American Studies degree requires 30 credits.

Students in the American Studies Standard specialization must take ENGL 6600/HIST 6600 (American Studies Theory and Method) early in their course of study. Students must also take at least one course in a department other than English. Students selecting the Creative Nonfiction concentration will follow the same requirements as the students in the American Studies Standard specialization, with the following exception: all students in the Creative Nonfiction concentration are required to take two courses in which a major part of their coursework focuses on some form of creative nonfiction. If approved, it is possible for one course in either fiction or poetry writing to be applied toward this concentration.

Students in the Folklore specialization must take a minimum of five folklore courses specifically (15 credit hours). ENGL 6700/HIST 6700 (Folklore Theory and Method) is required early in their course of study, preferably the first semester. Students must also take ENGL 6720/HIST 6720 (Folklore Fieldwork). Internships and Directed Studies do not count toward the minimum required Folklore courses unless approved by the Folklore Director. Students selecting the Public Sector Folklore concentration will follow the same requirements as the students in the Folklore specialization, with the following exception: all students in the Public Sector Folklore concentration are required to take ENGL 6730/ HIST 6730 (Public Folklore), and ENGL 6900 (Graduate Internship).

Of special interest to students in American Studies are the Western Historical Quarterly published at USU, which often provides editorial and clerical positions for graduate students. Also, The Mountain West Center for Regional Studies sponsors lectures and programs and provides research assistance for students working in the field of regional studies. The Merrill-Cazier Library is a regional depository for federal publications and receives 60,000 to 70,000 government titles each year. The library's Special Collections division contains thousands of historical photographs, an immense store of pioneer diaries and papers, and a strong collection of books and manuscripts relating to the West, the pioneers, the Mormons, cowboys, and cowboy poetry. The Fife Folklore Archives, one of the best folklore archives in the country, contains over 3,400 books on folklore and folklore-related topics. The Special Collections division also serves as the national depository for the American Folklore Society's Papers, more than 50 linear feet of records and documents accumulated during the 114-year history of the organization.

Return to: Academic Departments and Programs

### American Studies Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

American Studies minors must meet and maintain a 2.5 GPA admissions and graduation standard.

Students are required to complete the following:

A. The Foundational Requirements (12 credits)

B. Two courses from the Midlevel and/or Upper Level list (6 credits). (Both courses cannot be in the same discipline). At least one of these two courses must be at the 4000-level or above; the other must be at the 3000-level or above. Students may petition to have one of these courses substituted by a 3000- or 4000-level course on American Culture from another field (such as Sociology, Environmental Studies, Art History, Political Science, or Women and Gender Studies).

These courses of study must be approved by the Director of American Studies or by the American Studies advisor

(contact CHaSS Advising, Taggart Student Center 302) at least one year in advance of graduation.

Note:

Courses used to fulfill requirements for the English and History majors may not be used for the American Studies minor.

Return to: Academic Departments and Programs

English - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

The following courses will fulfill the Communication Intensive requirement for students enrolled in each of the four emphases: Literary Studies--courses having CI designation (such as ENGL 5300); Professional and Technical Writing--ENGL 3400 and ENGL 4400 (both required); English Teaching--ENGL 4500 and ENGL 4510 (both required); Creative Writing--two courses having CI designation (ENGL 4420, ENGL 4430 or ENGL 4440).

Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Credits in Residence

Students must complete 21 credits of major-applicable coursework at Utah State University.

Course Requirements

Core/Explore Requirements (9 credits)

Students must complete 9 credits of exploration courses. Students must choose one course from each section: culture, literature, and writing.

Students should complete the exploratory requirements as early as possible.

Literature Exploration (3 credits)

ENGL 2600 - Literary Analysis 3

Culture Exploration (3 credits)

ENGL 2210 - Introduction to Folklore (BHU) 3

ENGL 2630 - Survey of American Culture (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ENGL 3070 - Perspectives in Folklore (DHA) 3

ENGL 3620 - Native American Studies 3

ENGL 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3

Writing Exploration (3 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

Note:

In addition, all English majors, except for students in the Professional and Technical Writing emphasis, are advised to complete ENGL 2600 as soon as possible before enrolling in upper-division courses. Differing requirements for the Professional and Technical Writing Emphasis are shown below.

Literary Studies Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C within major courses (no grades of pass/fail)

Number of required credits:42

This emphasis is devoted to the study of literature. Its fundamental premise is that literature is a field of diverse representations that gives shape and meaning to human experience.

Students are strongly urged to take the courses in sequence as much as possible—that is, to complete ENGL 2600 and the other exploratory requirements early, before taking upper-level literature courses. Students are further urged to take at least two Literary History

courses at the 3000-level before attempting the 4000-level Authors and Genres courses.

At the 3000 level, the Literary History courses are designed to give students a solid grounding in British, American, and World literature, and to situate that literature within larger historical contexts and artistic movements.

At the 4000 level, students engage in the intensive study of literary genres, and of the works of particular writers. These courses invite students to think critically about how literature is constructed and organized as a field of knowledge.

At the 5000 level, students engage in the advanced study of literature within various interdisciplinary contexts, from the social to the scientific. These Special Topics courses provide the theoretical tools necessary to analyze the relationship between literature and other modes of understanding and representing the world.

Students in the Literary Studies emphasis are strongly urged to take at least four semesters of coursework in a second language (or to pass a proficiency test at the level of 2020 or above), and to graduate with a bachelor of arts degree rather than a bachelor of science. Knowledge of other languages is crucial to a fully developed understanding of literature, culture, and language more generally. Graduate programs in literature generally expect knowledge of a second language from applicants, and a BA degree is the norm for English majors around the nation.

Students in the Literary Studies Emphasis, furthermore, are strongly urged to select a minor in a field that will broaden their knowledge of the world and is closely allied to Literary Studies, such as American studies, folklore, women and gender studies, history, religious studies, a foreign language, classics, art history, philosophy, psychology, anthropology, geography, or sociology. For more information, visit the Literary Studies Emphasis website, accessed through a link at <http://english.usu.edu/>.

A. Exploratory Requirements (9 credits)

Students in the Literary Studies Emphasis should take ENGL 2600 as early as possible.

Literature (3 credits)

Culture (3 credits)

## Writing (3 credits)

### B. Literary History (15 credits)

Select five courses from the following:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

### C. Authors and Genres (12 credits)

Select this course:

ENGL 4300 - Shakespeare 3

Select one or two courses from the following authors courses:

ENGL 4310 - American Writers 3

ENGL 4320 - British Writers 3

ENGL 4330 - World Writers 3

Select one or two courses from the following genre studies courses:

ENGL 4340 - Studies in Prose 3

ENGL 4350 - Studies in Poetry 3

ENGL 4360 - Studies in Drama/Film 3

## Distribution

In categories B and C above, the courses must include:

ENGL at least 6 credits in the Literatures of the Americas (ENGL 3355, ENGL 3365, ENGL 3375 or ENGL 4310)

ENGL at least 6 credits from the Literatures of the British Isles (ENGL 3305, ENGL 3315, ENGL 3325, ENGL 3335, ENGL 3345 or ENGL 4320)

ENGL at least 3 credits of World Literature (ENGL 3385, ENGL 3395 or ENGL 4330)

### D. Literature and Culture (3 credits)

Select the following course:

ENGL 5300 - Special Topics in Literary Studies (CI) 3

## Professional and Technical Writing Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C in courses taught by major, B- in ENGL 1410, ENGL 3400 and ENGL 3410 (up to 3 credits with pass/fail grades allowed for internship)

Number of required credits: 42

Other Requirements: Grammar Challenge Exam (score of at least 80 percent) or ENGL 1410

This emphasis prepares students for career opportunities in various writing-related careers in professional organizations. The emphasis consists of: (1) a theoretical foundation in rhetoric and linguistics, enabling students to assess writing situations and meet the rhetorical exigencies they will face in the workplace; and (2) writing practice in a variety of contexts with a range of technological tools, preparing them to design, write, and edit professional documents.

Students begin their studies by completing two introductory professional writing courses familiarizing students with professional writing and the current technologies used in all levels of text production. These courses, ENGL 3400 and ENGL 3410, are prerequisites

for the rest of the major and must be passed with a grade of B- or better for the student to continue in the program. In addition, students will take two courses addressing rhetorical issues and research methods in professional communication, as well as one course in linguistics.

Students then take five major courses, including professional editing, document design and graphics, interactive media, and publication production and management. Students may also take courses focusing on more specific forms of writing, such as proposals, newsletters, and computer documentation. We encourage and can help procure internships, which provide students with an opportunity to learn through hands-on experiences in a variety of organizations. Students complete the program by taking a capstone course, in which they design and construct portfolios, explore professional opportunities, and prepare to begin their careers. For more information, visit the Professional and Technical Writing website: <http://techcomm.usu.edu/>.

Note: As soon as possible, students in this emphasis should acquire a mastery of word processing and desktop publishing programs.

#### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Introductory Professional Writing Courses (6 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3410 - Professional Writing Technology 3

#### C. Theoretical Foundation Courses (6 credits)

ENGL 3450 - Methods and Research in Professional and Technical Communication 3

ENGL 3460 - Modern Rhetorical Theory 3

#### D. Linguistics Courses (3 credits)

ENGL 4200 - Linguistic Structures 3

ENGL 4210 - History of the English Language 3

ENGL 4230 - Language and Society 3

ENGL 5210 - Topics in Linguistics 3

#### E. Major Courses (15 credits)

Prerequisites are admittance for emphasis and completion for ENGL 3400 and ENGL 3410 with grades of B- or better.

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

ENGL 5400 - Specialized Documents 3

ENGL 5410 - Studies in Writing for Digital Media Production 3

ENGL 5420 - Publications Production 3

ENGL 5490 - Topics in Professional and Technical Writing 3

#### F. Capstone Seminar (3 credits)

ENGL 5430 - Professional Writing Capstone (CI) 3  
(completed during senior year)

#### G. Intensive/English Elective (3 credits)

If you have taken a professional and technical writing course to fulfill your Exploratory Requirement, you must select one course from the following list:

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4900 - Internship/Cooperative Work Experience 1-15 (3 credits allowed)

English Teaching Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative (2.75 USU cumulative required for admission to STEP); 2.75 career total (for licensure)

Minimum Grade Accepted: C (no pass/fail) in major courses; B- in STEP courses (Note: C- or better in Quantitative Literacy (QL) course required by the Secondary Education Program)

Number of Required Credits: 42 (45 if required to take ENGL 1410)

Other Requirements: Teaching minor, STEP (35 credits) required for licensure, Grammar Challenge Exam (score of at least 80 percent) or ENGL 1410

This emphasis, leading to professional licensure in the teaching of secondary-level English, prepares prospective English teachers to participate actively in the many communities related to the profession. Students become well-versed in their academic subject matter (language, writing, literature, and multimedia); skilled in the methods of teaching the various components of the English curriculum and in classroom management techniques; and committed to the achievement of all students regardless of gender, race, ethnicity, religion, sexuality, or socioeconomic standing.

In addition to the required exploratory courses, students take 18 credits in literature courses in order to acquire an understanding of the traditional literary canon, literary diversity, and current theoretical approaches to understanding literature. Students take 12 credits in pedagogy to learn about curriculum, planning, instructional delivery, assessment, and related topics. Students take 3 credits of an English elective, allowing them an opportunity to explore an area of personal interest.

Students are urged to complete the required Exploratory courses and an additional 6 credits of English prior to taking ENGL 4500 and ENGL 4510. When possible, students should complete all of their required 3000-level courses before taking 4000-level courses.

If students wish to obtain professional licensure at graduation, they must also fulfill the requirements of the 35-credit Secondary Teacher Education Program (STEP) prescribed by the Secondary Education Program of the School of Teacher Education and Leadership (TEAL).

#### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Literature Courses (18 credits)

Select three courses from the following: (9 credits)

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

Select this course:

ENGL 4300 - Shakespeare 3

Select two literature elective courses as indicated (6 credits)

One literature course numbered 3305 or higher 3

One literature elective numbered 4xxx or 5xxx 3

#### Distribution

Among the literature courses selected (here in category B or in the English elective in category D below), there must be one course in American literature and one course in world literature.

#### C. English Teaching Courses (12 credits)

Select these three courses (9 credits)

ENGL 3510 - Teaching Young Adult Literature 3

ENGL 4500 - Teaching Writing (CI) 3

ENGL 4510 - Teaching Literature (CI) 3

Select one course from the following courses (3 credits)

ENGL 3520 - Multicultural American Literature 3 or

ENGL 4220 - Teaching Literacy in Diverse Classrooms 3

#### D. English elective (3 credits)

Select an English course numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 3

#### E. Grammar Competency

In addition to fulfilling the above requirements, students in the English Education emphasis must fulfill a grammar competency requirement. This may be accomplished either by enrolling in ENGL 1410, or by passing a challenge exam in the English Department Writing Center (Ray B. West 104) with a score of 80 percent or better. See the English undergraduate advisor for further information.

#### F. Teaching Minor

Students in the English Education emphasis also complete a teaching minor. Required number of credit hours varies depending on the option selected. See the English undergraduate advisor for further information.

#### G. Secondary Teacher Education Program (STEP) (35 credits)

To receive a license to teach in the public school system, students in the English Teaching emphasis must also complete the 35-credit STEP administered through the Secondary Education Program of the School of TEAL. Students must be admitted to STEP before taking STEP courses. Among the requirements is a Criminal Background Check. See an advisor in the Secondary Education Program of the School of TEAL, Emma Eccles Jones College of Education and Human Services, for further information regarding this program. Prior to student teaching, students must pass the required Praxis exams.

Please note a change that went into effect in 2014. The Utah State Office of Education now requires all institutions to mandate a 3.0 minimum GPA requirement for admission. Students are also required to submit and meet the minimum ACT scores as listed below. The new admission requirements began August 1, 2014.

ACT Composite = 21

ACT Math = 19

ACT English = 20

Creative Writing Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C within major courses (no grades of pass/fail). B- or better in ENGL 3420, ENGL 3430 and ENGL 3440.

Number of required credits: 42

This emphasis is devoted to the art of literary writing: fiction, poetry, creative nonfiction, and drama. Through practice in specific genres and a comprehensive study of literature, students learn the craft of literary writing as discovered and practiced over the last three thousand years of written human culture. The emphasis prepares undergraduates for graduate work in creative writing and develops critical, cognitive, and writing skills applicable in numerous professional fields.

Since creative writers must have a broad knowledge of literature, students first complete two of the 3000-level literature history courses that provide an overview of major periods, authors, and genres in American, British and World literature. They also take ENGL 2600 - Literary Analysis, which introduces methodologies of literary criticism.

Also at the 3000-level, students begin their work as creative writers, taking three introductory writing courses in three genres: fiction, poetry, and creative nonfiction.

At the 4000 and 5000-level, students concentrate their training as creative writers, taking three courses in advanced fiction, poetry, and creative nonfiction writing, which can be repeated. They also take two courses focused on the study of a single author, a course in the study of one's chosen genre or a course in Literature and Culture.

#### Creative Writing Residency Requirements

As part of the 21 credits completed at Utah State University to meet department residency requirements, Creative Writing students must complete two of the three advanced Creative Writing courses at Utah State University.

#### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Literary History (6 credits)

Select two courses from the following:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

#### C. Creative Writing Courses (15 credits or 18 credits)

Distribution

If you have taken a Creative Writing course to fulfill your Exploratory Writing requirement, then select two of these courses. You will also take an additional English Elective course (see below)

Select all three of the following courses:

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

Select three of the following courses (note that some are repeatable, and can be taken more than once to meet requirement)

ENGL 4250 - Playwriting 3 or

THEA 4760 - Playwriting 3

ENGL 4420 - Advanced Fiction Writing (CI) 3

ENGL 4430 - Advanced Poetry Writing (CI) 3

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

#### D. Literature Courses (6 credits)

Select two of the following courses:

Authors

ENGL 4300 - Shakespeare 3

ENGL 4310 - American Writers 3

ENGL 4320 - British Writers 3

ENGL 4330 - World Writers 3

Note:

The Authors courses vary according to the specialty of the faculty member teaching the course.

Genres

ENGL 4340 - Studies in Prose 3

ENGL 4350 - Studies in Poetry 3

ENGL 4360 - Studies in Drama/Film 3

Note:

The Genre courses vary according to the specialty of the faculty member teaching the course.

Literature and Culture

ENGL 5300 - Special Topics in Literary Studies (CI) 3

#### E. English Electives (3 credits or 6 credits)

Distribution- If you have taken a Professional and Technical Writing course to fulfill your Exploratory Writing Requirement (see A above), then select one English elective course numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 3

Distribution- If you have taken a Creative Writing course to fulfill your Exploratory Writing Requirement, then

select two English Elective courses numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 6

#### English Major-Creative Writing Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

##### Freshman Year (30 credits)

###### First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirement 6

University QL General Education Requirement 3

Elective course 3

###### Second Semester (15 credits)

ENGL 2600 - Literary Analysis 3

University Breadth General Education Requirements 6

English Core Cultural Exploration course 3

Elective course 3

##### Sophomore Year (30 credits)

###### First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGL 3430 - Poetry Writing 3

University Breadth General Education Requirements 6

Elective course 3

###### Second Semester (15 credits)

ENGL 3440 - Creative Nonfiction Writing 3

English Literary History course 3

University Breadth General Education Requirement 3

University DSS Graduation Requirement 3

Elective course 3

##### Junior Year (30 credits)

###### First Semester (15 credits)

ENGL 3420 - Fiction Writing 3

English Literary History course 3

University QI Graduation Requirement 3

English Upper Division Elective course 3

Elective course 3

###### Second Semester (15 credits)

ENGL 4420 - Advanced Fiction Writing (CI) 3 or

ENGL 4430 - Advanced Poetry Writing (CI) 3 or

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

English Authors/Genre Literature and Culture course 3

Elective courses 9

##### Senior Year (30 credits)

###### First Semester (15 credits)

ENGL 4420 - Advanced Fiction Writing (CI) 3 or

ENGL 4430 - Advanced Poetry Writing (CI) 3 or

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

English Authors/Genre Literature and Culture course 3

University DSC Graduation Requirement 3

Elective courses 6

###### Second Semester (15 credits)

English Advanced Creative Writing 3

English Upper Division Elective course 3

Elective courses 9

#### English Major-Literary Studies Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

##### Freshman Year (30 credits)

###### First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirements 6

University QL General Education Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 2600 - Literary Analysis 3

University Breadth General Education Requirements 9

English Cultural Exploration 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

English Literary History 3

Elective course 3

Second Semester (15 credits)

University QI Graduation Requirement 3

University DSS Graduation Requirement 3

English Creative Writing 3

English Literary History 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 4300 - Shakespeare 3

English Literary History 3

University DSC Graduation Requirement 3

Elective courses 6

Second Semester (15 credits)

English Authors 3

English Genre 3

English Literary History 3

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

English CI Literature and Culture 3

English Authors or Genre 3

Elective Courses 9

Second Semester (15 credits)

English CI Literature and Culture 3

English Literary History 3

Elective courses 9

English Major-Professional and Technical Writing  
Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirements 6

University QL General Education Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 1410 - Elements of Grammar 3

University Breadth General Education Requirements 6

English Core Literary course 3

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

English Core Cultural Exploration course 3

Elective course 3

Second Semester (15 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3410 - Professional Writing Technology 3

University Breadth General Education Requirement 3

University QI Graduation Requirement 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 3460 - Modern Rhetorical Theory 3

University DSC Graduation Requirement 3

University DSS Graduation Requirement 3

English Tech Writing Upper Division course 3

Elective course 3

Second Semester (15 credits)

ENGL 3450 - Methods and Research in Professional and Technical Communication 3

English Tech Writing Upper Division courses 6

English Linguistics course 3

Elective course 3

Senior Year (30 credits)

First Semester (15 credits)

ENGL 5430 - Professional Writing Capstone (CI) 3

English Tech Writing Upper Division course 3

Elective courses 9

Second Semester (15 credits)

English Applied Creative Writing course 3

English Tech Writing Upper Division course 3

Elective courses 9

English Major-Teaching Emphasis Four Year Plan  
(Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30-31 credits)

First Semester (15-16 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2600 - Literary Analysis 3

MATH 1050 - College Algebra (QL) 4 or

STAT 1040 - Introduction to Statistics (QL) 3

University Breadth General Education Requirements 6

Second Semester (15 credits)

ENGL 1410 - Elements of Grammar 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 9

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2210 - Introduction to Folklore (BHU) 3 or

ENGL 2630 - Survey of American Culture (BHU) 3

English Literary History courses 6

English Writing Exploring course 3

University Breadth General Education Requirement 3

Second Semester (15 credits)

ENGL 4300 - Shakespeare 3

English Literary History course 3

English 3XXX or higher Literature Elective course 3

English 4XXX or higher Literature Elective course 3

Required Teaching Minor course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 3510 - Teaching Young Adult Literature 3	30 USU credits
ENGL 4500 - Teaching Writing (CI) 3	Completion of approved major program of study
Required Teaching Minor courses 6	See college advisor
University DSC Graduation Requirement 3	Credits in minor (if required)
Second Semester (15 credits)	12
ENGL 4220 - Teaching Literacy in Diverse Classrooms 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
ENGL 4510 - Teaching Literature (CI) 3	3
English 3XXX or higher Elective course 3	
University QI Graduation Requirement 3	General Education Requirements and University Studies Depth Requirements
Required Teaching Minor course 3	
Senior Year (53+ credits)	Return to: Academic Departments and Programs
First Semester (18 credits)	
Required Teaching Minor courses 18	English - BS
Second Semester (35+ credits)	Return to: Academic Departments and Programs
SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3	College of Humanities and Social Sciences
First semester of a 35 credit Secondary Teaching Program	Department of English
Teaching Minor averages 30 credits (Can vary from 18-45 credits)	Students must complete the General Education Requirements.
Minimum University Requirements	Students must also complete the University Studies Depth Requirements:
Total Credits	The following courses will fulfill the Communication Intensive requirement for students enrolled in each of the four emphases: Literary Studies--courses having CI designation (such as ENGL 5300); Professional and Technical Writing--ENGL 3400 and ENGL 4400 (both required); English Teaching--ENGL 4500 and ENGL 4510 (both required); Creative Writing--two courses having CI designation (ENGL 4420, ENGL 4430 or ENGL 4440).
120	Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)
Grade Point Average (most majors require higher GPA)	
2.00 GPA	Credits in Residence
Credits of C- or better	Students must complete 21 credits of major-applicable coursework at Utah State University.
100	Course Requirements
Credits of upper-division courses (#3000 or above)	
40	
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	

## Core/Explore Requirements (9 credits)

Students must complete 9 credits of exploration courses. Students must choose one course from each section: culture, literature, and writing.

Students should complete the exploratory requirements as early as possible.

### Literature Exploration (3 credits)

ENGL 2600 - Literary Analysis 3

### Culture Exploration (3 credits)

ENGL 2210 - Introduction to Folklore (BHU) 3

ENGL 2630 - Survey of American Culture (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ENGL 3070 - Perspectives in Folklore (DHA) 3

ENGL 3620 - Native American Studies 3

ENGL 3700 - Regional Folklore (CI) 3

ENGL 3710 - Folklore Colloquium (CI) 3

### Writing Exploration (3 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

### Note:

In addition, all English majors, except for students in the Professional and Technical Writing emphasis, are advised to complete ENGL 2600 as soon as possible before enrolling in upper-division courses. Differing requirements for the Professional and Technical Writing Emphasis are shown below.

### Literary Studies Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for

another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C within major courses (no grades of pass/fail)

Number of required credits:42

This emphasis is devoted to the study of literature. Its fundamental premise is that literature is a field of diverse representations that gives shape and meaning to human experience.

Students are strongly urged to take the courses in sequence as much as possible—that is, to complete ENGL 2600 and the other exploratory requirements early, before taking upper-level literature courses. Students are further urged to take at least two Literary History courses at the 3000-level before attempting the 4000-level Authors and Genres courses.

At the 3000 level, the Literary History courses are designed to give students a solid grounding in British, American, and World literature, and to situate that literature within larger historical contexts and artistic movements.

At the 4000 level, students engage in the intensive study of literary genres, and of the works of particular writers. These courses invite students to think critically about how literature is constructed and organized as a field of knowledge.

At the 5000 level, students engage in the advanced study of literature within various interdisciplinary contexts, from the social to the scientific. These Special Topics courses provide the theoretical tools necessary to analyze the relationship between literature and other modes of understanding and representing the world.

Students in the Literary Studies emphasis are strongly urged to take at least four semesters of coursework in a second language (or to pass a proficiency test at the level of 2020 or above), and to graduate with a bachelor of arts degree rather than a bachelor of science. Knowledge of other languages is crucial to a fully developed understanding of literature, culture, and language more generally. Graduate programs in literature generally expect knowledge of a second language from applicants, and a BA degree is the norm for English majors around the nation.

Students in the Literary Studies Emphasis, furthermore, are strongly urged to select a minor in a field that will broaden their knowledge of the world and is closely allied to Literary Studies, such as American studies, folklore, women and gender studies, history, religious studies, a foreign language, classics, art history, philosophy, psychology, anthropology, geography, or sociology. For more information, visit the Literary Studies Emphasis website, accessed through a link at <http://english.usu.edu/>.

#### A. Exploratory Requirements (9 credits)

Students in the Literary Studies Emphasis should take ENGL 2600 as early as possible.

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Literary History (15 credits)

Select five courses from the following:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

#### C. Authors and Genres (12 credits)

Select this course:

ENGL 4300 - Shakespeare 3

Select one or two courses from the following authors courses:

ENGL 4310 - American Writers 3

ENGL 4320 - British Writers 3

ENGL 4330 - World Writers 3

Select one or two courses from the following genre studies courses:

ENGL 4340 - Studies in Prose 3

ENGL 4350 - Studies in Poetry 3

ENGL 4360 - Studies in Drama/Film 3

Distribution

In categories B and C above, the courses must include:

ENGL at least 6 credits in the Literatures of the Americas (ENGL 3355, ENGL 3365, ENGL 3375 or ENGL 4310)

ENGL at least 6 credits from the Literatures of the British Isles (ENGL 3305, ENGL 3315, ENGL 3325, ENGL 3335, ENGL 3345 or ENGL 4320)

ENGL at least 3 credits of World Literature (ENGL 3385, ENGL 3395 or ENGL 4330)

#### D. Literature and Culture (3 credits)

Select the following course:

ENGL 5300 - Special Topics in Literary Studies (CI) 3

Professional and Technical Writing Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C in courses taught by major, B- in ENGL 1410, ENGL 3400 and ENGL 3410 (up to 3 credits with pass/fail grades allowed for internship)

Number of required credits:42

Other Requirements: Grammar Challenge Exam (score of at least 80 percent) or ENGL 1410

This emphasis prepares students for career opportunities in various writing-related careers in professional organizations. The emphasis consists of: (1) a theoretical foundation in rhetoric and linguistics, enabling students to assess writing situations and meet the rhetorical exigencies they will face in the workplace; and (2) writing practice in a variety of contexts with a range of technological tools, preparing them to design, write, and edit professional documents.

Students begin their studies by completing two introductory professional writing courses familiarizing students with professional writing and the current technologies used in all levels of text production. These courses, ENGL 3400 and ENGL 3410, are prerequisites for the rest of the major and must be passed with a grade of B- or better for the student to continue in the program. In addition, students will take two courses addressing rhetorical issues and research methods in professional communication, as well as one course in linguistics.

Students then take five major courses, including professional editing, document design and graphics, interactive media, and publication production and management. Students may also take courses focusing on more specific forms of writing, such as proposals, newsletters, and computer documentation. We encourage and can help procure internships, which provide students with an opportunity to learn through hands-on experiences in a variety of organizations. Students complete the program by taking a capstone course, in which they design and construct portfolios, explore professional opportunities, and prepare to begin their careers. For more information, visit the Professional and Technical Writing website: <http://techcomm.usu.edu/>.

Note: As soon as possible, students in this emphasis should acquire a mastery of word processing and desktop publishing programs.

#### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Introductory Professional Writing Courses (6 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3410 - Professional Writing Technology 3

#### C. Theoretical Foundation Courses (6 credits)

ENGL 3450 - Methods and Research in Professional and Technical Communication 3

ENGL 3460 - Modern Rhetorical Theory 3

#### D. Linguistics Courses (3 credits)

ENGL 4200 - Linguistic Structures 3

ENGL 4210 - History of the English Language 3

ENGL 4230 - Language and Society 3

ENGL 5210 - Topics in Linguistics 3

#### E. Major Courses (15 credits)

Prerequisites are admittance for emphasis and completion for ENGL 3400 and ENGL 3410 with grades of B- or better.

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

ENGL 5400 - Specialized Documents 3

ENGL 5410 - Studies in Writing for Digital Media Production 3

ENGL 5420 - Publications Production 3

ENGL 5490 - Topics in Professional and Technical Writing 3

#### F. Capstone Seminar (3 credits)

ENGL 5430 - Professional Writing Capstone (CI) 3  
(completed during senior year)

#### G. Intensive/English Elective (3 credits)

If you have taken a professional and technical writing course to fulfill your Exploratory Requirement, you must select one course from the following list:

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4900 - Internship/Cooperative Work Experience 1-15 (3 credits allowed)

### English Teaching Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative (2.75 USU cumulative required for admission to STEP); 2.75 career total (for licensure)

Minimum Grade Accepted: C (no pass/fail) in major courses; B- in STEP courses (Note: C- or better in Quantitative Literacy (QL) course required by the Secondary Education Program)

Number of Required Credits: 42 (45 if required to take ENGL 1410)

Other Requirements: Teaching minor, STEP (35 credits) required for licensure, Grammar Challenge Exam (score of at least 80 percent) or ENGL 1410

This emphasis, leading to professional licensure in the teaching of secondary-level English, prepares prospective English teachers to participate actively in the many communities related to the profession. Students become well-versed in their academic subject matter (language, writing, literature, and multimedia); skilled in the methods of teaching the various components of the English curriculum and in classroom management techniques; and committed to the achievement of all students regardless of gender, race, ethnicity, religion, sexuality, or socioeconomic standing.

In addition to the required exploratory courses, students take 18 credits in literature courses in order to acquire an understanding of the traditional literary canon, literary diversity, and current theoretical approaches to understanding literature. Students take 12 credits in pedagogy to learn about curriculum, planning, instructional delivery, assessment, and related topics. Students take 3 credits of an English elective, allowing them an opportunity to explore an area of personal interest.

Students are urged to complete the required Exploratory courses and an additional 6 credits of English prior to taking ENGL 4500 and ENGL 4510. When possible,

students should complete all of their required 3000-level courses before taking 4000-level courses.

If students wish to obtain professional licensure at graduation, they must also fulfill the requirements of the 35-credit Secondary Teacher Education Program (STEP) prescribed by the Secondary Education Program of the School of Teacher Education and Leadership (TEAL).

### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

### B. Literature Courses (18 credits)

Select three courses from the following: (9 credits)

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

Select this course:

ENGL 4300 - Shakespeare 3

Select two literature elective courses as indicated (6 credits)

One literature course numbered 3305 or higher 3

One literature elective numbered 4xxx or 5xxx 3

Distribution

Among the literature courses selected (here in category B or in the English elective in category D below), there must be one course in American literature and one course in world literature.

### C. English Teaching Courses (12 credits)

Select these three courses (9 credits)

ENGL 3510 - Teaching Young Adult Literature 3

ENGL 4500 - Teaching Writing (CI) 3

ENGL 4510 - Teaching Literature (CI) 3

Select one course from the following courses (3 credits)

ENGL 3520 - Multicultural American Literature 3 or

ENGL 4220 - Teaching Literacy in Diverse Classrooms 3

### D. English elective (3 credits)

Select an English course numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 3

### E. Grammar Competency

In addition to fulfilling the above requirements, students in the English Education emphasis must fulfill a grammar competency requirement. This may be accomplished either by enrolling in ENGL 1410, or by passing a challenge exam in the English Department Writing Center (Ray B. West 104) with a score of 80 percent or better. See the English undergraduate advisor for further information.

### F. Teaching Minor

Students in the English Education emphasis also complete a teaching minor. Required number of credit hours varies depending on the option selected. See the English undergraduate advisor for further information.

### G. Secondary Teacher Education Program (STEP) (35 credits)

To receive a license to teach in the public school system, students in the English Teaching emphasis must also complete the 35-credit STEP administered through the Secondary Education Program of the School of TEAL. Students must be admitted to STEP before taking STEP courses. Among the requirements is a Criminal Background Check. See an advisor in the Secondary

Education Program of the School of TEAL, Emma Eccles Jones College of Education and Human Services, for further information regarding this program. Prior to student teaching, students must pass the required Praxis exams.

Please note a change that went into effect in 2014. The Utah State Office of Education now requires all institutions to mandate a 3.0 minimum GPA requirement for admission. Students are also required to submit and meet the minimum ACT scores as listed below. The new admission requirements began August 1, 2014.

ACT Composite = 21

ACT Math = 19

ACT English = 20

### Creative Writing Emphasis

Minimum GPA for Admission: 2.75 within all English courses (other than ENGL 1010, ENGL 2010, CLEP, AP, etc.); 2.75 USU cumulative (including courses taken for another USU major); 2.75 career total (including transfer credits) for new transfer students

Minimum GPA for Graduation: 2.75 within major courses; 2.0 USU cumulative; 2.0 career total

Minimum Grade Accepted: C within major courses (no grades of pass/fail). B- or better in ENGL 3420, ENGL 3430 and ENGL 3440.

Number of required credits: 42

This emphasis is devoted to the art of literary writing: fiction, poetry, creative nonfiction, and drama. Through practice in specific genres and a comprehensive study of literature, students learn the craft of literary writing as discovered and practiced over the last three thousand years of written human culture. The emphasis prepares undergraduates for graduate work in creative writing and develops critical, cognitive, and writing skills applicable in numerous professional fields.

Since creative writers must have a broad knowledge of literature, students first complete two of the 3000-level literature history courses that provide an overview of major periods, authors, and genres in American, British and World literature. They also take ENGL 2600 - Literary Analysis, which introduces methodologies of literary criticism.

Also at the 3000-level, students begin their work as creative writers, taking three introductory writing courses in three genres: fiction, poetry, and creative nonfiction.

At the 4000 and 5000-level, students concentrate their training as creative writers, taking three courses in advanced fiction, poetry, and creative nonfiction writing, which can be repeated. They also take two courses focused on the study of a single author, a course in the study of one's chosen genre or a course in Literature and Culture.

### Creative Writing Residency Requirements

As part of the 21 credits completed at Utah State University to meet department residency requirements, Creative Writing students must complete two of the three advanced Creative Writing courses at Utah State University.

#### A. Exploratory Requirements (9 credits)

Literature (3 credits)

Culture (3 credits)

Writing (3 credits)

#### B. Literary History (6 credits)

Select two courses from the following:

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

#### C. Creative Writing Courses (15 credits or 18 credits)

##### Distribution

If you have taken a Creative Writing course to fulfill your Exploratory Writing requirement, then select two of these courses. You will also take an additional English Elective course (see below)

Select all three of the following courses:

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

Select three of the following courses (note that some are repeatable, and can be taken more than once to meet requirement)

ENGL 4250 - Playwriting 3 or

THEA 4760 - Playwriting 3

ENGL 4420 - Advanced Fiction Writing (CI) 3

ENGL 4430 - Advanced Poetry Writing (CI) 3

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

#### D. Literature Courses (6 credits)

Select two of the following courses:

##### Authors

ENGL 4300 - Shakespeare 3

ENGL 4310 - American Writers 3

ENGL 4320 - British Writers 3

ENGL 4330 - World Writers 3

Note:

The Authors courses vary according to the specialty of the faculty member teaching the course.

##### Genres

ENGL 4340 - Studies in Prose 3

ENGL 4350 - Studies in Poetry 3

ENGL 4360 - Studies in Drama/Film 3

Note:

The Genre courses vary according to the specialty of the faculty member teaching the course.

## Literature and Culture

ENGL 5300 - Special Topics in Literary Studies (CI) 3

E. English Electives (3 credits or 6 credits)

Distribution- If you have taken a Professional and Technical Writing course to fulfill your Exploratory Writing Requirement (see A above), then select one English elective course numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 3

Distribution- If you have taken a Creative Writing course to fulfill your Exploratory Writing Requirement, then select two English Elective courses numbered 3305 or higher (includes courses in creative writing, professional and technical writing, literature, linguistics, folklore, and American studies) 6

English Major-Creative Writing Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

University Breadth General Education Requirement 6

University QL General Education Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 2600 - Literary Analysis 3

University Breadth General Education Requirements 6

English Core Cultural Exploration course 3

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGL 3430 - Poetry Writing 3

University Breadth General Education Requirements 6

Elective course 3

Second Semester (15 credits)

ENGL 3440 - Creative Nonfiction Writing 3

English Literary History course 3

University Breadth General Education Requirement 3

University DSS Graduation Requirement 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 3420 - Fiction Writing 3

English Literary History course 3

University QI Graduation Requirement 3

English Upper Division Elective course 3

Elective course 3

Second Semester (15 credits)

ENGL 4420 - Advanced Fiction Writing (CI) 3 or

ENGL 4430 - Advanced Poetry Writing (CI) 3 or

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

English Authors/Genre Literature and Culture course 3

Elective courses 9

Senior Year (30 credits)

First Semester (15 credits)

ENGL 4420 - Advanced Fiction Writing (CI) 3 or

ENGL 4430 - Advanced Poetry Writing (CI) 3 or

ENGL 4440 - Advanced Nonfiction Writing (CI) 3

English Authors/Genre Literature and Culture course 3

University DSC Graduation Requirement 3

Elective courses 6

Second Semester (15 credits)

English Advanced Creative Writing 3

English Upper Division Elective course 3

Elective courses 9

English Major-Literary Studies Emphasis Four Year Plan  
(Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

University Breadth General Education Requirements 6

University QL General Education Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 2600 - Literary Analysis 3

University Breadth General Education Requirements 9

English Cultural Exploration 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

English Literary History 3

Elective course 3

Second Semester (15 credits)

University QI Graduation Requirement 3

University DSS Graduation Requirement 3

English Creative Writing 3

English Literary History 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 4300 - Shakespeare 3

English Literary History 3

University DSC Graduation Requirement 3

Elective courses 6

Second Semester (15 credits)

English Authors 3

English Genre 3

English Literary History 3

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

English CI Literature and Culture 3

English Authors or Genre 3

Elective Courses 9

Second Semester (15 credits)

English CI Literature and Culture 3

English Literary History 3

Elective courses 9

English Major-Professional and Technical Writing  
Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

University Breadth General Education Requirements 6

University QL General Education Requirement 3

Elective course 3

Second Semester (15 credits)

ENGL 1410 - Elements of Grammar 3

University Breadth General Education Requirements 6

English Core Literary course 3

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 6

English Core Cultural Exploration course 3

Elective course 3

Second Semester (15 credits)

ENGL 3400 - Professional Writing (CI) 3

ENGL 3410 - Professional Writing Technology 3

University Breadth General Education Requirement 3

University QI Graduation Requirement 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

ENGL 3460 - Modern Rhetorical Theory 3

University DSC Graduation Requirement 3

University DSS Graduation Requirement 3

English Tech Writing Upper Division course 3

Elective course 3

Second Semester (15 credits)

ENGL 3450 - Methods and Research in Professional and Technical Communication 3

English Tech Writing Upper Division courses 6

English Linguistics course 3

Elective course 3

Senior Year (30 credits)

First Semester (15 credits)

ENGL 5430 - Professional Writing Capstone (CI) 3

English Tech Writing Upper Division course 3

Elective courses 9

Second Semester (15 credits)

English Applied Creative Writing course 3

English Tech Writing Upper Division course 3

Elective courses 9

English Major-Teaching Emphasis Four Year Plan  
(Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30-31 credits)

First Semester (15-16 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2600 - Literary Analysis 3

MATH 1050 - College Algebra (QL) 4 or

STAT 1040 - Introduction to Statistics (QL) 3

University Breadth General Education Requirements 6

Second Semester (15 credits)

ENGL 1410 - Elements of Grammar 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

University Breadth General Education Requirements 9

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2210 - Introduction to Folklore (BHU) 3 or

ENGL 2630 - Survey of American Culture (BHU) 3

English Literary History courses 6

English Writing Exploring course 3

University Breadth General Education Requirement 3	Grade Point Average (most majors require higher GPA)
Second Semester (15 credits)	2.00 GPA
ENGL 4300 - Shakespeare 3	Credits of C- or better
English Literary History course 3	100
English 3XXX or higher Literature Elective course 3	Credits of upper-division courses (#3000 or above)
English 4XXX or higher Literature Elective course 3	40
Required Teaching Minor course 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
Junior Year (30 credits)	30 USU credits
First Semester (15 credits)	Completion of approved major program of study
ENGL 3510 - Teaching Young Adult Literature 3	See college advisor
ENGL 4500 - Teaching Writing (CI) 3	Credits in minor (if required)
Required Teaching Minor courses 6	12
University DSC Graduation Requirement 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Second Semester (15 credits)	3
ENGL 4220 - Teaching Literacy in Diverse Classrooms 3	General Education Requirements and University Studies Depth Requirements
ENGL 4510 - Teaching Literature (CI) 3	Return to: Academic Departments and Programs
English 3XXX or higher Elective course 3	English - MA
University QI Graduation Requirement 3	Return to: Academic Departments and Programs
Required Teaching Minor course 3	College of Humanities and Social Sciences
Senior Year (53+ credits)	Department of English
First Semester (18 credits)	MA/MS in English Requirements
Required Teaching Minor courses 18	Applicants will be admitted to the English degree for one of two specializations: Literature and Writing (30-33 credits) or Technical Writing (33 credits).
Second Semester (35+ credits)	Literature and Writing
SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3	The graduate specialization in Literature and Writing offers an MA or MS in English to students who wish to do advanced work in the fields of literary criticism,
First semester of a 35 credit Secondary Teaching Program	
Teaching Minor averages 30 credits (Can vary from 18-45 credits)	
Minimum University Requirements	
Total Credits	
120	

composition, rhetoric, and creative writing. The aim is to professionalize students, helping them to become scholars and teachers of English. While any student having a strong undergraduate education in English, along with a desire to pursue that education further, is welcome to pursue the Literature and Writing specialization, the specialization does cater most directly to future PhD students in English, future two-year college instructors, and secondary educators. Under the guidance of a faculty committee, students are required to write a thesis as the culmination of their studies.

#### Master's Degree Plan Option(s)

Students with a literature and writing specialization in the masters in English Degree and American Studies Degree can receive the MS or MA by pursuing one of two options:

In the Plan A option, students complete graduate-level coursework and must write a thesis, which can be either critical or creative work.

The Plan B option requires the production of a paper or creative work of art and is expected to reflect equivalent scholarship standards as a thesis.

Students in the online technical writing specialization complete the MS by completing the Plan C option, which does not involve a thesis or a defense meeting and is comprised of coursework only.

In both seminars and independent study with faculty, Literature and Writing students consider literary and nonliterary texts, learning not only how to interpret such texts, but also how to produce them. The course of study thus includes both theory and practice: students take part in the reading and the writing of literature, criticism, essays, and arguments.

Although most of their courses will be completed within the Literature and Writing curriculum, students may also pursue their interests by taking some courses in the department's other master's programs (American Studies, Folklore, and Technical Writing), as well as doctoral courses in the Theory and Practice of Professional Communication PhD program. Permission of the Director of Graduate Studies in English is required. Coursework may include some online courses; however, Literature and Writing is an on-campus specialization and may not be completed by taking only online classes.

#### Master of Technical Communications

The graduate specialization in Master of Technical Communication is designed for students who already have some training and/or experience as practitioners of technical writing. It is taught entirely online, via the Internet, and aims to prepare students to enter or reenter nonacademic workplaces, not just as practitioners, but also as developers and managers of technical documents. When they graduate, students will be qualified to determine and defend writing policy and practices in their workplaces.

To prepare students for these leadership roles, the Master of Technical Communication specialization provides them with a strong theoretical understanding of their profession. In their online graduate seminars, students will read widely in research and theory relating to workplace writing practices. They will critically examine both the theories and the practices, and they will explore ways in which each can enhance the other. They will also learn how to manage teams of writers, and they will explore ethical issues in the profession. The specialization balances the theoretical training with opportunities for students to improve their own practical skills as technical writers, learning how to apply theory and current technology to the production of a variety of technical documents. This practical training will include multimedia presentations and graphic design.

The Master of Technical Communication specialization is designed primarily for nontraditional students—working professional writers who want to enhance their credentials and build a strong theoretical understanding of their profession. However, it may also accept some traditional students who have just finished their undergraduate studies, provided they have some practical experience.

Students in Master of Technical Communication must complete 33 credits under the Plan C option. Courses may be taken in any sequence. Students in this specialization pursue the MS degree.

Return to: Academic Departments and Programs

English - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

## MA/MS in English Requirements

Applicants will be admitted to the English degree for one of two specializations: Literature and Writing (30-33 credits) or Technical Writing (33 credits).

### Literature and Writing

The graduate specialization in Literature and Writing offers an MA or MS in English to students who wish to do advanced work in the fields of literary criticism, composition, rhetoric, and creative writing. The aim is to professionalize students, helping them to become scholars and teachers of English. While any student having a strong undergraduate education in English, along with a desire to pursue that education further, is welcome to pursue the Literature and Writing specialization, the specialization does cater most directly to future PhD students in English, future two-year college instructors, and secondary educators. Under the guidance of a faculty committee, students are required to write a thesis as the culmination of their studies.

### Master's Degree Plan Option(s)

Students with a literature and writing specialization in the masters in English Degree and American Studies Degree can receive the MS or MA by pursuing one of two options:

In the Plan A option, students complete graduate-level coursework and must write a thesis, which can be either critical or creative work.

The Plan B option requires the production of a paper or creative work of art and is expected to reflect equivalent scholarship standards as a thesis.

Students in the online technical writing specialization complete the MS by completing the Plan C option, which does not involve a thesis or a defense meeting and is comprised of coursework only.

In both seminars and independent study with faculty, Literature and Writing students consider literary and nonliterary texts, learning not only how to interpret such texts, but also how to produce them. The course of study thus includes both theory and practice: students take part in the reading and the writing of literature, criticism, essays, and arguments.

Although most of their courses will be completed within the Literature and Writing curriculum, students may also pursue their interests by taking some courses in the

department's other master's programs (American Studies, Folklore, and Technical Writing), as well as doctoral courses in the Theory and Practice of Professional Communication PhD program. Permission of the Director of Graduate Studies in English is required. Coursework may include some online courses; however, Literature and Writing is an on-campus specialization and may not be completed by taking only online classes.

### Master of Technical Communications

The graduate specialization in Master of Technical Communication is designed for students who already have some training and/or experience as practitioners of technical writing. It is taught entirely online, via the Internet, and aims to prepare students to enter or reenter nonacademic workplaces, not just as practitioners, but also as developers and managers of technical documents. When they graduate, students will be qualified to determine and defend writing policy and practices in their workplaces.

To prepare students for these leadership roles, the Master of Technical Communication specialization provides them with a strong theoretical understanding of their profession. In their online graduate seminars, students will read widely in research and theory relating to workplace writing practices. They will critically examine both the theories and the practices, and they will explore ways in which each can enhance the other. They will also learn how to manage teams of writers, and they will explore ethical issues in the profession. The specialization balances the theoretical training with opportunities for students to improve their own practical skills as technical writers, learning how to apply theory and current technology to the production of a variety of technical documents. This practical training will include multimedia presentations and graphic design.

The Master of Technical Communication specialization is designed primarily for nontraditional students—working professional writers who want to enhance their credentials and build a strong theoretical understanding of their profession. However, it may also accept some traditional students who have just finished their undergraduate studies, provided they have some practical experience.

Students in Master of Technical Communication must complete 33 credits under the Plan C option. Courses may be taken in any sequence. Students in this specialization pursue the MS degree.

Return to: Academic Departments and Programs

English - MTC

Return to: Academic Departments and Programs

The professional degree program in Technical Communication is designed for students who already have some training and/or experience as practitioners of technical writing. The entire program may be completed online and prepares students for careers as developers and managers of technical documents. When they graduate, students will be qualified to determine and defend writing policy and practices in their workplaces. No matter where you go, you're sitting on our campus. For more information about the program, visit <https://english.usu.edu/htm/graduate/graduate-study/masters-of-technical-communication>.

### Master's Admissions Requirements

The School of Graduate Studies requires that students present scores no lower than the 40th percentile in the Graduate Record Examination (GRE) General test or Miller Analogies Test (MAT). However, these are minimal standards, and applicants will need to post considerably higher scores in order to be competitive with other applicants for this program. The GRE Subject test in English is not required. Applicants to the Master of Technical Communication program may take the GRE, MAT, or GMAT (Graduate Management Admission Test).

International applicants from non-English-speaking countries must present a minimum score on the Test of English as a Foreign Language (TOEFL) of 550 (paper-based), 213 (computer-based), or 80 (internet-based), or the equivalent score of 6.0 on the International English Language Testing System (IELTS).

Applicants need to have a minimum GPA of 3.00 on a 4.00 scale in the last 60 credits taken in order to be considered.

### Master's Admission Procedure

Master's students must apply for admission to the School of Graduate Studies. The online application for Graduate Studies can be found at [rgs.usu.edu/graduateschool/htm/admissions](https://rgs.usu.edu/graduateschool/htm/admissions). There is a \$55 fee required with the application. Here are the steps in the application process:

1. Fill out the online application.
2. Pay the application fee.
3. If you haven't already done so, take the GRE or MAT test.
4. Provide a copy of your transcript.
5. Provide three contacts for letters of recommendation.
6. Send a letter of intent (usually 250-750 words).
7. Send a writing sample.
8. Applicants to the online Master of Technical Communication Program should also send a current CV (curriculum vitae) or resume to the English Director of Graduate Studies (DGS).

### International Students

International applicants from non-English-speaking countries must also take the Test of English as a Foreign Language (TOEFL) unless their undergraduate degree is from a university in an English-speaking country. International students must also submit an I-20 application form and a financial guarantee. Please visit the Graduate School web page describing international application procedures and the Utah State web page providing information for international students. Find more information [here](#).

### Deadlines

There are two deadlines for the online Master of Technical Communication: March 1 for admission in summer or fall and November 1 for admission in spring. For the master's programs in English, American Studies, and Folklore, the main deadline is January 15. All application materials should arrive at Utah State by the deadline.

### Additional Questions

Please address additional questions to Dr. Christine Cooper-Rompato, Director of Graduate Studies in the English Department. E-mail: [christine.rompato@usu.edu](mailto:christine.rompato@usu.edu)  
Phone: (435) 797-3856

### Financial Information

For information on the cost of the program, see <http://distance.usu.edu/engwriting-MS/>. You can also

call (800)233-2137 or send an email to [distance.info@usu.edu](mailto:distance.info@usu.edu).

Not that employees of Utah State University may be eligible to receive a tuition reduction for this program. Call Human Resources for further information at 435-797-0216.

### MTC Degree Requirements

As part of the 33 credits required to graduate, three online classes are usually offered each fall semester and another three in the spring semester. However, since the semester's seminars typically include one or two non-repeatable classes, a student who has already taken those classes may only be able to take one or two of the available seminars in some semesters. Occasionally, classes will be offered in the summer - either online seminars or 3-credit, one-week, on-campus workshops. Students may also petition the Director of Graduate Studies to substitute an appropriate class in another program or department for a class in group C below.

The curriculum has been designed to allow students to complete all requirements within a three-year period although students may take longer if they choose. The School of Graduate Studies requires students to complete their degrees in no more than six years. Extensions of this deadline are sometimes allowed, but classes expire after EIGHT years and will no longer count towards the degree.

There are no prerequisite classes but some students may be advised to take preparatory classes. Classes may be taken in any sequence although students should complete the two core requirements (6400 and 6410) at their first opportunity after entering the program.

Students in the master's program who are able to come to the Logan campus may be able to include some face-to-face classes in their programs of study. For advising on how these classes will fit into the four groups below, contact the Director of Graduate Studies.

### Division of Classes

Students select classes from the three groups below for a total of 33 credit hours. All classes below are offered for 3 credits each.

#### A. Core Requirements (6 credits)

ENGL 6400 - Advanced Editing 3

ENGL 6410 - Theory and Research in Professional Communication 3

#### B. Issues in Professional Communication (6-15 credits)

ENGL 6420 - Usability Studies and Human Factors in Professional Communication 3

ENGL 6430 - Publications Management 3

ENGL 6450 - Reading Theory and Document Design 3

ENGL 6800 - Theory and Practice of Online Education in Writing 3

ENGL 6830 - Rhetorical Theory 3

ENGL 6890 - Studies in Writing and Rhetoric 3

#### C. Specialized Publications (6-21 credits)

ENGL 6460 - Studies in Digital Media 3

ENGL 6470 - Studies in Specialized Documents 3

### Faculty Research Areas

See <https://english.usu.edu/htm/graduate/graduate-study/prospective-students/faculty-research-areas/> for more information.

Return to: Academic Departments and Programs

### English Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

### Department of English

The standard nonteaching minor consists of 18 credits of various courses, 9 of which must be in upper-division coursework. Twelve of the 18 credits must be earned in residence at USU. Advanced Placement credit, CLEP credit, and credit from ENGL 1010 and ENGL 2010 may not be counted toward this minor. Students must have a 2.75 GPA overall to declare and average a 2.75 GPA within the minor with no grade lower than a C.

Complete the following:

Literature Exploration (3 credits)

ENGL 2600 - Literary Analysis

Culture Exploration (3 credits)

ENGL 2210 - Introduction to Folklore (BHU)

ENGL 2630 - Survey of American Culture (BHU)

ENGL 2720 - Survey of American Folklore

ENGL 3070 - Perspectives in Folklore (DHA)

ENGL 3620 - Native American Studies

ENGL 3700 - Regional Folklore (CI)

ENGL 3710 - Folklore Colloquium (CI)

Writing Exploration (3 credits)

ENGL 3080 - Introduction to Technical Communication (CI)

ENGL 3400 - Professional Writing (CI)

ENGL 3420 - Fiction Writing

ENGL 3430 - Poetry Writing

ENGL 3440 - Creative Nonfiction Writing

ENGL 4400 - Professional Editing (CI)

ENGL 4410 - Document Design and Graphics

Electives (9 credits)

Choose 9 credits of English Electives.

Return to: Academic Departments and Programs

English Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

English Teaching minor students must meet and maintain a 2.75 GPA for admission and graduation. This minor is available only to students completing a teaching major. Students may not use the P/D/F option, and grades C- and below must be repeated.

Please see an advisor (CHaSS Advising Center, Room 302, Taggart Student Center, 435-797-3883:

For help determining whether you should continue under the old requirements or switch to the new program

For advice and help with all aspects of your academic program

English Teaching Minor (27 credits)

A. Literature Courses (12 credits)

Select one of the following British Literacy History courses

ENGL 3305 - Medieval Literary History 3

ENGL 3315 - Early Modern British Literary History 3

ENGL 3325 - Eighteenth-Century British Literary History 3

ENGL 3335 - Nineteenth-Century British Literary History 3

ENGL 3345 - Literary History of the British Isles Since 1900 3

Select one of the following American Literary History courses

ENGL 3355 - Literary History of the Early Americas 3

ENGL 3365 - Nineteenth-Century American Literary History 3

ENGL 3375 - Literary History of the Americas Since 1900 3

Select one of the following World Literary History courses

ENGL 3385 - World Literary History Pre-1900 3

ENGL 3395 - World Literary History Since 1900 3

Select the following course

ENGL 4300 - Shakespeare 3

B. Writing Course (3 credits)

Select one of the following writing courses

ENGL 3400 - Professional Writing (CI) 3

ENGL 3420 - Fiction Writing 3

ENGL 3430 - Poetry Writing 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4400 - Professional Editing (CI) 3

ENGL 4410 - Document Design and Graphics 3

### C. English Teaching Courses (12 credits)

Select these three courses (9 credits)

ENGL 3510 - Teaching Young Adult Literature 3

ENGL 4500 - Teaching Writing (CI) 3

ENGL 4510 - Teaching Literature (CI) 3

Select one course from the following courses (3 credits)

ENGL 3520 - Multicultural American Literature 3

ENGL 4220 - Teaching Literacy in Diverse Classrooms 3

### Grammar Competency Requirement:

In addition to fulfilling the above requirements, students in the English teaching minor must fulfill a grammar competency requirement. They may meet this requirement by either enrolling in ENGL 1410, Elements of Grammar (also offered through Independent Study), or by passing a challenge exam in the English Department Writing Center (Ray B. West 104) with a score of 80 percent or better. For further information, contact the English undergraduate advisor (HASS Advising, Taggart Student Center 302).

Return to: Academic Departments and Programs

### Folklore Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of English

The 15-credit minor in folklore is an interdisciplinary program sponsored by the English Department and the History Department. The coursework for the minor must be approved by the Director of the Folklore Program, Lisa Gabbert, Ray B. West 204C. Folklore minor students must maintain a 2.5 GPA admissions and graduation standard. Courses used to fulfill the requirements for the English and History majors may not be used for the Folklore minor.

### A. Required Courses (6 credits)

ENGL 2210 - Introduction to Folklore (BHU) 3 or

HIST 2210 - Introduction to Folklore (BHU) 3 or

ANTH 2210 - Introduction to Folklore (BHU) 3

ENGL 5700 - Folk Narrative 3 or

HIST 5700 - Folk Narrative 3 or

ANTH 5700 - Folk Narrative 3

### B. Survey of Folklore in Culture and Place (3 credits)

Select one of the following courses:

ANTH 2720 - Survey of American Folklore 3 or

ENGL 2720 - Survey of American Folklore 3 or

HIST 2720 - Survey of American Folklore 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

### C. Folklore Genres (3 credits)

Select one of the following courses:

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 4700 - Folk Material Culture 3 or

HIST 4700 - Folk Material Culture 3

### D. Electives (3 credits)

Select one of the following courses:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3110 - North American Indian Cultures 3

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 4110 - Southwest Indian Cultures, Past and Present (DSS) 3

ANTH 4120 - Anthropology of Childhood (DSS/CI) 3

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ANTH 5190 - Applied Anthropology Practicum 1-5

ENGL 1600 - American Cultures in Film 3 or

HIST 1600 - American Cultures in Film 3

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3520 - Multicultural American Literature 3

ENGL 3620 - Native American Studies 3

ENGL 3710 - Folklore Colloquium (CI) 3 or

HIST 3710 - Folklore Colloquium (CI) 3 or

RELS 3710 - Folklore Colloquium (CI) 3

ENGL 4750 - Advanced Folklore Workshop: Fife Conference 3 or

HIST 4750 - Advanced Folklore Workshop: Fife Conference 3

HIST 4850 - Interpreting the Past for Teachers 3

Return to: Academic Departments and Programs

Theory and Practice of Professional Communication - PhD

Return to: Academic Departments and Programs

Return to: Academic Departments and Programs

Bioregional Planning - MS (Environment and Society)

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Degree Programs

The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. The Plan B option is available for students interested in professional careers who do

not desire research training. The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

The Plan A option for a master's degree requires preparation of a thesis. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper or other scholarly work. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

For the PhD degree, there is a more variable amount of required coursework, as well as a research dissertation. Compared to the MS degree, the PhD degree has a greater emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets.

Bioregional Planning

Bioregional Planning is aimed at students focused on how the biophysical attributes of a region influence the human dimensions of culture and settlement and the reciprocal of this. Offered jointly with the Department of Landscape Architecture and Environmental Planning, the program has an interdisciplinary core of courses that provides the background for addressing complex issues in the areas of environmental analysis, planning, and policy. Employment is available in both the private and public sectors, wherever there is emphasis on large-scale planning and management.

Return to: Academic Departments and Programs

Ecology (Environment and Society) - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

## Department of Environment and Society

The Environment and Society Department offers MS and PhD degrees in Ecology through the ecology program at Utah State University. This program is administered by the interdepartmental Ecology Center.

### Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

### Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

### Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate;

Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

### Ecology Course Requirements

#### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems  
and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

## 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

## 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems  
3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3  
or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems  
3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland  
Ecosystem Management 3

## 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center  
webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex  
Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology  
Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

## 5. Human Ecology

## Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

## Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

## Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

## Translational Ecology

ENVS 6410 - Translational Ecology 3

## Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Ecology (Environment and Society) - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

The Environment and Society Department offers MS and PhD degrees in Ecology through the ecology program at Utah State University. This program is administered by the interdepartmental Ecology Center.

Interdepartmental Program in Ecology

Director: Nancy Huntly

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E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

## Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

### Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

### Ecology Course Requirements

#### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is

required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

#### 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

5. Human Ecology

Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

Translational Ecology

ENVS 6410 - Translational Ecology 3

Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Environmental Studies - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

The Environmental Studies major consists of 75-76 credits. This total includes the disciplinary foundation, professional courses, and an emphasis area of 15 or more credits.

Students must complete the General Education Requirements:

CHEM 1110, BIOL 1010 and ENVS 2340 may be used toward the Breadth requirements.

GEOG 1000 or GEO 1110 will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

WATS 3700, plus another course having CI designation (such as ENVS 5640 or SOC 5640), will fulfill the Communication Intensive requirement

ENVS 3500 will fulfill the Quantitative Intensive requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC). HIST 3950 or PHIL 3530 and ENVS 3600 or WATS 3100, will fulfill this requirement.

A. Disciplinary Foundation (18 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

CHEM 1110 - General Chemistry I (BPS) 4

HIST 3950 - Environmental History (DHA/CI) 3 or

PHIL 3530 - Environmental Ethics (DHA) 3

MATH 1050 - College Algebra (QL) 4

STAT 2000 - Statistical Methods (QI) 4

B. Professional Coursework (34-35 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 2000 - Natural Resources Professional Orientation 1

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 5000 - Environmental Nonprofit and Volunteer Management 3

GEOG 1000 - Physical Geography (BPS) 3

OR

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

C. Animal Course (select 3 credits)

ENVS 3600 - Living with Wildlife (DSC) 3

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3

D. Plant Course (select 3 credits)

BIOL 3040 - Plants and Civilization (DSC) 3

PSC 3500 - Structure and Function of Plants 3

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

E. Policy Course (select 3 credits)

The course chosen from this section cannot also be applied toward the emphasis area.

ENVS 4130 - Recreation Policy and Planning 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

ENVS 6320 - Water Law and Policy in the United States 3

Another course related to natural resource or environmental policy, numbered 3000 or higher 3

F. Area of Emphasis (15 credits)

In addition to completing the courses listed above, students majoring in Environmental Studies are required to select an emphasis of at least 15 credits to complement their general professional foundation. Students must file an approved emphasis plan prior to applying for graduation, but it is recommended that they meet with their advisor to develop and gain approval for the emphasis no later than midway through the first semester of their junior year.

Complete 15 credits chosen from one of the following seven emphasis areas:

Business and Economics

APEC 5560 - Natural Resource and Environmental Economics 3

ECN 3170 - Law and Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

Other business or economics course approved by faculty advisor 3-4

Communications

CMST 5250 - Communication, Social Justice and the Environment 3

ENGL 3440 - Creative Nonfiction Writing 3

ENGL 4630 - American Nature Writers 3

ENVS 4600 - Natural Resource Interpretation 3

ENVS 4700 - Communicating Sustainability 3

JCOM 1130 - Beginning Newswriting for the Mass Media 3

Other communications course approved by faculty advisor 3-4

Environmental Policy

ENVS 4130 - Recreation Policy and Planning 3

ENVS 5300 - Natural Resources Law and Policy 2

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

Other policy course approved by faculty advisor 3-4

Human Impacts on the Environment

ENVS 4700 - Communicating Sustainability 3

GEO 3100 - Natural Disasters (DSC) 3

HIST 3950 - Environmental History (DHA/CI) 3  
PSC 3820 - Climate and Climate Change (DSC/QI) 3 or  
WATS 3820 - Climate and Climate Change (DSC/QI) 3  
SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3  
WILD 4600 - Conservation Biology 3  
Other appropriate course approved by faculty advisor 3-4

#### International

ANTH 2010 - Peoples of the Contemporary World (BSS) 3  
ECN 5400 - International Trade Theory 3  
ENVS 5550 - Sustainability: Concepts and Measurement 3  
GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3  
GEOG 4120 - Environment and Development in Latin America (CI) 3  
GEOG 4140 - Violent Environments: Linking Ecology and Conflict in Sub-Saharan Africa 3  
GEOG 4220 - International Regional Geography 3  
Other course with international focus approved by faculty advisor 3-4

#### Planning and Analysis

BIOL 5010 - Biogeography 3  
ENVS 4130 - Recreation Policy and Planning 3  
ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or  
SOC 5640 - Managing Community Conflict (CI) 3  
GEO 3100 - Natural Disasters (DSC) 3  
LAEP 3700 - City and Regional Planning (CI) 3  
WATS 4930 - Advanced GIS and Spatial Analysis 3  
WATS 4931 - GIS Research Projects 2  
Other planning course approved by faculty advisor 3-4  
Environmental Stewardship

In consultation with his or her advisor, a student may develop a custom emphasis of at least 15 credits. Students pursuing this option must fill out an emphasis form describing educational goals and specific courses to be taken. A University-approved minor may be used to meet this requirement, subject to approval by the student's advisor and department head.

#### G. Electives

Students may take the remainder of the 120 credits from any department. The guidelines described under "Breadth Requirements" and "Depth Education Requirements" should be consulted to ensure meeting University Studies Requirements.

#### Environmental Studies Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

#### Freshman Year (29-30 credits)

##### First Semester (13-14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 2000 - Natural Resources Professional Orientation 1

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1000 - Physical Geography (BPS) 3 or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1

approved Breadth American Institutions (BAI) course

##### Second Semester (16 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

MATH 1050 - College Algebra (QL) 4

approved Breadth Humanities (BHU) course

approved Breadth Creative Arts (BCA) course

Area of emphasis or elective course 3

#### Sophomore Year (29 credits)

##### First Semester (14 credits)

CHEM 1110 - General Chemistry I (BPS) 4

GEOG 1800 - Introduction to Geographic Information Sciences 3

STAT 2000 - Statistical Methods (QI) 4

WILD 2200 - Ecology of Our Changing World (BLS) 3

Second Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENVS 3330 - Environment and Society 3

HIST 3950 - Environmental History (DHA/CI) 3 or

PHIL 3530 - Environmental Ethics (DHA) 3

Plant or Animal course 3

Policy or area of emphasis course 3

Junior Year (31-32 credits)

First Semester (16-17 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

Plant or Animal course 3

Area of emphasis or elective courses 7-8

Second Semester (15 credits)

WATS 3700 - Fundamentals of Watershed Science (CI) 3

Policy or area of emphasis course 3

Area of emphasis or elective courses 9

Senior Year (30 credits)

First Semester (15 credits)

ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

Area of emphasis or elective courses 9

Second Semester (15 credits)

ENVS 5000 - Environmental Nonprofit and Volunteer Management 3

Policy or area of emphasis courses 12

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Environmental Studies Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

The Environmental Studies minor is open to all majors, except those in the S.J. and Jessie E. Quinney College of Natural Resources. However, this minor is available to students enrolled in the Geography major. Students wishing to minor in Environmental Studies should contact the Department of Environment and Society to meet with the department's designated minor advisor. All courses required for the minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all courses taken to meet the requirements for the minor. A minimum GPA of 2.5 is required for courses taken to complete the minor.

#### A. Required Courses (9 credits)

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

#### B. Policy or Economics Course (3 credits)

Select one of the following courses in natural resources policy or economics:

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 4130 - Recreation Policy and Planning 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

ENVS 6320 - Water Law and Policy in the United States 3

#### C. Electives (3 credits)

Select one additional upper-division (3000-level or higher) course of 3 credits or more, which provides greater depth in an area of natural or social sciences that can be applied to the management of natural resources and the environment, to be selected in consultation with the Environmental Studies minor advisor.

Return to: Academic Departments and Programs

Geography (Environment and Society) - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

The Geography major consists of a minimum of 62 credits. Students choose one of three areas of emphasis: Human-Environment Geography, Geographical Analysis and Bioregional Planning, or Physical Geography. All students complete a common core of 17 credits and also complete two courses from each of the other two emphasis cores, ensuring a broad and meaningful geography education.

Students must complete the General Education Requirements:

GEOG 1000 and GEOG 1300 may be used toward the Breadth requirements

An additional BPS course (such as GEO 1110 or PHYS 2220) or an additional BSS course (such as ANTH 2010 or ENVS 2340), if chosen as an elective, will fulfill the Exploration requirement.

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as ENVS 4500, HIST 3950, SOC 3110, SCED 3210, SCED 4200 and WATS 3700) will fulfill the Communication Intensive requirement

One course having a QI designation (such as ENVS 3500, PHYS 2210, PHYS 2220, SOC 3120, STAT 2000, STAT 3000 or WATS 3820) will fulfill the Quantitative Intensive requirement

Students completing either the Human-Environment Geography or Geographical Analysis and Bioregional Planning emphases must complete at least 2 credits from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC). Students completing the Physical Geography emphasis must complete at least 2 credits from each of the following two categories: Humanities and Creative Arts (DHA) and Depth Social Sciences (DSS).

#### A. Geography Core (17 credits)

ENVS 2000 - Natural Resources Professional Orientation  
1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

#### B. Emphasis Area (45 credits)

Students majoring in Geography are required to select an emphasis from one of the following three areas to complement the disciplinary core: Human-Environment Geography, Geographical Analysis and Bioregional Planning, or Physical Geography. Students must file an approved emphasis plan prior to applying for graduation, but it is recommended that they meet with their faculty advisor to develop and gain approval for the emphasis no later than midway through the first semester of the junior year.

##### 1. Human-Environment Geography Emphasis (45 credits)

###### a. Human-Environment Geography Core (21 credits)

ENVS 3330 - Environment and Society 3

GEOG 4120 - Environment and Development in Latin America (CI) 3

GEOG 4210 - Geography of Utah 3

GEOG 5600 - Theory and Practice of Development 3

HIST 3950 - Environmental History (DHA/CI) 3

STAT 1040 - Introduction to Statistics (QL) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

###### b. Elective Courses (24 credits)

Complete 24 credits chosen from the following list:

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3

ENVS 3600 - Living with Wildlife (DSC) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 4500 - Wildland Recreation Behavior (CI) 3

ENVS 4700 - Communicating Sustainability 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

GEOG 3430 - Political Geography 3 or POLS 3430 - Political Geography 3

GEOG 4220 - International Regional Geography 3

PHIL 3530 - Environmental Ethics (DHA) 3

SOC 3110 - Methods of Social Research (CI) 3

SOC 3120 - Social Statistics I (QI) 3

SOC 3200 - Population and Society (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

##### 2. Geographical Analysis and Bioregional Planning Emphasis (45-46 credits)

###### a. Geographical Analysis and Bioregional Planning Core (21-22 credits)

ENVS 5550 - Sustainability: Concepts and Measurement 3

HIST 3950 - Environmental History (DHA/CI) 3

LAEP 3700 - City and Regional Planning (CI) 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

WILD 5750 - Applied Remote Sensing 3

###### b. Elective Courses (24 credits)

Complete 24 credits chosen from the following list:

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 4130 - Recreation Policy and Planning 3

ENVS 4700 - Communicating Sustainability 3

ENVS 6320 - Water Law and Policy in the United States 3

GEOG 4120 - Environment and Development in Latin America (CI) 3

GEOG 4210 - Geography of Utah 3

GEOG 4220 - International Regional Geography 3

LAEP 2300 - History of Landscape Architecture 3

PHIL 3530 - Environmental Ethics (DHA) 3

POLS 4820 - Natural Resources and Environmental Policy: Political Economy of Environmental Quality (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

STAT 5410 - Applied Spatial Statistics 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4931 - GIS Research Projects 2

WILD 3800 - Wildland Plants and Ecosystems 4

### 3. Physical Geography Emphasis (45-46 credits)

Note:

The Physical Geography Emphasis is administered through the Watershed Sciences Department.

#### a. Physical Geography Core (21-22 credits)

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

WATS 3600 - Geomorphology 4

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4930 - Advanced GIS and Spatial Analysis 3

#### b. Elective Courses (24 credits)

Complete 24 credits chosen from the following list:

BIOL 5010 - Biogeography 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 6320 - Water Law and Policy in the United States 3

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1

GEO 3100 - Natural Disasters (DSC) 3

HIST 3950 - Environmental History (DHA/CI) 3

MATH 1100 - Calculus Techniques (QL) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

STAT 5410 - Applied Spatial Statistics 3

WATS 4931 - GIS Research Projects 2

WATS 5150 - Fluvial Geomorphology 3

WATS 5170 - Fluvial Geomorphology Lab 2

WILD 5750 - Applied Remote Sensing 3

#### c. General Electives

After meeting the University Studies, USU upper-division, and Geography Major requirements, students may take the remainder of their 120 required credits in any discipline and from any department.

Geography Major with Geographical Analysis and Bioregional Planning Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 1990 - Professional Orientation for Environment and Society 1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

Exploration or Elective course 3

Second Semester (16 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Exploration or Elective course 3

Sophomore Year (30-31 credits)

First Semester (15-16 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

GEOG 1300 - World Regional Geography (BSS) 3

HIST 3950 - Environmental History (DHA/CI) 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

USU 1330 - Civilization: Creative Arts (BCA) 3 or

Other Approved Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

LAEP 3700 - City and Regional Planning (CI) 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

Degree Emphasis Elective courses 6

Junior Year (30 credits)

First Semester (15 credits)

Degree Emphasis Elective courses 12

Elective course 3

Second Semester (15 credits)

ENVS 5550 - Sustainability: Concepts and Measurement 3

Degree Emphasis Elective courses 6

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

WILD 5750 - Applied Remote Sensing 3

Elective courses 12

Second Semester (15 credits)

WATS 4930 - Advanced GIS and Spatial Analysis 3

Elective courses 12

Geography Major with Human-Environment Geography Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 1990 - Professional Orientation for Environment and Society 1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

Elective course 3

Second Semester (16 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Exploration or Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

GEOG 1300 - World Regional Geography (BSS) 3

HIST 3950 - Environmental History (DHA/CI) 3

STAT 1040 - Introduction to Statistics (QL) 3

USU 1330 - Civilization: Creative Arts (BCA) 3 or

Other Approved Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ENVS 3330 - Environment and Society 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

Degree Emphasis Elective course 3

Exploration or Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

GEOG 4120 - Environment and Development in Latin America (CI) 3

Degree Emphasis Elective (DSS) course 3

Degree Emphasis Elective courses 6

Elective course 3

Second Semester (15 credits)

GEOG 4210 - Geography of Utah 3

Degree Emphasis Elective courses 6

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

GEOG 5600 - Theory and Practice of Development 3

Degree Emphasis Elective course 3

Elective courses 9

Second Semester (15 credits)

Degree Emphasis Elective course 3

Elective courses 12

Geography Major with Physical Geography Emphasis  
Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (29 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 2000 - Natural Resources Professional Orientation 1

Elective course 3

Second Semester (15 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or	WATS 3700 - Fundamentals of Watershed Science (CI) 3
Other Approved Breadth American Institutions (BAI) course 3	WATS 3820 - Climate and Climate Change (DSC/QI) 3
USU 1320 - Civilization: Humanities (BHU) 3 or	Degree Emphasis Elective courses 6
Other Approved Breadth Humanities (BHU) course 3	Elective course 3
USU 1330 - Civilization: Creative Arts (BCA) 3 or	Senior Year (31 credits)
Other Approved Breadth Creative Arts (BCA) course 3	First Semester (15 credits)
Elective course 2	Additional 3000-level or higher DHA or DSC course 3
Sophomore Year (31-32 credits)	Degree Emphasis Elective course 3
First Semester (16-17 credits)	Elective courses 9
ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3	Second Semester (16 credits)
GEOG 1300 - World Regional Geography (BSS) 3	WATS 4490 - Small Watershed Hydrology (QI) 4
PSC 3000 - Fundamentals of Soil Science 4	WATS 4930 - Advanced GIS and Spatial Analysis 3
STAT 2000 - Statistical Methods (QI) 4 or	Additional 3000-level or higher DHA or DSC course 3
STAT 3000 - Statistics for Scientists (QI) 3	Elective courses 6
Elective course 3	Minimum University Requirements
Second Semester (15 credits)	Total Credits
GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3	120
LAEP 3700 - City and Regional Planning (CI) 3	Grade Point Average (most majors require higher GPA)
Approved Breadth Life Science (BLS) course 3	2.00 GPA
Degree Emphasis Elective (DHA) course 3	Credits of C- or better
Degree Emphasis Elective course 3	100
Junior Year (31 credits)	Credits of upper-division courses (#3000 or above)
First Semester (16 credits)	40
WATS 3600 - Geomorphology 4	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
Degree Emphasis Elective (CI) course 3	30 USU credits
Degree Emphasis Elective (DSS) course 3	Completion of approved major program of study
Degree Emphasis Elective course 3	See college advisor
Elective course 3	Credits in minor (if required)
Second Semester (15 credits)	12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Geography - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Degree Programs

The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. The Plan B option is available for students interested in professional careers who do not desire research training. The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

The Plan A option for a master's degree requires preparation of a thesis. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper or other scholarly work. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

For the PhD degree, there is a more variable amount of required coursework, as well as a research dissertation. Compared to the MS degree, the PhD degree has a greater

emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets.

Geography

Geographers explore the relationship between people and places, and why it matters where something happens or is located. They study the spatial patterns of human activity across the earth, the processes underlying those patterns, and the linkages among places in a globalizing world. Geography is a diverse field, with career opportunities in the private, public, or nonprofit sectors in fields such as education and research, environmental assessment, international aid and development, planning, and spatial analysis. The graduate curriculum is centered on study of the human-environment relationship, with opportunities for additional training in geographic information systems, remote sensing, and quantitative and qualitative analysis. Geography is also one of the majors featured in Utah State University's Peace Corps Master's International Program, where students can combine coursework and thesis preparation with two years' service in the Peace Corps. This information can be found at:  
[globalengagement.usu.edu/htm/education/peace-corps-masters-international-program](http://globalengagement.usu.edu/htm/education/peace-corps-masters-international-program).

Return to: Academic Departments and Programs

Geography Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

All courses required for the Geography minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all courses taken to meet requirements for the minor. Students must maintain a 2.5 or higher grade point average in all courses taken from offerings within the S.J. and Jessie E. Quinney College of Natural Resources.

Minor Requirements (19 credits):

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

GEOG 4120 - Environment and Development in Latin America (CI) 3 or

GEOG 4210 - Geography of Utah 3 or

GEOG 4220 - International Regional Geography 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

Return to: Academic Departments and Programs

Geography Teaching - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

(88-104 Credits)

The teaching major in Geography consists of the geography courses (36 credits minimum, shown in sections A, B, and C below), a teaching minor (17-33 credits), and the Secondary Teacher Education Program (STEP) (35 credits). A 2.75 or higher overall cumulative GPA in 90 credits is required for admission to the STEP. The 2.75 minimum overall cumulative GPA must be maintained for graduation.

University Studies

Students must complete the General Education Requirements:

GEOG 1000 and GEOG 1300 may be used toward the Breadth requirements

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as GEOG 4120, SCED 3210 or SCED 4200) will fulfill the Communication Intensive requirement

One course having a QI designation is needed to fulfill the Quantitative Intensive requirement

A. Geography Teaching Major Foundation Courses (20 credits)

ENVS 2000 - Natural Resources Professional Orientation 1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

GEOG 4120 - Environment and Development in Latin America (CI) 3 or

GEOG 4220 - International Regional Geography 3

GEOG 4210 - Geography of Utah 3

B. Geography Education Pedagogical Methods Courses (4 credits)

SCED 3300 - Clinical Experience I 1

SCED 3500 - Teaching Social Studies 3

C. Geography Education Elective Courses (12 credits)

Students should complete 12 additional credits from among the core courses for the emphasis in the Geography major (Human-Environment Geography, Geographical Analysis and Bioregional Planning, Physical Geography). All electives must be approved by the Geography Teaching faculty advisor.

D. Teaching Minor (17-33 credits)

A teaching major in Geography also requires an approved teaching minor from another field of study acceptable to the Secondary Education Program of the School of Teacher Education and Leadership (TEAL).

E. Secondary Teacher Education Program (STEP) (35 credits)

Students must complete three levels in the STEP. All three levels of the STEP will be offered during fall and spring semesters, not during summers. Levels of the STEP are taken as a package, not piecemeal. Each level must be satisfactorily completed before a student is

advanced to the next level. All courses must be completed with a minimum grade of C-. Prior to admission to the STEP, students in the Geography Teaching Major must complete MATH 1050, unless their Math ACT score is 25 or higher.

Students should consult with advisors in major and minor departments for scheduling of special methods classes at Levels 1 and 2. Although certain combinations of majors and minors require three special methods classes, only two clinical experiences (total) should be scheduled at Levels 1 and 2. These in-school experiences are coordinated by methods instructors.

1. Level 1 (15-week courses) (11 credits minimum)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

Clinical Experience I (30 hrs. minimum) (3300 in various departments) 1

Special Methods I (major or minor) (taught in various departments) 3

2. Level 2 (15-week courses) (12 credits minimum)

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

Clinical Experience II (30 hrs. minimum) (4300 in various departments) 1

Special Methods II (major or minor) (taught in various departments) 3

3. Level 3 (includes a minimum of 13 weeks of student teaching and 2 weeks of Student Teaching Seminar) (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

F. Electives

After meeting the University Studies, USU upper-division, and geography teaching major requirements, students may take the remainder of their 120 required credits in any discipline and from any department.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Geography Teaching Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Note:

A teaching minor in Geography requires an approved teaching major in another subject. All courses required for the Geography Teaching minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all GEOG courses taken to meet requirements for the minor. A minimum GPA of 2.5 is required for courses taken to complete the minor.

#### A. Geography Teaching Minor Foundation Courses (19 credits)

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

GEOG 4120 - Environment and Development in Latin America (CI) 3 or

GEOG 4220 - International Regional Geography 3

GEOG 4210 - Geography of Utah 3

#### B. Geography Education Courses (4 credits)

SCED 3300 - Clinical Experience I 1

SCED 3500 - Teaching Social Studies 3

Return to: Academic Departments and Programs

Human Dimensions of Ecosystem Science and Management - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Degree Programs

The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. The Plan B option is available for students interested in professional careers who do not desire research training. The PhD degree is intended

for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

The Plan A option for a master's degree requires preparation of a thesis. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper or other scholarly work. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

For the PhD degree, there is a more variable amount of required coursework, as well as a research dissertation. Compared to the MS degree, the PhD degree has a greater emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets.

Human Dimensions of Ecosystem Science and Management MS/PhD

These degrees are aimed at students who desire to be problem-solvers with an ability to integrate the human and biophysical aspects of ecosystems, and to analyze policies and decisions that encourage sustainability of human communities and ecosystems. The MS degree prepares students for professional practice in natural resources and environmental planning and management, policy and program analysis, public affairs, environmental education, community assessment and collaboration, conflict management, and extension/outreach. The PhD program places a greater emphasis on basic theory and research methods in one or more social science disciplines, and thus prepares students for university teaching, research, and extension; for conducting agency and private organizational research; and for positions in formal policy and program evaluation.

Return to: Academic Departments and Programs

## Human Dimensions of Ecosystem Science and Management - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

### Degree Programs

The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. The Plan B option is available for students interested in professional careers who do not desire research training. The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

The Plan A option for a master's degree requires preparation of a thesis. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper or other scholarly work. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

For the PhD degree, there is a more variable amount of required coursework, as well as a research dissertation. Compared to the MS degree, the PhD degree has a greater emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets.

## Human Dimensions of Ecosystem Science and Management MS/PhD

These degrees are aimed at students who desire to be problem-solvers with an ability to integrate the human

and biophysical aspects of ecosystems, and to analyze policies and decisions that encourage sustainability of human communities and ecosystems. The MS degree prepares students for professional practice in natural resources and environmental planning and management, policy and program analysis, public affairs, environmental education, community assessment and collaboration, conflict management, and extension/outreach. The PhD program places a greater emphasis on basic theory and research methods in one or more social science disciplines, and thus prepares students for university teaching, research, and extension; for conducting agency and private organizational research; and for positions in formal policy and program evaluation.

Return to: Academic Departments and Programs

## National Environmental Policy Act (NEPA) Certificate

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Director: Joanna Endter-Wada, Department of Environment and Society

Program Administrator: Melanie Conrad

Location: Natural Resources 322

Phone: (435) 797-3375

FAX: (435) 797-4048

E-mail: [melanie.conrad@usu.edu](mailto:melanie.conrad@usu.edu)

WWW: <http://www.qcnr.usu.edu/htm/students/nepa>

### Graduate Program Description

The Department of Environment and Society at Utah State University and the Shipley Group, Inc. have formed a partnership to provide a graduate-level certificate program that offers training related to the National Environmental Policy Act (NEPA). NEPA is an important environmental law that requires analysis of impacts, alternatives, and mitigation measures for all major federal actions affecting the environment, both within the territorial boundaries of the U.S. and at foreign military installations. Government agencies, private

businesses, public interest organizations, and other groups involved in the NEPA process need individuals who have been trained in decision-making, analysis, and documentation aspects of NEPA, as well as in the accompanying Council on Environmental Quality (CEQ) regulations and various agencies' NEPA implementing procedures.

The NEPA Certificate Program was designed to prepare natural resource and environmental professionals to meet the challenges of complying with the Act and working effectively on NEPA documents. Participants who successfully complete the program should have a solid understanding of both the spirit and the letter of the law, and will be more effective members of interdisciplinary teams responsible for developing NEPA documents.

### Certificate

Students who complete the program will receive a graduate-level certificate in the National Environmental Policy Act. Their USU transcript will list the courses and grades received to complete the program.

### Admission Requirements

To apply for admittance to the program, a person must complete and submit a NEPA Certificate Program application form, as well as provide a transcript documenting the completion of a bachelor's degree. Students pursuing the NEPA Certificate are not required to be enrolled in a graduate degree program. However, credits obtained from the program may be applied toward a graduate degree.

### Course Requirements

To receive the Certificate, a participant must complete the following set of requirements:

Apply and be accepted into the NEPA Certificate Program

Register for and successfully complete seven graduate-level courses (four required courses and three elective courses)

Complete an individual capstone experience for graduate credit

Maintain a minimum 3.0 GPA for program courses (grades below C will not be accepted)

Abide by the Code of Policies and Procedures for Students at Utah State University.

## NEPA Certificate Program Courses

Courses for the program are offered in the short-course format at various locations around the country or as webinars. To view the current schedule of courses, please go to the Shipley Group website at: [www.shipleygroup.com](http://www.shipleygroup.com). Two-credit courses are 3-4 days and one-credit courses are 1-2 days. To receive graduate credit a participant must complete of a written examination in addition to class attendance. All courses offered as part of the NEPA Certificate Program may be taken for university graduate credit, whether or not a participant in the course is enrolled in the NEPA Certificate Program.

### Curriculum

Students must complete four core courses (2 credits each), three elective courses (1 credit each), and a capstone experience (1 credit) in order to fulfill the requirements for the NEPA Certificate.

### Core Courses

Participants are required to take the following four courses:

NEPA 6200 - How to Manage the NEPA Process and Write Effective NEPA Documents 2

NEPA 6210 - Clear Writing for NEPA Specialists 2

NEPA 6220 - Reviewing NEPA Documents 2

NEPA 6260 - Cultural and Natural Resource Management 2

### Elective Courses

Participants are required to take three courses of their choosing from the following list:

NEPA 6310 - NEPA Writing for Technical Specialists 1

NEPA 6320 - NEPA: Cumulative Impacts 1

NEPA 6360 - Overview of the Endangered Species Act 1

NEPA 6380 - NEPA Process Management 1

NEPA 6390 - NEPA Climate Change Analysis 1

### Capstone Experience

After completing the coursework, participants are required to complete a NEPA Capstone Experience

(NEPA 6370) before being awarded the NEPA Certificate. This experience will be individualized for each participant and will consist of a project that has been negotiated between the participant and the Director.

Return to: Academic Departments and Programs

## Natural Resources and Environmental Education (NREE) Certificate

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

Director: Mark Brunson, Department of Environment and Society

Location: Natural Resources 216

Phone: (435) 797-2458

E-mail: mark.brunson@usu.edu

Program Office: Department of Environment and Society

Location: Natural Resources 201

Phone: (435) 797-1790

FAX: (435) 797-4048

WWW:

<http://www.cnr.usu.edu/envs/index.cfm?graduate-programs&nree-certificate>

## Graduate Program Description

The Natural Resources and Environmental Education (NREE) Program offers an Interdisciplinary Graduate Certificate Program to provide graduate students with a comprehensive educational foundation for understanding and communicating natural resources and environmental information, and for developing the analytical skills needed to effectively implement appropriate environmental education and communication techniques for varying audiences. The NREE Certificate Program is administered by the Department of Environment and Society, S.J. and Jessie E. Quinney College of Natural Resources. The certificate program consists of three components, for a total of 15-17 credits: (1) the NREE Core that includes two foundation courses, a NREE graduate seminar, and an

"integrating" capstone experience; (2) one Human Dimensions of Natural Resources/Environment course; and (3) one Natural Resources/Environmental Management course.

The purpose of the certificate is to meet an identified need expressed by graduate students with interests in working professionally in the field of natural resources and environmental education and interpretation. The certificate program provides an interdisciplinary perspective on environmental education, and provides graduate students with the ability to teach people how to think critically and creatively in understanding, interpreting, and dealing with environmental issues and challenges. This approach enables students to focus on a broad spectrum of issues and content related to natural resources and the environment.

The structure of the certificate program emphasizes: (1) processes and skills necessary to present and integrate information across a broad spectrum of delivery systems; (2) interdisciplinary information and technical content across many areas, including natural resources, ecology, human resources, history, education, sociology, etc.; and (3) development of an interest area of personal/professional inquiry. The program provides a mechanism to support graduate student project development and research, emphasizing scholarship, discovery, and application of findings in applied settings in order to contribute to the professional field of natural resources and environmental education and interpretation.

Completion of the certificate program will provide graduate students with a working knowledge of the depth and breadth of the professional field of environmental education and interpretation. Moreover, it will prepare them for a job market demanding innovative and creative approaches for incorporating environmental education and interpretation in natural resource management agencies, in both formal (K-12 school-based) and nonformal (youth, community, and outdoor) education programs, in nonprofit organizations, and in the for-profit commercial sector. Although professionals working in natural resources and environmental education may work in a wide range of settings, they share one objective: to help people appreciate and understand the relationship between humans and the natural world around them. Thus, the value of the NREE Certificate Program goes far beyond more traditional approaches associated with education-oriented certificate programs.

## Certificate

Students who complete the program receive a certificate in Natural Resources and Environmental Education. Notification of this certificate appears on the student's transcript.

## Admission Requirements

To apply for admittance into the NREE Interdisciplinary Graduate Certificate Program, a graduate student must: (1) be accepted by the School of Graduate Studies at Utah State University for graduate study (current or provisional), (2) complete an NREE Interdisciplinary Graduate Certificate Program Application, and (3) submit a resume with references, along with a narrative describing personal interest in completing the NREE Certificate Program with respect to his or her professional goals. The NREE Program Director reviews the application and makes a recommendation for admittance into the certificate program, if appropriate, to the NREE Certificate Advisory Committee.

## Student Advisement

An NREE Certificate Advisory Committee, comprised of the NREE Program Director, NREE Program Associate, and two NREE-affiliated faculty from participating departments and colleges, will assist in reviewing graduate student applications for admission into the certificate program, identifying major advisors, identifying funding opportunities, recommending courses to meet the NREE Certificate requirements, and advising graduate students. Graduate students accepted into the NREE Certificate Program will work with their major faculty advisor, as well as with the NREE Certificate Advisory Committee, to support them in understanding and meeting the requirements of the NREE Graduate Certificate Program.

## Course Requirements

The NREE Interdisciplinary Graduate Certificate Program consists of three curriculum components, for a total of 15-17 credits: (1) the NREE Core, (2) one Human Dimensions of Natural Resources/Environment course, and (3) one Natural Resources/Environmental Management course. Many of the identified courses in the latter two categories will also satisfy the requirements for a specific degree program in different departments. Therefore, students can select courses in these two categories to complete their specific degree

requirements, while at the same time satisfying the requirements of the NREE Certificate Program.

## I. Natural Resources and Environmental Education Core Courses (10 credits)

For the NREE Interdisciplinary Graduate Certificate Program, students are required to take the following two foundation courses, participate in the Graduate Seminar, and complete an “integrating” capstone experience, for a total of 10 credits, to fulfill the requirements of the NREE Graduate Certificate Program Core.

### NREE Graduate Core:

#### Foundation Courses

ENVS 6600 - Advanced Natural Resource Interpretation 3

ENVS 6610 - Foundations of Environmental Education 3

#### Note:

The Environmental Education course and the Advanced Natural Resource Interpretation course serve as Foundation Courses. Environmental Education covers teaching about the environment, as well as using the environment and natural world to teach other subjects, with a strong emphasis on participation and on practicing techniques. Advanced Natural Resource Interpretation examines the planning processes, techniques, and evaluation procedures for using information and education to influence human behavior and increase benefits to visitors in natural settings, and also focuses on the leadership of teams involved in producing personal and nonpersonal interpretive programs and materials.

#### Graduate Seminar

ENVS 6800 - Environment and Society Departmental Seminar 1

#### Note:

The Graduate Seminar requires student attendance at a number of different speaker seminars, occurring during the fall or spring semester, that are related to NREE, along with occasional meetings with NREE affiliated faculty to discuss connections and relevance of the seminars to NREE.

#### Capstone Experience

Students must complete 3 credits in a capstone experience, developed in consultation with a faculty advisor. Credits may be completed in the following types of courses:

Graduate Internship/Co-op

Graduate Special Topics

Graduate Directed Study

Thesis Research

Dissertation Research

The Capstone Experience requirement may be fulfilled in a number of ways, based on each student's interest, through an internship/co-op/ special field experience, an investigation of a special topic and/or development of a project, directed readings/study, or a research project. In meeting this requirement, it will be important for students to be able to demonstrate they are getting an "integrating" capstone experience in natural resources and environmental education. Depending on the topic and its relationship to natural resources and environmental education, the completion of a student's Plan A thesis or Plan B project at the master's level may also fulfill this requirement. A student's doctoral dissertation research may qualify as a Capstone Experience. The student's graduate advisor, graduate committee, and NREE Advisory Committee will approve the "capstone" experience. A final "integrative" paper or thesis/dissertation will be the product for the "capstone" experience, emphasizing scholarship and discovery, as well as application of findings in applied settings in natural resources and environmental education.

## II. Human Dimensions of Natural Resources/ Environment Courses (2-3 credits)

For the NREE Interdisciplinary Graduate Certificate Program, students are required to take one of the following courses, in order to gain a human dimensions' orientation toward natural resources and the environment, and help place natural resources and environmental education in a broader context of human-environment relationships.

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5300 - Natural Resources Law and Policy 2

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3

ENVS 6000 - Theoretical Foundations in Human Dimensions of Ecosystem Science and Management 3

ENVS 6110 - Fisheries and Wildlife Policy and Administration 3

HIST 6460 - Seminar in Environmental History 3

POLS 5200 - Global Environment 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Note:

There may be another course that can satisfy this requirement, but the course will need to be approved by the student's graduate advisor and the NREE Advisory Committee.

## III. Natural Resources/Environmental Management Courses (3-4 credits)

For the NREE Interdisciplinary Graduate Certificate Program, students are required to take one of the following courses in order to gain a management perspective toward natural resources and the environment.

ADVS 5030 - Sustainable Agricultural Production Systems with Animals 3

ENVS 5000 - Environmental Nonprofit and Volunteer Management 3

ENVS 5570 - Sustainable Living 3

PSC 5550 - Weed Biology and Control 4 or

PSC 6550 - Weed Biology and Control 4

PSC 5350 - Wildland Soils 3 or

WILD 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

WATS 5150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

WATS 5330 - Large River Management 3 or

WATS 6330 - Large River Management 3

WATS 5640 - Riparian Ecology and Management 3 or

WATS 7640 - Riparian Ecology and Management 3

WATS 5660 - Watershed and Stream Restoration 2

WATS 6530 - Water Quality and Pollution 3

WATS 6650 - Principles in Fishery Management 3

WILD 5300 - Wildlife Damage Management Principles 3 or

WILD 7300 - Wildlife Damage Management Principles 3

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

Note:

There may be another course that can satisfy this requirement, but the course will need to be approved by the student's graduate advisor and the NREE Advisory Committee.

#### IV. Personal/Professional Inquiry

Although not formally required, a number of courses exist that can support students' interest in natural resources and environmental education, and support student efforts in completing individual degree requirements. These courses include the following:

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ASTE 6160 - Foundations of Adult Education 3

ASTE 6450 - Graduate Topics in Agricultural Education 3

BIOL 5550 - Freshwater Invertebrates 3

BIOL 5560 - Ornithology 3

BIOL 5570 - Herpetology 3

BIOL 5580 - Mammalogy 3

BIOL 6510 - Insect-Plant Interactions 2

ENGL 6610 - Seminar on the American West 3-4 or

HIST 6610 - Seminar on the American West 3-4

ENGL 6620 - Seminar in Native American Studies 3-4 or

HIST 6620 - Seminar in Native American Studies 3-4

ENGL 6730 - Public Folklore 3 or

HIST 6730 - Public Folklore 3

ENGL 6740 - Folk Narrative 3 or

HIST 6740 - Folk Narrative 3

ENGL 6760 - Folk Art, Traditional Art, and Material Culture 3 or

HIST 6760 - Folk Art, Traditional Art, and Material Culture 3

GEOG 5650 - Developing Societies (DSS) 3 or

ANTH 5650 - Developing Societies (DSS) 3 or

SOC 5650 - Developing Societies (DSS) 3

HIST 6460 - Seminar in Environmental History 3

LAEP 5090 - Sustainable Low Water Landscaping 3 or

PSC 5090 - Sustainable Low Water Landscaping 3 or

LAEP 6090 - Sustainable Low Water Landscaping 3 or

PSC 6090 - Sustainable Low Water Landscaping 3

LAEP 6110 - Landscape Planning for Wildlife 3

MATH 6620 - Numerical Analysis 3

MGT 6650 - Team and Interpersonal Effectiveness 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3 or

PSY 6660 - Cognition and Instruction 3

PSY 7700 - Grant Writing 3

CMST 5250 - Communication, Social Justice and the Environment 3

TEAL 6700 - Improvement of Science Instruction 3

THEA 6320 - Storytelling in Education 3

NREE Affiliated Faculty

Professors

Mark W. Brunson, Environment and Society

Christopher A. Call, Wildland Resources

Melody Graulich, English

Michael R. Kuhns, Wildland Resources

Richard E. Toth, Environment and Society

Associate Professors

James J. Barta, Elementary Education

Steven W. Burr, Environment and Society

Christopher A. Conte, History

Nancy O. Mesner, Watershed Sciences

Christopher Monz, Environment and Society

Jennifer A. Peeples, Languages, Philosophy, and Speech Communication

Robert H. Schmidt, Environment and Society

Other Affiliated Individuals

David T. Anderson, Project Director, Utah Botanical Center

Darren J. McAvoy, Extension Program Associate, Wildland Resources

Barbara Middleton, Environment and Society

Susan K. Morgan, Geology

Jack Shea, Director, Teton Science School

Debra M. Spielmaker, Director, Utah Agriculture in the Classroom

Karla VanderZanden, Director, Canyonlands Field Institute

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Recreation Resource Management - BS

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S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

The Recreation Resource Management major consists of 67-68 credits.

Students must complete the General Education Requirements:

CHEM 1110, BIOL 1010 and ENVS 2340 may be used toward the Breadth requirements.

GEOG 1000 or GEO 1110 will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

WATS 3700 and ENVS 4500 will fulfill the Communication Intensive requirement

ENVS 3500 will fulfill the Quantitative Intensive requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC). WATS 3100 or ENVS 3600, plus a course which has a DHA designation, will fulfill this requirement.

A. Disciplinary Foundation (15 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

CHEM 1110 - General Chemistry I (BPS) 4

MATH 1050 - College Algebra (QL) 4

STAT 2000 - Statistical Methods (QI) 4

B. Professional Coursework (46 - 47 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 2000 - Natural Resources Professional Orientation 1

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3300 - Fundamentals of Recreation Resources Management 3

ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 4130 - Recreation Policy and Planning 3

ENVS 4500 - Wildland Recreation Behavior (CI) 3

ENVS 4600 - Natural Resource Interpretation 3

ENVS 4920 - Special Projects in Recreation Management 1-3 (3 credits minimum)

ENVS 5000 - Environmental Nonprofit and Volunteer Management 3

GEOG 1000 - Physical Geography (BPS) 3

OR

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

C. Animal Course (select 3 credits)

ENVS 3600 - Living with Wildlife (DSC) 3

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3

D. Plant Course (select 3 credits)

BIOL 3040 - Plants and Civilization (DSC) 3

PSC 3500 - Structure and Function of Plants 3

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

E. Electives

Students may take the remainder of the 120 credits from any department. The guidelines described under “Breadth Requirements” and “Depth Education Requirements” should be consulted to ensure meeting University Studies Requirements.

Recreation Resource Management Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (26-27 credits)

First Semester (13-14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 2000 - Natural Resources Professional Orientation 1

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1000 - Physical Geography (BPS) 3 or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1

approved Breadth American Institutions (BAI) course 3

Second Semester (13 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

MATH 1050 - College Algebra (QL) 4

approved Breadth Humanities (BHU) course 3

approved Breadth Creative Arts (BCA) course 3

Sophomore Year (32-34 credits)

First Semester (17 credits)

CHEM 1110 - General Chemistry I (BPS) 4

ENVS 3300 - Fundamentals of Recreation Resources Management 3

STAT 2000 - Statistical Methods (QI) 4

WILD 2200 - Ecology of Our Changing World (BLS) 3

Elective course 3

Second Semester (15-17 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

Approved Depth Humanities and Creative Arts (DHA) course 2-3

Plant or Animal course 3

Elective course 4	Grade Point Average (most majors require higher GPA)
Junior Year (29-30 credits)	2.00 GPA
First Semester (15 credits)	Credits of C- or better
APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3	100
ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3	Credits of upper-division courses (#3000 or above)
ENVS 4500 - Wildland Recreation Behavior (CI) 3	40
GEOG 1800 - Introduction to Geographic Information Sciences 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
Plant or Animal course 3	30 USU credits
Second Semester (14-15 credits)	Completion of approved major program of study
ENVS 4130 - Recreation Policy and Planning 3	See college advisor
Elective courses 11-12	Credits in minor (if required)
Senior Year (29 credits)	12
First Semester (14 credits)	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
ENVS 3500 - Quantitative Assessment of Environmental and Natural Resource Problems (QI) 3	3
ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3	General Education Requirements and University Studies Depth Requirements
ENVS 4920 - Special Projects in Recreation Management 1-3 (3 credits required) or	Return to: Academic Departments and Programs
Education/Interpretation course 3	Recreation Resource Management - MS
Elective courses 5	Return to: Academic Departments and Programs
Second Semester (15 credits)	S.J. and Jessie E. Quinney College of Natural Resources
ENVS 4920 - Special Projects in Recreation Management 1-3 (3 credits required) or	Department of Environment and Society
Education/Interpretation course 3	Degree Programs
ENVS 5000 - Environmental Nonprofit and Volunteer Management 3	The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. The Plan B option is available for students interested in professional careers who do not desire research training. The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.
Elective courses 9	
Minimum University Requirements	
Total Credits	
120	

The Plan A option for a master's degree requires preparation of a thesis. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper or other scholarly work. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

For the PhD degree, there is a more variable amount of required coursework, as well as a research dissertation. Compared to the MS degree, the PhD degree has a greater emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets.

#### Recreation Resource Management MS

Recreation Resource Management is for graduate students interested in planning and management of visitor use in wildland recreation settings, such as state and national parks, forests, monuments, and wilderness areas, requiring an understanding of the landscape, its natural resources, and the people who visit. The degree program offers courses in both the bio-physical and social sciences, along with an emphasis on communication and collaboration skills. Opportunities are available to work as recreation planners and managers; park, forest, monument, or wilderness rangers; environmental interpreters; visitor center directors; and other similar occupations. Graduate study provides additional opportunities for research and teaching in higher education, as well as work in the government, nongovernment, and private sectors.

Return to: Academic Departments and Programs

#### Recreation Resources Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

#### Department of Environment and Society

(15 credits minimum)

Students wishing to minor in Recreation Resources should contact the Department of Environment and Society to meet with the department's designated minor advisor. All courses required for the minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all courses taken to meet requirements for the minor. A minimum GPA of 2.5 is required for courses taken to complete the minor.

#### A. Required Courses (12 credits)

ENVS 3300 - Fundamentals of Recreation Resources Management 3

ENVS 4130 - Recreation Policy and Planning 3

ENVS 4500 - Wildland Recreation Behavior (CI) 3

ENVS 4600 - Natural Resource Interpretation 3

#### B. Elective Course (3 credits)

Select one of the following courses:

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 3330 - Environment and Society 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

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#### Sustainable Systems Minor (Environment and Society)

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Environment and Society

#### Sustainable Systems Minor Requirements

#### A. Required Courses (6 credits)

ENVS 4700 - Communicating Sustainability 3

LAEP 2039 - Foundations of Sustainable Systems 3

#### B. Agriculture, Food and Environment Systems (3 credits)

Select one course from the following:

ADVS 5030 - Sustainable Agricultural Production Systems with Animals 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3

NDFS 1260 - Food Literacy 3

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 4400 - Modern Vegetable Production 3

PSC 5200 - Site-Specific Agriculture and Landscape/Horticultural Management 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

C. Energy and Earth Systems (3 credits)

Select one course from the following:

GEO 3150 - Energy in the Twenty-first Century (DSC/QI) 3 or

PHYS 3150 - Energy in the Twenty-first Century (DSC/QI) 3

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

PHYS 1020 - Energy (BPS) 3

PSC 3820 - Climate and Climate Change (DSC/QI) 3 or

WATS 3820 - Climate and Climate Change (DSC/QI) 3

PSC 4820 - Challenges in Climate Change and Energy 3

D. Water Systems (3 credits)

Select one course from the following:

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

PSC 4000 - Soil and Water Conservation 4

PSC 5090 - Sustainable Low Water Landscaping 3 or

LAEP 5090 - Sustainable Low Water Landscaping 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4530 - Water Quality and Pollution 3

E. Social Systems (3 credits)

Select one course from the following:

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

PHIL 3530 - Environmental Ethics (DHA) 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

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Early Childhood Development - AAS

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Utah State University-Eastern

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer and Human Development

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for an Associate of Applied Science in Early Childhood Development:

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3 or

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 or

FCHD 2400 - Marriage and Family Relationships (BSS) 3

FCHD 2510 - Child Development Birth to Eight 3

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 2620 - Planning Creative Experiences for Young Children 3

FCHD 2625 - Administration of Early Childhood Programs 2

FCHD 2627 - Storytelling 3

FCHD 2630 - Practicum in Early Childhood Education 2-5

FCHD 2631 - Teaching Seminar 1

MATH 1030 - Quantitative Reasoning (QL) 3 (or higher Math course)

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Computer Literacy 0-3 (if the student does not take the test, 3)

Human Relations course 3

Suggested Electives

BUSN 1010 - Business Principles (BSS) 3

EDUC 2977 - Cooperative Education 1-3 (1 credit required)

ENGL 2240 - Introduction to Poetry (BHU) 3

ENGL 2330 - Introduction to Children's Literature 3

ENGL 2340 - Navajo Literature and Philosophy 3

GEOG 1000 - Physical Geography (BPS) 3

HEAL 1020 - Responding to Emergencies 2

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

MUSC 1150 - Beginning Group Piano 1

MUSC 1160 - Intermediate Group Piano 1

General Education (suggested courses) (6 credits)

ART 1010 - Exploring Art (BCA) 3

BIOL 1010 - Biology and the Citizen (BLS) 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

MUSC 1010 - Introduction to Music (BCA) 3

PHYS 1010 - Elementary Physics (BPS) 3

PSY 1010 - General Psychology (BSS) 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

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Early Childhood Development - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer and Human Development

## Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Early Childhood Development:

FCHD 2510 - Child Development Birth to Eight 3

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2620 - Planning Creative Experiences for Young Children 3

FCHD 2625 - Administration of Early Childhood Programs 2

FCHD 2627 - Storytelling 3 or

ENGL 2330 - Introduction to Children's Literature 3

FCHD 2630 - Practicum in Early Childhood Education 2-5

FCHD 2631 - Teaching Seminar 1

HEAL 1020 - Responding to Emergencies 2

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

General Education Requirements

BCIS 1010 - Computer Literacy 3 or

BCIS 1405 - Word Processing 3 or

Computer Literacy Test 0

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

MATH 1030 - Quantitative Reasoning (QL) 3 ( or higher Math course that has MATH 1050 as a prerequisite)

Return to: Academic Departments and Programs

Early Childhood Education - BA (Family, Consumer, and Human Development )

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

## Early Childhood Education Major

Majors in early childhood education are licensed to teach in preschool, kindergarten, and grades 1-3. Several practica and field experiences with children are provided, and a subject matter emphasis is selected. This major is a cooperative effort between the Department of Family, Consumer, and Human Development and the Elementary Education Program in the School of Teacher Education and Leadership (TEAL). Students are required to complete a student teaching practicum in a preschool program, a kindergarten, and in the public schools grades 1, 2, or 3. Additional materials describing the ECE major in the Department of Family, Consumer, and Human Development are available from the advisors in FL 205.

## University Studies Requirements

Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

### Quantitative Literacy (QL) (3 credits)

STAT 1040 - Introduction to Statistics (QL) 3

### Breadth Requirements (21 credits)

Choose one course from the following to meet BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 1700 - American Civilization (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

ID 1750 - Design in Everyday Living (BCA) 3

Choose one course from the following to meet BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Complete PHYS 1200 (4 cr) and choose one course from the following to meet BPS requirement:

GEOG 1000 - Physical Geography (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Depth Education Requirements

Communications Intensive (CI) (2 courses)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (6 credits required)

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

(ELED 3000 and ELED 4030 are included in major requirements.)

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

(Prereq: C- or better in MATH 1050, Math ACT score of 25 or higher, or Math SAT score of 580 or higher; also required to apply to the Teacher Education Program)

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Early Childhood Education Major (80 credits) (minimum 2.75 GPA)

Offered in Conjunction with School of TEAL.

Note: Grades lower than a C will not be accepted in the major.

Admission criteria for the Teacher Education Program include: completion of 30 credits with a cumulative GPA of at least 2.75, successful performance on the ACT exam, successfully passing the Teacher Education Writing Exam, a speech and hearing test, and high potential as a teacher as judged by performance in a small-group interview. Admission is limited to ensure a quality program and by the availability of space.

Students majoring in Early Childhood Education must complete all of the following courses as indicated.

Level I (6 credits)

See note 1

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (14 credits)

See note 2

Students must be officially admitted to the Teacher Education Program prior to Level II.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (4 credits required)

ELED 3005 - Beginning Classroom Management 1

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

PSY 3660 - Educational Psychology for Teachers 2

(Level II courses must be taken concurrently.)

ELED 3100 - Classroom Reading Instruction 3 (ELED 3100 may be taken during transition semester, if desired.) 2

Transition (11 credits)

SPED 4000 - Education of Exceptional Individuals 2 2

FCHD 4550 - Preschool Methods and Curriculum 3 3

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 3

Level III (16 credits; must follow Level II)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum  
Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling  
Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level  
III 3

ELED 4060 - Teaching Mathematics and Practicum Level  
III 3

(Level III courses must be taken concurrently.)

Level IV (21 credits)

ELED 5050 - Student Teaching - Kindergarten 3-6 (6  
credits required)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6

ELED 5250 - Advanced Classroom Management and  
Student Teaching Seminar 3

FCHD 4960 - Practice Teaching in Child Development  
Laboratories 3 or 6 4 (6 credits required)

(Level IV courses must be taken during two semesters.)

Emphasis (12 credits)

Descriptions of available emphasis areas are shown  
below.

Electives (if needed to complete 120 credits)

Choose Breadth Electives from the following courses:

ART 3700 - Elementary Art Methods 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

PEP 3050 - Physical Education in the Elementary School  
3

PEP 3650 - Movement Exploration for Elementary  
Teachers 2

TEE 3070 - K-8 Technology and Engineering Education 3

ELED 4410 - Gifted Education in the Regular Classroom 3

ELED 4420 - Multiple Talent Approach to Thinking 2

FCHD 2660 - Parenting and Child Guidance (HR) 3

ENGL 3530 - Children's Literature 3 5

MUSC 3260 - Elementary School Music 2

Early Childhood Areas of Emphasis

Students majoring in Early Childhood Education are  
required to complete 12 credits in an area of emphasis.  
The area of emphasis must be chosen from the following  
fields: Language Arts, Social Studies,  
Mathematics/General Science, General Science, Fine Arts,  
Art, Music, Physical Education,  
Health/Wellness/Nutrition, Foreign Language, School  
Library Media, or English as a Second Language. Students  
must choose two upper-division courses numbered 3000  
or above.

Requirements for the areas of emphasis are listed below  
and on the following pages. Grades lower than C- will not  
be accepted in the areas of emphasis.

Language Arts Emphasis (12 credits)

Select two courses from each group. Remaining courses  
(if any) may be selected from any of the courses listed.

Listening and Speaking

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 3330 - Intercultural Communication (DSS) 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

Reading and Writing

ENGL 1410 - Elements of Grammar 3

ENGL 2200 - Understanding Literature (BHU) 3

ENGL 2210 - Introduction to Folklore (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ENGL 3030 - Perspectives in Literature (DHA) 3

ENGL 3040 - Perspectives in Writing and Rhetoric (DHA) 3

ENGL 3420 - Fiction Writing 3

ENGL 3530 - Children's Literature 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

Electives

ENGL 2600 - Literary Analysis 3

ENGL 3050 - Masterpieces of World Literature (DHA) 3

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3430 - Poetry Writing 3

ENGL 3510 - Teaching Young Adult Literature 3

ENGL 3520 - Multicultural American Literature 3

ENGL 4300 - Shakespeare 3

COMD 2500 - Language, Speech, and Hearing Development 3

Social Studies Emphasis (12 credits)

The purpose of this area is to offer students the opportunity to broaden their understanding of social studies. Students should select courses from at least three areas to constitute the 12 credits required.

Anthropology

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1030 - World Archaeology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 3200 - Perspectives on Race (DSS/CI) 3

ANTH 4110 - Southwest Indian Cultures, Past and Present (DSS) 3

Economics

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

Political Science

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3

POLS 2200 - Comparative Politics (BSS) 3

POLS 3120 - Law and Politics (DSS) 3

POLS 3140 - The Presidency (DSS) 3

POLS 3310 - American Political Thought (DSS) 3

Sociology

SOC 1010 - Introductory Sociology (BSS) 3

SOC 1020 - Social Problems (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 3110 - Methods of Social Research (CI) 3

SOC 3120 - Social Statistics I (QI) 3

SOC 3200 - Population and Society (DSS) 3

SOC 3410 - Juvenile Delinquency 3

SOC 3500 - Social Psychology 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 3750 - Sociology of Aging 3

SOC 4010 - Contemporary Sociological Theory 3

Geography

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

GEOG 4210 - Geography of Utah 3

GEOG 4220 - International Regional Geography 3

History

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 1600 - American Cultures in Film 3

HIST 2210 - Introduction to Folklore (BHU) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

HIST 2720 - Survey of American Folklore 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3330 - The Soviet Union and its Heirs 3

HIST 3510 - Africa and the World 3

HIST 3620 - History of Colonial Latin America 3

HIST 3700 - Regional Folklore (CI) 3

HIST 3720 - Colonial America 3

HIST 3750 - Civil War and Reconstruction 3

HIST 3770 - Contemporary America, 1945-Present 3

HIST 3840 - Twentieth Century American West 3

HIST 3850 - History of Utah (DHA/CI) 3

HIST 4230 - The History of Christianity in the West (DHA/CI) 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

HIST 4390 - British Imperialism from 1688 to the Present 3

HIST 4550 - Women and Gender in America (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

HIST 4640 - Studies in the American West (CI) 3 or

ENGL 4640 - Studies in the American West (CI) 3

HIST 4710 - American Indian History 3

HIST 4730 - History of Black America (CI) 3

## Additional Courses

NR 1010 - Humans and the Changing Global Environment (BSS) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 2400 - Ethics (BHU) 3

SW 1010 - Introduction to Social Welfare 3

SW 3350 - Child Welfare 3

Mathematics/General Science Emphasis (12 credits)

Choose one course from each category: Mathematics, Physical Science, and Biological (Life) Science. Remaining credits may be chosen from any category.

### Mathematics

MATH 1060 - Trigonometry 2

MATH 1100 - Calculus Techniques (QL) 3

MATH 3110 - Modern Geometry 3

### Physical Science

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

PHYS 1020 - Energy (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3

PHYS 3010 - Space Exploration from Earth to the Solar System (DSC/QI) 3

PHYS 3020 - Great Scientists (DSC) 3

PHYS 3030 - The Universe (DSC/QI) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3820 - Climate and Climate Change (DSC/QI) 3

GEO 1110 - Physical Geology (BPS) 3

GEO 3200 - The Earth Through Time (DSC) 4

GEOG 1000 - Physical Geography (BPS) 3

### Biological (Life) Science

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2060 - Elementary Microbiology 4

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

BIOL 3010 - Evolution (DSC) 3

BIOL 3030 - Genetics and Society (DSC) 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

NR 1010 - Humans and the Changing Global Environment (BSS) 3

NR 2220 - General Ecology 3 or

BIOL 2220 - General Ecology 3

PUBH 3120 - Family and Community Health 3

PUBH 3610 - Environmental Management 3 or

CEE 3610 - Environmental Management 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

HEP 3000 - Drugs and Human Behavior 3

WATS 3000 - Oceanography (DSC) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

General Science Emphasis (12 credits)

Choose science courses from the preceding lists. One course must be from the Physical Science category and one must be from the Biological (Life) Science category. Remaining credits may be chosen from either category.

Fine Arts Emphasis (12 credits)

Students must select a minimum of 2 credits in each art form. Remaining credits may be taken in the art form of the student's choice.

Dance:

PE 1900 - Club Sports 1

PEP 2500 - Skills 5 (Dance Activities) 1

PEP 3650 - Movement Exploration for Elementary Teachers 2

PEP 5700 - Special Topics in Physical Education 1-6

Music:

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 3010 - Masterpieces of Music (DHA) 3

MUSC 3260 - Elementary School Music 2 or

EDUC 5560 - Special Topics 0.5-4

MUSC 3660 - Opera by Children 3

Theatre:

ENGL 3530 - Children's Literature 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

Visual Art:

ART 1020 - Drawing I 3

ART 2110 - Drawing II 3

ART 2810 - Photography I 3

ART 3700 - Elementary Art Methods 3

Art Emphasis (12 credits)

Early Childhood Education majors should consult with their advisor before choosing this emphasis.

ART 1010 - Exploring Art (BCA) 3 or

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3 or

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3

ART 2650 - Introduction to Ceramics 3

ART 3700 - Elementary Art Methods 3

Music Emphasis (12 credits)

Required:

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 1110 - Music Theory I 3

MUSC 1600 - Voice Techniques 1

MUSC 3260 - Elementary School Music 2

Choose remaining 3 credits from the following:

Appropriate piano course(s) 3 or

Guitar course(s) 3 or

Acceptable substitute courses, approved by advisor 3

Physical Education Emphasis (12 credits)

Required:

PE 3000 - Dynamic Fitness 3

PEP 3200 - Motor Learning and Technology in Skill Analysis (CI) 3

HEP 2000 - First Aid and Emergency Care 2

Choose remaining credits from the following:

PEP 2200 - Skills 2 (Lifetime Activities) 1

PEP 2300 - Skills 3 (Softball, Basketball, Soccer) 1

PEP 2400 - Skills 4 (Tennis, Badminton, Track and Field) 1

PEP 2500 - Skills 5 (Dance Activities) 1

PRP 1000 - Introduction to Recreation Services 3

Health/Wellness/Nutrition Emphasis (12 credits)

Choose one of the following two courses:

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

Choose remaining credits from the following:

NDFS 1000 - Food Science from Farm to Fork 1

NDFS 3110 - Food, Technology, and Health (DSC) 3

BIOL 2420 - Human Physiology 4

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

PUBH 3120 - Family and Community Health 3

PE 3000 - Dynamic Fitness 3

Foreign Language Emphasis (12 credits)

A foreign language area of emphasis may be designed by a student, provided it is limited to one language.

School Library Media Certification

This certification will fulfill the emphasis requirement for Early Childhood Education majors. For a list of required courses, contact the Instructional Technology and Learning Sciences Department.

English as a Second Language (ESL) Endorsement

This endorsement will fulfill the emphasis requirement for Early Childhood Education majors. For a list of required courses, students should contact their advisor. (Completing 12 credits toward the ESL Endorsement will fulfill an ESL Emphasis.)

Optional Supporting Area in Parenting for Early Childhood Education Majors (17 credits)

The Early Childhood Education requirements can be met and then additional credits taken to complete a supporting area in parenting. This may enhance employment opportunities in school districts, child care, and preschools where there is a strong commitment to a parent involvement program, or as an instructor for community adult education programs.

FCHD 3510 - Infancy and Early Childhood 3

FCHD 3550 - Infant Lab 1

FCHD 3520 - Children in the Middle Years 3

FCHD 3560 - Middle Childhood Lab 1

FCHD 3110 - Human Sexuality 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Note:

1 These courses are prerequisites to Level II.

2 SPED 4000, or ELED 3100, may be taken concurrently with Level II courses, allowing students to earn 14-15

credits during their Level II semester. Log into Access for information about when these courses will be taught.

3 ELED 4480 and FCHD 4550 must be taken after completion of Level II.

4 Students must apply for FCHD 4960 three full semesters in advance of taking the class. Apply in Family Life 205.

5 ENGL 3530 is highly recommended.

#### Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Early Childhood Education - BS (Family, Consumer, and Human Development)

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

Early Childhood Education Major

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University Studies Requirements

Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

Quantitative Literacy (QL) (3 credits)

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Requirements (21 credits)

Choose one course from the following to meet BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

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POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

ID 1750 - Design in Everyday Living (BCA) 3

Choose one course from the following to meet BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet BSS requirement:

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ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Complete PHYS 1200 (4 cr) and choose one course from the following to meet BPS requirement:

GEOG 1000 - Physical Geography (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Depth Education Requirements

Communications Intensive (CI) (2 courses)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (6 credits required)

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

(ELED 3000 and ELED 4030 are included in major requirements.)

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

(Prereq: C- or better in MATH 1050, Math ACT score of 25 or higher, or Math SAT score of 580 or higher; also required to apply to the Teacher Education Program)

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Early Childhood Education Major (80 credits) (minimum 2.75 GPA)

Offered in Conjunction with School of TEAL.

Note: Grades lower than a C will not be accepted in the major.

Admission criteria for the Teacher Education Program include: completion of 30 credits with a cumulative GPA of at least 2.75, successful performance on the ACT exam, successfully passing the Teacher Education Writing Exam, a speech and hearing test, and high potential as a teacher as judged by performance in a small-group interview. Admission is limited to ensure a quality program and by the availability of space.

Students majoring in Early Childhood Education must complete all of the following courses as indicated.

Level I (6 credits)

See note 1

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (14 credits)

See note 2

Students must be officially admitted to the Teacher Education Program prior to Level II.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (4 credits required)

ELED 3005 - Beginning Classroom Management 1

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

PSY 3660 - Educational Psychology for Teachers 2

(Level II courses must be taken concurrently.)

ELED 3100 - Classroom Reading Instruction 3 (ELED 3100 may be taken during transition semester, if desired.) 2

Transition (11 credits)

SPED 4000 - Education of Exceptional Individuals 2 2

FCHD 4550 - Preschool Methods and Curriculum 3 3

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 3

Level III (16 credits; must follow Level II)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

(Level III courses must be taken concurrently.)

Level IV (21 credits)

ELED 5050 - Student Teaching - Kindergarten 3-6 (6 credits required)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6

ELED 5250 - Advanced Classroom Management and Student Teaching Seminar 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 4 (6 credits required)

(Level IV courses must be taken during two semesters.)

Emphasis (12 credits)

Descriptions of available emphasis areas are shown below.

Electives (if needed to complete 120 credits)

Choose Breadth Electives from the following courses:

ART 3700 - Elementary Art Methods 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

PEP 3050 - Physical Education in the Elementary School 3

PEP 3650 - Movement Exploration for Elementary Teachers 2

TEE 3070 - K-8 Technology and Engineering Education 3

ELED 4410 - Gifted Education in the Regular Classroom 3

ELED 4420 - Multiple Talent Approach to Thinking 2

FCHD 2660 - Parenting and Child Guidance (HR) 3

ENGL 3530 - Children's Literature 3 5

MUSC 3260 - Elementary School Music 2

### Early Childhood Areas of Emphasis

Students majoring in Early Childhood Education are required to complete 12 credits in an area of emphasis. The area of emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education, Health/Wellness/Nutrition, Foreign Language, School Library Media, or English as a Second Language. Students must choose two upper-division courses numbered 3000 or above.

Requirements for the areas of emphasis are listed below and on the following pages. Grades lower than C- will not be accepted in the areas of emphasis.

### Language Arts Emphasis (12 credits)

Select two courses from each group. Remaining courses (if any) may be selected from any of the courses listed.

#### Listening and Speaking

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 3330 - Intercultural Communication (DSS) 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

THEA 4340 - Methods of Teaching Theatre, Grades 7-12 3

#### Reading and Writing

ENGL 1410 - Elements of Grammar 3

ENGL 2200 - Understanding Literature (BHU) 3

ENGL 2210 - Introduction to Folklore (BHU) 3

ENGL 2720 - Survey of American Folklore 3

ENGL 3030 - Perspectives in Literature (DHA) 3

ENGL 3040 - Perspectives in Writing and Rhetoric (DHA) 3

ENGL 3420 - Fiction Writing 3

ENGL 3530 - Children's Literature 3

ENGL 3700 - Regional Folklore (CI) 3 or

HIST 3700 - Regional Folklore (CI) 3

#### Electives

ENGL 2600 - Literary Analysis 3

ENGL 3050 - Masterpieces of World Literature (DHA) 3

ENGL 3070 - Perspectives in Folklore (DHA) 3 or

HIST 3070 - Perspectives in Folklore (DHA) 3

ENGL 3430 - Poetry Writing 3

ENGL 3510 - Teaching Young Adult Literature 3

ENGL 3520 - Multicultural American Literature 3

ENGL 4300 - Shakespeare 3

COMD 2500 - Language, Speech, and Hearing Development 3

### Social Studies Emphasis (12 credits)

The purpose of this area is to offer students the opportunity to broaden their understanding of social studies. Students should select courses from at least three areas to constitute the 12 credits required.

#### Anthropology

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1030 - World Archaeology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 3200 - Perspectives on Race (DSS/CI) 3

ANTH 4110 - Southwest Indian Cultures, Past and Present (DSS) 3

#### Economics

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

#### Political Science

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3

POLS 2200 - Comparative Politics (BSS) 3

POLS 3120 - Law and Politics (DSS) 3

POLS 3140 - The Presidency (DSS) 3

POLS 3310 - American Political Thought (DSS) 3

#### Sociology

SOC 1010 - Introductory Sociology (BSS) 3

SOC 1020 - Social Problems (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 3110 - Methods of Social Research (CI) 3

SOC 3120 - Social Statistics I (QI) 3

SOC 3200 - Population and Society (DSS) 3

SOC 3410 - Juvenile Delinquency 3

SOC 3500 - Social Psychology 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 3750 - Sociology of Aging 3

SOC 4010 - Contemporary Sociological Theory 3

#### Geography

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

GEOG 4210 - Geography of Utah 3

GEOG 4220 - International Regional Geography 3

#### History

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 1600 - American Cultures in Film 3

HIST 2210 - Introduction to Folklore (BHU) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

HIST 2720 - Survey of American Folklore 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3330 - The Soviet Union and its Heirs 3

HIST 3510 - Africa and the World 3

HIST 3620 - History of Colonial Latin America 3

HIST 3700 - Regional Folklore (CI) 3

HIST 3720 - Colonial America 3

HIST 3750 - Civil War and Reconstruction 3

HIST 3770 - Contemporary America, 1945-Present 3

HIST 3840 - Twentieth Century American West 3

HIST 3850 - History of Utah (DHA/CI) 3

HIST 4230 - The History of Christianity in the West (DHA/CI) 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

HIST 4390 - British Imperialism from 1688 to the Present 3

HIST 4550 - Women and Gender in America (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

HIST 4640 - Studies in the American West (CI) 3 or

ENGL 4640 - Studies in the American West (CI) 3

HIST 4710 - American Indian History 3

HIST 4730 - History of Black America (CI) 3

Additional Courses

NR 1010 - Humans and the Changing Global Environment (BSS) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 2400 - Ethics (BHU) 3

SW 1010 - Introduction to Social Welfare 3

SW 3350 - Child Welfare 3

Mathematics/General Science Emphasis (12 credits)

Choose one course from each category: Mathematics, Physical Science, and Biological (Life) Science. Remaining credits may be chosen from any category.

Mathematics

MATH 1060 - Trigonometry 2

MATH 1100 - Calculus Techniques (QL) 3

MATH 3110 - Modern Geometry 3

Physical Science

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

PHYS 1020 - Energy (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3

PHYS 3010 - Space Exploration from Earth to the Solar System (DSC/QI) 3

PHYS 3020 - Great Scientists (DSC) 3

PHYS 3030 - The Universe (DSC/QI) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3820 - Climate and Climate Change (DSC/QI) 3

GEO 1110 - Physical Geology (BPS) 3

GEO 3200 - The Earth Through Time (DSC) 4

GEOG 1000 - Physical Geography (BPS) 3

Biological (Life) Science

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2060 - Elementary Microbiology 4

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

BIOL 3010 - Evolution (DSC) 3

BIOL 3030 - Genetics and Society (DSC) 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

NR 1010 - Humans and the Changing Global Environment (BSS) 3

NR 2220 - General Ecology 3 or

BIOL 2220 - General Ecology 3

PUBH 3120 - Family and Community Health 3

PUBH 3610 - Environmental Management 3 or

CEE 3610 - Environmental Management 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

HEP 3000 - Drugs and Human Behavior 3

WATS 3000 - Oceanography (DSC) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

General Science Emphasis (12 credits)

Choose science courses from the preceding lists. One course must be from the Physical Science category and one must be from the Biological (Life) Science category. Remaining credits may be chosen from either category.

## Fine Arts Emphasis (12 credits)

Students must select a minimum of 2 credits in each art form. Remaining credits may be taken in the art form of the student's choice.

### Dance:

PE 1900 - Club Sports 1

PEP 2500 - Skills 5 (Dance Activities) 1

PEP 3650 - Movement Exploration for Elementary Teachers 2

PEP 5700 - Special Topics in Physical Education 1-6

### Music:

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 3010 - Masterpieces of Music (DHA) 3

MUSC 3260 - Elementary School Music 2 or

EDUC 5560 - Special Topics 0.5-4

MUSC 3660 - Opera by Children 3

### Theatre:

ENGL 3530 - Children's Literature 3

THEA 4320 - Storytelling in Education (DHA) 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

### Visual Art:

ART 1020 - Drawing I 3

ART 2110 - Drawing II 3

ART 2810 - Photography I 3

ART 3700 - Elementary Art Methods 3

## Art Emphasis (12 credits)

Early Childhood Education majors should consult with their advisor before choosing this emphasis.

ART 1010 - Exploring Art (BCA) 3 or

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3 or

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ART 1020 - Drawing I 3 or

ART 1120 - Two-Dimensional Design 3

ART 2650 - Introduction to Ceramics 3

ART 3700 - Elementary Art Methods 3

## Music Emphasis (12 credits)

### Required:

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 1110 - Music Theory I 3

MUSC 1600 - Voice Techniques 1

MUSC 3260 - Elementary School Music 2

Choose remaining 3 credits from the following:

Appropriate piano course(s) 3 or

Guitar course(s) 3 or

Acceptable substitute courses, approved by advisor 3

## Physical Education Emphasis (12 credits)

### Required:

PE 3000 - Dynamic Fitness 3

PEP 3200 - Motor Learning and Technology in Skill Analysis (CI) 3

HEP 2000 - First Aid and Emergency Care 2

Choose remaining credits from the following:

PEP 2200 - Skills 2 (Lifetime Activities) 1

PEP 2300 - Skills 3 (Softball, Basketball, Soccer) 1

PEP 2400 - Skills 4 (Tennis, Badminton, Track and Field) 1

PEP 2500 - Skills 5 (Dance Activities) 1

PRP 1000 - Introduction to Recreation Services 3

## Health/Wellness/Nutrition Emphasis (12 credits)

Choose one of the following two courses:

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

Choose remaining credits from the following:

- NDFS 1000 - Food Science from Farm to Fork 1
- NDFS 3110 - Food, Technology, and Health (DSC) 3
- BIOL 2420 - Human Physiology 4
- HEP 2000 - First Aid and Emergency Care 2
- HEP 2500 - Health and Wellness 2
- HEP 3000 - Drugs and Human Behavior 3
- PUBH 3120 - Family and Community Health 3
- PE 3000 - Dynamic Fitness 3

Foreign Language Emphasis (12 credits)

A foreign language area of emphasis may be designed by a student, provided it is limited to one language.

School Library Media Certification

This certification will fulfill the emphasis requirement for Early Childhood Education majors. For a list of required courses, contact the Instructional Technology and Learning Sciences Department.

English as a Second Language (ESL) Endorsement

This endorsement will fulfill the emphasis requirement for Early Childhood Education majors. For a list of required courses, students should contact their advisor. (Completing 12 credits toward the ESL Endorsement will fulfill an ESL Emphasis.)

Optional Supporting Area in Parenting for Early Childhood Education Majors (17 credits)

The Early Childhood Education requirements can be met and then additional credits taken to complete a supporting area in parenting. This may enhance employment opportunities in school districts, child care, and preschools where there is a strong commitment to a parent involvement program, or as an instructor for community adult education programs.

- FCHD 3510 - Infancy and Early Childhood 3
- FCHD 3550 - Infant Lab 1
- FCHD 3520 - Children in the Middle Years 3
- FCHD 3560 - Middle Childhood Lab 1

FCHD 3110 - Human Sexuality 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Note:

- 1 These courses are prerequisites to Level II.
- 2 SPED 4000,or ELED 3100, may be taken concurrently with Level II courses, allowing students to earn 14-15 credits during their Level II semester. Log into Access for information about when these courses will be taught.
- 3 ELED 4480 and FCHD 4550 must be taken after completion of Level II.
- 4 Students must apply for FCHD 4960 three full semesters in advance of taking the class. Apply in Family Life 205.
- 5 ENGL 3530 is highly recommended.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500;HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

## General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

### Family and Human Development - MFHD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Family, Consumer, and Human  
Development

The MFHD is a practice-oriented, but nonclinical, master's degree especially suitable for individuals already working or planning to work in the family or social service sectors, education, corrections, or related fields. The MFHD does not require a thesis.

#### Master's Course Requirements

The core substantive courses for the master's degree are FCHD 6031, FCHD 6050, FCHD 6060, and FCHD 6070.

Master's students also complete course requirements under their chosen specialization in Marriage and Family Relationships, Marriage and Family Therapy, Consumer Sciences, Infancy and Childhood, Adolescence and Youth, or Adult Development and Aging. Elective courses and thesis topics are individualized with each student by faculty supervisory committees. For more specific information, see the department's Graduate Student Handbook online at:  
[www.usu.edu/fchd/docs/graduatehandbook.pdf](http://www.usu.edu/fchd/docs/graduatehandbook.pdf)

Return to: Academic Departments and Programs

### Family and Human Development - PhD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Family, Consumer, and Human  
Development

Students in the PhD program complete a major research dissertation that makes a significant contribution to the

theoretical and empirical knowledge in family studies or human development.

#### Doctoral Course Requirements

Doctoral core courses are FCHD 7060 and FCHD 7070. Doctoral students also complete topical seminars, methods and statistics courses, research and teaching internships, comprehensive exams, and dissertation research. For more specific information, see the department's Graduate Student Handbook online at:  
[www.usu.edu/fchd/docs/graduatehandbook.pdf](http://www.usu.edu/fchd/docs/graduatehandbook.pdf)

Return to: Academic Departments and Programs

### Family and Human Development Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Family, Consumer, and Human  
Development

(15 credits)

The minor in Family and Human Development (FHD) is designed to provide a knowledge base for understanding families and human development in order to enhance the training of majors in other academic disciplines. A grade of C or better is required in coursework for the FHD Minor. A 3.0 GPA is required for this minor. No more than 6 transfer credits may be used toward the FHD minor. Students applying for an FHD minor at USU, but transferring courses from other universities, must complete a minimum of three USU FCHD courses in order to earn an FHD minor. Courses counted toward the minor may not be taken pass-fail.

#### Required Courses (6 credits)

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

#### Elective Courses (9 credits)

Students must complete three of the following courses:

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3110 - Human Sexuality 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3570 - Youth and Adolescence 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4230 - Family and Social Policy 3

FCHD 4240 - Social and Family Gerontology 3

Note:

Students should be aware that the following courses cannot be used to fulfill requirements for the FHD minor: FCHD 2600, FCHD 2630, FCHD 3130, FCHD 3210, FCHD 3350, FCHD 4550, FCHD 4800, FCHD 4940, FCHD 5550; practica (FCHD 4900, FCHD 4950, FCHD 4960, FCHD 4970, FCHD 4980); and Readings and Conference (FCHD 4990).

Return to: Academic Departments and Programs

Family Finance Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

(15 credits, 3.0 GPA required)

Required Courses (15 credits)

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3450 - Consumer Credit Problems 3

FCHD 4350 - Advanced Family Finance 3

Note:

A grade of C or better is required in coursework for the Family Finance Minor. Courses counted toward the minor may not be taken pass/fail.

Return to: Academic Departments and Programs

Family Life Studies (offered online only) - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

(offered online only)

The Family Life Studies major is an integrative major that links the various fields within the family relations, human development, and consumer sciences professions and prepares students for positions requiring interdisciplinary problem-solving skills. This major prepares graduates for successful careers serving individuals and families across the lifespan. Completion of a Family Life Studies degree also helps students achieve fulfilling family relationships in their own lives. It is anticipated that graduates in Family Life Studies will find good employment opportunities in state agencies serving children, families, consumers, and the elderly. Jobs may also be available in nonprofit community agencies, such as Head Start programs, social service agencies, drug treatment centers, youth and adult residential care centers, foster care, youth centers, crisis centers, parent education programs, senior citizen centers, long-term care facilities, adult day care centers, and a host of related federal, state, and local agencies serving families and children.

University Studies Requirements for Major

Students must complete the General Education Requirements:

STAT 1040 or STAT 1045 will fulfill the Quantitative Literacy (QL) requirement

FCHD 1010 or FCHD 1500 or FCHD 2400 or FCHD 2450 will fulfill the Social Sciences (BSS) requirement

Students must also complete the University Studies Depth Requirements:

Two courses (one example being FCHD 3210) will fulfill the Communications Intensive (CI) requirement

One course (for example FCHD 3130 or PSY 3010) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC).

#### Departmental Program Requirements

The department has several regulations governing students' academic progress:

The P/D+, D, F option cannot be used for courses required in the FLS major

An overall cumulative GPA of 3.0 is required for entrance to the major. An overall GPA of 3.0 is required for graduation. A grade of C or better is required for all major coursework, including STAT 1040.

Ten-year Policy. Courses which are required for the major will be accepted only if they have been completed within the last 10 years.

#### Pre-major Courses (12 credits)

Students must complete at least 24 credits, including the following courses, with at least a 3.0 GPA prior to being admitted to the FLS major.

FCHD 1010 - Balancing Work and Family (BSS) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2000 - Careers and Life Planning in FCHD 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

#### Core Courses (24 credits)

FCHD 3130 - Research Methods (QI) 3

FCHD 4230 - Family and Social Policy 3

FCHD 4820 - Current Issues in Family Life Studies 3 \*

FCHD 4830 - Senior Capstone Project 3 \*

PSY 3010 - Psychological Statistics (QI) 4

STAT 1040 - Introduction to Statistics (QL) 3 or

STAT 1045 - Introduction to Statistics with Elements of Algebra (QL) 5

#### Elective Courses (27 credits)

In addition to completing the Core Courses listed above, students must complete 3 courses in each of the following areas:

#### Consumer Sciences (3 courses)

FCHD 2100 - Family Resource Management 3

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3450 - Consumer Credit Problems 3

#### Family Relations (3 courses)

FCHD 3110 - Human Sexuality 3

FCHD 3210 - Families and Cultural Diversity (CI) 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4240 - Social and Family Gerontology 3

FCHD 5250 - Addictions and the Family 3

#### Human Development (3 courses)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3570 - Youth and Adolescence 3

#### Note:

\* Registration for FCHD 4830 requires approval of the FLS advisor. There is an application process involved, and the application should be completed two months prior to enrolling in the course. FCHD 4830 must be taken during the last semester of coursework. A background check may be required prior to enrollment in FCHD 4830.

#### Minimum University Requirements

#### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Family, Consumer, and Human Development - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

University Studies Requirements for Major

Students must complete the General Education Requirements:

STAT 1040 will meet the Quantitative Literacy (QL) requirement

FCHD 1500 or FCHD 2400 will fulfill the Social Sciences (BSS) requirement and the Exploration requirement in the Family, Consumer and Human Development major

Students must also complete the University Studies Depth Requirements:

FCHD 3210 will fulfill one of the two Communications Intensive (CI) requirements for the Family and Community Services emphasis

FCHD 3130, PSY 3010 or SOC 3120 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC).

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Departmental Requirements for Family, Consumer, and Human Development Major

#### Admission Requirements

Students with less than 24 semester credits can declare a premajor in FCHD (PFHD). Completion of at least 24 semester credits (including FCHD 1500, FCHD 2000 and FCHD 2400) with a cumulative GPA of 3.0 is required for admission into the FCHD major. A grade of C or better is required in all courses for the major, including STAT 1040.

#### Departmental Program Requirements

The department has established the following regulations, which govern students' academic progress:

The P/D+, D, and F option cannot be used for courses required in the FCHD major or minor.

An overall cumulative GPA of 3.0 is required to enter the major, and a cumulative 3.0 GPA is required for graduation. A grade of C or better is required in all major coursework, including STAT 1040. A GPA of 3.0 in FCHD major courses is also required for graduation.

Ten-year Policy. Courses which are required for the major will be accepted if they have been completed within the last 10 years.

#### Background Check

All students will be required to pass a background check prior to participation in a practicum experience (FCHD 49505, FCHD 4970, FCHD 49801, or FCHD 5950).

#### Pre-major Courses (9 credits)

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2000 - Careers and Life Planning in FCHD 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

#### Core Courses (13-14 credits)

FCHD 3130 - Research Methods (QI) 3

FCHD 4230 - Family and Social Policy 3

FCHD 4900 - Pre-Practicum Skills (CI) 1

PSY 3010 - Psychological Statistics (QI) 4 or

SOC 3120 - Social Statistics I (QI) 3

STAT 1040 - Introduction to Statistics (QL) 3

#### Emphasis Requirements

In addition to completing these pre-major and core courses, students must complete the requirements for one of the following five emphases: Child Development, Family and Community Services, Human Development Lifespan, Family Finance or Deaf Education; and a minimum of 6 credits outside of the chosen emphasis from the FCHD electives list.

Child Development, Family and Community Services, and Human Development Lifespan Emphases

FCHD majors may choose one of these three emphases which will prepare them for employment in a variety of occupational settings. Previous graduates have found employment in such settings as child care, Head Start programs, social services agencies, drug treatment centers, youth and adult residential care centers, foster care, youth centers, crisis centers, parent education programs, senior citizen centers, long-term care facilities, adult day care centers, and a host of related federal, state, and local agencies serving families and children. Students are prepared to work in their communities to develop and guide policies for families and children. In addition, FCHD majors receive increased knowledge and skills in topics which will enhance their personal and family lives.

Child Development Emphasis (minimum 19 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3 2

FCHD 3550 - Infant Lab 1

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 4980 - Practicum 1-12 (3 credits minimum) 1

Family and Community Services Emphasis (18 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3210 - Families and Cultural Diversity (CI) 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4980 - Practicum 1-12 (6 credits minimum) 1

FCHD 5540 - Family Life Education Methods 3

Human Development Lifespan Emphasis (19 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3560 - Middle Childhood Lab 1

FCHD 3570 - Youth and Adolescence 3 3

FCHD 4980 - Practicum 1-12 (6 credits minimum) 1

FCHD Electives (minimum 6 credits)

Note: FCHD elective courses must be outside of chosen emphasis area.

FCHD 1010 - Balancing Work and Family (BSS) 3

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3110 - Human Sexuality 3

FCHD 3210 - Families and Cultural Diversity (CI) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3450 - Consumer Credit Problems 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3550 - Infant Lab 1

FCHD 3560 - Middle Childhood Lab 1

FCHD 3570 - Youth and Adolescence 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4240 - Social and Family Gerontology 3

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 5540 - Family Life Education Methods 3

Family Finance Emphasis

FCHD majors who choose this emphasis will be prepared for careers in financial counseling, advising, and education. Coursework focuses on the financial decisions that individuals and families face relating to insurance, investing, credit reports and scores, debt reduction, taxes, consumerism, budgeting, and home ownership. Students will complete an off-campus practicum and a financial counseling practicum at the Family Life Center on campus. At the Family Life Center students will encounter various types of financial experiences, including new home buyer counseling sessions and workshops. The Family Life Center's housing and financial counseling services are approved by the U.S. Department of Housing and Urban Development (HUD) and provide counseling and education to the community.

Employment opportunities include consumer credit counseling services, credit unions, the armed forces, corporate employee assistance programs, employee benefits counseling firms, college financial aid offices, bank loan offices, hospitals, corporate credit offices, bankruptcy courts, community housing programs, Federal Home Administration, Housing and Urban Development, personal banker, mortgage loan officer, credit counselor, financial counselor or educator, consumer relations coordinator, military financial educator, debt collections coordinator, credit investigator, fraud detective, insurance broker, stockbroker, and financial planner.

Family Finance Emphasis (27 credits)

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3450 - Consumer Credit Problems 3

FCHD 4350 - Advanced Family Finance 3

FCHD 4460 - Financial Counseling 3

FCHD 4950 - Practicum: Consumer Science 1-12 (3 credits minimum) 5

FCHD 5340 - Housing Finance and Regulations 3

FCHD 5950 - Financial Counseling Practicum 3 6

Family Finance Emphasis Note:

In addition to completing these emphasis courses, all students must complete all pre-major and core courses listed above and a minimum of 6 credits outside their chosen emphasis from the FCHD electives list listed above.

Deaf Education Emphasis

FCHD majors who choose this emphasis are preparing to work with infants and young children who are deaf or hard-of-hearing and their families. Once students have completed their undergraduate degree, they can apply to the graduate program in the Department of Communicative Disorders and Deaf Education and work toward a master's degree in Communicative Disorders and Deaf Education with an Early Intervention emphasis. Students completing the M.Ed. program will have the skills necessary to work in early intervention programs that are found in every state of the country. Upon completion of the undergraduate FCHD major with the Deaf Education emphasis, and the Communicative Disorders and Deaf Education master's degree with an Early Intervention emphasis, students will have the coursework necessary to cover the competencies for the 0-3 Hearing Endorsement and the EI-2 credential from the State Office of Health. Students who desire preschool teacher licensure must also complete requirements for the Special Education 0-5 license and hearing impaired endorsement. Students in the graduate program in Deaf Education may also choose to follow the Deaf Education K-12 teacher licensure track. Students are not eligible for licensure or endorsement until they successfully complete the graduate program. Specific information about the Deaf Education graduate program options and Master of Education degree requirements can be found [here](#).

Deaf Education Emphasis (51 credits)

COMD 2500 - Language, Speech, and Hearing Development 3 7

COMD 3010 - American Sign Language I (CI) 4 7

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3 2

FCHD 3550 - Infant Lab 1

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 4980 - Practicum 1-12 (with ages 0-3) (3 credits) 1

SPED 4000 - Education of Exceptional Individuals 2 7

In addition to these courses, students must complete the following courses during their senior year:

COMD 3910 - American Sign Language II 4 7

COMD 4760 - Early Intervention for Children who are Deaf and Hard of Hearing 3 7

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3 7

SPED 5710 - Young Children with Disabilities: Characteristics and Services 3 7

SPED 5810 - Seminar and Field Experiences with Infants and Families 3-4 (4 credits minimum) 7

Deaf Education Emphasis Note:

In addition to completing these emphasis courses, all students must complete all pre-major and core courses listed above and a minimum of 6 credits outside their chosen emphasis from the FCHD electives listed above.

Note:

1 Prerequisites: Junior Standing, and completion of: pre-major courses, FCHD 4900, and an additional four FCHD courses for a total of eight FCHD courses. Also a cumulative 3.0 GPA and prior application approval by the Practicum Coordinator. Practicum application deadlines are: April 15 for fall, August 15 for spring and January 15 for summer.

2 FCHD majors with the Child Development or Deaf Education emphasis must take FCHD 3550 with FCHD 3500.

3 FCHD majors with a Human Development emphasis must take FCHD 3560 concurrently with FCHD 3570.

Note: The online sections of FCHD 3500 and FCHD 3570 do not offer a lab experience. Therefore, students must take these courses through campus-based sections.

4 Students must sign up at least four full semesters in advance in Family Life 205.

5 Prerequisites: Junior standing, and completion of: pre-major courses, FCHD 4900, and four additional FCHD courses consisting of FCHD 2450, FCHD 3340, FCHD 3350, and FCHD 3450, for a total of eight FCHD courses. Also a cumulative 3.0 GPA and prior application approval by the Practicum Coordinator. Practicum application deadlines are: April 15 for fall, August 15 for spring, and January 15 for summer.

6 FCHD 5950 may be taken only by FCHD majors who have completed the application process. Prior to enrolling in FCHD 4950 or FCHD 5950, students must have completed a minimum of 70 semester credits, FCHD 4460 and FCHD 5340.

7 For COMD and SPED course offerings, contact the Department of Communicative Disorders and Deaf Education, and the Department of Special Education and Rehabilitation.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Family, Consumer, and Human Development - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

University Studies Requirements for Major

Students must complete the General Education Requirements:

STAT 1040 will meet the Quantitative Literacy (QL) requirement

FCHD 1500 and FCHD 2400 will fulfill the Social Sciences (BSS) requirement and the Exploration requirement in the Family, Consumer and Human Development major

Students must also complete the University Studies Depth Requirements:

FCHD 3210 will fulfill one of the two Communications Intensive (CI) requirements for the Family and Community Services emphasis

FCHD 3130, PSY 3010 or SOC 3120 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC).

Departmental Requirements for Family, Consumer, and Human Development Major

Admission Requirements

Students with less than 24 semester credits can declare a premajor in FCHD (PFHD). Completion of at least 24 semester credits (including FCHD 1500, FCHD 2000 and FCHD 2400) with a cumulative GPA of 3.0 is required for admission into the FCHD major. A grade of C or better is required in all courses for the major, including STAT 1040.

#### Departmental Program Requirements

The department has established the following regulations, which govern students' academic progress:

The P/D+, D, and F option cannot be used for courses required in the FCHD major or minor.

An overall cumulative GPA of 3.0 is required to enter the major, and a cumulative 3.0 GPA is required for graduation. A grade of C or better is required in all major coursework, including STAT 1040. A GPA of 3.0 in FCHD major courses is also required for graduation.

Ten-year Policy. Courses which are required for the major will be accepted if they have been completed within the last 10 years.

#### Background Check

All students will be required to pass a background check prior to participation in a practicum experience (FCHD 49505, FCHD 4970, FCHD 49801, or FCHD 5950).

#### Pre-major Courses (9 credits)

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2000 - Careers and Life Planning in FCHD 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

#### Core Courses (13-14 credits)

FCHD 3130 - Research Methods (QI) 3

FCHD 4230 - Family and Social Policy 3

FCHD 4900 - Pre-Practicum Skills (CI) 1

PSY 3010 - Psychological Statistics (QI) 4 or

SOC 3120 - Social Statistics I (QI) 3

STAT 1040 - Introduction to Statistics (QL) 3

#### Emphasis Requirements

In addition to completing these pre-major and core courses, students must complete the requirements for one of the following five emphases: Child Development, Family and Community Services, Human Development Lifespan, Family Finance or Deaf Education; and a minimum of 6 credits outside of the chosen emphasis from the FCHD electives list.

#### Child Development, Family and Community Services, and Human Development Lifespan Emphases

FCHD majors may choose one of these three emphases which will prepare them for employment in a variety of occupational settings. Previous graduates have found employment in such settings as child care, Head Start programs, social services agencies, drug treatment centers, youth and adult residential care centers, foster care, youth centers, crisis centers, parent education programs, senior citizen centers, long-term care facilities, adult day care centers, and a host of related federal, state, and local agencies serving families and children. Students are prepared to work in their communities to develop and guide policies for families and children. In addition, FCHD majors receive increased knowledge and skills in topics which will enhance their personal and family lives.

#### Child Development Emphasis (minimum 19 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3 2

FCHD 3550 - Infant Lab 1

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 4980 - Practicum 1-12 (3 credits minimum) 1

#### Family and Community Services Emphasis (18 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3210 - Families and Cultural Diversity (CI) 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4980 - Practicum 1-12 (6 credits minimum) 1

FCHD 5540 - Family Life Education Methods 3

#### Human Development Lifespan Emphasis (19 credits)

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3560 - Middle Childhood Lab 1

FCHD 3570 - Youth and Adolescence 3 3

FCHD 4980 - Practicum 1-12 (6 credits minimum) 1

FCHD Electives (minimum 6 credits)

Note: FCHD elective courses must be outside of chosen emphasis area.

FCHD 1010 - Balancing Work and Family (BSS) 3

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3110 - Human Sexuality 3

FCHD 3210 - Families and Cultural Diversity (CI) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3450 - Consumer Credit Problems 3

FCHD 3500 - Infancy and Childhood 3

FCHD 3540 - Adult Development and Aging 3

FCHD 3550 - Infant Lab 1

FCHD 3560 - Middle Childhood Lab 1

FCHD 3570 - Youth and Adolescence 3

FCHD 4220 - Family Crises and Interventions 3

FCHD 4240 - Social and Family Gerontology 3

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 5540 - Family Life Education Methods 3

Family Finance Emphasis

FCHD majors who choose this emphasis will be prepared for careers in financial counseling, advising, and education. Coursework focuses on the financial decisions

that individuals and families face relating to insurance, investing, credit reports and scores, debt reduction, taxes, consumerism, budgeting, and home ownership. Students will complete an off-campus practicum and a financial counseling practicum at the Family Life Center on campus. At the Family Life Center students will encounter various types of financial experiences, including new home buyer counseling sessions and workshops. The Family Life Center's housing and financial counseling services are approved by the U.S. Department of Housing and Urban Development (HUD) and provide counseling and education to the community.

Employment opportunities include consumer credit counseling services, credit unions, the armed forces, corporate employee assistance programs, employee benefits counseling firms, college financial aid offices, bank loan offices, hospitals, corporate credit offices, bankruptcy courts, community housing programs, Federal Home Administration, Housing and Urban Development, personal banker, mortgage loan officer, credit counselor, financial counselor or educator, consumer relations coordinator, military financial educator, debt collections coordinator, credit investigator, fraud detective, insurance broker, stockbroker, and financial planner.

Family Finance Emphasis (27 credits)

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

FCHD 3340 - Housing: Societal and Environmental Issues 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 3450 - Consumer Credit Problems 3

FCHD 4350 - Advanced Family Finance 3

FCHD 4460 - Financial Counseling 3

FCHD 4950 - Practicum: Consumer Science 1-12 (3 credits minimum) 5

FCHD 5340 - Housing Finance and Regulations 3

FCHD 5950 - Financial Counseling Practicum 3 6

Family Finance Emphasis Note:

In addition to completing these emphasis courses, all students must complete all pre-major and core courses listed above and a minimum of 6 credits outside their

chosen emphasis from the FCHD electives list listed above.

### Deaf Education Emphasis

FCHD majors who choose this emphasis are preparing to work with infants and young children who are deaf or hard-of-hearing and their families. Once students have completed their undergraduate degree, they can apply to the graduate program in the Department of Communicative Disorders and Deaf Education and work toward a master's degree in Communicative Disorders and Deaf Education with an Early Intervention emphasis. Students completing the M.Ed. program will have the skills necessary to work in early intervention programs that are found in every state of the country. Upon completion of the undergraduate FCHD major with the Deaf Education emphasis, and the Communicative Disorders and Deaf Education master's degree with an Early Intervention emphasis, students will have the coursework necessary to cover the competencies for the 0-3 Hearing Endorsement and the EI-2 credential from the State Office of Health. Students who desire preschool teacher licensure must also complete requirements for the Special Education 0-5 license and hearing impaired endorsement. Students in the graduate program in Deaf Education may also choose to follow the Deaf Education K-12 teacher licensure track. Students are not eligible for licensure or endorsement until they successfully complete the graduate program. Specific information about the Deaf Education graduate program options and Master of Education degree requirements can be found [here](#).

### Deaf Education Emphasis (51 credits)

COMD 2500 - Language, Speech, and Hearing Development 3 7

COMD 3010 - American Sign Language I (CI) 4 7

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3500 - Infancy and Childhood 3 2

FCHD 3550 - Infant Lab 1

FCHD 4550 - Preschool Methods and Curriculum 3

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 (6 credits) 4

FCHD 4980 - Practicum 1-12 (with ages 0-3) (3 credits) 1

SPED 4000 - Education of Exceptional Individuals 2 7

In addition to these courses, students must complete the following courses during their senior year:

COMD 3910 - American Sign Language II 4 7

COMD 4760 - Early Intervention for Children who are Deaf and Hard of Hearing 3 7

COMD 5610 - Introduction to Education of the Deaf and Hard of Hearing 3 7

SPED 5710 - Young Children with Disabilities: Characteristics and Services 3 7

SPED 5810 - Seminar and Field Experiences with Infants and Families 3-4 (4 credits minimum) 7

### Deaf Education Emphasis Note:

In addition to completing these emphasis courses, all students must complete all pre-major and core courses listed above and a minimum of 6 credits outside their chosen emphasis from the FCHD electives listed above.

### Note:

1 Prerequisites: Junior Standing, and completion of: pre-major courses, FCHD 4900, and an additional four FCHD courses for a total of eight FCHD courses. Also a cumulative 3.0 GPA and prior application approval by the Practicum Coordinator. Practicum application deadlines are: April 15 for fall, August 15 for spring and January 15 for summer.

2 FCHD majors with the Child Development or Deaf Education emphasis must take FCHD 3550 with FCHD 3500.

3 FCHD majors with a Human Development emphasis must take FCHD 3560 concurrently with FCHD 3570.

Note: The online sections of FCHD 3500 and FCHD 3570 do not offer a lab experience. Therefore, students must take these courses through campus-based sections.

4 Students must sign up at least four full semesters in advance in Family Life 205.

5 Prerequisites: Junior standing, and completion of: pre-major courses, FCHD 4900, and four additional FCHD courses consisting of FCHD 2450, FCHD 3340, FCHD 3350, and FCHD 3450, for a total of eight FCHD courses. Also a cumulative 3.0 GPA and prior application approval by the Practicum Coordinator. Practicum application

deadlines are: April 15 for fall, August 15 for spring, and January 15 for summer.

6 FCHD 5950 may be taken only by FCHD majors who have completed the application process. Prior to enrolling in FCHD 4950 or FCHD 5950, students must have completed a minimum of 70 semester credits, FCHD 4460 and FCHD 5340.

7 For COMD and SPED course offerings, contact the Department of Communicative Disorders and Deaf Education, and the Department of Special Education and Rehabilitation.

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

#### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

#### Family, Consumer, and Human Development - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

Students in the MS program complete a research thesis that makes a contribution to knowledge in family studies, human development, or consumer sciences.

All students in the MS Marriage and Family Therapy specialization also complete required clinical experiences. The MS Marriage and Family Therapy specialization satisfies basic educational requirements for Utah State licensure in marriage and family therapy and clinical membership in AAMFT. The Marriage and Family Therapy specialization is accredited by the Commission on Accreditation for Marriage and Family Therapy Education.

#### Master's Course Requirements

The core substantive courses for the master's degree are FCHD 6031, FCHD 6050, FCHD 6060, and FCHD 6070. Master's students also complete course requirements under their chosen specialization in Marriage and Family Relationships, Marriage and Family Therapy, Consumer Sciences, Infancy and Childhood, Adolescence and Youth, or Adult Development and Aging. Elective courses and thesis topics are individualized with each student by faculty supervisory committees. For more specific information, see the department's Graduate Student Handbook online at: [www.usu.edu/fchd/docs/graduatehandbook.pdf](http://www.usu.edu/fchd/docs/graduatehandbook.pdf)

Return to: Academic Departments and Programs

#### Gerontology Certificate

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

The gerontology certification program is an interdepartmental program designed to help prepare

students for careers involving older individuals. Upon completion, the certificate is listed on the student transcript in addition to any majors and minors. USU is one of only two universities in the state that offers this certificate. Aging services is a growing field, and learning about the concerns and needs of older adults in this program can make students more marketable when they graduate.

This certificate complements a variety of majors, including sociology, psychology, social work, and any health-related majors. Students take required courses in family, consumer, and human development, and choose electives for the remainder of their classes from areas including sociology, social work, nutrition, and more.

In addition to required and elective coursework, students participate in a gerontology practicum in which they gain experience in the field for course credit. They also participate in the Student Gerontology Association which provides service to the community and gives them exposure to professional opportunities in the field.

The gerontology certificate is available through USU's Regional Campuses and Distance Education program.

A complete list of requirements and application instructions may be accessed online at: [www.usu.edu/fchd/gerontology/](http://www.usu.edu/fchd/gerontology/). Additional questions may be directed to Beth Fauth (Gerontology Certificate Coordinator) at (435) 797-1989, or [beth.fauth@usu.edu](mailto:beth.fauth@usu.edu).

Return to: Academic Departments and Programs

### Marriage and Family Therapy - MMFT

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Family, Consumer, and Human Development

The MMFT degree requires the same coursework and requirements as required for the MS degree, but does not include a thesis. Instead of a thesis, students write and present an integrative Theory of Change paper as their major project, helping them to better prepare for clinical work. This program is fully accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) and qualifies students for

intern-level licensure as marriage and family therapists in the State of Utah.

### Master's Course Requirements

The core substantive courses for the master's degree are FCHD 6031, FCHD 6050, FCHD 6060, and FCHD 6070. Master's students also complete course requirements under their chosen specialization in Marriage and Family Relationships, Marriage and Family Therapy, Consumer Sciences, Infancy and Childhood, Adolescence and Youth, or Adult Development and Aging. Elective courses and thesis topics are individualized with each student by faculty supervisory committees. For more specific information, see the department's Graduate Student Handbook online at: [www.usu.edu/fchd/docs/graduatehandbook.pdf](http://www.usu.edu/fchd/docs/graduatehandbook.pdf)

Return to: Academic Departments and Programs

### General Studies - AS

Return to: Academic Departments and Programs

### Associate of Science in General Studies

#### Degree Requirements:

60 Earned Credit Hours

20 Earned Credit Hours from USU

Minimum 2.0 GPA

#### Completion of General Education Requirements

#### Graduation Application and Fee

For more information and advising contact Susan Haddock at [susan.haddock@usu.edu](mailto:susan.haddock@usu.edu).

#### General Studies

#### General Education Requirements (30-34 credits)

USU's General Education program consists of two sets of requirements: Competency and Breadth.

##### Competency Requirements (9-10 credits)

The Citizen Scholar Objectives propose that students should be able to communicate effectively, utilize quantitative methods, make appropriate use of technology, and function effectively in groups. The

competency requirements are structured to develop these skills.

Communications Literacy (CL1 and CL2) (6 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Or one of the following exams:

ACT English Test: Score of 29 or higher

SAT Critical Reading Test: Score of 640 or higher

AP English Language Test: Score of 3 or higher

AP English Literature Test: Score of 3 or higher

CLEP English Composition Test: Score of 50 or higher

CLEP Freshman College Composition Test: Score of 53 or higher

IBO English A1 Test: Standard-level Score of 4 or higher

And

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Or the following exam:

IBO English A1 Test: Higher-level Score of 4 or higher

(satisfies both CL1 and CL2)

Quantitative Literacy (QL) (3-4 credits)

One of the following courses:

MATH 1030 - Quantitative Reasoning (QL) 3

MATH 1050 - College Algebra (QL) 4

STAT 1040 - Introduction to Statistics (QL) 3

STAT 1045 - Introduction to Statistics with Elements of Algebra (QL) 5

Or

One Mathematics or Statistics course requiring MATH 1050 as a prerequisite, such as MATH 1100, MATH 1210, MATH 1220; or STAT 2300

Or one of the following exams:

ACT Math Test: Score of 25 or higher

SAT Math Test: Score of 580 or higher

AP Calculus AB Test: Score of 3 or higher

AP Calculus BC Test: Score of 3 or higher

CLEP Calculus Test: Score of 50 or higher

CLEP College Algebra Test: Score of 50 or higher

IBO Mathematics Test: Higher-level Score of 4 or higher

Breadth Requirements (18-20 credits)

General Education breadth requirements are intended to introduce students to the nature, history, and methods of different disciplines; and to help students understand the cultural, historical, and natural contexts shaping the human experience. Breadth courses also focus on the important cultural, socio-economic, scientific, and technological issues of today's global community.

Students must take a minimum of 18 total credits, including at least one course from each of the six categories shown below.

[Click here to see exceptions to the Breadth Requirements.](#)

Breadth American Institutions (BAI) (3 credits)

One of the following courses:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 1700 - American Civilization (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

HONR 1300 - U.S. Institutions (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Or one of the following exams:

AP Macroeconomics Test: Score of 3 or higher

AP U.S. Government and Politics Test: Score of 3 or higher

AP U.S. History Test: Score of 3 or higher

CLEP American Government Test: Score of 60 or higher

CLEP History of the U.S. I: Early to 1877 Test: Score of 50 or higher

CLEP History of the U.S. II: 1865 to Present Test: Score of 50 or higher

CLEP Principles of Macroeconomics Test: Score of 53 or higher

IBO Economics Test: Standard- or Higher-level Score of 4 or higher

Breadth Creative Arts (BCA) (3 credits)

One of the following courses:

ART 1010 - Exploring Art (BCA) 3

DANC 1010 - Dance in Culture (BCA) 3

HONR 1330 - Civilization: Creative Arts (BCA) 3

ID 1750 - Design in Everyday Living (BCA) 3

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 1100 - Fundamentals of Music (BCA) 3

MUSC 1105 - Fundamentals for Music Majors (BCA) 3

MUSC 1110 - Music Theory I 3

THEA 1013 - Understanding Theatre (BCA) 3

THEA 1023 - Introduction to Film (BCA) 3

THEA 1033 - Beginning Acting (BCA) 3

THEA 1513 - Stagecraft 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Or one of the following exams:

AP Music Theory Test: Score of 3 or higher

AP Studio Art: Drawing: Score of 3 or higher

AP Studio Art: 2-D Design: Score of 3 or higher

AP Studio Art: 3-D Design: Score of 3 or higher

IBO Music Test: Standard- or Higher-level Score of 4 or higher

IBO Theatre Arts Test: Higher-level Score of 5 or higher

IBO Visual Arts Test: Standard- or Higher-level Score of 4 or higher

Breadth Humanities (BHU) (3 credits)

One of the following courses:

ANTH 2011 - Introduction to Peoples of the Southwest (BHU) 3

ANTH 2210 - Introduction to Folklore (BHU) 3

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ARTH 2730 - Art of the African Diaspora (BHU) 3

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

ENGL 1070 - Introduction to Native American Literature and Philosophy (BHU) 3

ENGL 2030 - Great Books and Ideas 3

ENGL 2040 - Introduction to Western American Literature (BHU) 3

ENGL 2050 - Literature by Women (BHU) 3

ENGL 2060 - Literature and Diversity (BHU) 3

ENGL 2200 - Understanding Literature (BHU) 3

ENGL 2210 - Introduction to Folklore (BHU) 3

ENGL 2220 - Introduction to Fiction (BHU) 3

ENGL 2240 - Introduction to Poetry (BHU) 3

ENGL 2300 - Introduction to Shakespeare (BHU) 3

ENGL 2630 - Survey of American Culture (BHU) 3

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 2210 - Introduction to Folklore (BHU) 3

HONR 1320 - Civilization: Humanities (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 2600 - Introduction to Philosophy of Religions (BHU/OCI) 3

RELS 1010 - Introduction to Religious Studies (BHU) 3

THEA 1713 - Playscript Analysis (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Or one of the following exams:

AP Art History Test: Score of 3 or higher

AP English Literature Test: Score of 3 or higher

AP European History Test: Score of 3 or higher

AP World History Test: Score of 3 or higher

CLEP Analyzing and Interpreting Literature Test: Score of 52 or higher

CLEP Western Civilization I: Ancient to 1648 Test: Score of 50 or higher

CLEP Western Civilization II: 1648 to Present Test: Score of 50 or higher

IBO History—European Test: Higher-level Score of 5 or higher

IBO History of the Americas Test: Higher-level Score of 5 or higher

IBO History—Islamic Test: Higher-level Score of 5 or higher

IBO Philosophy Test: Standard- or Higher-level Score of 4 or higher

Breadth Life Sciences (BLS) (3-4 credits)

One of the following courses:

ANTH 1020 - Biological Anthropology (BLS) 3

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1410 - General Botany (BLS) 3

BIOL 1500 - Anatomy and Physiology (BLS) 3

BIOL 1610 - Biology I 4 and

BIOL 3300 - General Microbiology 4

BIOL 1610 - Biology I 4 and

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 1620 - Biology II (BLS) 4

ENVS 1350 - Introduction to Environmental Science (BLS) 3

HONR 1350 - Integrated Life Science (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Or one of the following exams:

AP Biology Test: Score of 3 or higher

AP Environmental Science Test: Score of 3 or higher

CLEP Biology Test: Score of 50 or higher

IBO Biology Test: Standard- or Higher-level Score of 4 or higher

Breadth Physical Sciences (BPS) (3-4 credits)

One of the following courses:

CHEM 1010 - Introduction to Chemistry (BPS) 3

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CS 1030 - Foundations of Computer Science (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1060 - Introduction to Environmental Geoscience (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

HONR 1360 - Integrated Physical Science (BPS) 3

PHYS 1010 - Elementary Physics (BPS) 3

PHYS 1020 - Energy (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1080 - Intelligent Life in the Universe (BPS) 3

PHYS 1100 - Great Ideas in Physics (BPS) 3

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4

PHYS 1800 - Physics of Technology (BPS) 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Or one of the following exams:

AP Chemistry Test: Score of 3 or higher

AP Physics B Test: Score of 3 or higher

AP Physics C: Electricity and Magnetism Test: Score of 3 or higher

DSST Astronomy Test: Score of 48 or higher

DSST Introduction to Computing Test: Score of 50 or higher

DSST Principles of Physical Science I Test: Score of 47 or higher

IBO Chemistry Test: Higher-level Score of 4 or higher

IBO Geography Test: Higher-level Score of 5 or higher

IBO Physics Test: Standard- or Higher-level Score of 5 or higher

Breadth Social Sciences (BSS) (3 credits)

One of the following courses:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1030 - World Archaeology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 2018 - Native American History and Culture (BSS) 3

ANTH 2330 - Principles of Archaeology (BSS) 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

BUSN 1010 - Business Principles (BSS) 3

CJ 1010 - Introduction to Criminal Justice (BSS) 3

ECN 1010 - Economics as a Social Science (BSS) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

FCHD 1010 - Balancing Work and Family (BSS) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

FCHD 2450 - Consumer and Family Economic Issues (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

HIST 2018 - Native American History and Culture (BSS) 3

HONR 1340 - Social Systems and Issues (BSS) 3

IELI 2470 - Cross-Cultural Perspectives (BSS) 4

IELI 2475 - Cross-Cultural Explorations (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

LANG 2100 - Languages in Society (BSS) 3

LING 2100 - Languages in Society (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 1010 - Introduction to Political Science (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

PSY 1010 - General Psychology (BSS) 3

REH 1010 - Disability and Society (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

SOC 1020 - Social Problems (BSS) 3

SPED 1010 - Society and Disability (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

WGS 1010 - Introduction to Women and Gender Studies (BSS) 3

Or one of the following exams:

AP Government and Politics: Comparative Test: Score of 3 or higher

AP Human Geography Test: Score of 3 or higher

AP Microeconomics Test: Score of 3 or higher

AP Psychology Test: Score of 3 or higher

CLEP Introductory Psychology Test: Score of 55 or higher

CLEP Introductory Sociology Test: Score of 55 or higher

DSST Environment and Humanity Test: Score of 46 or higher

DSST Human/Cultural Geography Test: Score of 48 or higher

IBO Economics Test: Higher-level Score of 4 or higher

IBO Geography Test: Higher-level Score of 5 or higher

IBO Psychology Test: Standard- or Higher-level Score of 4 or higher

IBO Social and Cultural Anthropology Test: Standard- or Higher-level Score of 4 or higher

Exploration Requirement (3-4 credits)

Choose an additional class from one of the following General Education categories: QL, BAI, BCA, BHU, BLS, BPS, or BSS.

Note: Students may use an additional Quantitative Literacy (QL) course to satisfy the Exploration Requirement only if they received college credits for the QL requirement. Students who had the QL requirement waived as a result of an ACT Math or SAT Math score do not receive any college credit for those exams. Therefore, these students may not take an additional QL course to satisfy the Exploration Requirement unless they first earn QL credits either by examination (e.g., AP, CLEP, IBO) or through coursework.

Note: The Exploration Requirement is required only for students whose first semester enrolled at USU is Summer Semester 2008 or thereafter.

Return to: Academic Departments and Programs

Applied Environmental Geoscience - BS

Return to: Academic Departments and Programs

College of Science

Department of Geology

Students must complete the General Education Requirements:

GEO 1060 will fulfill the Physical Sciences (BPS) breadth requirement

Students must also complete the University Studies Depth Requirements:

GEO 4700 will partially fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Requirements (81-83 credits)

GEO 1060 - Introduction to Environmental Geoscience (BPS) 3

OR

GEO 1110 - Physical Geology (BPS) 3 and  
 GEO 1115 - Physical Geology Laboratory 1  
 GEO 3200 - The Earth Through Time (DSC) 4  
 GEO 3500 - Minerals and Rocks 4  
 GEO 3550 - Sedimentation and Stratigraphy 4  
 GEO 3600 - Geomorphology 4  
 GEO 3700 - Structural Geology 4  
 GEO 4700 - Geologic Field Methods (CI) 3  
 GEO 5200 - Geology Field Camp 5  
 GEO 5600 - Geochemistry 3  
 Required Support Courses (35-36 credits)  
 Chemistry Group (10 credits)  
 CHEM 1210 - Principles of Chemistry I 4  
 CHEM 1215 - Chemical Principles Laboratory I 1  
 CHEM 1220 - Principles of Chemistry II (BPS) 4  
 CHEM 1225 - Chemical Principles Laboratory II 1  
 Mathematics and Statistics Group (7 credits)  
 MATH 1210 - Calculus I (QL) 4  
 STAT 3000 - Statistics for Scientists (QI) 3  
 Physics Group (4 credits)  
 PHYS 2110 - General Physics - Life Sciences I 4 or  
 PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
 Environmental Group (14-15 credits)  
 BIOL 1610 - Biology I 4  
 BIOL 1620 - Biology II (BLS) 4  
 GEOG 1800 - Introduction to Geographic Information  
 Sciences 3  
 PSC 3000 - Fundamentals of Soil Science 4 or  
 WATS 3700 - Fundamentals of Watershed Science (CI) 3  
 Support Electives (12 credits required)

No more than 8 credits may be chosen from any one group.

#### Group A: Hydrologic Science

ENVS 6320 - Water Law and Policy in the United States 3

WATS 4490 - Small Watershed Hydrology (QI) 4 or

WATS 6490 - Small Watershed Hydrology (QI) 4

WATS 5660 - Watershed and Stream Restoration 2

WATS 5670 - Watersheds and Stream Restoration  
Practicum 2

#### Group B: Ecology, Soils, and Environmental Chemistry

BIOL 2220 - General Ecology 3

BIOL 3220 - Field Ecology (QI) 2

CHEM 3650 - Environmental Chemistry (DSC) 3

PSC 5050 - Principles of Environmental Soil Chemistry 3  
or

PSC 6050 - Principles of Environmental Soil Chemistry 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4  
or

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 5560 - Analytical Techniques for the Soil  
Environment 3 or

PSC 6560 - Analytical Techniques for the Soil  
Environment 3

PSC 5620 - Aquatic Chemistry 3

#### Group C: GIS/Remote Sensing

WATS 5003 - Remote Sensing of Land Surfaces 4 or

WATS 6003 - Remote Sensing of Land Surfaces 4

WILD 5750 - Applied Remote Sensing 3 or

WILD 6750 - Applied Remote Sensing 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Applied Environmental Geoscience - MS

Return to: Academic Departments and Programs

College of Science

Department of Geology

The department offers advanced study leading to the MS degree in Applied Environmental Geoscience. This terminal degree program requires a combination of advanced courses selected from Geology offerings, as well as additional courses from other units on campus, such as Civil and Environmental Engineering; Plants, Soils, and Climate; Biology; Chemistry and Biochemistry; Mathematics and Statistics; and the S.J. and Jessie E. Quinney College of Natural Resources.

Degree Requirements

Only the Plan B nonthesis option is allowed for the MS degree in Applied Environmental Geoscience, which requires 32 credits. The Plan B option requires the production of a paper. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study. The Plan B paper is usually a review of literature, with conclusions drawn after conceptualizing an area of inquiry, planning a systematic search, and analyzing and critiquing the acquired information. The summary and conclusions developed should enhance knowledge in the discipline. Plan B papers and reports should follow the same format specifications as theses and dissertations and are expected to reflect equivalent scholarship standards, even though they may be less intensive and not demand the originality of a Plan A thesis. Plan B papers are defended, but are not reviewed by the School of Graduate Studies assistant dean or signed by the graduate dean. Plan B papers must be submitted to the Merrill-Cazier Library to be microfiched, and the binding receipt must be returned to the School of Graduate Studies. Students enrolled in the MSAEG program will be expected to complete four out of seven of the Geology undergraduate core course requirements if they have not done so prior to enrollment (e.g. Introductory or Physical Geology with laboratory, Minerals and Rocks (Earth Materials), Historical Geology, Sedimentation and Stratigraphy, Geomorphology, Structural Geology, and Field Methods or relevant experience).

Return to: Academic Departments and Programs

Earth Science (Composite Teaching) - BA

Return to: Academic Departments and Programs

College of Science

Department of Geology

Admission Requirements For This Major

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

### The Program

A bachelor's degree in the Earth Science—Composite Teaching Major includes: University Studies, as required by the College of Science; the Composite Teaching Major; and the Secondary Teacher Education Program (STEP). Students majoring in the Earth Science—Composite Teaching Major will complete courses which provide an in-depth understanding of geological principles.

The Earth Science—Composite Teaching Major program is fully accredited by the Utah State Office of Education and the National Council for Accreditation of Teacher Education.

### Career Opportunities

Through the bachelor's degree program in the Earth Science—Composite Teaching Major, students are prepared for public school teaching at the secondary level. Students completing the program are eligible to apply for secondary licensure in the State of Utah. Utah also has reciprocal agreements with many other states.

### Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

Students must complete the General Education Requirements:

GEO 1110 in conjunction with CHEM 1220 will fulfill the Exploration requirement

MATH 1210 will fulfill the Quantitative Literacy (QL) requirement

PHYS 1040 will fulfill the Breadth Physical Sciences (BPS) requirement

ENGL 1010 and ENGL 2010 will fulfill the Communications Literacy requirement

Three credits of approved courses in each of the following: American Institutions (BAI), Creative Arts (BCA), Humanities (BHU), Life Sciences (BLS) and Social Sciences (BSS)

Students must also complete the University Studies Depth Requirements:

SCED 3210 and SCED 4200 will fulfill the Communications Intensive (CI) requirement

STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

GEO 3200 will fulfill the Life and Physical Sciences (DSC) requirement

SCED 3210 will fulfill the Social Sciences (DSS) requirement

Two credits of approved 3000-level or above courses in Humanities and Creative Arts (DHA)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Earth Science Composite Teaching Major, BS/BA (95 credits)

To graduate, a candidate for the Earth Science-Composite Teaching Major must accumulate an overall cumulative GPA of 2.75. The Earth Science—Composite Teaching Major leads to licensure to teach in secondary schools.

Note: All USU teacher education candidates will be required to take and pass the PRAXIS content exam approved by the Utah State Office of Education in their major (and minor if applicable) content area prior to student teaching. The Earth Science—Composite Teaching course requirements are as follows:

Requirements:

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

ENVS 4610 - Foundations of Environmental Education 3

OR WILD 2200 - Ecology of Our Changing World (BLS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3 OR PSC

3820 - Climate and Climate Change (DSC/QI) 3

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Students must also complete the Secondary Teacher Education Program

Note:

To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring.

Level 1 (11 credits)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

Level 2 (12 credits)

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Level 3 (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Notes:

Students should be certain that they have the proper background to enroll in MATH 1210 . See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

The Teaching Science I and II courses (SCED 3400 and SCED 4400) are only taught once a year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

Earth Science Composite Teaching Major, BS/BA, Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

Fall Semester (16 Credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

MATH 1210 - Calculus I (QL) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Spring Semester (15 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

GEO 3200 - The Earth Through Time (DSC) 4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institution (BAI) course 3

Sophomore Year (28 credits)

Fall Semester (13 credits)

GEO 3600 - Geomorphology 4

PHYS 1040 - Introductory Astronomy (BPS) 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Spring Semester (15 credits)

GEO 3500 - Minerals and Rocks 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Breadth Life Sciences (BLS) course 3

Breadth Social Sciences (BSS) course 3

Junior Year (31 credits)

Fall Semester (16 credits)

GEO 3550 - Sedimentation and Stratigraphy 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

Depth Humanities and Creative Arts (DHA) course 3

Electives 3-4

Spring Semester (15 credits)

GEO 3700 - Structural Geology 4

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Senior Year (29 credits)

Fall Semester (14 credits)

PSC 2000 - The Atmosphere and Weather (BPS) 3 OR PSC 3820 - Climate and Climate Change (DSC/QI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

STAT 3000 - Statistics for Scientists (QI) 3

Spring Semester (15 credits)

ENVS 4610 - Foundations of Environmental Education 3  
OR WILD 2200 - Ecology of Our Changing World (BLS) 3

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Notes:

Students may need to complete prerequisite courses prior to enrolling in MATH 1210 . See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

A separate Breadth Life Sciences (BLS) course will not be required if WILD 2200 is taken.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Earth Science (Composite Teaching) - BS

Return to: Academic Departments and Programs

College of Science

Department of Geology

Admission Requirements For This Major

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

The Program

A bachelor's degree in the Earth Science—Composite Teaching Major includes: University Studies, as required by the College of Science; the Composite Teaching Major; and the Secondary Teacher Education Program (STEP). Students majoring in the Earth Science—Composite Teaching Major will complete courses which provide an in-depth understanding of geological principles.

The Earth Science—Composite Teaching Major program is fully accredited by the Utah State Office of Education and the National Council for Accreditation of Teacher Education.

## Career Opportunities

Through the bachelor's degree program in the Earth Science—Composite Teaching Major, students are prepared for public school teaching at the secondary level. Students completing the program are eligible to apply for secondary licensure in the State of Utah. Utah also has reciprocal agreements with many other states.

### Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

Students must complete the General Education Requirements :

GEO 1110 in conjunction with CHEM 1220 will fulfill the Exploration requirement

MATH 1210 will fulfill the Quantitative Literacy (QL) requirement

PHYS 1040 will fulfill the Breadth Physical Sciences (BPS) requirement

ENGL 1010 and ENGL 2010 will fulfill the Communications Literacy requirement

Three credits of approved courses in: American Institutions (BAI), Creative Arts (BCA), Humanities (BHU), Life Sciences (BLS) and Social Sciences (BSS)

Students must also complete the University Studies Depth Requirements :

SCED 3210 and SCED 4200 will fulfill the Communications Intensive (CI) requirement

STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

GEO 3200 will fulfill the Life and Physical Sciences (DSC) requirement

SCED 3210 will fulfill the Social Sciences (DSS) requirement

Two credits of approved 3000-level or above courses in Humanities and Creative Arts (DHA)

Earth Science Composite Teaching Major, BS/BA (95 credits)

To graduate, a candidate for the Earth Science-Composite Teaching Major must accumulate an overall cumulative GPA of 2.75. The Earth Science—Composite Teaching Major leads to licensure to teach in secondary schools. Note: All USU teacher education candidates will be required to take and pass the PRAXIS content exam approved by the Utah State Office of Education in their major (and minor if applicable) content area prior to student teaching. The Earth Science—Composite Teaching course requirements are as follows:

### Requirements:

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

ENVS 4610 - Foundations of Environmental Education 3  
OR WILD 2200 - Ecology of Our Changing World (BLS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3 OR PSC 3820 - Climate and Climate Change (DSC/QI) 3

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Students must also complete the Secondary Teacher Education Program

Note:

To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring.

Level 1 (11 credits)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

Level 2 (12 credits)

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Level 3 (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Notes:

Students should be certain that they have the proper background to enroll in MATH 1210 . See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

The Teaching Science I and II courses (SCED 3400 and SCED 4400) are only taught once a year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

Earth Science Composite Teaching Major, BS/BA, Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

Fall Semester (16 Credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

MATH 1210 - Calculus I (QL) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Spring Semester (15 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

GEO 3200 - The Earth Through Time (DSC) 4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institution (BAI) course 3

Sophomore Year (28 credits)

Fall Semester (13 credits)

GEO 3600 - Geomorphology 4

PHYS 1040 - Introductory Astronomy (BPS) 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Spring Semester (15 credits)

GEO 3500 - Minerals and Rocks 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

Breadth Life Sciences (BLS) course 3

Breadth Social Sciences (BSS) course 3

Junior Year (31 credits)

Fall Semester (16 credits)

GEO 3550 - Sedimentation and Stratigraphy 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

SCED 3300 - Clinical Experience I 1

SCED 3400 - Teaching Science I 3

Depth Humanities and Creative Arts (DHA) course 3

Electives 3-4

Spring Semester (15 credits)

GEO 3700 - Structural Geology 4

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4300 - Clinical Experience II 1

SCED 4400 - Teaching Science II 3

Senior Year (29 credits)

Fall Semester (14 credits)

PSC 2000 - The Atmosphere and Weather (BPS) 3 OR PSC 3820 - Climate and Climate Change (DSC/QI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

STAT 3000 - Statistics for Scientists (QI) 3

Spring Semester (15 credits)

ENVS 4610 - Foundations of Environmental Education 3 OR WILD 2200 - Ecology of Our Changing World (BLS) 3

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Notes:

Students may need to complete prerequisite courses prior to enrolling in MATH 1210 . See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

A separate Breadth Life Sciences (BLS) course will not be required if WILD 2200 is taken.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Geology - BA

Return to: Academic Departments and Programs

College of Science

## Department of Geology

### Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

Students must complete the General Education Requirements:

GEO 1110 in conjunction with CHEM 1220 will fulfill the Exploration requirement

MATH 1210 will fulfill the Quantitative Literacy (QL) requirement

PHYS 2220 will fulfill the Breadth Physical Sciences (BPS) requirement

ENGL 1010 and ENGL 2010 will fulfill the Communications Literacy requirement

Three credits of approved courses in: American Institutions (BAI), Creative Arts (BCA), Humanities (BHU), Life Sciences (BLS) and Social Sciences (BSS)

Students must also complete the University Studies Depth Requirements:

GEO 4700 will partially fulfill the Communications Intensive (CI) requirement

PHYS 2210 will fulfill the Quantitative Intensive (QI) requirement

GEO 3200 will fulfill the Life and Physical Sciences (DSC) requirement

Two credits of approved 3000-level or above courses in: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Geology Major Four Year Plan, BS/BA (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (29 credits)

Fall Semester (13 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

MATH 1210 - Calculus I (QL) 4

Spring Semester (16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Sophomore Year (30 credits)

Fall Semester (15 credits)

GEO 3550 - Sedimentation and Stratigraphy 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institutions (BAI) course 3

Spring Semester (15 credits)

GEO 3700 - Structural Geology 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Junior Year (26-28 credits)

Fall Semester (13-14 credits)

GEO 3600 - Geomorphology 4

GEO 4500 - Igneous and Metamorphic Petrology 4 or  
GEO 5620 - Global Geophysics (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or CS 1400 - Introduction to Computer Science--CS 1 3

Breadth Life Sciences (BLS) course 3

Spring Semester (13-14 credits)

GEO 5660 - Applied Geophysics 4 or GEO 5XXX - Geology elective 3

Breadth Social Sciences (BSS) course 3

Communications Intensive (CI) course 3

Electives 4

Senior Year (33-36 credits)

Fall Semester (15-17 credits)

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5XXX - Geology elective 3

MATH 1220 - Calculus II (QL) 4 or STAT 3000 - Statistics for Scientists (QI) 3

Depth Humanities and Creative Arts (DHA) course 3

Spring Semester (13-14 credits)

GEO 5660 - Applied Geophysics 4 and GEO 5XXX 3 or  
GEO 5XXX 6

Depth Social Sciences (DSS) course 3

Electives 4

Summer Semester (5 credits)

GEO 5200 - Geology Field Camp 5

Geology Major, BS/BA

General Geology Option (78-80 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4500 - Igneous and Metamorphic Petrology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5200 - Geology Field Camp 5

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4 or STAT 3000 - Statistics for Scientists (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WATS 5003 - Remote Sensing of Land Surfaces 4 or

WILD 5750 - Applied Remote Sensing 3 or

CS 1400 - Introduction to Computer Science--CS 1 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Note:

Students must also select 12 credits from any Geology courses numbered 4800 or above, except GEO 5200.

Must include one of the following courses:

GEO 5620 - Global Geophysics (QI) 3

GEO 5640 - Introduction to Seismology 3

GEO 5660 - Applied Geophysics 4

GEO 5690 - Geodynamics 3

Hydrogeology- Engineering Geology Emphasis (82-84 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5200 - Geology Field Camp 5

GEO 5510 - Groundwater Geology (QI) 3

GEO 5520 - Techniques of Groundwater Investigations (CI) 3 or GEO 5600 - Geochemistry 3

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3 or MATH 2250 - Linear Algebra and Differential Equations (QI) 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2030 - Engineering Mechanics Dynamics 3

ENGR 2140 - Strength of Materials 3

CEE 3430 - Engineering Hydrology 3 or CEE 4300 - Engineering Soil Mechanics 4

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

Geoarchaeology Emphasis (74-77 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5680 - Paleoclimatology 3

ANTH 1030 - World Archaeology (BSS) 3 or ANTH 2330 - Principles of Archaeology (BSS) 3

ANTH 3300 - Archaeology in North America (DSS) 3 or ANTH 3360 - Utah Archaeology (DSS) 3

ANTH 5300 - Archaeology Field School 3-5

ANTH 5330 - Geoarchaeology 3

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

BIOL 3010 - Evolution (DSC) 3 or BIOL 3040 - Plants and Civilization (DSC) 3

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WATS 5003 - Remote Sensing of Land Surfaces 4 or

WILD 5750 - Applied Remote Sensing 3

PSC 3000 - Fundamentals of Soil Science 4 or PSC 5130 - Soil Genesis, Morphology, and Classification 4

#### Notes:

Students may need to complete prerequisite courses prior to enrolling in MATH 1210.

Only GEO 5620 or GEO 5660 is required, not both. A 3 or 4 credit elective course, respectively, may be substituted for whichever of these two courses is not taken.

#### Minimum University Requirements

#### Total Credits

120

#### Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Geology - BS

Return to: Academic Departments and Programs

College of Science

Department of Geology

Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

Students must complete the General Education Requirements:

GEO 1110 in conjunction with CHEM 1220 will fulfill the Exploration requirement

MATH 1210 will fulfill the Quantitative Literacy (QL) requirement

PHYS 2220 will fulfill the Breadth Physical Sciences (BPS) requirement

ENGL 1010 and ENGL 2010 will fulfill the Communications Literacy requirement

Three credits of approved courses in: American Institutions (BAI), Creative Arts (BCA), Humanities (BHU), Life Sciences (BLS) and Social Sciences (BSS)

Students must also complete the University Studies Depth Requirements:

GEO 4700 will partially fulfill the Communications Intensive (CI) requirement

PHYS 2210 will fulfill the Quantitative Intensive (QI) requirement

GEO 3200 will fulfill the Life and Physical Sciences (DSC) requirement

Two credits of approved 3000-level or above courses in: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Geology Major, BS/BA

General Geology Option (78-80 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4500 - Igneous and Metamorphic Petrology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5200 - Geology Field Camp 5

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4 or STAT 3000 - Statistics for Scientists (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WATS 5003 - Remote Sensing of Land Surfaces 4 or

WILD 5750 - Applied Remote Sensing 3 or

CS 1400 - Introduction to Computer Science--CS 1 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Note:

Students must also select 12 credits from any Geology courses numbered 4800 or above, except GEO 5200.

Must include one of the following courses:

GEO 5620 - Global Geophysics (QI) 3

GEO 5640 - Introduction to Seismology 3

GEO 5660 - Applied Geophysics 4

GEO 5690 - Geodynamics 3

Hydrogeology- Engineering Geology Emphasis (82-84 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5200 - Geology Field Camp 5

GEO 5510 - Groundwater Geology (QI) 3

GEO 5520 - Techniques of Groundwater Investigations (CI) 3 or GEO 5600 - Geochemistry 3

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3 or MATH 2250 - Linear Algebra and Differential Equations (QI) 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2030 - Engineering Mechanics Dynamics 3

ENGR 2140 - Strength of Materials 3

CEE 3430 - Engineering Hydrology 3 or CEE 4300 - Engineering Soil Mechanics 4

CEE 3500 - Civil and Environmental Engineering Fluid Mechanics 3

Geoarchaeology Emphasis (74-77 credits)

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4

GEO 3700 - Structural Geology 4

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5680 - Paleoclimatology 3

ANTH 1030 - World Archaeology (BSS) 3 or ANTH 2330 - Principles of Archaeology (BSS) 3

ANTH 3300 - Archaeology in North America (DSS) 3 or ANTH 3360 - Utah Archaeology (DSS) 3

ANTH 5300 - Archaeology Field School 3-5

ANTH 5330 - Geoarchaeology 3

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

BIOL 3010 - Evolution (DSC) 3 or BIOL 3040 - Plants and Civilization (DSC) 3

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WATS 5003 - Remote Sensing of Land Surfaces 4 or

WILD 5750 - Applied Remote Sensing 3

PSC 3000 - Fundamentals of Soil Science 4 or PSC 5130 - Soil Genesis, Morphology, and Classification 4

Geology Major Four Year Plan, BS/BA (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (29 credits)

Fall Semester (13 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

MATH 1210 - Calculus I (QL) 4

Spring Semester (16 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

GEO 3200 - The Earth Through Time (DSC) 4

GEO 3500 - Minerals and Rocks 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Sophomore Year (30 credits)

Fall Semester (15 credits)

GEO 3550 - Sedimentation and Stratigraphy 4

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institutions (BAI) course 3

Spring Semester (15 credits)

GEO 3700 - Structural Geology 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Junior Year (26-28 credits)

Fall Semester (13-14 credits)

GEO 3600 - Geomorphology 4

GEO 4500 - Igneous and Metamorphic Petrology 4 or  
GEO 5620 - Global Geophysics (QI) 3

GEOG 1800 - Introduction to Geographic Information  
Sciences 3 or CS 1400 - Introduction to Computer  
Science--CS 1 3

Breadth Life Sciences (BLS) course 3

Spring Semester (13-14 credits)

GEO 5660 - Applied Geophysics 4 or GEO 5XXX - Geology  
elective 3

Breadth Social Sciences (BSS) course 3

Communications Intensive (CI) course 3

Electives 4

Senior Year (33-36 credits)

Fall Semester (15-17 credits)

GEO 4700 - Geologic Field Methods (CI) 3

GEO 5XXX - Geology elective 3

MATH 1220 - Calculus II (QL) 4 or STAT 3000 - Statistics  
for Scientists (QI) 3

Depth Humanities and Creative Arts (DHA) course 3

Spring Semester (13-14 credits)

GEO 5660 - Applied Geophysics 4 and GEO 5XXX 3 or  
GEO 5XXX 6

Depth Social Sciences (DSS) course 3

Electives 4

Summer Semester (5 credits)

GEO 5200 - Geology Field Camp 5

Notes:

Students may need to complete prerequisite courses  
prior to enrolling in MATH 1210.

Only GEO 5620 or GEO 5660 is required, not both. A 3 or  
4 credit elective course, respectively, may be substituted  
for whichever of these two courses is not taken.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Geology - MS

Return to: Academic Departments and Programs

College of Science

Department of Geology

The department offers advanced study and research opportunities leading to the MS degree in Geology. Although many research specialties require advanced courses selected primarily from Geology offerings, additional courses may be selected from other departments on campus, such as Biology; Civil and Environmental Engineering; Environment and Society; Mathematics and Statistics; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources.

Degree Requirements

Only the Plan A thesis option is allowed for the MS degree in Geology. The recommended distribution is 20 credits of coursework and 10 credits of thesis to obtain the required 30 credits for the MS degree. Only two grades of less than B (C to B-) will be accepted as part of the required degree program as listed on the "Program of Study for Master's Degree." A 3.0 grade point average

must be obtained in required coursework as listed on the Program of Study. Thesis credits will be graded P-F only (i.e., no letter grade will be given). Geology graduate students using department or University facilities and/or under geology faculty supervision must register for a minimum of 3 credits every semester, up to and including the semester in which the thesis is cleared by the School of Graduate Studies. Students enrolled in the MS Geology program will be expected to complete the majority of the Geology undergraduate core course requirements if they have not done so prior to enrollment (e.g. Introductory or Physical Geology with laboratory, Minerals and Rocks (Earth Materials), Historical Geology, Sedimentation and Stratigraphy, Geomorphology, Structural Geology, and Field Methods or relevant experience).

Return to: Academic Departments and Programs

Geology - PhD

Return to: Academic Departments and Programs

College of Science

Department of Geology

The Doctor of Philosophy degree in Geology requires original research in a specific area of geology, demonstration of broad knowledge in the field of geology, and demonstration of depth of knowledge in at least two areas of geology. The successful candidate must demonstrate a breadth of understanding in geology, as well as a depth of understanding in his or her chosen area(s) of emphasis. Potential students must show an ability to do creative research. This research should be carried out during a significant period of time (i.e., during at least one year or three semesters in residence). Thus, each successful PhD candidate will produce a significant piece of original research, presented in a written dissertation and defended in an oral examination. This work should be of such scope and quality that more than one journal or conference article can be derived from it.

Degree Requirements

There are two program tracks for this degree: academic and professional. The academic track is designed to prepare graduates for a career in academia or other teaching-related settings. It includes a classroom teaching experience under the supervision of a faculty teaching mentor. The professional track is designed to

prepare graduates for work in professional careers with the petroleum industry, with other extractive industries, or in environmental and hydrologic consulting.

Completion of a professional internship is encouraged.

Students completing a PhD in Geology must fulfill the following requirements:

1. Complete at least 72 credits of graduate coursework (including at least 21 credits of GEO 7970, Dissertation Research) beyond a BS degree or at least 42 credits (including at least 15 credits of GEO 7970, Dissertation Research) beyond an MS degree, with a minimum class grade of B and a minimum cumulative GPA of 3.3.

2. Academic Track: Successfully teach one geology course under the supervision of a faculty mentor while taking GEO 6900 (teaching internship) credits. Coursework in pedagogy may be pursued.

Professional Track: Completion of a professional internship program is encouraged and GEO 6900 credits may be taken with this. Coursework developing computational skills may be pursued.

3. Pass a written comprehensive examination showing depth and breadth of knowledge in geology and in the student's area(s) of emphasis. The student may be required to take additional classes to satisfy any deficiencies.

4. Successfully complete a written dissertation research proposal, present that proposal orally to the committee, and defend it during an oral examination. The oral examination will include questions of a deep and probing nature, and may range beyond the dissertation proposal into geoscience areas unrelated to the student's specialization.

5. Successfully complete and defend a dissertation. The dissertation will be a written document and may consist of several papers submitted or accepted for publication. The defense will be oral, including a presentation of the work and successful defense of the work to the faculty.

Students enrolled in the Geology PhD program will be expected to complete the majority of the Geology undergraduate core course requirements if they have not done so prior to enrollment (e.g. Introductory or Physical Geology with laboratory, Minerals and Rocks (Earth Materials), Historical Geology, Sedimentation and

Stratigraphy, Geomorphology, Structural Geology, and Field Methods or relevant experience).

Return to: Academic Departments and Programs

## Geology Minor

Return to: Academic Departments and Programs

College of Science

Department of Geology

## Requirements

In addition to the requirements below, students must also select 10 elective credits from Geology courses at the 3500 level or above.

GEO 1010 - Introduction to Geology (BPS) 3 or

GEO 1110 - Physical Geology (BPS) 3 1 and

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

Note:

1 GEO 1110 is preferred.

Return to: Academic Departments and Programs

## Fitness Promotion - MFP

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

A. Required Graduate Core (17 credits)

EDUC 6600 - Research Design and Analysis I 3 or

PSY 6600 - Research Design and Analysis I 3

PEP 6300 - Seminar in Human Movement Sciences 1

PEP 6410 - Bioenergetics and Exercise Metabolism 2

PEP 6490 - Advanced Cardiovascular Exercise Physiology 2

PEP 6610 - Topics in Biomechanics 2

PEP 6810 - Research Methods in Health Sciences 3

PEP 6840 - Fundamentals of Motor Behavior 2

PEP 6850 - Neural Aspects of Rehabilitation 2

B. Required MFP Specialization (13 credits)

PEP 6460 - Exercise Electrocardiogram Interpretation 2

PEP 6470 - Clinical Exercise Prescription 2

PEP 6500 - Practicum in Corporate Wellness 1-10 (on campus-2 credits and remote site-4 credits)

PSY 6470 - Health Psychology 3

C. MFP Electives (select 6 credits)

HEP 6000 - Evaluating Health-Promotion Programs 3

HEP 6100 - Current Trends in Health Promotion 3

NDFS 3020 - Nutrition and Physical Performance 2

NDFS 6200 - Nutritional Epidemiology 2

NDFS 6210 - Advanced Public Health Nutrition 2

PEP 5100 - Fitness Assessment and Exercise Programs 4

SOC 6460 - Sociology of Health 3

Return to: Academic Departments and Programs

Health and Human Movement - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

The MS is available for students who plan to teach, provide community leadership, or do further graduate or research study.

Specializations

MS students may select an area of emphasis for research and study from the following specializations: Exercise Science, Sports Medicine, and Health Education.

Course Requirements

Exercise Science Specialization Plan A (31 credits)

MS candidates specializing in Exercise Science Plan A must complete the following courses. (This specialization is a Plan A thesis option.)

Required Core Courses (17 credits)

PEP 6300 - Seminar in Human Movement Sciences 1

PEP 6410 - Bioenergetics and Exercise Metabolism 2

PEP 6490 - Advanced Cardiovascular Exercise Physiology 2

PEP 6610 - Topics in Biomechanics 2

PEP 6810 - Research Methods in Health Sciences 3

PEP 6840 - Fundamentals of Motor Behavior 2

PEP 6850 - Neural Aspects of Rehabilitation 2

EDUC 6600 - Research Design and Analysis I 3 or

PSY 6600 - Research Design and Analysis I 3

Exercise Science Specialization Requirements (6 credits)

PEP 6970 - Thesis 1-9 (6 credits maximum)

Exercise Science Specialization Electives (select 8 credits)

BIOL 4000 - Human Dissection 1

EDUC 7610 - Research Design and Analysis II 3 or

PSY 7610 - Measurement, Design, and Analysis II 3

HEP 6100 - Current Trends in Health Promotion 3

NDFS 3020 - Nutrition and Physical Performance 2

NDFS 6200 - Nutritional Epidemiology 2

NDFS 6210 - Advanced Public Health Nutrition 2

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 6050 - Psychological Aspects of Sports Performance 3

PEP 6440 - Body Composition 2

PEP 6460 - Exercise Electrocardiogram Interpretation 2

PEP 6470 - Clinical Exercise Prescription 2

PEP 6480 - Advanced Neuromuscular Exercise Physiology 2

PSY 6470 - Health Psychology 3

Exercise Science Specialization Plan B (30 credits)

MS candidates specializing in Exercise Science (Plan B) must complete the following courses:

Required Core Classes (17 credits)

PEP 6300 - Seminar in Human Movement Sciences 1

PEP 6410 - Bioenergetics and Exercise Metabolism 2

PEP 6490 - Advanced Cardiovascular Exercise Physiology 2

PEP 6610 - Topics in Biomechanics 2

PEP 6810 - Research Methods in Health Sciences 3

EDUC 6600 - Research Design and Analysis I 3 or

PSY 6600 - Research Design and Analysis I 3

PEP 6840 - Fundamentals of Motor Behavior 2

PEP 6850 - Neural Aspects of Rehabilitation 2

Exercise Science Specialization Requirements (3 credits)

PEP 6970 - Thesis 1-9 (3 credits required) (Requires writing and committee approval of a manuscript with content and format appropriate for submission to a peer-reviewed exercise science journal)

Exercise Science Specialization Electives (select 10 credits)

BIOL 4000 - Human Dissection 1

EDUC 7610 - Research Design and Analysis II 3 or

PSY 7610 - Measurement, Design, and Analysis II 3

HEP 6100 - Current Trends in Health Promotion 3

NDFS 3020 - Nutrition and Physical Performance 2

NDFS 5200 - Nutritional Epidemiology 2 or

NDFS 6200 - Nutritional Epidemiology 2

NDFS 5210 - Advanced Public Health Nutrition (CI) 2 or

NDFS 6210 - Advanced Public Health Nutrition 2

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 6050 - Psychological Aspects of Sports Performance 3

PEP 6460 - Exercise Electrocardiogram Interpretation 2

PEP 6470 - Clinical Exercise Prescription 2

PEP 6480 - Advanced Neuromuscular Exercise Physiology 2

PSY 6470 - Health Psychology 3

Sports Medicine Specialization Plan A (thesis track: 32 credits; nonthesis track: 30 credits)

MS candidates specializing in Sports Medicine must complete the following courses.

EDUC 6600 - Research Design and Analysis I 3 or

PSY 6600 - Research Design and Analysis I 3

PEP 6410 - Bioenergetics and Exercise Metabolism 2

PEP 6550 - Athletic Training Clinical Orthopedics I 3

PEP 6560 - Athletic Training Clinical Orthopedics II 3

PEP 6570 - Athletic Training Clinical Orthopedics III 3

PEP 6580 - Athletic Training Clinical Orthopedics IV 3

PEP 6610 - Topics in Biomechanics 2

PEP 6810 - Research Methods in Health Sciences 3

PEP 6840 - Fundamentals of Motor Behavior 2

PEP 6850 - Neural Aspects of Rehabilitation 2

PEP 6970 - Thesis 1-9 (for thesis track only) (6 credits maximum)

Sports Medicine Specialization Plan B (30 credit minimum)

Select 2-3 credits of PEP 6970 for the Final Paper and the remaining credits from elective list below:

(Final Paper requires writing and committee approval of a manuscript with content and format appropriate for submission to a peer-reviewed discipline journal)

Required Core Courses

EDUC 6600 - Research Design and Analysis I 3 or

PSY 6600 - Research Design and Analysis I 3

PEP 6300 - Seminar in Human Movement Sciences 1

PEP 6410 - Bioenergetics and Exercise Metabolism 2

PEP 6550 - Athletic Training Clinical Orthopedics I 3

PEP 6560 - Athletic Training Clinical Orthopedics II 3

PEP 6570 - Athletic Training Clinical Orthopedics III 3

PEP 6580 - Athletic Training Clinical Orthopedics IV 3

PEP 6610 - Topics in Biomechanics 2

PEP 6810 - Research Methods in Health Sciences 3

PEP 6840 - Fundamentals of Motor Behavior 2

PEP 6850 - Neural Aspects of Rehabilitation 2

PEP 6970 - Thesis 1-9 (2-3 credits)

Sports Medicine Specialization Electives

NDFS 3020 - Nutrition and Physical Performance 2

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 5050 - Psychological Aspects of Sports Performance  
3 or

PEP 6050 - Psychological Aspects of Sports Performance  
3 or

PSY 5050 - Psychological Aspects of Sports Performance  
3 or

PSY 6050 - Psychological Aspects of Sports Performance  
3

PEP 6460 - Exercise Electrocardiogram Interpretation 2

PEP 6470 - Clinical Exercise Prescription 2

PEP 6480 - Advanced Neuromuscular Exercise  
Physiology 2

PEP 6490 - Advanced Cardiovascular Exercise Physiology  
2

or course approved by graduate supervisory committee

Health Education Specialization Plan A (Thesis  
Option)(30 credits)

MS candidates specializing in Health Education must  
complete the following courses.

Required Core Courses (27 credits)

EDUC 6570 - Introduction to Educational and  
Psychological Research 3

EDUC 6600 - Research Design and Analysis I 3

HEP 6000 - Evaluating Health-Promotion Programs 3

HEP 6100 - Current Trends in Health Promotion 3

HEP 6600 - Field Work in Health Education 3-6 (3 credits  
required)

HEP 6800 - Seminar in Health Behavior 3

HEP 6970 - Thesis 1-9 (6 credits maximum)

PSY 5200 - Introduction to Interviewing and Counseling  
(CI) 3

Health Education Specialization Electives (select 3  
credits)

ANTH 6140 - Anthropology of Global Health 3

ASTE 6120 - Analysis of Social Research Data 3

FCHD 6020 - Survey of Human Development Research 3

FCHD 6060 - Human Development Theories 3

FCHD 6200 - Topical Seminar in Family Relations 3

HEP 5000 - Race, Culture, Class, and Gender Issues in  
Health (CI) 3

HEP 5200 - Foundations of Global Health 3

HEP 5300 - Grant Writing for Health Educators 3

HEP 5400 - Prevention Strategies for Obesity and  
Disordered Eating 3

HEP 6900 - Independent Study 1-3

HEP 6950 - Independent Research 1-3

ITLS 5230 - Instructional Graphic Production I 3 or

ITLS 6230 - Instructional Graphic Production I 3

MGT 6500 - Managing Individuals and Groups 3

NDFS 5200 - Nutritional Epidemiology 2 or

NDFS 5210 - Advanced Public Health Nutrition (CI) 2 or

NDFS 6200 - Nutritional Epidemiology 2

NDFS 6210 - Advanced Public Health Nutrition 2

NDFS 6600 - Current Topics in Obesity 3

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 6540 - Neuromuscular Adaptations 3

POLS 6140 - Leadership in Public Organizations 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

PSY 6470 - Health Psychology 3

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5400 - Environmental Toxicology 3

SOC 6460 - Sociology of Health 3

SOC 6800 - Seminar in Sociology 1-3 (3 credits required)

Health and Education Specialization Plan B (Paper Option)(31 credits)

Requires writing and committee approval of a manuscript with content and format appropriate for submission to a peer-reviewed discipline journal.

Degree to be completed within six years from date of first course.

Required Core Courses (26 credits)

EDUC 6570 - Introduction to Educational and Psychological Research 3 or

EDUC 6600 - Research Design and Analysis I 3 or

HEP 6000 - Evaluating Health-Promotion Programs 3

HEP 6100 - Current Trends in Health Promotion 3

HEP 6600 - Field Work in Health Education 3-6 (3 credits required)

HEP 6800 - Seminar in Health Behavior 3

HEP 6970 - Thesis 1-9 (3 credits required)

NDFS 5200 - Nutritional Epidemiology 2 or

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

PSY 6570 - Introduction to Educational and Psychological Research 3

PSY 6600 - Research Design and Analysis I 3

Health Education Specialization Electives (select 5 credits)

Course electives are selected on the basis of the student's needs and interests, subject to the approval of the student's committee. They should come from the following approved courses. Courses taken, while an undergraduate student, will not count toward a student's program of study.

Human and Social Nature

FCHD 6020 - Survey of Human Development Research 3

FCHD 6060 - Human Development Theories 3

FCHD 6200 - Topical Seminar in Family Relations 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

PSY 6470 - Health Psychology 3

SOC 6460 - Sociology of Health 3

SOC 6800 - Seminar in Sociology 1-3 (3 credits required)

Grantsmanship and Organizational Dynamics

HEP 5300 - Grant Writing for Health Educators 3

ITLS 5230 - Instructional Graphic Production I 3

MGT 6500 - Managing Individuals and Groups 3

POLS 6140 - Leadership in Public Organizations 3

Instructional Technology and Research

ASTE 6120 - Analysis of Social Research Data 3

ITLS 5230 - Instructional Graphic Production I 3

Educational Content

ANTH 6140 - Anthropology of Global Health 3

HEP 5200 - Foundations of Global Health 3

HEP 6900 - Independent Study 1-3

HEP 6950 - Independent Research 1-3

NDFS 6200 - Nutritional Epidemiology 2

NDFS 6210 - Advanced Public Health Nutrition 2

NDFS 6600 - Current Topics in Obesity 3

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 6540 - Neuromuscular Adaptations 3

Disease and Injury Control

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5400 - Environmental Toxicology 3

Return to: Academic Departments and Programs

Health Education and Promotion - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

University Studies Requirements for Major

Students must complete the General Education Requirements

NDFS 1020 will fulfill the Life Sciences (BLS) requirement for students in the Health Education and Promotion major

Students must also complete the University Studies Depth Requirements:

For most students, courses taken for the major will fulfill the requirements for Communications Intensive (CI) and for students in the Community Health and School Health emphasis, the Quantitative Intensive (QI) requirement will be fulfilled.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS).

Health Education and Promotion Major

New freshmen, transfer students, and students from other USU majors who have at least a 2.75 total GPA qualify to enter the Health Education and Promotion major.

Course Requirements

The HPER Department offers a program of study leading to a Bachelor of Science degree in Health Education and Promotion. The program offers three emphasis areas. The community health emphasis prepares students to work in state and local health departments, clinical settings, nonprofit health organizations, wellness centers, and private industry. The health science emphasis is intended for students who intend to pursue further study in a health or medical field or anticipate health-related employment not specific to a particular health discipline. Students in the school health emphasis earn a teaching license upon graduation and will primarily teach health courses in middle and high schools. Students in the community health and school health emphases will be well-prepared to sit for the nationally recognized Certified Health Education Specialist exam. Students must complete requirements for one of the three emphases and must achieve a C- or better grade in all HEP courses. A 2.75 total GPA is required for graduation.

Community Health Emphasis (73 credits)

The Community Health emphasis offers a program of study leading to a Bachelor of Science degree in Health Education and Promotion. The emphasis requires a total of 72 credits. Students must complete the 27-credit Core Requirement and the 36-credit Required Professional Core, as well as 9 credits selected from the list of elective courses.

A. Core Requirements (30 credits)

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

HEP 3600 - Introduction to Community Health (CI) 3

HEP 4200 - Planning and Evaluation for Health Education (QI) 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

#### B. Required Professional Core (37 credits)

HEP 3700 - Introduction to Epidemiology for Health Educators 3

HEP 3900 - Social Marketing in Health Education 3

HEP 4100 - Foundations of Community Health 3

HEP 4400 - Creative Methods in Teaching Health Education 3

HEP 4600 - Field Work in Health Education 1-9 (9 credits required)

HEP 4800 - Human Diseases 3

HEP 5300 - Grant Writing for Health Educators 3

ITLS 5205 - Computer Applications for Instruction and Training 3

NDFS 4480 - Community Nutrition 3

PSY 3010 - Psychological Statistics (QI) 4

#### C. Elective Courses (select 6 credits)

Students must complete 6 credits of elective courses, taking at least one course from two of the following three areas:

##### Human Nature

ANTH 3110 - North American Indian Cultures 3

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ANTH 4140 - Anthropology of Global Health 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 3110 - Human Sexuality 3

FCHD 3530 - Adolescence 3

HEP 5200 - Foundations of Global Health 3

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 4240 - Multicultural Psychology (DSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 3330 - Medical Sociology (DSS) 3

SW 2100 - Human Behavior in the Social Environment 3  
Content and Methods in Education

CMST 1020 - Public Speaking (BHU) 3

CMST 3700 - Introduction to Health Communication 3

HEP 3200 - Consumer Health 3

HEP 3400 - Stress Management 3

HEP 3800 - Health Care Systems 3

HEP 4000 - Health Services Administration 3

HEP 4500 - Sexuality Education Within the Schools 3

HEP 5700 - Special Topics in Health 1-6 (1-3 credits required)

JCOM 1130 - Beginning Newswriting for the Mass Media 3

JCOM 2220 - Introduction to Video Media 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

OSS 1400 - Microcomputer Applications 3

OSS 1550 - Business Correspondence 3

PEP 4100 - Exercise Physiology 4

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

SOC 3750 - Sociology of Aging 3

Organizational Dynamics in the Family and Community

FCHD 3100 - Abuse and Neglect in Family Context 3

JCOM 2300 - Introduction to Public Relations 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3820 - International Management (DSS) 2

POLS 3810 - Introduction to Public Policy (DSS) 3

PUBH 3120 - Family and Community Health 3

PUBH 3310 - Occupational Health and Safety 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 3250 - Organizational Communication (CI) 3

SW 2400 - Social Work with Diverse Populations 3

SW 3750 - Medical Social Services 3

Health Science Emphasis (65-68 credits)

The Health Science emphasis offers a program of study leading to a Bachelor of Science degree in Health Education and Promotion. The emphasis requires a total of 60 credits. Students must complete the 24-credit Core Requirement, the 12-credit Required Professional Core, as well as 24 credits selected from the list of professional development courses.

#### A. Core Requirements (22-25 credits)

Each course is required

HEP 2000 - First Aid and Emergency Care 2 (or certification)

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

HEP 3600 - Introduction to Community Health (CI) 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

#### B. Required Professional Core (19 credits)

HEP 3700 - Introduction to Epidemiology for Health Educators 3

HEP 3800 - Health Care Systems 3

HEP 4000 - Health Services Administration 3

HEP 4100 - Foundations of Community Health 3

HEP 4800 - Human Diseases 3

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

NDFS 3600 - Medical Terminology for Health Care Professionals 1

C. Professional Development (24 credits)

Biological Science (Choose 0-24 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1015 - Biological Discovery: A Lab Course 1

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2060 - Elementary Microbiology 4

BIOL 2520 - Pathophysiology 3

BIOL 3010 - Evolution (DSC) 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3100 - Bioethics (CI) 3

BIOL 3300 - General Microbiology 4

BIOL 4000 - Human Dissection 1

BIOL 5210 - Cell Biology 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

NDFS 4480 - Community Nutrition 3

PUBH 3120 - Family and Community Health 3

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

Physical Science and Mathematics (Choose 0-24 credits)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

CHEM 5700 - General Biochemistry I 3

MATH 1100 - Calculus Techniques (QL) 3

MATH 1210 - Calculus I (QL) 4

PHYS 1100 - Great Ideas in Physics (BPS) 3

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

STAT 2000 - Statistical Methods (QI) 4

STAT 2300 - Business Statistics (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Social Science and Supportive Courses (Choose 0-8 credits)

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ANTH 4140 - Anthropology of Global Health 3

CMST 3700 - Introduction to Health Communication 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 3100 - Abuse and Neglect in Family Context 3

FCHD 3110 - Human Sexuality 3

FCHD 3530 - Adolescence 3

HEP 3200 - Consumer Health 3

HEP 3400 - Stress Management 3

HEP 4250 - Advanced Cooperative Work Experience 1-15

HEP 5200 - Foundations of Global Health 3

HEP 5700 - Special Topics in Health 1-6

PEP 3250 - Anatomical Kinesiology 3

PEP 4100 - Exercise Physiology 4

PEP 4200 - Biomechanics (QI) 4

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3010 - Psychological Statistics (QI) 4

PSY 3210 - Abnormal Psychology (DSS) 3

PSY 3510 - Social Psychology (DSS) 3

PSY 4240 - Multicultural Psychology (DSS) 3

SOC 3330 - Medical Sociology (DSS) 3

SOC 3750 - Sociology of Aging 3

SPAN 3100 - Spanish for Healthcare Professionals 3

SW 3750 - Medical Social Services 3

School Health Emphasis (68 credits)

(only for students desiring teacher licensure)

The School Health emphasis offers a program of study leading to a Bachelor of Science degree in Health Education and Promotion, and is an approved teaching major through the Secondary Education Program of the School of Teacher Education and Leadership (TEAL). It is also necessary for students to complete an approved teaching minor (credits will vary). Students must complete the 36-credit Required School Health Core and the 35-credit Secondary Teacher Education Program (STEP).

Note:

Students must be formally accepted into the School Health Emphasis before enrolling for Required School Health Core Courses.

## A. Core Requirements (36 credits)

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 3110 - Human Sexuality 3

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

HEP 3600 - Introduction to Community Health (CI) 3

HEP 4200 - Planning and Evaluation for Health Education (QI) 3

HEP 4500 - Sexuality Education Within the Schools 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

## B. Optional Elective Course

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

## C. Secondary Teacher Education Program (STEP) (35 credits)

### Level 1 (15-week courses)

Prerequisite: Admittance to teacher education program

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

HEP 3300 - Clinical Experience I 1 ( or minor Clinical Experience I)

HEP 4400 - Creative Methods in Teaching Health Education 3 or

Minor Special Methods Course 3

### Level 2 (15-week courses)

Prerequisite: Admission to teacher education program and completion of Level 1

SPED 4000 - Education of Exceptional Individuals 2 (may be taken anytime)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

HEP 4300 - Clinical Experience II 1 (or minor Clinical Experience II)

HEP 4400 - Creative Methods in Teaching Health Education 3 or

Minor Special Methods Course 3

Level 3 (includes 13 weeks of student teaching and 2 weeks of Student Teaching Seminar)

Prerequisite: Completion of Levels 1 and 2; Student Teaching Placement

HEP 5500 - Student Teaching Seminar 2

HEP 5630 - Student Teaching 10 (13 weeks)

Health Education and Promotion Major with Community Health Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (28 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 or

PSY 1010 - General Psychology (BSS) 3 or

Select another BSS course 3

HEP 2500 - Health and Wellness 2

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Creative Arts (BCA) course 3

Second Semester (14 credits)

HEP 2000 - First Aid and Emergency Care 2

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth American Institutions (BAI) course 3

Breadth Humanities (BHU) course 3

Breadth Physical Sciences (BPS) course 3

Sophomore Year (32 credits)

First Semester (16 credits)

HEP 3000 - Drugs and Human Behavior 3

HEP 3600 - Introduction to Community Health (CI) 3

PSY 3010 - Psychological Statistics (QI) 4

Breadth Exploration course 3

Health Elective course 3

Second Semester (16 credits)

BIOL 2320 - Human Anatomy 4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

HEP 4100 - Foundations of Community Health 3

Depth Humanities and Creative Arts (DHA) course 3

Health Elective course 3

Junior Year (31 credits)

First Semester (15 credits)

HEP 4400 - Creative Methods in Teaching Health Education 3

ITLS 5205 - Computer Applications for Instruction and Training 3

NDFS 4480 - Community Nutrition 3

Depth Social Science (DSS) course 3

Elective course 3

Second Semester (16 credits)

BIOL 2420 - Human Physiology 4

HEP 3700 - Introduction to Epidemiology for Health Educators 3

HEP 3900 - Social Marketing in Health Education 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

HEP 5300 - Grant Writing for Health Educators 3

Senior Year (30 credits)

First Semester (15 credits)

HEP 4200 - Planning and Evaluation for Health Education (QI) 3

HEP 4800 - Human Diseases 3

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

Elective courses 6

Second Semester (15 credits)

HEP 4600 - Field Work in Health Education 1-9 (9 credits required)

Elective courses 6

Health Education and Promotion Major with Health Science Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (28-29 credits)

First Semester (13-14 credits)

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth Social Science (BSS) course 3

Quantitative Literacy (QL) course 3-4

Second Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Breadth American Institutions (BAI) course 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Breadth Physical Sciences (BPS) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

HEP 3000 - Drugs and Human Behavior 3

HEP 3600 - Introduction to Community Health (CI) 3

Breadth Exploration course 3

Professional Development course 3

Second Semester (15 credits)

BIOL 2320 - Human Anatomy 4

Depth Humanities and Creative Arts (DHA) course 3

Professional Development courses 5

Quantitative Intensive (QI) course 3

Junior Year (30-31 credits)

First Semester (15-16 credits)

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

HEP 3800 - Health Care Systems 3

NDFS 3600 - Medical Terminology for Health Care Professionals 1

Depth Social Science (DSS) course 3

Professional Development courses 4

Second Semester (15 credits)

HEP 3700 - Introduction to Epidemiology for Health Educators 3

HEP 4000 - Health Services Administration 3

HEP 4100 - Foundations of Community Health 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

Professional Development courses 3

Senior Year (31-32 credits)

First Semester (15 credits)

HEP 4800 - Human Diseases 3

Professional Development course 9

Elective courses 3

Second Semester (16-17 credits)

Elective courses 16-17

Health Education and Promotion Major with School Health Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

This plan allows for a 25 credit minor.

Freshman Year (28-29 credits)

First Semester (14-15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

HEP 2500 - Health and Wellness 2

MATH 1050 - College Algebra (QL) 4 or

STAT 1040 - Introduction to Statistics (QL) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Second Semester (14 credits)

HEP 2000 - First Aid and Emergency Care 2

Breadth American Institutions (BAI) course 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Breadth Physical Sciences (BPS) course 3

Sophomore Year (32 credits)	First Semester (15 credits)
First Semester (16 credits)	HEP 4200 - Planning and Evaluation for Health Education (QI) 3
HEP 3000 - Drugs and Human Behavior 3	Level II
HEP 3600 - Introduction to Community Health (CI) 3	HEP 4300 - Clinical Experience II 1
Breadth Exploration course 3	HEP 4400 - Creative Methods in Teaching Health Education 3
Minor courses 7	SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3
Second Semester (16 credits)	SCED 4210 - Assessment and Curriculum Design 3
BIOL 2320 - Human Anatomy 4	SPED 4000 - Education of Exceptional Individuals 2
ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3	Second Semester (12 credits)
Depth Humanities and Creative Arts (DHA) course 3	Level III
Minor courses 6	HEP 5500 - Student Teaching Seminar 2
Junior Year (33-36 credits)	HEP 5630 - Student Teaching 10
First Semester (16-19 credits)	Minimum University Requirements
BIOL 2420 - Human Physiology 4	Total Credits
FCHD 3110 - Human Sexuality 3	120
HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3	Grade Point Average (most majors require higher GPA)
Minor courses 6-9	2.00 GPA
Second Semester (17 credits)	Credits of C- or better
HEP 4500 - Sexuality Education Within the Schools 3	100
HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3	Credits of upper-division courses (#3000 or above)
Level I	40
ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SCED 3100 - Motivation and Classroom Management 3	30 USU credits
SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3	Completion of approved major program of study
Methods of Teaching for Minor 3	See college advisor
Clinical Experience 1, for minor 1	Credits in minor (if required)
Senior Year (27 credits)	12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Health Promotion - MHP

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

Department of Health, Physical Education and Recreation

A. Required Core (27 credits)

EDUC 6570 - Introduction to Educational and  
Psychological Research 3

EDUC 6600 - Research Design and Analysis I 3

HEP 6000 - Evaluating Health-Promotion Programs 3

HEP 6100 - Current Trends in Health Promotion 3

HEP 6600 - Field Work in Health Education 3-6 (6 credits  
required)

HEP 6800 - Seminar in Health Behavior 3

MGT 6500 - Managing Individuals and Groups 3

PSY 5200 - Introduction to Interviewing and Counseling  
(CI) 3

B. Electives (9 credits)

Course electives are selected on the basis of the student's  
needs and interests, subject to the approval of the  
student's committee. They should come from the  
following approved courses. Courses taken while an  
undergraduate student will not count toward a student's  
program of study.

Human and Social Nature

HEP 5000 - Race, Culture, Class, and Gender Issues in  
Health (CI) 3

FCHD 6020 - Survey of Human Development Research 3

FCHD 6060 - Human Development Theories 3

FCHD 6200 - Topical Seminar in Family Relations 3

PSY 6470 - Health Psychology 3

SOC 6460 - Sociology of Health 3

SOC 6800 - Seminar in Sociology 1-3

Grantsmanship and Organizational Dynamics

HEP 5300 - Grant Writing for Health Educators 3

POLS 6140 - Leadership in Public Organizations 3

Instructional Technology and Research

ASTE 6120 - Analysis of Social Research Data 3

ITLS 5230 - Instructional Graphic Production I 3

Educational Content

ANTH 6140 - Anthropology of Global Health 3

HEP 5200 - Foundations of Global Health 3

HEP 6900 - Independent Study 1-3

HEP 6950 - Independent Research 1-3

NDFS 6200 - Nutritional Epidemiology 2

NDFS 6210 - Advanced Public Health Nutrition 2

NDFS 6600 - Current Topics in Obesity 3

PEP 5100 - Fitness Assessment and Exercise Programs 4

PEP 6540 - Neuromuscular Adaptations 3

Disease and Injury Control

HEP 5400 - Prevention Strategies for Obesity and  
Disordered Eating 3

PUBH 4030 - Communicable Disease Control 3

PUBH 4040 - Fundamentals of Epidemiology 3

PUBH 5400 - Environmental Toxicology 3

Return to: Academic Departments and Programs

Human Movement Science - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

University Studies Requirements for Major

Students must complete the General Education Requirements

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as PEP 3200, PEP 4900, PEP 5430, SCED 3210 or SCED 4200) will fulfill the Communications Intensive (CI) requirement

For most students, a course taken for the major will fulfill the Quantitative Intensive (QI) requirement (PEP 4200 and PEP 4400)

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS).

Human Movement Science Major

New freshmen, transfer students, and other USU majors who have at least a 2.75 total GPA qualify to enter the Human Movement Science major with a physical education teaching or exercise science emphasis. The pre-physical therapy emphasis requires a 3.0 GPA.

Exercise Science Emphasis (58 credits)

A 2.75 total GPA is required for graduation.

A. Prerequisites (12 credits)

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

MATH 1050 - College Algebra (QL) 4

B. Professional Foundation (26 credits)

PEP 2000 - Introduction and History of Physical Education 2

PEP 3000 - Dynamic Fitness 3

PEP 3100 - Athletic Injuries 3

PEP 3250 - Anatomical Kinesiology 3

PEP 4100 - Exercise Physiology 4

PEP 4200 - Biomechanics (QI) 4

PEP 4400 - Evaluation in Physical Education (QI) 3

PEP 5100 - Fitness Assessment and Exercise Programs 4

C. Professional Development (17 credits)

HPER (3 credits minimum)

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3200 - Consumer Health 3

HEP 3400 - Stress Management 3

HEP 5400 - Prevention Strategies for Obesity and Disordered Eating 3

PEP 4000 - Mental Aspects of Sports Performance 3

PEP 5070 - Sport Sociology 3

PEP 5430 - The History and Philosophy of Physical Education (CI) 3

Biology (4 credits minimum, including lab)

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1015 - Biological Discovery: A Lab Course 1

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 2060 - Elementary Microbiology 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

Chemistry (3 credits minimum)

CHEM 1010 - Introduction to Chemistry (BPS) 3

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Integrated (7 credits minimum)

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 3020 - Nutrition and Physical Performance 2

PHYS 1100 - Great Ideas in Physics (BPS) 3

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

PSY 1010 - General Psychology (BSS) 3

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3010 - Psychological Statistics (QI) 4

PSY 3210 - Abnormal Psychology (DSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

D. Skill Development (3 credits)

Three different physical education activity courses. Choose from PEP 2100, PEP 2200, PEP 2300, PEP 2400, or PEP 2500 or from PE courses numbered from PE 1000 to PE 2120 (See course offerings.)

Pre-Physical Therapy Emphasis (76 credits)

Please note that it is the student's responsibility to check with the individual physical therapy schools concerning courses required for admission. Completion of Utah State University's Department of HPER Pre-Physical Therapy emphasis will not guarantee admission into physical therapy school. A 3.0 total GPA is required to graduate.

A. Prerequisites (15 credits)

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4 or

BIOL 4600 - Advanced Human Physiology 5

MATH 1050 - College Algebra (QL) 4

PSY 1010 - General Psychology (BSS) 3

B. Professional Foundations (30 credits)

PEP 2020 - Introduction to Physical Therapy 2

PEP 3000 - Dynamic Fitness 3

PEP 3100 - Athletic Injuries 3

PEP 3250 - Anatomical Kinesiology 3

PEP 4100 - Exercise Physiology 4

PEP 4200 - Biomechanics (QI) 4

PEP 4250 - Advanced Cooperative Work Experience 1-10 (4 credits required)

PEP 4400 - Evaluation in Physical Education (QI) 3

PEP 5100 - Fitness Assessment and Exercise Programs 4

C. Professional Development (30-31 credits)

Biology (4 credits minimum, including lab)

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1015 - Biological Discovery: A Lab Course 1

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3300 - General Microbiology 4

Chemistry (9-10 credits minimum)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Mathematics and Statistics (6 credits minimum)

Choose one course from the following:

MATH 1100 - Calculus Techniques (QL) 3

MATH 1210 - Calculus I (QL) 4

Choose one course from the following:

STAT 2000 - Statistical Methods (QI) 4

STAT 2300 - Business Statistics (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Physics (8 credits minimum)

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Psychology (3 credits minimum)

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3210 - Abnormal Psychology (DSS) 3

Physical Education Teaching Emphasis (K-12) (72 credits)

Students also need to complete a teaching minor. A 2.75 total GPA is required for graduation.

Note:

This is an approved teaching major through the Secondary Education Program of the School of Teacher Education and Leadership.

A. Prerequisites (15 credits)

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

MATH 1050 - College Algebra (QL) 4

PEP 3000 - Dynamic Fitness 3

First Aid and CPR Certification (provide copy of current certification)

B. Skill Development (5 credits)

PEP 2100 - Skills 1 (Swimming, Volleyball, Football) 1

PEP 2200 - Skills 2 (Lifetime Activities) 1

PEP 2300 - Skills 3 (Softball, Basketball, Soccer) 1

PEP 2400 - Skills 4 (Tennis, Badminton, Track and Field) 1

PEP 2500 - Skills 5 (Dance Activities) 1

C. Professional Development (11 credits)

PEP 2000 - Introduction and History of Physical Education 2

PEP 3050 - Physical Education in the Elementary School 3

PEP 3100 - Athletic Injuries 3

PEP 3200 - Motor Learning and Technology in Skill Analysis (CI) 3

D. Professional Foundations (12 credits)

PEP 3250 - Anatomical Kinesiology 3

PEP 4100 - Exercise Physiology 4

PEP 4350 - Administration and Classroom Management of Physical Education 2

PEP 4400 - Evaluation in Physical Education (QI) 3

E. Electives (Optional)

HEP 2000 - First Aid and Emergency Care 2

PEP 4000 - Mental Aspects of Sports Performance 3

PEP 4500 - Motivational Strategies for Physical Education and Coaching 3

F. Secondary Teacher Education Program (STEP) (29 credits)

Note:

Acceptance into the STEP Program is required prior to enrolling in the courses listed below. Students must take a minor Methods Course and Clinical Experience, which may be completed during Level 1 or Level 2.

Level 1 (8 credits)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

Clinical Experience I (in minor) 1

Methods of Teaching (in minor) 3

Level 2 (9 credits)

SPED 4000 - Education of Exceptional Individuals 2 (may be taken anytime)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

PEP 4300 - Clinical Experience II 1

PEP 4900 - Methods of Physical Education (CI) 3

Level 3 (includes 13 weeks of student teaching and a concurrent student teaching seminar) (12 credits)

PEP 5500 - Student Teaching Seminar 2

PEP 5630 - Student Teaching in Secondary Schools 10

Human Movement Science Major with Exercise Science Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (29-30 credits)

First Semester (14 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1015 - Biological Discovery: A Lab Course 1

OR

Biology Professional Development course 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

PEP 2000 - Introduction and History of Physical Education 2

PE Activity course 1

Second Semester (15-16 credits)

CHEM 1010 - Introduction to Chemistry (BPS) 3 or

Chemistry Professional Development course 3-4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institutions (BAI) course 3

Breadth Humanities (BHU) course 3

Breadth Social Sciences (BSS) course 3

Sophomore Year (30 credits)

First Semester (16 credits)

PEP 3000 - Dynamic Fitness 3

PEP 3100 - Athletic Injuries 3

Breadth Creative Arts (BCA) course 3

Breadth Exploration course 3

HPER Elective course 3

PE Activity course 1

Second Semester (14 credits)

BIOL 2320 - Human Anatomy 4

Integrated Professional Development course 3

Upper Division Depth Social Sciences (DSS) course 3

Communications Intensive (CI) course 3

PE Activity course 1

Junior Year (29-31 credits)

First Semester (16 credits)

BIOL 2420 - Human Physiology 4

PEP 3250 - Anatomical Kinesiology 3

PEP 4400 - Evaluation in Physical Education (QI) 3

Depth Humanities and Creative Arts (DHA) course 3

Integrated Professional Development course 3

Second Semester (13-15 credits)

PEP 4100 - Exercise Physiology 4

PEP 4200 - Biomechanics (QI) 4

Communications Intensive (CI) course 3

Integrated Professional Development course 2-4

Senior Year (32 credits)

First Semester (14-18 credits)

PEP 5100 - Fitness Assessment and Exercise Programs 4

Upper Division Elective courses 2-5

Elective courses (include BLS and BPS, if not already taken) 8-9

## Second Semester (14-18 credits)

### Elective courses 14-18

## Human Movement Science Major with Physical Education Teaching Emphasis Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

### Minimum University Requirements

#### Total Credits

120

#### Grade Point Average (most majors require higher GPA)

2.00 GPA

#### Credits of C- or better

100

#### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

#### Completion of approved major program of study

See college advisor

#### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

### General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Parks and Recreation - BS

Return to: Academic Departments and Programs

## Emma Eccles Jones College of Education and Human Services

### Department of Health, Physical Education and Recreation

The HPER Department offers a program of study leading to a Bachelor of Science Degree in Parks and Recreation. This program prepares students to become professionals in the areas of public, private, commercial and voluntary settings of parks and recreation. Graduates of the program will be capable of leading, programming, directing, planning, designing, managing, and administering parks and recreation programs. A 2.75 total GPA is required for graduation.

### University Studies Requirements for Major

Students must complete the General Education Requirements

Students must also complete the University Studies Depth Requirements:

For most students, a course taken for the major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC).

### Parks and Recreation Major

New freshmen, transfer students, and students from other USU majors who have at least a 2.75 total GPA qualify to enter the Parks and Recreation major.

#### A. Parks and Recreation Core Courses (47 credits)

A grade of C or better is required in all PRP courses.

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3930 - Tourism and Events Administration 3

PRP 1000 - Introduction to Recreation Services 3

PRP 2500 - Outdoor Recreation Management 3

PRP 3000 - Designing Recreation Experiences 3

PRP 3025 - Techniques of Experiential Recreation 3

PRP 3050 - Evaluation of Recreation Services (QI) 3

PRP 3900 - Diverse Populations 3

PRP 4100 - History of Leisure (CI) 3

PRP 4250 - Cooperative Work Experience 1-12 (4 credits required)

PRP 4400 - Recreation and Park Facility Planning and Management 3

PRP 4500 - Management of Recreation Services 3

PRP 4550 - Legal Issues and Risk Management of Recreation 3

PRP 4700 - Pre-Internship Seminar 1

PRP 4725 - Senior Seminar (CI) 3

PRP 4750 - Internship in Recreation Services 6

#### B. Additional Requirements

In addition to the above requirements for the major, students must complete a designated minor.

Parks and Recreation Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

This plan allows for a 22 credit minor.

Freshman Year (30-31 credits)

First Semester (15-16 credits)

MATH 1050 - College Algebra (QL) 4 or

STAT 1040 - Introduction to Statistics (QL) 3

PRP 1000 - Introduction to Recreation Services 3

Breadth American Institutions (BAI) course 3

Breadth Humanities (BHU) course 3

Parks and Recreation Elective course 3

Second Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

PRP 3000 - Designing Recreation Experiences 3

Breadth Creative Arts (BCA) course 3

Breadth Life Sciences (BLS) course 3

Parks and Recreation Elective course 3

Sophomore Year (31 credits)

First Semester (16 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PRP 3025 - Techniques of Experiential Recreation 3

PRP 3900 - Diverse Populations 3

Minor course 4

Second Semester (15 credits)

PRP 3050 - Evaluation of Recreation Services (QI) 3

Breadth Exploration course 3

Breadth Physical Sciences (BPS) course 3

Breadth Social Science (BSS) course 3

Minor course 3

Junior Year (31 credits)

First Semester (16 credits)

PRP 4100 - History of Leisure (CI) 3

PRP 4250 - Cooperative Work Experience 1-12 (4 credits required)

PRP 4400 - Recreation and Park Facility Planning and Management 3

PRP 4500 - Management of Recreation Services 3

PRP 4550 - Legal Issues and Risk Management of Recreation 3

Second Semester (15 credits)

MGT 3500 - Fundamentals of Marketing 3

PRP 4725 - Senior Seminar (CI) 3

Depth Life and Physical Sciences (DSC) course 3

Minor courses 6

Senior Year (28 credits)

First Semester (15 credits)

MGT 3930 - Tourism and Events Administration 3

PRP 2500 - Outdoor Recreation Management 3

PRP 4700 - Pre-Internship Seminar 1

Depth Humanities and Creative Arts (DHA) course 3

Minor courses 6

Second Semester (13 credits)

PRP 4750 - Internship in Recreation Services 6 (This course may be taken during the summer term)

Elective courses 7

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Parks and Recreation Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

(for students not majoring in Parks and Recreation)

A grade of C or better is required in all PRP courses.

Parks and Recreation Minor

New freshmen, transfer students, and students from other USU majors who have at least a 2.5 total GPA qualify to enter the Parks and Recreation minor.

A. Required Courses ( 6 credits)

PRP 1000 - Introduction to Recreation Services 3

PRP 3000 - Designing Recreation Experiences 3

B. Elective Courses (15 credits)

At least 6 credits must be PRP courses.

PRP 2500 - Outdoor Recreation Management 3

PRP 3900 - Diverse Populations 3

PRP 4100 - History of Leisure (CI) 3

PRP 4250 - Cooperative Work Experience 1-12 (up to 3 credits count in the minor elective area)

PRP 4500 - Management of Recreation Services 3

PRP 4550 - Legal Issues and Risk Management of Recreation 3

PRP 5900 - Independent Study 1-3

PRP 5910 - Independent Research 1-3

ENVS 3300 - Fundamentals of Recreation Resources Management 3

ENVS 4130 - Recreation Policy and Planning 3

ENVS 4500 - Wildland Recreation Behavior (CI) 3

ENVS 4600 - Natural Resource Interpretation 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

HEP 2000 - First Aid and Emergency Care 2

HEP 3400 - Stress Management 3

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

SOC 3010 - Social Inequality (DSS) 3

Activity courses in Physical Education (PE 1000-2000) 1-3

Return to: Academic Departments and Programs

Physical and Sport Education - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

The MEd is designed for students desiring to improve teaching competencies.

MEd candidates must complete the following courses:

PEP 6000 - Administration of Athletics 3

PEP 6010 - Leadership in Health, Physical Education, and Recreation 3

PEP 6050 - Psychological Aspects of Sports Performance 3

PEP 6070 - Sport in Society 3

PEP 6200 - Biophysical Aspects of Physical Activity 3

PEP 6020 - Curriculum in Physical Education 3

PEP 6430 - History and Philosophy of Physical Education and Sport 3

PEP 6810 - Research Methods in Health Sciences 3

PEP 6830 - Motor Learning 3

PEP 6960 - Master's Project 3

PEP 7550 - Practicum in the Evaluation of Instruction 1-6 (6 credits maximum)

Return to: Academic Departments and Programs

Physical Education Coaching Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

This minor requires 25 credits, plus 15 credits of prerequisites and the 35-credit Secondary Teacher Education Program (STEP).

Physical Education Coaching Minor

New freshmen, transfer students, and other USU majors who have at least a 2.75 total GPA qualify to enter the Human Movement Science major with a physical education teaching or exercise science emphasis. The pre-physical therapy emphasis requires a 3.0 GPA.

A 2.75 total GPA is required for the Physical Education Coaching minor.

A. Required Prerequisites (15 credits)

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

MATH 1050 - College Algebra (QL) 4

PEP 3000 - Dynamic Fitness 3

First Aid and CPR Certification (provide copy of current certification)

B. Skill Development (select 3 credits)

PEP 2100 - Skills 1 (Swimming, Volleyball, Football) 1

PEP 2200 - Skills 2 (Lifetime Activities) 1

PEP 2300 - Skills 3 (Softball, Basketball, Soccer) 1

PEP 2400 - Skills 4 (Tennis, Badminton, Track and Field) 1

PEP 2500 - Skills 5 (Dance Activities) 1

### C. Professional Foundation (18 credits)

PEP 3100 - Athletic Injuries 3

PEP 3200 - Motor Learning and Technology in Skill Analysis (CI) 3

PEP 4000 - Mental Aspects of Sports Performance 3

PEP 4100 - Exercise Physiology 4

PEP 4350 - Administration and Classroom Management of Physical Education 2

PEP 4400 - Evaluation in Physical Education (QI) 3

### D. Methods of Coaching (4 credits)

PEP 2050 - Sport Rules and Regulations of the Utah High School Athletic Association 1

PEP 4500 - Motivational Strategies for Physical Education and Coaching 3

### E. Secondary Teacher Education Program (STEP) (35 credits)

PEP 4900, Methods of Physical Education, and PEP 3300, Clinical Experience I, should be taken as part of the STEP.

Return to: Academic Departments and Programs

### School Health Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Health, Physical Education and Recreation

Note: This is an approved teaching minor through the Secondary Education Program of the School of TEAL. Students must be formally accepted into the School Health minor before enrolling for the School Health Education Core Courses. Students completing this minor must have a teaching major. Applications for the minor are available from the HPER Department. Prior to admission to the minor, the following courses must be completed: ENGL 1010, BIOL 2320 or BIOL 2420, HEP 2500, MATH 1050 or STAT 1040 (or higher), and NDFS 1020. A grade of C- or higher is required in all HEP courses.

Requirements

BIOL 2320 - Human Anatomy 4 or

BIOL 2420 - Human Physiology 4

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

HEP 3300 - Clinical Experience I 1 or

HEP 4300 - Clinical Experience II 1

HEP 3600 - Introduction to Community Health (CI) 3

HEP 4400 - Creative Methods in Teaching Health Education 3 (HEP 3300 or HEP 4300 should be taken concurrently with HEP 4400.)

HEP 4500 - Sexuality Education Within the Schools 3

HEP 5000 - Race, Culture, Class, and Gender Issues in Health (CI) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Return to: Academic Departments and Programs

### Classics Minor with Emphasis in Civilization

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Classics Minor with Emphasis in Civilization, Greek Language, Latin Language or Latin Teaching

Coordination: Mark L. Damen, Susan O. Shapiro, and Frances B. Titchener, Department of History

Location: Main 323

Phone: (435) 797-1290

FAX: (435) 797-3899

E-mail: mark.damen@usu.edu, susan.o.shapiro@usu.edu, frances.titchener@usu.edu

WWW: <http://www.usu.edu/history/classics/>

An academic minor is available in the field of Classical Studies with four areas of emphasis: Classical Civilization, Latin Language, Greek Language, and Latin Teaching. From the ancient civilizations of the Mediterranean area are derived our government, literature, sciences, and laws. The classical world is the backdrop of the modern world. In association with various majors, the Classics Minor is designed to enhance intellectual abilities and practical skills.

#### Requirements (21 credits)

##### Required Courses (6 credits)

Complete both of the following courses:

HIST 3130 - Greek History (DHA/CI) 3

HIST 3150 - Roman History (CI) 3

Ancient Archaeology (3 credits)

Complete one of the following courses:

HIST 3110 - Ancient Near East (DHA/CI) 3 or

ARTH 3110 - Ancient Near East (CI/DHA) 3

ANTH 1030 - World Archaeology (BSS) 3

Ancient Literature (3 credits)

Complete one of the following courses:

CLAS 1100 - The Latin and Greek Element in English 3

CLAS 3210 - Classical Mythology 3

Ancient Art and Drama (3 credits)

Complete one of the following courses:

ARTH 3610 - Classical Art History: Greece and Rome (CI) 3

CLAS 3160 - Classical Drama and Society 3 or

HIST 3160 - Classical Drama and Society 3

Ancient Thought (3 credits)

Complete one of the following courses:

HIST 4350 - Greek Intellectual History 3

POLS 4310 - History of Political Thought I (CI) 3

PHIL 3100 - Ancient Philosophy (CI) 3

Note:

The remaining 3 credits are elective and may include any of the courses listed above.

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

Classics Minor with Emphasis in Greek Language

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Classics Minor with Emphasis in Civilization, Greek Language, Latin Language or Latin Teaching

Coordination: Mark L. Damen, Susan O. Shapiro, and Frances B. Titchener, Department of History

Location: Main 323

Phone: (435) 797-1290

FAX: (435) 797-3899

E-mail: [mark.damen@usu.edu](mailto:mark.damen@usu.edu), [susan.o.shapiro@usu.edu](mailto:susan.o.shapiro@usu.edu), [frances.titchener@usu.edu](mailto:frances.titchener@usu.edu)

WWW: <http://www.usu.edu/history/classics/>

An academic minor is available in the field of Classical Studies with four areas of emphasis: Classical Civilization, Latin Language, Greek Language, and Latin Teaching. From the ancient civilizations of the Mediterranean area are derived our government, literature, sciences, and laws. The classical world is the backdrop of the modern world. In association with various majors, the Classics Minor is designed to enhance intellectual abilities and practical skills.

Requirements (13 credits)

Required Course (3 credits)

Complete the following course:

HIST 3130 - Greek History (DHA/CI) 3

Elective Courses: (3 credits)

Complete one of the following courses.

ARTH 3610 - Classical Art History: Greece and Rome (CI) 3

CLAS 1100 - The Latin and Greek Element in English 3

CLAS 3210 - Classical Mythology 3

CLAS 3160 - Classical Drama and Society 3

HIST 4350 - Greek Intellectual History 3

PHIL 3100 - Ancient Philosophy (CI) 3

Classical Greek Language Courses (7 credits)

Complete 7 credits of upper-division (3000 and 4000 level) courses in classical Greek language.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

Classics Minor with Emphasis in Latin Language

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Classics Minor with Emphasis in Civilization, Greek Language, Latin Language or Latin Teaching

Coordination: Mark L. Damen, Susan O. Shapiro, and Frances B. Titchener, Department of History

Location: Main 323

Phone: (435) 797-1290

FAX: (435) 797-3899

E-mail: mark.damen@usu.edu, susan.o.shapiro@usu.edu, frances.titchener@usu.edu

WWW: <http://www.usu.edu/history/classics/>

An academic minor is available in the field of Classical Studies with four areas of emphasis: Classical Civilization, Latin Language, Greek Language, and Latin Teaching. From the ancient civilizations of the Mediterranean area are derived our government, literature, sciences, and laws. The classical world is the backdrop of the modern world. In association with various majors, the Classics Minor is designed to enhance intellectual abilities and practical skills.

Requirements (13 credits)

Required Course (3 credits)

Complete the following course:

HIST 3150 - Roman History (CI) 3

Elective Courses: (3 credits)

Complete one of the following courses:

ARTH 3610 - Classical Art History: Greece and Rome (CI) 3

CLAS 1100 - The Latin and Greek Element in English 3

CLAS 3160 - Classical Drama and Society 3

CLAS 3210 - Classical Mythology 3

Latin Language Courses (7 credits)

Complete 7 credits of upper-division (3000 and 4000 level) courses in Latin language.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

## Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

Classics Minor with Emphasis in Latin Teaching

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Classics Minor with Emphasis in Civilization, Greek Language, Latin Language or Latin Teaching

Coordination: Mark L. Damen, Susan O. Shapiro, and Frances B. Titchener, Department of History

Location: Main 323

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FAX: (435) 797-3899

E-mail: mark.damen@usu.edu, susan.o.shapiro@usu.edu, frances.titchener@usu.edu

WWW: <http://www.usu.edu/history/classics/>

An academic minor is available in the field of Classical Studies with four areas of emphasis: Classical Civilization, Latin Language, Greek Language, and Latin Teaching. From the ancient civilizations of the Mediterranean area are derived our government, literature, sciences, and laws. The classical world is the backdrop of the modern world. In association with various majors, the Classics Minor is designed to enhance intellectual abilities and practical skills.

Requirements (21 credits + 35 credits in STEP)

Required Courses (18 credits)

Complete all of the following courses:

CLAS 1100 - The Latin and Greek Element in English 3

HIST 3150 - Roman History (CI) 3

LATN 3100 - Intermediate Latin Prose 3

LATN 3130 - Intermediate Latin Poetry 3

LATN 4100 - Advanced Latin Readings 3

LATN 4860 - Latin Pedagogy 3

Note:

The remaining 3 credits must be taken in upper-division Latin. Students may fulfill this requirement either by taking LATN 4100 a second time (provided a different author is studied) or by taking 3 credits of LATN 4930. (Directed Readings in Latin Poetry and Prose Authors.)

Secondary Teacher Education Program (STEP) (35 credits)

In order to receive teaching certification in Latin, students must also pass the PRAXIS exam, as well as successfully complete the STEP as part of their major. For further information about the STEP program, contact the School of Teacher Education and Leadership (TEAL) or see the booklet Guide to the Undergraduate Program in Secondary Education at USU, available at the USU Campus Store.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

## Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

History - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Language Track

A Bachelor of Arts (BA) degree in history requires a minimum of proficiency in a foreign language. This

proficiency may be established in one of the following ways:

1. 16 credits in a single language; or
2. Documentation of a proficiency level the equivalent of 2020 or better through an examination administered by the USU Department of Languages, Philosophy, and Speech Communication; or
3. Completion of any upper-division foreign language course constituting a third-year course of study with a grade of C or better.

For nonnative English-speaking students only, the following options are available:

1. Successful completion of the Intensive English Language Institute (IELI) program for international students; or
2. TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Note: Demonstration of proficiency in American Sign Language will not meet the foreign language requirement for the BA degree in History.

### History Major

#### Admission Requirements For This Major

Admission to the History Department is based on a student's current GPA and completion of the pre-major requirements for history.

New freshmen admitted to USU in good standing qualify for admission to the History Department as pre-majors.

Students may apply for major status upon completion of a minimum of 15 credits, including the pre-major requirements, while maintaining a 2.5 cumulative GPA. History majors must maintain a minimum overall GPA in order to remain in good standing in the History Department. Students whose GPA drops below 2.75 may be placed on probation and may be dropped from the major if their grades do not improve.

Undergraduate Program Learning Outcomes in the Department of History

#### Historical Knowledge

Develop a wide range of historical information

-identify the key events which express/define change over time in a particular place or region

-identify how change occurs over time

-explain historical continuity and change

-describe the influence of political ideologies, economic structures, social organization, cultural perceptions and natural environments on historical events

-discuss the ways in which factors such as race, gender, class, ethnicity, region and religion influence historical narratives

#### Historical Thinking

Recognize the past-ness of the past

-explain how people have existed, acted and thought in particular historical periods

-explain what influence the past has on the present

Emphasize the complex nature of past experiences

-interpret the complexity and diversity of situations, events and past mentalities

-compare eras and regions in order to define enduring issues

Emphasize the complex and problematic nature of the historical record

-recognize a range of viewpoints

-compare competing historical narratives

-challenge arguments of historical inevitability

-analyze cause-and-effect relationships and multiple causation

#### Historical Skills

Develop skills in critical thinking and reading

-evaluate debates among historians

-differentiate between historical facts and historical interpretations

-assess the credibility of primary and secondary sources

Develop research skills

-formulate historical questions

- obtain historical data from a variety of sources
- identify gaps in available records
- recognize the discipline's standards for accurate and ethical research

Develop the ability to construct reasonable historical arguments

- construct a well-organized historical argument
- support an interpretation with historical evidence from a variety of primary and secondary sources

#### Career Opportunities

The Department's "learning outcomes" suggest the ways in which historical study develops expertise in our discipline as well as broader skills in the liberal arts. In other words, our programs not only provide specialized academic training but also prepare students to work in a wide variety of fields. Historical study develops one's ability to investigate problems, identify reliable sources, analyze information, contextualize complex questions—and communicate conclusions in a clear and thoughtful manner. Such skills are in demand by employers in many areas.

Not surprisingly, our alumni move on to a diverse range of careers. USU history graduates manage multinational companies and local businesses, serve in many public capacities (including Congress), run charitable organizations, administer university services, work in military intelligence, train as medical doctors, and teach history. Many history students are preparing themselves to teach in public schools and at colleges and universities, while others find employment as "applied" historians. Some graduates qualify to be curators and archivists in museums and libraries, working to classify and preserve materials, setting up exhibits, and working with researchers. Others work as preservation historians for historical societies, collecting data and working to preserve historic sites. Historians also work as editors and researchers in publishing or consult on sets and clothing in the making of films. Some historians work as biographers, while others collect information on family lineage.

History is an excellent undergraduate major for students wishing to work in international relations, journalism, or management. Students preparing for law school, advanced business degrees, and management or sales training also benefit from a history degree. History

is a good major for those preparing to work in the growing information management field. Career opportunities for history majors continue to expand and diversify.

#### Degrees and programs Offered Through This Department

Bachelor of Arts (BA), Bachelor of Science (BS), Master of Science (MS), and Master of Arts (MA) in History; participates in Master of Social Sciences (MSS)

University Graduation Requirements: BA or BS Degree in History

Minimum University Requirements\*\*

Total Credits 120

Grade point average 2.00 GPA

Credits of C- or better 100

Credits of upper-division course (#3000 or above) 40

USU credits (20 of which must be upper-division, including 10 required by major) 30

Completion of approved major program of study See department

Credits in minor (if required by department) 12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; POLS 1100; or USU 1300) 3

University Studies requirements See below

\*\*Colleges and departments may require more credits or a higher GPA. See requirements below.

Students must complete the General Education Requirements:

One course chosen from HIST 1100, HIST 1110, HIST 1500 or HIST 1510 will fulfill the Humanities (BHU) requirement

Students must also complete the University Studies Depth Requirements:

For students in the History major, HIST 4990 (the required Capstone Course) will fulfill one of the Communications Intensive (CI) requirements

PHYS 2210 or PHYS 2220 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

#### Transfer Students

The History Department accepts all history courses taught by institutions within the Utah System of Higher Education. Students who are transferring may wish to consult with the Advisor.

#### AP Credit

The History Department does not accept AP credit for use towards its degrees. We do make allowances for the following considerations:

- if a student following the "History Major" track has passed an AP exam with a score of 3 or better, the equivalent lower-division course will be waived; however, the student must complete the equivalent number of credits in an upper-division course.
- If a student follows the "History Teaching Emphasis" track, the waiver stated above does not apply; however the department will accept AP credit of 3 or better earned in POLS 1100 as a means of fulfilling that particular requirement.

#### Using the same courses to meet Multiple Requirements

Students may not count any course taken to fulfill a basic General Education science requirement (BLS, BPS) toward the History BS track. History Majors completing minors in related areas may count one course in both the major and the minor. Exception for Social Studies Composite Majors.

#### Grades

Candidates for a degree must earn a grade of C+ or better in all history courses used to meet the requirements for a history major or minor, a history teaching emphasis or teaching minor, or a classics minor.

#### Degrees

Since history can be classified in both the humanities and the social sciences, majors may receive either a Bachelor of Arts (BA) or a Bachelor of Science (BS) degree. Because history primarily involves the study of

written documents, the department strongly encourages students to choose the BA (requiring proficiency in a foreign language).

#### History Major Requirements (36 credits)

Minimum GPA for Admission: 2.5, major; 2.5, Cumulative

Minimum GPA for Graduation: 2.75, major; 2.0, USU

Minimum Grade Accepted: C+ in major courses

Number of Required Credits: 36

#### History Major PRE-MAJOR Lower-Division Requirements

Students who wish to become History majors must apply for admission after completing the Department's pre-major program (at least 15 credits with an overall GPA of 2.5). The pre-major provides a set of "foundation courses" (including broad surveys of Western, World, U.S. history, and General Education classes) closely tied to the humanities. No student, including transfer students, may count more than 12 credits of lower-division coursework in History toward the history major. The pre-major involves the completion of the following TWO categories of requirements:

Complete at least two of the following courses (6 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3

ENGL 2200 - Understanding Literature (BHU) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

ANTH 2210 - Introduction to Folklore (BHU) 3 or

ENGL 2210 - Introduction to Folklore (BHU) 3 or

HIST 2210 - Introduction to Folklore (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2200 - Deductive Logic (QI) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2300 - Introduction to Political Theory 3

RELS 1010 - Introduction to Religious Studies (BHU) 3

SOC 1010 - Introductory Sociology (BSS) 3

Other courses may be applied to the pre-major in history, upon approval of the History Department.

Complete the following lower-division survey course requirements in sections A, B and C with a grade of C+ or better in each class, for a total of 12 credits.

#### A. European Perspectives (3 credits)

Complete one of the following courses:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

#### B. World Perspectives (3 credits)

Complete one of the following two courses:

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

#### C. American Perspectives (3 credits)

Complete one of the following courses:

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Note:

HIST 1700 cannot be applied toward requirements for the History or the History teaching emphasis (major or minor).

#### History Major Upper-Division Requirements

After satisfying the pre-major requirements, students will complete their remaining 24 credits by taking 3000 and 4000 level history courses (with a grade of C+ or better in each class). The upper division classes provide a more focused, detailed and rigorous examination of historical periods and themes.

One of these courses must be HIST 3000, History Research Methods

One of these courses must be HIST 4990, the capstone course for the major, taken in a student's senior year

Since new courses may be approved from time to time, any upper-division course having a HIST prefix is acceptable

No more than 3 credits of HIST 4930 may be applied toward the major

Since the study of history requires an understanding of many fields of human behavior, students majoring in history must select a minor. Historians are encouraged to take electives in fields that will broaden their knowledge of the world and are closely allied to history, such as religious studies, literature, economics, geography, anthropology, political science, sociology, classics, philosophy or foreign language.

Students who wish to undertake graduate work should pursue the BA degree. During their senior year, they should take the Graduate Record Exam (GRE).

History Teaching Emphasis Requirements (45 credits)

Plus the 35 credit Secondary Teacher Education Program (STEP)

Minimum GPA for Admission: 3.0, major; 3.0, Cumulative

Minimum GPA for Graduation: 2.75, major; 2.75, USU

Minimum Grade Accepted: C+ in major courses

Number of Required Credits: 45, plus 35-credit Secondary Teacher Education Program (STEP)

History Teaching Emphasis: PRE-MAJOR Lower Division Requirements

Students who wish to concentrate in the History Teaching Emphasis must apply for admission after completing the Department's pre-major program (at least 15 credits with an overall GPA of 3.0). The pre-major provides a set of "foundation courses" (including broad surveys of Western, World, U.S. history, and General Education classes) closely tied to the humanities. No student, including transfer students, may count more than 12 credits of lower-division coursework in History toward the history major. The pre-major involves the completion of the following TWO categories of requirements:

Complete at least two of the following courses (6 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3  
 ANTH 1020 - Biological Anthropology (BLS) 3  
 ANTH 1030 - World Archaeology (BSS) 3  
 ENGL 2200 - Understanding Literature (BHU) 3  
 ENVS 2340 - Natural Resources and Society (BSS) 3  
 GEOG 1300 - World Regional Geography (BSS) 3  
 GEOG 1400 - Human Geography (BSS) 3  
 ANTH 2210 - Introduction to Folklore (BHU) 3 or  
 ENGL 2210 - Introduction to Folklore (BHU) 3 or  
 HIST 2210 - Introduction to Folklore (BHU) 3  
 PHIL 1000 - Introduction to Philosophy (BHU) 3  
 PHIL 1250 - Practical Logic (BHU) 3  
 PHIL 2200 - Deductive Logic (QI) 3  
 POLS 1100 - United States Government and Politics (BAI) 3  
 POLS 2300 - Introduction to Political Theory 3  
 RELS 1010 - Introduction to Religious Studies (BHU) 3  
 SOC 1010 - Introductory Sociology (BSS) 3  
 Other courses may be applied to the pre-major in history upon approval of the History Department.  
 In order to prepare for the "World/US" PRAXIS exam in teacher education required for certification, complete ALL of the following lower-division survey courses (with a grade of C+ or better in each class, for a total of 21 credits).  
 HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3  
 HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3  
 HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3  
 HIST 1510 - The Modern World (BHU) 3  
 HIST 2700 - United States to 1877 (BAI) 3  
 HIST 2710 - United States 1877-Present (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

Note:

HIST 1700 cannot be applied toward requirements for the History teaching emphasis (major or minor)

History Teaching Emphasis: Upper-Division Requirements:

After satisfying the pre-major requirements, students will complete their remaining 24 credits by taking 3000 and 4000 level history courses (with a grade of C+ or better in each class). The upper-division classes provide a more focused, detailed and rigorous examination of historical periods and themes.

A minimum of two upper-division courses must be completed in each of the following areas: U.S. History; European history; and World history

Since new courses may be approved from time to time, any upper-division course having a HIST prefix is acceptable

No more than 3 credits of HIST 4930 may be applied toward the major.

One of the upper-division courses must be a senior capstone class

Choose from either:

HIST 4860 - Teaching History 3 or

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3

Other Requirements:

Licensing:

To be licensed to teach history, students must be admitted to the Secondary Teacher Education Program (STEP). A 3.0 GPA is required for admission, as well as a writing test, a speech and hearing test, and a criminal background check. ACT scores will now be required for admission to STEP. Minimum scores are: ACT Composite 21, English 20, Math 19. Applications for admission to the STEP program are available in the Secondary Education office. The STEP requires 35 credits of coursework, in addition to the 45 credits of history courses. For additional information about the STEP program, contact

Secondary Education undergraduate advisors at 435-797-0391.

Any student who does NOT complete the STEP program must take the HIST 3000 research methods course and the HIST 4990 capstone course (in place of the teaching capstone options) in order to graduate with a history degree.

#### Teaching Minor:

All students in the History Teaching Emphasis must also complete a separate minor in an area where teacher licensure can be granted-unless they choose the Social Science Composite Option described below.

#### Social Studies Composite Option

Students in the History Teaching Emphasis may substitute the Social Studies Composite Option for a minor in a teaching field (25-28 credits). Information on the requirements for this degree are available from the Secondary Education office at 435-797-0391.

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

History - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

Bachelor of Science Mathematics and Science Track

For those interested in a BS degree, a significant amount of coursework in the College of Science is required. These courses must contribute significantly to an understanding of science and the scientific method. Students cannot receive a BS in history unless they successfully complete one of these course pairs with grades of C- or better.

Therefore, students must complete:

8 credits in one of the following course pairs: BIOL 1610/BIOL 1620, BIOL 2320/BIOL 2420, CHEM 1110/CHEM 1120, CHEM 1210/CHEM 1220, GEO 1110/GEO 3200, PHYS 2110/PHYS 2120, or PHYS 2210/PHYS 2220.

at least 6 additional credits in math or science, 3 of which are required to be in either statistics (e.g. STAT 2000, STAT 2300, or STAT 3000) or social science statistics (e.g., PSY 3010, POLS 3000, or SOC 3120).

The other 3 science credits may be chosen from any 2000-, 3000-, or 4000-level math or science course having one of the following prefixes: BIOL, CHEM, CS, GEO, MATH, STAT, or PHYS. For these 3 science credits only, students may petition the department head of the History Department to substitute a course from outside the College of Science, if it has a demonstrable scientific or technical focus (e.g., TEE 3200, PEP 4200, WATS 3000).

In all instances, a grade of C- or better is required for any math or science course to be applied toward a BS degree. Students who minor in a science field will fulfill the BS requirement through their minor.

## History Major

### Admission Requirements For This Major

Admission to the History Department is based on a student's current GPA and completion of the pre-major requirements for history.

New freshmen admitted to USU in good standing qualify for admission to the History Department as pre-majors.

Students may apply for major status upon completion of a minimum of 15 credits, including the pre-major requirements, while maintaining a 2.5 cumulative GPA. History majors must maintain a minimum overall GPA in order to remain in good standing in the History Department. Students whose GPA drops below 2.75 may be placed on probation and may be dropped from the major if their grades do not improve.

### Undergraduate Program Learning Outcomes in the Department of History

#### Historical Knowledge

Develop a wide range of historical information

- identify the key events which express/define change over time in a particular place or region

- identify how change occurs over time

- explain historical continuity and change

- describe the influence of political ideologies, economic structures, social organization, cultural perceptions and natural environments on historical events

- discuss the ways in which factors such as race, gender, class, ethnicity, region and religion influence historical narratives

#### Historical Thinking

Recognize the past-ness of the past

- explain how people have existed, acted and thought in particular historical periods

- explain what influence the past has on the present

Emphasize the complex nature of past experiences

- interpret the complexity and diversity of situations, events and past mentalities

- compare eras and regions in order to define enduring issues

Emphasize the complex and problematic nature of the historical record

- recognize a range of viewpoints

- compare competing historical narratives

- challenge arguments of historical inevitability

- analyze cause-and-effect relationships and multiple causation

#### Historical Skills

Develop skills in critical thinking and reading

- evaluate debates among historians

- differentiate between historical facts and historical interpretations

- assess the credibility of primary and secondary sources

Develop research skills

- formulate historical questions

- obtain historical data from a variety of sources

- identify gaps in available records

- recognize the discipline's standards for accurate and ethical research

Develop the ability to construct reasonable historical arguments

- construct a well-organized historical argument
- support an interpretation with historical evidence from a variety of primary and secondary sources

### Career Opportunities

The Department's "learning outcomes" suggest the ways in which historical study develops expertise in our discipline as well as broader skills in the liberal arts. In other words, our programs not only provide specialized academic training but also prepare students to work in a wide variety of fields. Historical study develops one's ability to investigate problems, identify reliable sources, analyze information, contextualize complex questions—and communicate conclusions in a clear and thoughtful manner. Such skills are in demand by employers in many areas.

Not surprisingly, our alumni move on to a diverse range of careers. USU history graduates manage multinational companies and local businesses, serve in many public capacities (including Congress), run charitable organizations, administer university services, work in military intelligence, train as medical doctors, and teach history. Many history students are preparing themselves to teach in public schools and at colleges and universities, while others find employment as "applied" historians. Some graduates qualify to be curators and archivists in museums and libraries, working to classify and preserve materials, setting up exhibits, and working with researchers. Others work as preservation historians for historical societies, collecting data and working to preserve historic sites. Historians also work as editors and researchers in publishing or consult on sets and clothing in the making of films. Some historians work as biographers, while others collect information on family lineage.

History is an excellent undergraduate major for students wishing to work in international relations, journalism, or management. Students preparing for law school, advanced business degrees, and management or sales training also benefit from a history degree. History is a good major for those preparing to work in the growing information management field. Career opportunities for history majors continue to expand and diversify.

### Degrees and programs Offered Through This Department

Bachelor of Arts (BA), Bachelor of Science (BS), Master of Science (MS), and Master of Arts (MA) in History; participates in Master of Social Sciences (MSS)

University Graduation Requirements: BA or BS Degree in History

Minimum University Requirements\*\*

Total Credits 120

Grade point average 2.00 GPA

Credits of C- or better 100

Credits of upper-division course (#3000 or above) 40

USU credits (20 of which must be upper-division, including 10 required by major) 30

Completion of approved major program of study See department

Credits in minor (if required by department) 12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; POLS 1100; or USU 1300) 3

University Studies requirements See below

\*\*Colleges and departments may require more credits or a higher GPA. See requirements below.

Students must complete the General Education Requirements:

One course chosen from HIST 1100, HIST 1110, HIST 1500 or HIST 1510 will fulfill the Humanities (BHU) requirement

Students must also complete the University Studies Depth Requirements:

For students in the History major, HIST 4990 (the required Capstone Course) will fulfill one of the Communications Intensive (CI) requirements

PHYS 2210 or PHYS 2220 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

## Transfer Students

The History Department accepts all history courses taught by institutions within the Utah System of Higher Education. Students who are transferring may wish to consult with the Advisor.

## AP Credit

The History Department does not accept AP credit for use towards its degrees. We do make allowances for the following considerations:

- if a student following the "History Major" track has passed an AP exam with a score of 3 or better, the equivalent lower-division course will be waived; however, the student must complete the equivalent number of credits in an upper-division course.
- If a student follows the "History Teaching Emphasis" track, the waiver stated above does not apply; however the department will accept AP credit of 3 or better earned in POLS 1100 as a means of fulfilling that particular requirement.

## Using the same courses to meet Multiple Requirements

Students may not count any course taken to fulfill a basic General Education science requirement (BLS, BPS) toward the History BS track. History Majors completing minors in related areas may count one course in both the major and the minor. Exception for Social Studies Composite Majors.

## Grades

Candidates for a degree must earn a grade of C+ or better in all history courses used to meet the requirements for a history major or minor, a history teaching emphasis or teaching minor, or a classics minor.

## Degrees

Since history can be classified in both the humanities and the social sciences, majors may receive either a Bachelor of Arts (BA) or a Bachelor of Science (BS) degree. Because history primarily involves the study of written documents, the department strongly encourages students to choose the BA (requiring proficiency in a foreign language).

## History Major Requirements (36 credits)

Minimum GPA for Admission: 2.5, major; 2.5, Cumulative

Minimum GPA for Graduation: 2.75, major; 2.0, USU

Minimum Grade Accepted: C+ in major courses

Number of Required Credits: 36

## History Major PRE-MAJOR Lower-Division Requirements

Students who wish to become History majors must apply for admission after completing the Department's pre-major program (at least 15 credits with an overall GPA of 2.5). The pre-major provides a set of "foundation courses" (including broad surveys of Western, World, U.S. history, and General Education classes) closely tied to the humanities. No student, including transfer students, may count more than 12 credits of lower-division coursework in History toward the history major. The pre-major involves the completion of the following TWO categories of requirements:

Complete at least two of the following courses (6 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3

ENGL 2200 - Understanding Literature (BHU) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

ANTH 2210 - Introduction to Folklore (BHU) 3 or

ENGL 2210 - Introduction to Folklore (BHU) 3 or

HIST 2210 - Introduction to Folklore (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2200 - Deductive Logic (QI) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2300 - Introduction to Political Theory 3

RELS 1010 - Introduction to Religious Studies (BHU) 3

SOC 1010 - Introductory Sociology (BSS) 3

Other courses may be applied to the pre-major in history, upon approval of the History Department.

Complete the following lower-division survey course requirements in sections A, B and C with a grade of C+ or better in each class, for a total of 12 credits.

#### A. European Perspectives (3 credits)

Complete one of the following courses:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

#### B. World Perspectives (3 credits)

Complete one of the following two courses:

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

#### C. American Perspectives (3 credits)

Complete one of the following courses:

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Note:

HIST 1700 cannot be applied toward requirements for the History or the History teaching emphasis (major or minor).

#### History Major Upper-Division Requirements

After satisfying the pre-major requirements, students will complete their remaining 24 credits by taking 3000 and 4000 level history courses (with a grade of C+ or better in each class). The upper division classes provide a more focused, detailed and rigorous examination of historical periods and themes.

One of these courses must be HIST 3000, History Research Methods

One of these courses must be HIST 4990, the capstone course for the major, taken in a student's senior year

Since new courses may be approved from time to time, any upper-division course having a HIST prefix is acceptable

No more than 3 credits of HIST 4930 may be applied toward the major

Since the study of history requires an understanding of many fields of human behavior, students majoring in history must select a minor. Historians are encouraged to take electives in fields that will broaden their knowledge of the world and are closely allied to history, such as religious studies, literature, economics, geography, anthropology, political science, sociology, classics, philosophy or foreign language.

Students who wish to undertake graduate work should pursue the BA degree. During their senior year, they should take the Graduate Record Exam (GRE).

History Teaching Emphasis Requirements (45 credits)

Plus the 35 credit Secondary Teacher Education Program (STEP)

Minimum GPA for Admission: 3.0, major; 3.0, Cumulative

Minimum GPA for Graduation: 2.75, major; 2.75, USU

Minimum Grade Accepted: C+ in major courses

Number of Required Credits: 45, plus 35-credit Secondary Teacher Education Program (STEP)

History Teaching Emphasis: PRE-MAJOR Lower Division Requirements

Students who wish to concentrate in the History Teaching Emphasis must apply for admission after completing the Department's pre-major program (at least 15 credits with an overall GPA of 3.0). The pre-major provides a set of "foundation courses" (including broad surveys of Western, World, U.S. history, and General Education classes) closely tied to the humanities. No student, including transfer students, may count more than 12 credits of lower-division coursework in History toward the history major. The pre-major involves the completion of the following TWO categories of requirements:

Complete at least two of the following courses (6 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3

ENGL 2200 - Understanding Literature (BHU) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

ANTH 2210 - Introduction to Folklore (BHU) 3 or

ENGL 2210 - Introduction to Folklore (BHU) 3 or

HIST 2210 - Introduction to Folklore (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2200 - Deductive Logic (QI) 3

POLS 1100 - United States Government and Politics (BAI)  
3

POLS 2300 - Introduction to Political Theory 3

RELS 1010 - Introduction to Religious Studies (BHU) 3

SOC 1010 - Introductory Sociology (BSS) 3

Other courses may be applied to the pre-major in history upon approval of the History Department.

In order to prepare for the "World/US" PRAXIS exam in teacher education required for certification, complete ALL of the following lower-division survey courses (with a grade of C+ or better in each class, for a total of 21 credits).

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

POLS 1100 - United States Government and Politics (BAI)  
3

Note:

HIST 1700 cannot be applied toward requirements for the History teaching emphasis (major or minor)

History Teaching Emphasis: Upper-Division Requirements:

After satisfying the pre-major requirements, students will complete their remaining 24 credits by taking 3000 and 4000 level history courses (with a grade of C+ or better in each class). The upper-division classes provide a more focused, detailed and rigorous examination of historical periods and themes.

A minimum of two upper-division courses must be completed in each of the following areas: U.S. History; European history; and World history

Since new courses may be approved from time to time, any upper-division course having a HIST prefix is acceptable

No more than 3 credits of HIST 4930 may be applied toward the major.

One of the upper-division courses must be a senior capstone class

Choose from either:

HIST 4860 - Teaching History 3 or

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3

Other Requirements:

Licensing:

To be licensed to teach history, students must be admitted to the Secondary Teacher Education Program (STEP). A 3.0 GPA is required for admission, as well as a writing test, a speech and hearing test, and a criminal background check. ACT scores will now be required for admission to STEP. Minimum scores are: ACT Composite 21, English 20, Math 19. Applications for admission to the STEP program are available in the Secondary Education office. The STEP requires 35 credits of coursework, in addition to the 45 credits of history courses. For additional information about the STEP program, contact Secondary Education undergraduate advisors at 435-797-0391.

Any student who does NOT complete the STEP program must take the HIST 3000 research methods course and the HIST 4990 capstone course (in place of the teaching capstone options) in order to graduate with a history degree.

Teaching Minor:

All students in the History Teaching Emphasis must also complete a separate minor in an area where teacher licensure can be granted-unless they choose the Social Science Composite Option described below.

Social Studies Composite Option

Students in the History Teaching Emphasis may substitute the Social Studies Composite Option for a minor in a teaching field (25-28 credits). Information on the requirements for this degree are available from the Secondary Education office at 435-797-0391.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

History - MA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

To receive a master of arts (MA) degree, students must successfully complete two years of foreign language at the undergraduate level. If two years of undergraduate language study already appear on the student's transcript, he or she must demonstrate current competence through successful completion of a language exam or by taking a 3000- or 4000-level language course for which a grade of B or higher proves competency. In all cases, an individual assessment must be made of a student's language status. For further information, see [history.usu.edu/foreignlanguage.aspx](http://history.usu.edu/foreignlanguage.aspx)

Students planning to continue on for a doctorate should be aware that many doctoral programs in history require that students pass written proficiency exams in two or more languages.

Degree Programs and Additional Requirements

Master's Degree, Plan A (Thesis-HISTORY ONLY)

The thesis option should be taken by anyone intending to do research or enter another program for the doctoral degree. A master of arts or master of science degree can be completed with this option.

The program consists of 30 semester credits beyond the bachelor's degree, 6 credits of which must be in thesis research. Students must take HIST 6000, as well as either HIST 6010 or HIST 6020, or another theory-intensive course approved by the director of graduate studies. Students may apply a maximum of 4 internship credits earned while working in an archive, for a museum, on the staff of a scholarly journal, or as a teaching intern in an upper-division undergraduate course.

The remainder of the 30 credits may be taken as electives in history or relevant courses in other departments.

Upon arrival at USU, students are urged to meet with the departmental graduate advisor, who will direct them to one or more faculty members with similar interests. Through consultations with the graduate and faculty advisor, the first-year student will form a thesis committee and formulate a course of study. By the end of the first year, students will have submitted to their committees a proposal for the thesis, which they will write under the close supervision of the committee members. The oral defense usually takes place in the spring semester of the second year.

#### Master's Degree, Plan B (Nonthesis-HISTORY AND SOCIOLOGY)

A nonthesis master's program can help a student attain employment in many areas, but is not recommended for students planning to secure a doctorate. A master of arts, master of science, or master of social sciences degree can be completed with this option.

**HISTORY:** The Plan B program consists of 30 credits beyond the bachelor's degree. The course requirements are identical to those of the Plan A program, except that only 3 thesis credits are permitted.

Students completing the Plan B program do not write a full length thesis. Instead, Plan B students write a research paper of approximately 30 pages in length and submit a portfolio of their graduate writing, which includes two additional and distinct pieces of writing. Students defend their Plan B research papers and writing portfolios before their major professor and the members of the supervisory committee. Final approval of the Plan B rests with the department, rather than with the School of Graduate Studies.

**SOCIOLOGY:** The Plan B program consists of 35 credits beyond the bachelor's degree. Students completing the Plan B program do not write a full length thesis. Instead,

Plan B students write a research paper. Students defend their Plan B research papers before their major professor and the members of the supervisory committee. Final approval of the Plan B rests with the department, rather than with the School of Graduate Studies.

Return to: Academic Departments and Programs

#### History - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

To receive a master of science (MS) degree in history, students should demonstrate, to the satisfaction of their supervisory committee, the ability to incorporate into their research, methodologies from the social or natural sciences.

Degree Programs and Additional Requirements

#### Master's Degree, Plan A (Thesis-HISTORY ONLY)

The thesis option should be taken by anyone intending to do research or enter another program for the doctoral degree. A master of arts or master of science degree can be completed with this option.

The program consists of 30 semester credits beyond the bachelor's degree, 6 credits of which must be in thesis research. Students must take HIST 6000, as well as either HIST 6010 or HIST 6020, or another theory-intensive course approved by the director of graduate studies. Students may apply a maximum of 4 internship credits earned while working in an archive, for a museum, on the staff of a scholarly journal, or as a teaching intern in an upper-division undergraduate course.

The remainder of the 30 credits may be taken as electives in history or relevant courses in other departments.

Upon arrival at USU, students are urged to meet with the departmental graduate advisor, who will direct them to one or more faculty members with similar interests. Through consultations with the graduate and faculty advisor, the first-year student will form a thesis committee and formulate a course of study. By the end of the first year, students will have submitted to their committees a proposal for the thesis, which they will write under the close supervision of the committee

members. The oral defense usually takes place in the spring semester of the second year.

#### Master's Degree, Plan B (Nonthesis-HISTORY AND SOCIOLOGY)

A nonthesis master's program can help a student attain employment in many areas, but is not recommended for students planning to secure a doctorate. A master of arts, master of science, or master of social sciences degree can be completed with this option.

**HISTORY:** The Plan B program consists of 30 credits beyond the bachelor's degree. The course requirements are identical to those of the Plan A program, except that only 3 thesis credits are permitted.

Students completing the Plan B program do not write a full length thesis. Instead, Plan B students write a research paper of approximately 30 pages in length and submit a portfolio of their graduate writing, which includes two additional and distinct pieces of writing. Students defend their Plan B research papers and writing portfolios before their major professor and the members of the supervisory committee. Final approval of the Plan B rests with the department, rather than with the School of Graduate Studies.

**SOCIOLOGY:** The Plan B program consists of 35 credits beyond the bachelor's degree. Students completing the Plan B program do not write a full length thesis. Instead, Plan B students write a research paper. Students defend their Plan B research papers before their major professor and the members of the supervisory committee. Final approval of the Plan B rests with the department, rather than with the School of Graduate Studies.

Return to: Academic Departments and Programs

#### History Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

A grade of C+ must be earned in all history courses used for the minor. To graduate with a history minor, students must have a 2.5 minor GPA.

History Minor Requirements (21 credits)

Every student must complete ONE of the following two courses in the area of European Perspectives:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

Every student must complete ONE of the following two courses in World Perspectives:

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

Every student must complete ONE of the following two courses in the area of American Perspectives:

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Note:

HIST 1700 does not count toward this requirement.

Note:

#### Upper-Division Electives

No student, including transfer students, may count more than 12 credits of lower-division coursework in History toward the history minor. Students will complete their remaining credits by taking 3000-and 4000-level history courses for a total of 21 credits in the History Minor.

No more than 3 credits of HIST 4930 may be applied toward the minor.

#### Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

#### Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

## History Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of History

A grade of C+ or better must be earned in all history courses used for the minor. To graduate with a history minor, students must have a 2.75 minor GPA.

History Teaching Minor (30 credits)

Every student must complete BOTH of the following courses in European Perspectives

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

Every student must complete BOTH of the following courses in World Perspectives:

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

HIST 1510 - The Modern World (BHU) 3

Every student must complete BOTH of the following courses in the area of American Perspectives:

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Note:

HIST 1700 does not count toward this requirement.

All teaching minors in history must take ONE of the following history teaching capstone courses:

HIST 4860 - Teaching History 3

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3

Note:

Students should complete their remaining 9 credits by taking 3000- and 4000-level history courses for a total of 30 credits in the History teaching minor.

No more than 3 credits of HIST 4930 can be applied to the history teaching minor.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

Return to: Academic Departments and Programs

Instructional Technology - EdS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

The Educational Specialist degree is intended for students interested in acquiring advanced skills in instructional technology beyond those of the master's degree. This program involves coursework, independent study, practicum experiences, and a culminating experience. The degree requires a minimum of 30 credits beyond the master's degree, providing the master's degree was received in the instructional technology field. For students with a master's degree in a field other than instructional technology, a minimum of 40 credits is required.

Return to: Academic Departments and Programs

Instructional Technology - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

This master's program is only available through distance education via distance delivery methods. The MEd degree is a two-year cohort rotation (i.e., students proceed as a group through the two year program). To be successful in this master's degree program, students should own or have access to a personal computer. They will also need a USU e-mail address and Internet access in order to communicate with faculty members and other students in the program. Persons choosing the MEd have two specializations available: Educational Technology and Information Technology and School Library Media Administration. A Distance Learning Endorsement is also available within the MEd. Students accepted to the MEd may also choose certain electives from the Administrative Supervisory Certificate (ASC) program. They may then apply for acceptance to the ASC.

The Educational Technology specialization is directed at public school educators and administrators who are interested in applying the principles of educational technology to the teaching/learning process. This specialization may lead to a position as a district-level or building level educational technology specialist responsible for technology integration and in-service training related to computers and other technologies.

The Information Technology and School Library Media Administration specialization is directed at persons seeking employment in a school library media center. Students seeking this specialization must complete the School Library Media minor (delivered through distance education) and apply for a Utah State Library Media Endorsement. This specialization may lead to a position as a district-level or building-level school library media specialist (K-12). The library media specialist is prepared to apply principles of library and information technology to help students and teachers. The library media specialist also understands the effective use of learning resources in the teaching/learning process.

The goal of the Distance Learning Endorsement Program is to provide public school educators with the knowledge and skills they need in order to be effective teachers of students who are participating in distance education programs. To prepare them for meeting the challenges of teaching and learning at a distance in the K-12 setting, the program aids master teachers in becoming (1) effective communicators with distant learners across the barriers of time and distance, and (2) proficient users of telecommunications technologies in instruction. Students can apply for the State Distance Learning Endorsement.

Return to: Academic Departments and Programs

Instructional Technology and Learning Sciences - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

This degree emphasizes instructional design and development, and prepares the graduate with skills to apply principles of instructional systems design to education and training. The program prepares instructional developers to take positions in corporate training programs in business and industry. It also leads to careers in public and higher education, development of interactive learning technologies, telecommunications, distance education, and adult education.

The MS degree is available to qualified students with bachelor's degrees from any field. Undergraduate students planning in advance for an MS in Instructional Technology and Learning Sciences should consider the department's Multimedia Development minor as part of their bachelor's program.

Return to: Academic Departments and Programs

Instructional Technology and Learning Sciences - PhD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

The doctor of philosophy degree emphasizes research and theory building in instructional design and development. The degree offers advanced preparation for graduates seeking a career in higher education, research centers, or corporate training and development.

Return to: Academic Departments and Programs

Learning Technologies and Instructional Design - MLTID

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

Required Core Courses (16 credits)

ITLS 6300 - ITLS Orientation 1

ITLS 6310 - ITLS Foundations 3

ITLS 6350 - Instructional Design Process I 3

ITLS 6510 - Research and Evaluation in Instructional Technology 3

ITLS 6540 - Learning Theory 3

ITLS 6940 - Internship 1-6 (3 credits required) or

ITLS 6960 - Creative Project 1-6 (3 credits required)

Elective Courses (Minimum of 20 credits)

ITLS 6105 - eLearning Tools 3

ITLS 6205 - Computer Applications for Instruction and Training 3

ITLS 6215 - Digital Video Capture and Production I 3

ITLS 6230 - Instructional Graphic Production I 3

ITLS 6245 - Interactive Multi-Media Production 3

ITLS 6265 - Internet Development 3

ITLS 6275 - Multimedia Special Topic Studio I 3

ITLS 6285 - Multimedia Special Topic Studio II 3

ITLS 6290 - Multimedia Production for Instruction and Training 3

ITLS 6530 - Instructional Design and Development Studio 3

ITLS 6570 - Performance Systems 3

ITLS 6710 - Instructional Development Tools 3

ITLS 6720 - Instructional Technology in Adult Education 3

ITLS 6740 - Instructional Evaluation 2

ITLS 6760 - Grant Writing 3

ITLS 6870 - Current Issues Seminar 1-3

ITLS 6900 - Independent Study 1-6

Return to: Academic Departments and Programs

Multimedia Development Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

Multimedia Development Minor Objectives

Provide students with design skills.

Develop students' multimedia production skills.

Prepare students for employment in the multimedia field.

Multimedia Development Minor Requirements

The Multimedia Development minor is especially appropriate for fields which require computer-based instruction, such as business, computer science, engineering, and communications, but students from all majors are accepted. For detailed requirements, contact the ITLS department.

Students must:

meet with the ITLS program coordinator to complete the necessary paperwork

successfully complete a minimum of 15 credits from the following courses:

ITLS 5205 - Computer Applications for Instruction and Training 3

ITLS 5215 - Digital Video Capture and Production I 3

ITLS 5220 - Digital Video Capture and Production II 3

ITLS 5230 - Instructional Graphic Production I 3

ITLS 5240 - Instructional Graphic Production II 3

ITLS 5245 - Interactive Multi-Media Production 3

ITLS 5265 - Internet Development 3

ITLS 5270 - Craft Technologies 3

ITLS 5275 - Multimedia Special Topic Studio I 3

ITLS 5285 - Multimedia Special Topic Studio II 3

ITLS 5290 - Multimedia Production for Instruction and Training 3

Return to: Academic Departments and Programs

School Library Media Administration Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Instructional Technology and Learning Sciences

School Library Media Administration Minor Objectives

Provide students with library media skills.

Prepare students to receive a Utah State Office of Education (USOE) Library Media Endorsement.

Prepare students for employment as a School Library Media Specialist/Teacher.

School Library Media Administration Minor Requirements

This minor is delivered through distance education as broadcast courses with major online components. Those persons wanting USOE endorsement for positions in the public schools must have or be working toward a valid Utah teaching license and successfully completed the School Library Media Administration minor courses. A 2.7 grade point average is required for admission and endorsement as a school library media specialist/teacher at the bachelor's level. For detailed requirements, contact the ITLS department.

Students must complete the following courses (18 credits)

ITLS 5000 - SLM Foundations and Information Management 3

ITLS 5015 - SLM Collection Development and Literature 3

ITLS 5025 - SLM Programs and Instructional Development 3

ITLS 5030 - Information Access, Literacy, and Technology 3

ITLS 5040 - SLM Center Administration and Leadership 3

ITLS 5090 - School Library Media Practicum 1-6 (3 credits required)

Return to: Academic Departments and Programs

Communication - MA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Journalism and Communication

Graduate Admission Requirements

For admission to the graduate program in Communication, all students must complete the department's English Language Proficiency Examination, and must complete or demonstrate competency in the following Communication foundation courses:

JCOM 1130 - Beginning Newswriting for the Mass Media 3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

JCOM 3110 - Beyond the Inverted Pyramid (CI) 3

JCOM 4030 - Mass Media Law (DSS) 3

Note:

Competency may be demonstrated through previous coursework or experience, and one or more of these requirements may be waived with permission of the graduate program coordinator. These credits do not count toward the graduate degree. In addition, other undergraduate courses may be required.

Degree Requirements

Students may enroll in the Plan A (thesis), Plan B (Professional Option, with professional project), or Plan C (Professional Option with additional coursework in lieu of project) as outlined below. Plans A and B require 30 semester credits, while Plan C requires 33 semester

credits. Plan A is intended for students planning to continue graduate study, teach, or enter professions requiring research skills. Plans B and C are intended for students seeking a terminal professional degree. Selection of the A, B or C option must be made in consultation with the student's advisor and filed with the graduate coordinator by the end of the first semester of study.

All students must complete core requirements. Students must, in consultation with their advisor, select an appropriate research tools class in research methods; the course need not be taught by the Journalism and Communication Department. To remain in good standing, all students must fulfill Graduate School requirements.

#### Plan A: Media Research

##### Core Requirements (21 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

JCOM 6970 - Thesis Research 1-3 (6 credits required)

Note:

In addition, students must select an appropriate 3-credit Research Tools course (from any department), providing methodological training most appropriate for the student, in consultation with the advisor.

Cognate/Electives (9 credits)

With advisor permission, students may include additional Journalism and Communication electives.

#### Plan B: Professional Option (Project)

##### Core Requirements (18 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

JCOM 6970 - Thesis Research 1-3

Note:

In addition, students must select an appropriate 3-credit Research Tools course (from any department), providing methodological training most appropriate for the student, in consultation with the advisor.

Cognate/Electives (12 credits)

With advisor permission, students may include additional Journalism and Communication electives.

#### Plan C: Professional Option (Additional Coursework)

##### Core Requirements (15 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

Note:

In addition, students must select a 3-credit Research Tools course (from any department), in consultation with the advisor.

Cognate/Electives (18 credits)

With advisor permission, students may include additional Journalism and Communication electives.

Return to: Academic Departments and Programs

Communication - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Journalism and Communication

Graduate Admission Requirements

For admission to the graduate program in Communication, all students must complete the

department's English Language Proficiency Examination, and must complete or demonstrate competency in the following Communication foundation courses:

JCOM 1130 - Beginning Newswriting for the Mass Media 3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

JCOM 3110 - Beyond the Inverted Pyramid (CI) 3

JCOM 4030 - Mass Media Law (DSS) 3

Note:

Competency may be demonstrated through previous coursework or experience, and one or more of these requirements may be waived with permission of the graduate program coordinator. These credits do not count toward the graduate degree. In addition, other undergraduate courses may be required.

#### Degree Requirements

Students may enroll in the Plan A (thesis), Plan B (Professional Option, with professional project), or Plan C (Professional Option with additional coursework in lieu of project) as outlined below. Plans A and B require 30 semester credits, while Plan C requires 33 semester credits. Plan A is intended for students planning to continue graduate study, teach, or enter professions requiring research skills. Plans B and C are intended for students seeking a terminal professional degree. Selection of the A, B or C option must be made in consultation with the student's advisor and filed with the graduate coordinator by the end of the first semester of study.

All students must complete core requirements. Students must, in consultation with their advisor, select an appropriate research tools class in research methods; the course need not be taught by the Journalism and Communication Department. To remain in good standing, all students must fulfill Graduate School requirements.

#### Plan A: Media Research

##### Core Requirements (21 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

JCOM 6970 - Thesis Research 1-3 (6 credits required)

Note:

In addition, students must select an appropriate 3-credit Research Tools course (from any department), providing methodological training most appropriate for the student, in consultation with the advisor.

Cognate/Electives (9 credits)

With advisor permission, students may include additional Journalism and Communication electives.

#### Plan B: Professional Option (Project)

##### Core Requirements (18 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

JCOM 6970 - Thesis Research 1-3

Note:

In addition, students must select an appropriate 3-credit Research Tools course (from any department), providing methodological training most appropriate for the student, in consultation with the advisor.

Cognate/Electives (12 credits)

With advisor permission, students may include additional Journalism and Communication electives.

#### Plan C: Professional Option (Additional Coursework)

##### Core Requirements (15 credits)

All students must complete the following courses:

JCOM 6000 - Introduction to Graduate Study in Mass Communication 3

JCOM 6020 - Mass Communication Theory 3

JCOM 6040 - Seminar in Mass Media Research Methods 3

JCOM 6400 - Mass Media Criticism 3

Note:

In addition, students must select a 3-credit Research Tools course (from any department), in consultation with the advisor.

Cognate/Electives (18 credits)

With advisor permission, students may include additional Journalism and Communication electives.

Return to: Academic Departments and Programs

Journalism - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Journalism and Communication

Students must complete the General Education Requirements:

JCOM 1500 or JCOM 2010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as JCOM 2160, JCOM 3110, JCOM 3120, JCOM 4210, JCOM 4220 and JCOM 5300) will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Journalism majors must complete a minimum of 30 credits and a maximum of 36 credits (38 for Broadcast/Electronic Media emphasis) in Journalism and Communication courses, while pursuing one of the three course sequences outlined below. In addition, majors must complete a minor/cognate area outside of the Journalism and Communication Department, selected with the approval of an advisor.

Therefore, the basic Journalism course of study is as follows: Journalism and Communication courses, 30-36 credits; General Education requirements, 27-31 credits; Depth Education requirements, 15 credits; courses in the minor/cognate area, 12-18 credits; electives from outside the Journalism and Communication Department, 17-33 credits; Total Credits, 120.

## Journalism Major

### Major Status

Students may apply for major status upon completion of a minimum of the Journalism Premajor Core and General Education requirements, while maintaining a 2.5 cumulative GPA. Students may declare themselves as Journalism Premajors at any time after their admission to the University. Majors must maintain a minimum 2.5 GPA, both overall and in the major. Students whose GPA drops below 2.5 will be placed on probation and may be dropped from the major if grades do not improve within one semester. All courses in the major must be taken for a grade (not Pass-Fail). Courses must be taken in sequence.

Students transferring from other institutions may be accepted into the major if they fulfill these requirements. Up to 9 transferred semester credits may count toward the major, if approved by an advisor.

The Department of Journalism and Communication allows students to take a class a maximum of two times. Failure to achieve the Journalism and Communication Department's minimum grade of C+ in two attempts in any of the four premajor core classes, or a minimum grade of C in any other JCOM course required for the major, will result in the student being dropped from the Journalism major.

Students must complete the premajor core with a C+ or better before continuing in the Journalism major. Students lacking the minimum grades in the premajor core will be blocked from taking courses in the Broadcast/Electronic Media, Print Journalism, and Public Relations/Corporate Communications emphases.

### Premajor Core Requirement (12 credits)

The following courses are required for all majors, and must be completed prior to application for major status:

JCOM 1500 - Introduction to Mass Communication (BSS) 3

JCOM 1130 - Beginning Newswriting for the Mass Media 3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

JCOM 2020 - Communication Research Methods (QI) 3

Note:

Prior to taking JCOM 1130, students must complete ENGL 1010, Introduction to Writing (or equivalent) and a departmental English proficiency test. Majors must complete each of the premajor requirements with a C+ or better.

### Major Requirements (6 credits)

The following courses are required for all majors after acceptance into the department:

JCOM 2030 - Multimedia Boot Camp 3

JCOM 4030 - Mass Media Law (DSS) 3

### Emphasis Areas

Students must select one of the following emphasis areas:

Broadcast/Electronic Media Emphasis (30-38 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5 USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

### A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core Requirements before taking courses in section B below.

### B. Broadcast/Electronic Media Requirements (20 credits)

JCOM 2220 - Introduction to Video Media 3

JCOM 3200 - Writing for Electronic Media 3

JCOM 4210 - Newscast I (CI) 4

JCOM 4220 - Newscast II (CI) 4

Additional major requirements (JCOM 2030, JCOM 4030) 6

### C. Communication Electives (up to 6 credits)

Students should consult with their advisor to choose appropriate electives.

Print Journalism Emphasis (30-36 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5  
USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in  
JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core  
Requirements before taking courses in section B below.

B. Print Journalism Requirements (9 credits)

JCOM 3100 - Reporting Public Affairs (CI) 3

JCOM 3110 - Beyond the Inverted Pyramid (CI) 3

JCOM 3120 - Copy Editing and Publication Design (CI) 3

Additional major requirements (JCOM 2030, JCOM 4030)  
6

C. Communication Electives (3-9 credits)

Students should consult with their advisor to choose  
appropriate electives.

Public Relations/Corporate Communications Emphasis  
(30-36 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5  
USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in  
JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core  
Requirements before taking courses in section B below.

B. Required Courses (12 credits, may be taken  
concurrently)

JCOM 2300 - Introduction to Public Relations 3

JCOM 3310 - Writing for Public Relations (CI) 3

Additional major requirements (JCOM 2030, JCOM 4030)  
6

C. Upper-division Required Courses (6 credits; must be  
taken in sequence after completion of JCOM 2300, JCOM  
3310)

JCOM 3320 - Strategic Research Methods in Public  
Relations (DSS) 3

JCOM 5300 - Case Studies in Public Relations (CI) 3 or

JCOM 5320 - Public Relations Agency 3

D. Electives (3-6 credits; at least 3 credits in skills course  
and 3 credits upper division. A 3-credit upper-division  
skills course meets all elective requirements.)

Other Communications Electives

In addition to the Pre-major, major, and emphasis area  
courses listed above, students must select additional  
electives from courses in the Department of Journalism  
and Communication, to ensure a total of 30-36 credits  
completed in the Journalism and Communication  
Department.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Journalism - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Journalism and Communication

Students must complete the General Education Requirements:

JCOM 1500 or JCOM 2010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as JCOM 3100, JCOM 3110, JCOM 3120, JCOM 3310, JCOM 4210, JCOM 4220 and JCOM 5300) will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Course Requirements

Journalism majors must complete a minimum of 30 credits and a maximum of 36 credits (38 for Broadcast/Electronic Media emphasis) in Journalism and Communication courses, while pursuing one of the three course sequences outlined below. In addition, majors must complete a minor/cognate area outside of the Journalism and Communication Department, selected with the approval of an advisor.

Therefore, the basic Journalism course of study is as follows: Journalism and Communication courses, 30-36 credits; General Education requirements, 27-31 credits; Depth Education requirements, 15 credits; courses in the minor/cognate area, 12-18 credits; electives from

outside the Journalism and Communication Department, 17-33 credits; Total Credits, 120.

Journalism Major

Major Status

Students may apply for major status upon completion of a minimum of the Journalism Premajor Core and General Education requirements, while maintaining a 2.5 cumulative GPA. Students may declare themselves as Journalism Premajors at any time after their admission to the University. Majors must maintain a minimum 2.5 GPA, both overall and in the major. Students whose GPA drops below 2.5 will be placed on probation and may be dropped from the major if grades do not improve within one semester. All courses in the major must be taken for a grade (not Pass-Fail). Courses must be taken in sequence.

Students transferring from other institutions may be accepted into the major if they fulfill these requirements. Up to 9 transferred semester credits may count toward the major, if approved by an advisor.

The Department of Journalism and Communication allows students to take a class a maximum of two times. Failure to achieve the Journalism and Communication Department's minimum grade of C+ in two attempts in any of the four premajor core classes, or a minimum grade of C in any other JCOM course required for the major, will result in the student being dropped from the Journalism major.

Students must complete the premajor core with a C+ or better before continuing in the Journalism major. Students lacking the minimum grades in the premajor core will be blocked from taking courses in the Broadcast/Electronic Media, Print Journalism, and Public Relations/Corporate Communications emphases.

Premajor Core Requirement (12 credits)

The following courses are required for all majors, and must be completed prior to application for major status:

JCOM 1500 - Introduction to Mass Communication (BSS)  
3

JCOM 1130 - Beginning Newswriting for the Mass Media  
3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

## JCOM 2020 - Communication Research Methods (QI) 3

Note:

Prior to taking JCOM 1130, students must complete ENGL 1010, Introduction to Writing (or equivalent) and a departmental English proficiency test. Majors must complete each of the premajor requirements with a C+ or better.

### Major Requirements (6 credits)

The following courses are required for all majors after acceptance into the department:

JCOM 2030 - Multimedia Boot Camp 3

JCOM 4030 - Mass Media Law (DSS) 3

### Emphasis Areas

Students must select one of the following emphasis areas:

#### Broadcast/Electronic Media Emphasis (30-38 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5 USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

#### A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core Requirements before taking courses in section B below.

#### B. Broadcast/Electronic Media Requirements (20 credits)

JCOM 2220 - Introduction to Video Media 3

JCOM 3200 - Writing for Electronic Media 3

JCOM 4210 - Newscast I (CI) 4

JCOM 4220 - Newscast II (CI) 4

Additional major requirements (JCOM 2030, JCOM 4030) 6

#### C. Communication Electives (up to 6 credits)

Students should consult with their advisor to choose appropriate electives.

## Print Journalism Emphasis (30-36 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5 USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

#### A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core Requirements before taking courses in section B below.

#### B. Print Journalism Requirements (9 credits)

JCOM 3100 - Reporting Public Affairs (CI) 3

JCOM 3110 - Beyond the Inverted Pyramid (CI) 3

JCOM 3120 - Copy Editing and Publication Design (CI) 3

Additional major requirements (JCOM 2030, JCOM 4030) 6

#### C. Communication Electives (3-9 credits)

Students should consult with their advisor to choose appropriate electives.

#### Public Relations/Corporate Communications Emphasis (30-36 credits)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5 USU; 2.5, Career

Minimum Grade Accepted: C in major courses; C+ in JCOM 1130, JCOM 1500, JCOM 2010 and

JCOM 2020

#### A. Premajor Core Requirements (12 credits)

Journalism majors must complete the Premajor Core Requirements before taking courses in section B below.

B. Required Courses (12 credits, may be taken concurrently)

JCOM 2300 - Introduction to Public Relations 3

JCOM 3310 - Writing for Public Relations (CI) 3

Additional major requirements (JCOM 2030, JCOM 4030)  
6

C. Upper-division Required Courses (6 credits; must be taken in sequence after completion of JCOM 2300, JCOM 3310)

JCOM 3320 - Strategic Research Methods in Public Relations (DSS) 3

JCOM 5300 - Case Studies in Public Relations (CI) 3 or

JCOM 5320 - Public Relations Agency 3

D. Electives (3-6 credits; at least 3 credits in skills course and 3 credits upper division. A 3-credit upper-division skills course meets all elective requirements.)

Other Communications Electives

In addition to the Pre-major, major, and emphasis area courses listed above, students must select additional electives from courses in the Department of Journalism and Communication, to ensure a total of 30-36 credits completed in the Journalism and Communication Department.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Journalism Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Journalism and Communication

Students may earn a minor in Journalism by completing a minimum of 18 JCOM credits. The minimum GPA requirements for Journalism minors are the same as those required for Journalism majors.

A. Required Courses (6 credits)

JCOM 1130 - Beginning Newswriting for the Mass Media  
3

JCOM 1500 - Introduction to Mass Communication (BSS)  
3

B. Journalism Options (12 credits)

For the remaining 12 JCOM credits, students must select one of the following options:

1. Public Affairs

JCOM 3100 - Reporting Public Affairs (CI) 3

JCOM faculty advisor-approved upper-division JCOM credits 9

2. Video and Electronic Media

JCOM 2220 - Introduction to Video Media 3

JCOM 3200 - Writing for Electronic Media 3

JCOM faculty advisor-approved upper-division JCOM credits 6

3. Public Relations

JCOM 2300 - Introduction to Public Relations 3

JCOM 3310 - Writing for Public Relations (CI) 3

JCOM faculty advisor-approved upper-division JCOM credits 6

Return to: Academic Departments and Programs

Bioregional Planning - MS (Landscape Architecture and Environmental Planning)

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Landscape Architecture and Environmental Planning

Informed planning and management of natural resources and systems supersedes individual disciplines, requiring an interdisciplinary approach for the successful resolution of environmental issues. The intent of this program's curriculum is to integrate the biophysical disciplines more closely while also addressing the social and political sciences. This degree program is offered jointly by the Department of Landscape Architecture and Environmental Planning in the College of Agriculture and Applied Sciences and by the Department of Environment and Society in the S.J. and Jessie E. Quinney College of Natural Resources.

Course of Study

This two-year MS program is comprised of an interdisciplinary core of courses and faculty for addressing complex issues in the areas of bioregional planning and management. Emphasis is placed on four problematic content areas: biophysical, social/demographic, economic, and public policy. The spatial focus is on the planning for large landscape areas with dispersed populations with a primary economic base in agriculture, energy development, tourism/recreation, retirement communities, and natural resources.

The program requires a minimum of 36 graduate-level credits, including 3-6 credits of work on a thesis or paper/project. Nine of the required credits may be in an area of concentration. These nine credits are to be negotiated with the candidate's major professor and supervisory committee. A capstone course is required for all LAEP students. Requirements for the MS in Bioregional Planning are as follows:

Required

Environment Systems Research Institute (ESRI) certification course or

ENVS 6900 - Graduate Special Topics 1-6 (Geographic Information Systems)

LAEP 6740 - Planning Theory and Implementation Issues 3

ENVS 6900 - Graduate Special Topics 1-6 (Shipley Seminar/ NEPA/EIS)

Research Methods/Case Studies (3-4 credits)

One of the following courses is required:

SOC 6100 - Advanced Methods of Social Research 3

SOC 6150 - Social Statistics II 3

WILD 6500 - Biometry: Design and Analysis of Ecology Research 4

Biophysical (3-4 credits)

One of the following courses is required:

WATS 6330 - Large River Management 3

WILD 6710 - Landscape Ecology 3

WILD 4600 - Conservation Biology 3 (is also required for those students without a background in ecology)

Note:

Credits earned for WILD 4600 or equivalent do not apply to the graduate program.

Social/Economic Policy (3-4 credits)

One of the following courses is required:

ENVS 6000 - Theoretical Foundations in Human Dimensions of Ecosystem Science and Management 3

POLS 5180

SOC 6630 - Natural Resources and Social Development 3

Capstone Course (5 credits)

LAEP 6100 - Regional Landscape Analysis and Planning 5 is required for all LAEP students.

Area of Concentration (9 credits)

Nine credits should be available to the candidate for an area of concentration.

Thesis or Project (3 or 6 credits)

A Plan A thesis or Plan B paper/project option is required and is to be negotiated with the candidate, major professor, and supervisory committee.

Total Credits: 36-39

Return to: Academic Departments and Programs

Landscape Architecture (Advanced Professional Degree)  
- MLA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Landscape Architecture and  
Environmental Planning

Students with a bachelor's degree in landscape architecture can obtain a master's degree within two years. This advanced professional degree affords landscape architects the opportunity to expand their knowledge in areas of special interest.

Return to: Academic Departments and Programs

Landscape Architecture - BLA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Landscape Architecture and  
Environmental Planning

Minimum GPA for Admission: 2.5, USU

Additional Matriculation Requirements: completion of prerequisite courses, portfolio review, and submission of letter of intent (usually at end of the sophomore year)

Minimum GPA for Graduation: 2.0, USU

Minimum Grade Accepted: C- in LAEP prefix courses

The Bachelor of Landscape Architecture (BLA) degree is a four-year program consisting of courses relating to theory, design, history, and the various technical areas of

the profession. The degree provides a substantial basis for a professional career, as well as an excellent foundation for advanced graduate studies.

Students must complete the General Education requirements

WATS 1200 or WILD 2200 will fulfill the Life Sciences requirement for students in the Landscape Architecture major

Students must also complete the University Studies requirements

ENGL 3080 or LAEP 3700 will fulfill the Communications Intensive (CI) requirement

LAEP 2600 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

GEO 3100 will fulfill the DSC requirement

SOC 3610 or SOC 4620 will fulfill the DSS requirement

Required Courses- Four Year Sequence

Freshman Year (32 credits)

Fall Semester (16 credits)

LAEP 1200 - Basic Graphics in Landscape Architecture 4

MATH 1050 - College Algebra (QL) 4

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

USU 1010 - University Connections 1-3 (2 credits required)

Breadth Creative Arts (BCA) course 31

Spring Semester (16 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

LAEP 1300 - Computer Applications in Landscape Architecture 3

LAEP 1350 - Theory of Design 4

Breadth Physical Science (BPS) course 31

Breadth Humanities (BHU) course 31

Sophomore Year (34 credits)

Fall Semester (17 credits)

LAEP 2600 - Landscape Construction I (QI) 4

LAEP 2700 - Site Analysis: Social, Behavioral, and  
Biophysical Dimensions 4

Breadth American Institutions (BAI) course 31

Breadth Social Sciences (BSS) course 31

Elective Course 3

Spring Semester (17 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

GEO 3100 - Natural Disasters (DSC) 3

LAEP 2300 - History of Landscape Architecture 3

LAEP 2720 - Site Planning and Design 5

WATS 1200 - Biodiversity and Sustainability (BLS) 3 or

WILD 2200 - Ecology of Our Changing World (BLS) 3

Junior Year (30 credits)

Fall Semester (15 credits)

LAEP 3100 - Recreation/Open Space 5

LAEP 3300 - Advanced Computer Applications in  
Landscape Architecture 4

LAEP 3500 - Planting Design 2-4 (4 credits required)

LAEP 3600 - Landscape Materials 2

Spring Semester (15 credits)

LAEP 3120 - Land Planning for Residential Development  
5

LAEP 3610 - Landscape Construction II 2

LAEP 4910 - Communication and Leadership in  
Professional Practice 3

PSC 3420 - Landscape Irrigation Design (QI) 2

SOC 3610 - Rural Sociology (DSS) 3 or

SOC 4620 - Sociology of the Environment and Natural  
Resources (DSS) 3

Senior Year (32 credits)

Fall Semester (15 credits)

LAEP 4100 - Urban Theory, Systems, and Design 5

LAEP 4110 - Construction Document Preparation 4

LAEP 4150 - Field Studio Experience 3

Elective course(s) 3

Spring Semester (17 credits)

ASTE 3050 - Technical and Professional Communication  
Principles (CI) 3 or

ENGL 3080 - Introduction to Technical Communication  
(CI) 3

LAEP 3700 - City and Regional Planning (CI) 3

LAEP 4120 - Studio 8: Senior Capstone Experience 5

LAEP 4350 - Travel Course 1-3 (1 credit required)

Exploration General Education course 4

Elective course (recommend LAEP 4930) 2

Note:

1. Suggested courses: BCA=LAEP 1030; BPS=PSC 2010;  
BAI=USU 1300; BSS=ENVS 2340 or SOC 1010;  
BHU=CMST 1020.

Non-LAEP Courses Required for BLA majors:

The following courses taught outside the LAEP  
Department are required for all BLA majors. Note that  
several of these courses will also assist in fulfillment of  
University Studies Requirements.

ASTE 3050 - Technical and Professional Communication  
Principles (CI) 3 or

ENGL 3080 - Introduction to Technical Communication  
(CI) 3

GEO 3100 - Natural Disasters (DSC) 3

MATH 1010 - Intermediate Algebra 4 (or fulfillment of  
the QL requirement)

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 3420 - Landscape Irrigation Design (QI) 2

SOC 3610 - Rural Sociology (DSS) 3 or

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3 or

WILD 2200 - Ecology of Our Changing World (BLS) 3

Note:

All required courses with an LAEP prefix must be passed with a grade of C- or better. Students must also complete the University Studies requirements.

Undergraduate Travel Requirement

The undergraduate curriculum includes a requirement for a minimum of 1 credit of travel and study outside of the bioregion.

LAEP 4350 - Travel Course 1-3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Landscape Architecture - MLA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Landscape Architecture and Environmental Planning

The department offers a three-year, first professional degree for students with a bachelor's degree in any area of study. This option allows students having a wide range of undergraduate experience to obtain an accredited degree in landscape architecture that fulfills the educational requirement for professional registration and allows entrance into the field of landscape architecture.

The program for the Master of Landscape Architecture (MLA) emphasizes both traditional site planning and design, as well as broader areas of the profession, such as large-scale regional landscape analysis and planning, open space conservation, historic landscape preservation, and sustainable design. The MLA first professional degree is fully accredited by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects.

The Master of Landscape Architecture program is designed to prepare the student for the landscape architect's challenging role of providing a holistic approach to environmental planning and design. In order for landscape architects to contribute effectively to an interdisciplinary effort, they must be competent in the fundamentals of landscape architecture and also have an understanding of the subject matter of other professions. Landscape architects must master the communication skills necessary to achieve meaningful collaboration. In support of this philosophy, the following are the major objectives of the MLA program.

To provide a well-structured curriculum in fundamental professional knowledge and skills.

To research, analyze, and resolve land use and design issues related specifically to the Intermountain West. The scope of the program examines national, regional, and local issues; and their impact on the visual, physical, and cultural setting of the Intermountain West.

To integrate field experience and research into major graduate studio courses structured around real-world projects.

To provide opportunities for each student for exploration and development of an area of concentration as noted elsewhere.

To draw upon the regional, national, and international relationships of Utah State University to facilitate a program of academic and professional excellence which will allow the student to achieve eminence in practice, research, or education.

#### Areas of Faculty Expertise

The Master of Landscape Architecture program provides opportunities for each student to study and conduct research in areas which take advantage of the strengths of Utah State University and the landscape context of the Intermountain West centered around the expertise of the LAEP Department faculty, including: Community Planning—Bell, Lavoie, Licon, Timmons, Yang; Cultural and Historic Landscapes and Preservation—Timmons; Design/Theory and Representation—Lavoie; Human-Environment Relations—Michael, Waite; Open Space Conservation— Bell, Licon; Public Lands/Recreation—Christensen, Michael, Timmons; Site Planning—Bell, Christensen, Lavoie, Timmons; Socially Equitable Design—Christensen; Sustainable Landscapes—Bell, Li, Licon; Urban Regional Landscape Planning—Li, Licon; Watershed Sustainability— Yang.

These areas of faculty expertise include an assessment of the relevant environmental, design, social, economic, and public policy issues utilizing a wide range of computer-based techniques and models.

#### Admission Requirements

The application deadline for consideration in the first round of reviews is March 15. Applications received later than March 15 will be considered as space availability allows. February 1 is the application deadline for consideration for some scholarships, fellowships, and

other financial aid. For general admissions requirements, see the appropriate sections of this catalog.

#### Computer Requirement

Computer competency is essential in the contemporary professional environment. Appropriate computer skills are required for most entry-level opportunities in landscape architecture and environmental planning. Therefore, course content increasingly relies on computer skills and personal access to computers with the appropriate software.

All students entering the MLA program must purchase, lease, or otherwise obtain continuing and uninterrupted access to a personal computer, preferably a laptop, which meets the configuration requirements specified by the LAEP Department. Consult the departmental website for current specifications.

#### Course of Study

The graduate program director oversees academic advising of all incoming students until they have selected a thesis topic. A major professor whose interests are closely aligned to those of the student (see Areas of Faculty Expertise and Areas of Concentration) then supervises thesis work. A minimum of 30 graduate-level credits, including thesis work, is required. Students supplement requirements with courses negotiated with the major professor and supervisory committee. An area of concentration may be pursued by selecting a relevant course of study, as outlined below.

#### First Year (33 credits)

During the first year, coursework concentrates on basic professional competency.

#### Fall Semester (17 credits)

LAEP 1200 - Basic Graphics in Landscape Architecture 4

LAEP 2600 - Landscape Construction I (QI) 4

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

LAEP 6860 - Faculty/Interdisciplinary Seminar I 1

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

#### Spring Semester (16 credits)

LAEP 1300 - Computer Applications in Landscape Architecture 3

LAEP 1350 - Theory of Design 4

LAEP 2720 - Site Planning and Design 5

LAEP 6230 - History of Landscape Architecture 3

LAEP 6890 - Seminar on Thesis Proposals and Procedures 1

Second Year (32 credits)

During the second year, students can begin to specialize in one or more areas of concentration.

Fall Semester (18 credits)

LAEP 3600 - Landscape Materials 2

LAEP 6160 - Communication and Leadership in Professional Practice 3

LAEP 6170 - Professional Practice II 1

LAEP 6310 - Recreation and Open Space Planning and Design 5 or

LAEP 6410 - Redefining the Urban Landscape 5

LAEP 6350 - Planting Design for Sustainability 4

LAEP 6910 - Reading Seminar I 1

BIOL 6960 - Graduate General Ecology 4 (or equivalent elective)

Spring Semester (9-10 credits)

LAEP 3610 - Landscape Construction II 2

LAEP 6320 - Land Planning and Design for Community Development 5

Or

LAEP 4120 - Studio 8: Senior Capstone Experience 5 and

LAEP 6930 - Reading Seminar II 1

PSC 3420 - Landscape Irrigation Design (QI) 2

Additional credits should be added as electives from the student's chosen area of concentration

Third Year (21 credits)

Fall Semester (14 credits)

LAEP 4110 - Construction Document Preparation 4

LAEP 6100 - Regional Landscape Analysis and Planning 5

LAEP 6740 - Planning Theory and Implementation Issues 3

LAEP 6890 - Seminar on Thesis Proposals and Procedures 1

LAEP 6970 - Thesis Research 1-6 or (Plan A, Thesis) (2 credits required) or

LAEP 6960 - Master's Project 1-6 (Plan B, Terminal Project) (2 credits required)

Additional credits should be added as electives from the student's chosen area of concentration.

Spring Semester (10 credits)

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6750 - Implementation and Regulatory Techniques in Planning 3

LAEP 6970 - Thesis Research 1-6 or (Plan A, Thesis) (2 credits required) or

LAEP 6960 - Master's Project 1-6 (Plan B, Terminal Project) (2 credits required)

Additional credits should be added as electives from the student's chosen area of concentration.

Note:

Recommended electives are listed on area of concentration sheets, which are available from the department. Selection of electives should be related to thesis or terminal project content and should be selected in consultation with the student's mentor and/or thesis/project committee. Specific elective coursework may be required by the thesis/project committee in order to properly prepare the student for thesis or project work (Plan A or B).

Areas of Concentration

The program possesses an enviable reputation for graduating students with strong core professional skills. In addition to these skills, the department has the following four areas of concentration which reflect the strengths of the faculty, along with elective course offerings in other units of the University: (1) Open Space Conservation Planning and Green Space Design, (2)

Cultural and Historic Landscapes, (3) Community Planning and Urban Design, and (4) Sustainable Landscapes. These four areas of concentration have recommended courses of study as outlined below, reflecting a depth of study in a particular area of landscape architectural theory and practice. Students may choose one of these areas, or they may create their own course of study to reflect their particular interests. Note that all students must complete the core MLA curriculum, in addition to courses noted in the various areas of concentration. For current requirements, contact the LAEP graduate program director. Since these areas of concentration are not approved as graduate specializations, they will not appear on student transcripts or diplomas.

#### Open Space Conservation Planning and Green Space Design

This area of concentration focuses on the conservation, planning, and design of open space. This focus will appeal to individuals who are interested in working for land trusts or for state and local governments in planning or land conservation roles, as well as to landscape architects in public or private practice who are interested in the design and planning of open space. With a strong basis in the Landscape Architecture program in the design and planning of open space (along with the theory, policy, and legal issues), supporting courses can be found in other units in the University. Elective courses can be found in Sociology, focusing on conflict management and the social implications of resource policy; Economics, focusing on valuation and impact analysis; and Natural Resources, focusing on ecology, spatial systems, collaborative problem-solving, and conservation biology.

#### Supporting Coursework

LAEP 2700 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

#### Electives

APEC 5560 - Natural Resource and Environmental Economics 3

APEC 6710 - Community Planning and Impact Analysis 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 5000 - Environmental Nonprofit and Volunteer Management 3

ENVS 6200 - Bioregional Analysis and Planning 5

NR 6510 - Biophysical and Human Dimensions of Ecosystems 4

SOC 6630 - Natural Resources and Social Development 3

SOC 4640 - Managing Community Conflict 3

WILD 4600 - Conservation Biology 3

WILD 7220 - Community-based Conservation Partnerships 3

#### Cultural and Historic Landscapes

The graduate concentration in Cultural and Historic Landscapes prepares students for work in the research, documentation, analysis, understanding, planning, and management of human-influenced landscapes. Cultural landscapes have been defined by the World Heritage Convention of UNESCO as representing the “combined works of nature and of man. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic, and cultural forces, both external and internal.” They are grouped into three broad categories, which include: (1) the historic designed landscape or site, (2) the organically evolved or vernacular landscape, and (3) the associative cultural (ethnographic) landscape. (UNESCO. World Heritage Convention. Operational Guidelines for the Implementation of the World Heritage Convention. Paris: UNESCO, 1996.) The National Park Service notes that, “Historic landscapes vary in size from small gardens to several thousand-acre national parks. In character they range from designed to vernacular, rural to urban, and agricultural to industrial spaces. Vegetable patches, estate gardens, cemeteries, farms, quarries, nuclear test sites, suburbs, and abandoned settlements all may be considered historic landscapes.” (Historic American Landscapes Survey website: <http://www.nps.gov/history/hdp/>)

Ever-expanding populations are exerting increased development pressure on historic resources, leading to a growing domestic and international demand for landscape architects trained in this area of concentration. Career application of skills can range from topics as wide-ranging as preservation planning and heritage tourism to regional land-use planning and urban design, in both the public and private sectors.

## Supporting Coursework

LAEP 6410 - Redefining the Urban Landscape 5

LAEP 6900 - Special Problems 1-5

## Electives

ANTH 6110 - Southwest Indian Cultures, Past and Present 3

ANTH 6130 - Ethnographic Field School 3-6

ANTH 6650 - Developing Societies 3

HIST 6000 - Historical Methods and Research 3

HIST 6030 - Research Seminar 3

HIST 6460 - Seminar in Environmental History 3

HIST 6610 - Seminar on the American West 3-4

HIST 6620 - Seminar in Native American Studies 3-4

HIST 6760 - Folk Art, Traditional Art, and Material Culture 3

HIST 6770 - Seminar in Folklore and Folklife 3

SOC 5640 - Managing Community Conflict (CI) 3 or

ENVS 5640 - Conflict Management in Natural Resources (CI) 3

## Community Planning and Urban Design

This area of concentration focuses on both large and small communities, with particular application to the Western United States. This curriculum path will appeal to students who want to apply their landscape architecture skills to community focused projects, which could range in scale from an ethnic neighborhood in a city of two million to a downtown redevelopment project for a small town in the rural West. Opportunities upon graduation would include private firms offering planning and design services, as well as public agencies at the local, state or federal level.

## Supporting Coursework

LAEP 2700 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

LAEP 6410 - Redefining the Urban Landscape 5

## Electives

APEC 5560 - Natural Resource and Environmental Economics 3

GEOG 3610 - Geography of Rural/Urban Planning 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 6200 - Social Demography 3

SOC 6230 - Techniques of Demographic Analysis 3

SOC 6700 - Advanced Rural Sociology 3

## Sustainable Landscapes

Sustainability is a broad concept. It can be integrated into virtually every aspect of landscape architecture and environmental planning. The sustainable landscapes area of concentration in the LAEP department is focused on sustainability issues associated with the built landscape and the interface between built landscapes and open space. Coursework includes such subjects as low water use landscaping, planting design, planning for urban wildlife, storm water management, community economic development, and green business. In addition to coursework and thesis writing, students in the sustainable landscapes area of concentration organize and implement the department's annual Sustainability Conference, which is now in its eighth year.

## Supporting Coursework

BIOL 2220 - General Ecology 3

LAEP 6310 - Recreation and Open Space Planning and Design 5

LAEP 6740 - Planning Theory and Implementation Issues 3

## Electives

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ENVS 5570 - Sustainable Living 3

ENVS 6550 - Sustainability: Concepts and Measurement 3

GEO 3100 - Natural Disasters (DSC) 3

NR 6510 - Biophysical and Human Dimensions of Ecosystems 4

NR 6520 - Structure and Function of Ecological and Social Systems 4

NR 6530 - Integrated Inventory, Analysis, and Assessment of Ecosystems 4

NR 6540 - Ecosystem Management Implementation 4

PSC 4000 - Soil and Water Conservation 4

SOC 6620 - Environment, Technology, and Social Change 3

SOC 4640 - Managing Community Conflict 3

SOC 7640 - Population and Environment 3

WATS 6490 - Small Watershed Hydrology (QI) 4

WATS 6530 - Water Quality and Pollution 3

WATS 7640 - Riparian Ecology and Management 3

WILD 4700 - Ecological Foundations of Restoration 3

WILD 7300 - Wildlife Damage Management Principles 3  
or

WILD 5300 - Wildlife Damage Management Principles 3

WILD 7400 - Plant Population Ecology 3

Graduate Travel Requirement

The graduate curriculum includes a requirement for a minimum of 1 credit of travel and study outside of the bioregion. This travel requirement can be satisfied by:

LAEP 6550 - Travel Course 1-3

Return to: Academic Departments and Programs

Landscape Architecture Minor

Return to: Academic Departments and Programs

17 credit minimum

Professional Foundations (6 credits)

Both courses required:

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

LAEP 2300 - History of Landscape Architecture 3

Skills Foundation (6 credits minimum)

Select two courses:

LAEP 1200 - Basic Graphics in Landscape Architecture 4

LAEP 1300 - Computer Applications in Landscape Architecture 3

LAEP 1350 - Theory of Design 4

LAEP 2039 - Foundations of Sustainable Systems 3

LAEP 2700 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

Advanced Skills (2 credits minimum)

Select one course:

LAEP 2600 - Landscape Construction I (QI) 4

LAEP 2720 - Site Planning and Design 5

LAEP 3600 - Landscape Materials 2

LAEP 3700 - City and Regional Planning (CI) 3

Natural Systems (3 credits minimum)

Select one course:

ENVS 1350 - Introduction to Environmental Science (BLS) 3

ENVS 3330 - Environment and Society 3

PHIL 3530 - Environmental Ethics (DHA) 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

Notes

Courses may not count in more than one of the categories.

All existing course pre-requisites apply.

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Sustainable Systems Minor (Landscape Architecture and Environmental Planning))

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Landscape Architecture and  
Environmental Planning

Sustainable Systems Minor Requirements

A. Required Courses (6 credits)

ENVS 4700 - Communicating Sustainability 3

LAEP 2039 - Foundations of Sustainable Systems 3

B. Agriculture, Food and Environment Systems (3  
credits)

Select one course from the following:

ADVS 5030 - Sustainable Agricultural Production  
Systems with Animals 3

ASTE 2900 - Food Matters: Ethics, Economics, and the  
Environment (BSS) 3

ASTE 5260 - Environmental Impacts of Agricultural  
Systems (CI) 3

NDFS 1260 - Food Literacy 3

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 4400 - Modern Vegetable Production 3

PSC 5200 - Site-Specific Agriculture and  
Landscape/Horticultural Management 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

C. Energy and Earth Systems (3 credits)

Select one course from the following:

GEO 3150 - Energy in the Twenty-first Century (DSC/QI)  
3 or

PHYS 3150 - Energy in the Twenty-first Century  
(DSC/QI) 3

LAEP 1030 - Introduction to Landscape Architecture  
(BCA) 3

PHYS 1020 - Energy (BPS) 3

PSC 3820 - Climate and Climate Change (DSC/QI) 3 or

WATS 3820 - Climate and Climate Change (DSC/QI) 3

PSC 4820 - Challenges in Climate Change and Energy 3

D. Water Systems (3 credits)

Select one course from the following:

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

PSC 4000 - Soil and Water Conservation 4

PSC 5090 - Sustainable Low Water Landscaping 3 or

LAEP 5090 - Sustainable Low Water Landscaping 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4530 - Water Quality and Pollution 3

E. Social Systems ( 3 credits)

Select one course from the following:

APEC 3012 - Introduction to Natural Resource and  
Regional Economics (DSS) 3

ENVS 3010 - Fundamentals of Natural Resource and  
Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 5640 - Conflict Management in Natural Resources  
(CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

PHIL 3530 - Environmental Ethics (DHA) 3

SOC 4620 - Sociology of the Environment and Natural  
Resources (DSS) 3

Return to: Academic Departments and Programs

Asian Studies - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and  
Communication Studies

Program Director: Bradford 'J' Hall, Main 204, (435) 797-  
8757, brad.hall@usu.edu

Sample Four-year Plan for Asian Studies Major

A sample semester-by-semester four-year plan for students working toward a Bachelor of Arts degree in Asian Studies is available in the College of Humanities and Social Sciences.

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

MIS 4550 and POLS 4220 will fulfill the Communication Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a

prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Language Major Requirements

Asian Studies Major and Minor Requirements

Note:

To graduate with a BA degree in Asian Studies, students must complete a minimum of 30-31 credits approved by the Asian Studies program director. The program must include a minimum of 18 credits selected from the Core Courses, 9 credits from the General Electives, and 3-4 credits of one upper-division grammar course from the language of your choice. Course selections may need consultation with the Asian Studies program advisor.

Minimum Departmental Requirements

Total Credits:

Asian Studies Major 30-31

Asian Studies Minor 20

Grade Point Average to Declare Minor 2.5 Career GPA

Grade Point Average to Graduate with Major or Minor 2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Asian Studies Majors and Minors require a minimum of C- or better.

Courses for Asian Studies Majors and Minors may not be taken on a Pass/Fail basis.

Requirements for Asian Studies Major (30-31 credits)

## Core Courses

(required minimum of 18 credits)

ARBC 3030 - Introduction to Islam (DHA) 3 or

RELS 3030 - Introduction to Islam (DHA) 3

ARBC 4040 - Language and Culture of the Arab World 3

ARTH 3110 - Ancient Near East (CI/DHA) 3 or

HIST 3110 - Ancient Near East (DHA/CI) 3

CHIN 3090 - Introduction to Modern Chinese Literature and Film 3

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

CHIN 3510 - Chinese Business Language 3

CHIN 3540 - Translating Into and From Chinese 3

ECN 5400 - International Trade Theory 3

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 3410 - The Modern Middle East 3

HIST 3460 - Comparative Asian History 3

HIST 3481 - China's Cultural Revolution 3

HIST 3482 - Ancient China to 1800 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3489 - Medieval Japan 3

HIST 3490 - Modern Japan 3

HIST 3560 - Modern East Asia (DHA) 3

HIST 4821 - World War II in Asia (DHA) 3

JAPN 3050 - Japanese Calligraphy 1 or

ART 3050 - Japanese Calligraphy 1

JAPN 3090 - Introduction to Japanese Literature 3

JAPN 3100 - Readings in Contemporary Japanese Culture 3

JAPN 3510 - Japanese for the Business Environment 3

JAPN 3560 - Studies in Japanese Film 3

LANG 3570 - Narrative Ethics in Asian Literature and Film 3

KOR 3510 - Business Korean 3

ANTH 3550 - Culture of East Asia (DHA) 3 or

HIST 3550 - Culture of East Asia (DHA) 3 or

LANG 3550 - Culture of East Asia (DHA) 3

MIS 4550 - Principles of International Business Communications (CI) 3

PHIL 3710 - Philosophies of East Asia 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 4470 - Foreign Policy in the Pacific 3

RELS 3010 - Introduction to Buddhism 3 or

HIST 3010 - Introduction to Buddhism 3

RELS 3020 - Introduction to Hinduism (DHA) 3 or

HIST 3020 - Introduction to Hinduism (DHA) 3

RELS 4010 - Buddhism in the West 3 or

HIST 4010 - Buddhism in the West 3

RELS 4560 - Women in Islam (DHA) 3

HIST 4560 - Women in Islam (DHA) 3

Or other topics courses that are focused on Asia

## General Electives

(required minimum of 9 credits):

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 4100 - The Study of Language 3 or

LING 4100 - The Study of Language 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 4330 - Communication in a Global Era 3 or

LANG 4330 - Communication in a Global Era 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

FIN 4300 - International Finance 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

MGT 4590 - Marketing Strategy 3

POLS 2100 - Introduction to International Politics 3

POLS 2200 - Comparative Politics (BSS) 3

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

SOC 3200 - Population and Society (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

## Languages

(required minimum of 3-4 credits):

Students must have completed the equivalent of one of the 3010/3020 third year language courses from an Asian language (including Arabic, Chinese, Japanese and Korean). (See the department for questions regarding other languages.) The following are languages courses that will help fulfill that requirement.

### Arabic

ARBC 3010 - Advanced Arabic I 3

### Chinese

CHIN 3010 - Chinese Third Year I 4 or

CHIN 3020 - Chinese Third Year II 4

### Japanese

JAPN 3010 - Japanese Third Year I 4 or

JAPN 3020 - Japanese Third Year II 4

## Korean

KOR 3010 - Korean Third Year I 4 or

KOR 3020 - Korean Third Year II 4

## Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Asian Studies Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

## Minimum Departmental Requirements

### Total Credits:

Asian Studies Major 30-31

Asian Studies Minor 20

Grade Point Average to Declare Minor 2.5 Career GPA

Grade Point Average to Graduate with Major or Minor 2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU

### Note:

Courses for Asian Studies Majors and Minors require a minimum of C- or better.

Courses for Asian Studies Majors and Minors may not be taken on a Pass/Fail basis.

Requirements for Asian Studies Minor (20 credits)

### NOTE:

As many as 10 credits completed at other colleges or universities may be used to partially satisfy these requirements. For more information, students should contact the LPCS advisor. Students must earn an overall GPA of at least 2.5 in all classes applied toward the minor.

Minors must complete a minimum of 12 credits selected from the Core Courses listed below:

ARBC 3030 - Introduction to Islam (DHA) 3 or

RELS 3030 - Introduction to Islam (DHA) 3

ARBC 4040 - Language and Culture of the Arab World 3

ANTH 3550 - Culture of East Asia (DHA) 3 or

HIST 3550 - Culture of East Asia (DHA) 3 or

LANG 3550 - Culture of East Asia (DHA) 3

ART 3050 - Japanese Calligraphy 1 or

JAPN 3050 - Japanese Calligraphy 1

ARTH 3110 - Ancient Near East (CI/DHA) 3 or

HIST 3110 - Ancient Near East (DHA/CI) 3

CHIN 3090 - Introduction to Modern Chinese Literature and Film 3

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

CHIN 3510 - Chinese Business Language 3

ECN 5400 - International Trade Theory 3

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 3010 - Introduction to Buddhism 3 or

RELS 3010 - Introduction to Buddhism 3

HIST 3020 - Introduction to Hinduism (DHA) 3 or

RELS 3020 - Introduction to Hinduism (DHA) 3

HIST 3410 - The Modern Middle East 3

HIST 3460 - Comparative Asian History 3

HIST 3481 - China's Cultural Revolution 3

HIST 3482 - Ancient China to 1800 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3489 - Medieval Japan 3

HIST 3490 - Modern Japan 3

HIST 3560 - Modern East Asia (DHA) 3

HIST 4010 - Buddhism in the West 3 or

RELS 4010 - Buddhism in the West 3

HIST 4560 - Women in Islam (DHA) 3 or

RELS 4560 - Women in Islam (DHA) 3

HIST 4821 - World War II in Asia (DHA) 3

JAPN 3090 - Introduction to Japanese Literature 3

JAPN 3100 - Readings in Contemporary Japanese Culture 3

JAPN 3510 - Japanese for the Business Environment 3

KOR 3510 - Business Korean 3

LANG 3570 - Narrative Ethics in Asian Literature and Film 3

MIS 4550 - Principles of International Business Communications (CI) 3

PHIL 3710 - Philosophies of East Asia 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 4470 - Foreign Policy in the Pacific 3

Or other topics courses that are focused on Asia

General Elective Courses or Language Courses - Asian Studies Minor (8 credits)

A. General Elective Courses

The remaining 8 credits must be chosen from either:

A. General Electives OR B. Language Courses, shown below

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 4100 - The Study of Language 3 or

LING 4100 - The Study of Language 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 4330 - Communication in a Global Era 3 or

LANG 4330 - Communication in a Global Era 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

FIN 4300 - International Finance 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

MGT 4590 - Marketing Strategy 3

POLS 2100 - Introduction to International Politics 3

POLS 2200 - Comparative Politics (BSS) 3

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

SOC 3200 - Population and Society (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

B. Languages

Arabic

ARBC 1010 - Arabic First Year I 4

ARBC 1020 - Arabic First Year II 4

ARBC 2010 - Intermediate Standard Arabic Second Year I 4

ARBC 2020 - Intermediate Standard Arabic Second Year II 4

ARBC 3010 - Advanced Arabic I 3

ARBC 3020 - Advanced Arabic II 3

Chinese

CHIN 1010 - Chinese First Year I 5

CHIN 1020 - Chinese First Year II 5

CHIN 2010 - Chinese Second Year I 5

CHIN 2020 - Chinese Second Year II 5

CHIN 3010 - Chinese Third Year I 4

CHIN 3020 - Chinese Third Year II 4

CHIN 3050 - Chinese Conversation 3

Japanese

JAPN 1010 - Japanese First Year I 5

JAPN 1020 - Japanese First Year II 5

JAPN 2010 - Japanese Second Year I 5

JAPN 2020 - Japanese Second Year II 5

JAPN 3010 - Japanese Third Year I 4

JAPN 3020 - Japanese Third Year II 4

JAPN 4250 - Internship/Coop 3-9

Korean

KOR 1010 - Korean First Year I 5

KOR 1020 - Korean First Year II 5

KOR 2010 - Korean Second Year I 5

KOR 2020 - Korean Second Year II 5

KOR 3010 - Korean Third Year I 4

KOR 3020 - Korean Third Year II 4

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Chinese Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Chinese Minor  
13

Chinese Minor, Teaching Emphasis  
20

Grade Point Average to Declare Minor  
2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes                      2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors may not be taken on a Pass/Fail basis with the exception of LING 3300, LING 5500 and LING 5630.

Courses for Minors require a minimum grade of C- or better.

Requirements for Chinese Minor (13 credits)

Complete 13 upper-division credits in Chinese from the following courses:

Students must complete both of the following courses (7 credits):

CHIN 3010 - Chinese Third Year I 4

CHIN 3050 - Chinese Conversation 3

Students must complete two of the following courses (6 credits):

CHIN 3020 - Chinese Third Year II 4

CHIN 3090 - Introduction to Modern Chinese Literature and Film 3

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

CHIN 3510 - Chinese Business Language 3

CHIN 3540 - Translating Into and From Chinese 3

CHIN 4100 - Teaching Chinese as a Foreign Language 3

LANG 3570 - Narrative Ethics in Asian Literature and Film 3

Return to: Academic Departments and Programs

Chinese Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Chinese Minor  
13

Chinese Minor, Teaching Emphasis  
20

Grade Point Average to Declare Minor  
2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes                      2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors may not be taken on a Pass/Fail basis with the exception of LING 3300, LING 5500 and LING 5630.

Courses for Minors require a minimum grade of C- or better.

Requirements for Chinese Teaching Minor (20 credits)

Students must complete the following courses (14 credits):

CHIN 3010 - Chinese Third Year I 4

CHIN 3050 - Chinese Conversation 3

CHIN 4100 - Teaching Chinese as a Foreign Language 3 (CHIN 4100 is also listed within the STEP program courses)

LING 3300 - Clinical Experience I 1

LING 4400 - Teaching Modern Languages 3 (LING 3300 and LING 4400 are also listed within the STEP program courses)

Students must complete 6 credit hours the following courses:

CHIN 3020 - Chinese Third Year II 4

CHIN 3080 - Chinese Outreach Practicum 1-3

CHIN 3090 - Introduction to Modern Chinese Literature and Film 3

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

CHIN 3510 - Chinese Business Language 3

CHIN 3540 - Translating Into and From Chinese 3

LANG 3570 - Narrative Ethics in Asian Literature and Film 3

Teaching Emphasis with Secondary School Licensure (27 credits)

Note: The requirements listed above only specify courses offered by the Department of Languages, Philosophy, and

Communication Studies. To be licensed to teach in the Utah public secondary school system, students with a teaching emphasis must also complete additional required courses (approximately 27 credits) offered in the School of Teacher Education and Leadership.

Secondary Teacher Education Program (STEP)- Languages, Philosophy, and Communication Studies (27 credits)

Most of the courses listed below count for both teaching emphasis and the teaching minor.

A. Level 1 (first semester in program)

CHIN 4100 - Teaching Chinese as a Foreign Language 3 3 (CHIN 4100 CHIN 4100 is also listed within the Minor program courses)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2

B. Level 2

LING 3300 - Clinical Experience I 1 1,2,3 (LING 3300 and LING 4400 are also listed within the Minor program courses)

LING 4400 - Teaching Modern Languages 3 2,3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 Clinical Experience I course is taught under course number 3300 in various departments. Course title varies among departments.

2 LING 3300 and LING 4400 must be taken during the same semester and should be the last courses taken for the minor. They are listed in both the STEP and minor requirements for those seeking the Chinese Teaching Minor/non-licensure.

3 CHIN 4100 should be completed if possible before LING 3300 and LING 4400. CHIN 4100 is listed in both the STEP and minor requirements for those seeking the Chinese Teaching Minor/non-licensure.

For more information:

Please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to <http://teal.usu.edu> and click on undergraduate programs, and then secondary programs.

Return to: Academic Departments and Programs

Communication Studies - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Bradford 'J' Hall, Main 204, (435) 797-8757, [brad.hall@usu.edu](mailto:brad.hall@usu.edu)

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

CMST 1020 and CMST 2110 fulfill a Breadth Humanities (BHU) requirement

CMST 3250, CMST 3400, CMST 3700, CMST 4460 and CMST 5100 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS). A Communication Studies (CMST) DSS course will not satisfy this requirement

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Minimum Departmental Requirements

Total Credits:

Communication Studies Major 34

Organizational Communication Minor 15

Speech Communication Teaching Minor 23

Grade Point Average to Declare a Major or Minor 2.75  
Career GPA

Overall Grade Point Average to Graduate 2.0 Career GPA

Grade Point Average to Graduate in Major or Minor  
Classes 2.5 GPA

A minimum of half (50 percent) of major credits must be  
completed through USU and be approved by the  
department head

No more than 9 credit hours of the Communication  
Studies major can overlap with an additional declared  
major.

Communication Studies Major (34 credits) (2.5 GPA  
required in major classes)

As many as 16 credits completed at other colleges or  
universities may be used to partially satisfy these  
requirements. For more information, students should  
contact their advisor. Students must earn an overall GPA  
of at least 2.5 in all classes applied toward the major.

#### A. Communication Core (6 credits)

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

#### B. Senior Year Capstone Course (1 credit)

A course that must be taken during the student's senior  
year.

CMST 5800 - Communication Studies Senior Capstone 1

#### C. Study of Communication Courses (3 credits)

Students must take at least one of the following four  
courses. Students should have completed at least 12  
major credit hours before enrolling in any of the  
following courses:

CMST 4460 - Communication Criticism 3

CMST 4470 - Qualitative Research in Communications  
Studies 3

CMST 4570 - Quantitative Communication Studies  
Research Methods (QI) 3

CMST 5100 - Theories of Speech Communication (CI) 3

#### D. Thematic Area Courses (21 credits)

Students must take at least 9 credit hours from 1 of the  
three thematic areas and a minimum of 6 credit hours  
from the other two thematic areas:

##### 1. Organization (6-9 credits)

CMST 2120 - Small Group Communication (HR) 3

CMST 3050 - Technical and Professional Communication  
(DSS) 3

CMST 3140 - Communication in Family Contexts 3

CMST 3250 - Organizational Communication (CI) 3

CMST 3500 - Communication and Leadership 3

CMST 3600 - Communication and Conflict 3

##### 2. Society (6-9 credits)

CMST 3270 - Culture and Public Discourse 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 3700 - Introduction to Health Communication 3

CMST 4330 - Communication in a Global Era 3

CMST 4350 - Organizations and Social Change 3

CMST 5250 - Communication, Social Justice and the  
Environment 3

##### 3. Influence (6-9 credits)

CMST 2270 - Argumentation and Debate 3

CMST 3400 - Persuasion (CI) 3

CMST 4200 - Language, Thought, and Action (DSS) 3

CMST 4430 - Negotiation in a Global World 3

CMST 5300 - Visual Rhetoric 3

CMST 5400 - Advanced Persuasion 3

#### E. Elective Courses (3 credits)

Any course listed in section C or D, may serve as an  
elective. In addition courses listed below may also serve  
as an elective.

CMST 2250 - Introductory Internship/Co-op 1-6 1

CMST 3000 - Speech Communication Teaching Practicum  
1 (repeatable)

CMST 4250 - Advanced Internship/Co-op 1-6 1

CMST 5000 - Studies in Speech Communication 1-5  
(repeatable) (3 credits required)

CMST 5280 - Communication Education Theory 3

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

Note:

1 Internship project and number of credits must be approved by an advisor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Communication Studies - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and  
Communication Studies

Bradford 'J' Hall, Main 204, (435) 797-8757,  
brad.hall@usu.edu

Students must complete the General Education  
Requirements.

Students must also complete the University Studies  
Depth Requirements:

CMST 1020 and CMST 2110 fulfill a Breadth Humanities  
(BHU) requirement

CMST 3250, CMST 3400 and CMST 5100 will fulfill the  
Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or  
above courses from each of the following two categories:  
Life and Physical Sciences (DSC) and Social Sciences  
(DSS). A Speech DSS course will not satisfy this  
requirement

Course Requirements

Minimum Departmental Requirements

Total Credits:

Communication Studies Major 34

Organizational Communication Minor 15

Speech Communication Teaching Minor 23

Grade Point Average to Declare a Major or Minor 2.75  
Career GPA

Overall Grade Point Average to Graduate 2.0 Career GPA

Grade Point Average to Graduate in Major or Minor  
Classes 2.5 GPA

A minimum of half (50 percent) of major credits must be  
completed through USU and be approved by the  
department head

No more than 9 credit hours of the Communication Studies major can overlap with an additional declared major.

Communication Studies Major (34 credits) (2.5 GPA required in major classes)

As many as 16 credits completed at other colleges or universities may be used to partially satisfy these requirements. For more information, students should contact their advisor. Students must earn an overall GPA of at least 2.5 in all classes applied toward the major.

#### A. Communication Core (6 credits)

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

#### B. Senior Year Capstone Course (1 credit)

A course that must be taken during the student's senior year.

CMST 5800 - Communication Studies Senior Capstone 1

#### C. Study of Communication Courses (3 credits)

Students must take at least one of the following four courses. Students should have completed at least 12 major credit hours before enrolling in any of the following courses:

CMST 4460 - Communication Criticism 3

CMST 4470 - Qualitative Research in Communications Studies 3

CMST 4570 - Quantitative Communication Studies Research Methods (QI) 3

CMST 5100 - Theories of Speech Communication (CI) 3

#### D. Thematic Area Courses (21 credits)

Students must take at least 9 credit hours from 1 of the three thematic areas and a minimum of 6 credit hours from the other two thematic areas:

##### 1. Organization (6-9 credits)

CMST 2120 - Small Group Communication (HR) 3

CMST 3050 - Technical and Professional Communication (DSS) 3

CMST 3140 - Communication in Family Contexts 3

CMST 3250 - Organizational Communication (CI) 3

CMST 3500 - Communication and Leadership 3

CMST 3600 - Communication and Conflict 3

##### 2. Society (6-9 credits)

CMST 3270 - Culture and Public Discourse 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 3700 - Introduction to Health Communication 3

CMST 4330 - Communication in a Global Era 3

CMST 4350 - Organizations and Social Change 3

CMST 5250 - Communication, Social Justice and the Environment 3

##### 3. Influence (6-9 credits)

CMST 2270 - Argumentation and Debate 3

CMST 3400 - Persuasion (CI) 3

CMST 4200 - Language, Thought, and Action (DSS) 3

CMST 4430 - Negotiation in a Global World 3

CMST 5300 - Visual Rhetoric 3

CMST 5400 - Advanced Persuasion 3

#### E. Elective Courses (3 credits)

Any course listed in section C or D, may serve as an elective. In addition courses listed below may also serve as an elective.

CMST 2250 - Introductory Internship/Co-op 1-6 1

CMST 3000 - Speech Communication Teaching Practicum 1 (repeatable)

CMST 4250 - Advanced Internship/Co-op 1-6 1

CMST 5000 - Studies in Speech Communication 1-5 (repeatable) (3 credits required)

CMST 5280 - Communication Education Theory 3

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

Note:

1 Internship project and number of credits must be approved by an advisor.

#### Minimum University Requirements

##### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

French - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

FREN 3060 or FREN 4060; or FREN 3090 or FREN 3510 or FREN 4090 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Course Requirements

#### Language Major Requirements

#### French Major and Minor Requirements

#### Minimum Departmental Requirements

#### Total Credits:

French Major 33

French Major, Teaching Emphasis 35 FREN & 27 SCED

French Minor 12

French Minor, Teaching Emphasis 20 FREN & 27 SCED

French Major, Teaching Emphasis without licensure 35

French Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major or minor credits must be earned at USU

#### Note:

Courses for French Majors and Minors require a minimum of C- or better.

Courses for French Majors and Minors may not be taken on a Pass/ Fail Basis (except for FREN 3030).

French Major (33 credits) (2.5 GPA)

#### A. Required Course (3 credits)

LING 4100 - The Study of Language 3 3

#### B. Elective Courses (30 credits minimum)

Students must complete at least 30 credits of upper-division coursework selected from the following list.

FREN 3030 - Advanced French for Everyday Communication 3

FREN 3060 - French Conversation (CI) 3 1

FREN 3070 - Advanced French Study Abroad I 4 6,7

FREN 3080 - Advanced French Study Abroad II 4 6,7

FREN 3090 - French Intermediate Written Communication (CI) 3

FREN 3500 - Topics in French Literature in Translation (DHA) 3

FREN 3510 - Business French (CI) 3

FREN 3550 - French Civilization (DHA) 3

FREN 3570 - France Today 3

FREN 3600 - Textual Analysis 3 4

FREN 3820 - Advanced Independent Study: Experiencing Paris 2 6,7

FREN 3880 - Individual Readings 1-4

FREN 3900 - Topics in French and Francophone Studies 3

FREN 4060 - Advanced French Conversation (CI) 3 2

FREN 4090 - Advanced Written Communication (CI) 3

FREN 4200 - Applied French Linguistics and Phonetics 3 3,5

FREN 4610 - Period Studies in French Literature (DHA) 3

FREN 4620 - Genre Studies in French Literature (DHA) 3

FREN 4880 - Individual Readings 1-4

FREN 4900 - Seminar in French and Francophone Studies 3

FREN 4920 - French Language Tutoring 1 2 (1-2 credits allowed)

LING 2100 - Languages in Society (BSS) 3 or

LING 3100 - Language in Context 3

LING 4900 - Analysis of Cross-Cultural Difference 3 or

CMST 3330 - Intercultural Communication (DSS) 3

Note:

Students should note that no more than two upper-division French courses taught in English can be applied toward the French majors.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

French - Teaching Emphasis - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

FREN 3060 or FREN 4060; or FREN 3090 or FREN 4090 or FREN 3510 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Course Requirements

##### Language Major Requirements

##### French Major and Minor Requirements

##### Minimum Departmental Requirements

##### Total Credits:

French Major 33

French Major, Teaching Emphasis 35 FREN & 27 SCED

French Minor 12

French Minor, Teaching Emphasis 20 FREN & 27 SCED

French Major, Teaching Emphasis without licensure 35

French Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major or minor credits must be earned at USU

Note:

Courses for French Majors and Minors require a minimum of C- or better.

Courses for French Majors and Minors may not be taken on a Pass/ Fail Basis (except for FREN 3030).

French Major - Teaching Emphasis with Secondary School Licensure (35 FREN credits & 27 SCED credits) (2.5 GPA)

Note:

The following requirements only specify courses offered by the Department of Languages, Philosophy, and Communication Studies. To be licensed to teach in the Utah public secondary school system, students with a teaching emphasis must also complete additional courses (approximately 31 credits) required by the Secondary Education Program. For more information, please contact the Secondary Education Program, Education Building 330, or review the supplementary section, entitled Secondary Teacher Education Program (STEP) Level Outline .

#### I. French and Linguistics Courses (35 credits)

##### A. Required Courses (29 credits)

LING 4100 - The Study of Language 3 3

FREN 4200 - Applied French Linguistics and Phonetics 3 3,5

FREN 3060 - French Conversation (CI) 3 1 or

FREN 4060 - Advanced French Conversation (CI) 3 1

FREN 3090 - French Intermediate Written Communication (CI) 3 or

FREN 4090 - Advanced Written Communication (CI) 3

FREN 3550 - French Civilization (DHA) 3 or

FREN 3570 - France Today 3

FREN 3600 - Textual Analysis 3 4

FREN 4610 - Period Studies in French Literature (DHA) 3

FREN 4620 - Genre Studies in French Literature (DHA) 3

FREN 4920 - French Language Tutoring 1 2

LING 4300 - Clinical Experience II 1 8 (LING 4300 and LING 4400 are also listed within the STEP program courses)

LING 4400 - Teaching Modern Languages 3 8

#### B. Elective Courses (6 credits)

Students must complete 6 additional upper-division credits in coursework either not taken above or from the following list:

FREN 3030 - Advanced French for Everyday Communication 3

FREN 3070 - Advanced French Study Abroad I 4 6,7

FREN 3080 - Advanced French Study Abroad II 4 6,7

FREN 3500 - Topics in French Literature in Translation (DHA) 3

FREN 3510 - Business French (CI) 3

FREN 3820 - Advanced Independent Study: Experiencing Paris 2 6,7

FREN 3880 - Individual Readings 1-4

FREN 3900 - Topics in French and Francophone Studies 3

FREN 4880 - Individual Readings 1-4

FREN 4900 - Seminar in French and Francophone Studies 3

LING 2100 - Languages in Society (BSS) 3 or

LING 3100 - Language in Context 3

LING 4900 - Analysis of Cross-Cultural Difference 3 or

CMST 3330 - Intercultural Communication (DSS) 3

Note:

1 Students with foreign experience may be advised to enroll in FREN 3060 or FREN 4060 , depending upon results of a placement test and/or instructor's determination.

2 Only two credits of FREN 4920 may count toward the French Major or French Major— Teaching Emphasis.

3 It is recommended that LING 4100 be taken before FREN 4200 .

4 This course may be repeated one time for credit with different content.

5 Students should take FREN 4200 near the end of their coursework. Please note that FREN 4200 is offered every other year.

6 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPSC office prior to participating.

7 This course may be repeated for additional credit.

8 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the French Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information at bottom of page

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies

27 credits

Most of the courses listed below count for both teaching major emphasis and the teaching minor.

#### A. Level 1 (first semester in program)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may be taken earlier)

#### B. Level 2

LING 4300 - Clinical Experience II 1 1,3

LING 4400 - Teaching Modern Languages 3 2,3 (LING 4300 and LING 4400 are also listed within Major program courses)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Clinical Experience II course is taught under course number 4300 in various departments. Course title varies among departments.

2 The Special Methods II course is taught under course number 4400.

3 LING 4300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the major or minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the French/German/Spanish Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information below.

French Major and/or Minor—Teaching Emphasis without Secondary School Licensure (major 35 credits, minor 20 credits) (2.5 GPA)

It is possible to have a teaching emphasis within a major or minor in French without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able to teach in Utah public schools (nor at many private ones). Graduating without licensure may allow employment at some community colleges and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to teal.usu.edu and click on undergraduate programs, and then secondary programs.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

French Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Course Requirements

French Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

French Major 33

French Major, Teaching Emphasis 35 FREN & 27 SCED

French Minor 12

French Minor, Teaching Emphasis 20 FREN & 27 SCED

French Major, Teaching Emphasis without licensure 35

French Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5

Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be  
earned at USU

Note:

Courses for French Majors and Minors require a  
minimum of C- or better.

Courses for French Majors and Minors may not be taken  
on a Pass/ Fail Basis (except for FREN 3030)

French Minor (12 credits) (2.5 GPA)

Elective Courses (12 credits)

Students must complete at least 12 credits of upper-  
division coursework selected from the following list:

FREN 3030 - Advanced French for Everyday  
Communication 3

FREN 3060 - French Conversation (CI) 3

FREN 3070 - Advanced French Study Abroad I 4 5

FREN 3080 - Advanced French Study Abroad II 4 5

FREN 3090 - French Intermediate Written  
Communication (CI) 3 1

FREN 3500 - Topics in French Literature in Translation  
(DHA) 3

FREN 3510 - Business French (CI) 3

FREN 3550 - French Civilization (DHA) 3

FREN 3570 - France Today 3

FREN 3600 - Textual Analysis 3 2

FREN 3820 - Advanced Independent Study: Experiencing  
Paris 2 5

FREN 3880 - Individual Readings 1-4

FREN 3900 - Topics in French and Francophone Studies 3

FREN 4060 - Advanced French Conversation (CI) 3

FREN 4090 - Advanced Written Communication (CI) 3 1

FREN 4200 - Applied French Linguistics and Phonetics 3  
4

FREN 4610 - Period Studies in French Literature (DHA) 3

FREN 4620 - Genre Studies in French Literature (DHA) 3

FREN 4880 - Individual Readings 1-4

FREN 4900 - Seminar in French and Francophone Studies  
3

FREN 4920 - French Language Tutoring 1 3 (1-2 credits  
allowed)

Note:

1 Students with foreign experience may be advised to  
enroll in FREN 3090 or FREN 4090, depending upon  
results of a placement test and/or instructor's  
determination.

2 This course may be repeated one time for credit with  
different content.

3 Only one credit of FREN 4920 may count toward the  
French Minor or French Minor—Teaching Emphasis.

4 Students should take FREN 4200 near the end of their  
coursework. Please note that FREN 4200 is offered every  
other year.

5 Students desiring to apply study abroad credits toward  
these degrees must obtain approval from the LPSC office  
prior to participating.

Return to: Academic Departments and Programs

French Minor Teaching Emphasis

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and  
Communication Studies

Course Requirements

French Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

French Major 33

French Major, Teaching Emphasis 35 FREN & 27 SCED

French Minor 12

French Minor, Teaching Emphasis 20 FREN & 27 SCED

French Major, Teaching Emphasis without licensure 35

French Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be  
earned at USU

Note:

Courses for French Majors and Minors require a  
minimum of C- or better.

Courses for French Majors and Minors may not be taken  
on a Pass/ Fail Basis (except for FREN 3030)

French Minor—Teaching Emphasis with Secondary  
School Licensure (47 credits) (2.5 GPA)

Note:

The following requirements only specify courses offered  
by the Department of Languages, Philosophy, and  
Communication Studies. To be licensed to teach in Utah  
public secondary school system, students with a teaching  
emphasis must also complete additional courses  
(approximately 31 credits) required by the Secondary  
Education Program. For more information, please contact  
the Secondary Education Program, Education Building  
330, or review the supplementary section, entitled  
Secondary Teacher Education Program (STEP) Level  
Outline.

Students should note that only one credit of FREN 4920  
may count toward the French Minor—Teaching  
Emphasis. In addition, courses taken for the French  
minor programs may not be taken on a pass/fail basis,  
with the exception of FREN 3030.

I. French and Linguistics Courses (20 credits)

A. Required Courses (17 credits)

FREN 3090 - French Intermediate Written  
Communication (CI) 3 1 or

FREN 4090 - Advanced Written Communication (CI) 3 1

FREN 3550 - French Civilization (DHA) 3 or

FREN 3570 - France Today 3

FREN 3600 - Textual Analysis 3 2

FREN 4200 - Applied French Linguistics and Phonetics 3  
4

FREN 4920 - French Language Tutoring 1 3

LING 3300 - Clinical Experience I 1 6

LING 4400 - Teaching Modern Languages 3 6 (LING 3300  
and LING 4400 are also listed within STEP program  
courses)

B. Elective Courses (3 credits)

Students must complete an additional three credits in  
coursework selected from the following list:

FREN 4610 - Period Studies in French Literature (DHA) 3

FREN 4620 - Genre Studies in French Literature (DHA) 3

LING 4900 - Analysis of Cross-Cultural Difference 3 or

CMST 3330 - Intercultural Communication (DSS) 3

FREN 3030 - Advanced French for Everyday  
Communication 3 5

FREN 3070 - Advanced French Study Abroad I 4 5

FREN 3080 - Advanced French Study Abroad II 4 5

FREN 3500 - Topics in French Literature in Translation  
(DHA) 3

FREN 3510 - Business French (CI) 3

FREN 3820 - Advanced Independent Study: Experiencing Paris 2 5

FREN 3880 - Individual Readings 1-4

FREN 4880 - Individual Readings 1-4

FREN 4900 - Seminar in French and Francophone Studies 3

Note:

1 Students with foreign experience may be advised to enroll in FREN 3090 or FREN 4090, depending upon results of a placement test and/or instructor's determination.

2 This course may be repeated one time for credit with different content.

3 Only one credit of FREN 4920 may count toward the French Minor or French Minor—Teaching Emphasis.

4 Students should take FREN 4200 near the end of their coursework. Please note that FREN 4200 is offered every other year.

5 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPSC office prior to participating.

6 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the French Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See additional non-licensure information at bottom of page.

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies (27 credits)

Most of the courses listed below count for both the teaching emphasis and the teaching minor.

A. Level I (first semester in program)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may be taken earlier)

B. Level 2

LING 3300 - Clinical Experience I 1 2

LING 4400 - Teaching Modern Languages 3 1,2 (LING 3300 and LING 4400 are also listed within Minor program courses)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Special Methods II course is taught under course number 4400.

2 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the French/German Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See non-licensure information below.

French Major and/or Minor—Teaching Emphasis without Secondary School Licensure (major 35 credits, minor 20 credits) (2.5 GPA)

It is possible to have a teaching emphasis within a major or minor in French without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able to teach in Utah public schools (nor at many private

ones). Graduating without licensure may allow employment at some community colleges and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to [teal.usu.edu](http://teal.usu.edu) and click on undergraduate programs, and then secondary programs.

Return to: Academic Departments and Programs

German - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

GERM 3040, GERM 3050 and GERM 3540 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Language Major Requirements

German Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

German Major 33

German Major, Teaching Emphasis 35 GERM & 27 SCED

German Minor 12

German Minor, Teaching Emphasis 20 GERM & 27 SCED  
German Major, Teaching Emphasis without licensure 35  
German Minor, Teaching Emphasis without licensure 20  
Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be  
earned at USU

Note:

Courses for German Majors and Minors require a  
minimum of C- or better.

Courses for German Majors and Minors may not be taken  
on a Pass/ Fail Basis.

German Major (33 credits) (2.5 GPA)

A. Required Course (3 credits)

LING 4100 - The Study of Language 3 2

B. Elective Courses (30 credits)

Students must complete at least 30 credits of upper-  
division coursework from the following list.

GERM 3000 - Introduction to German Studies (DHA) 3

GERM 3040 - Advanced German Grammar and  
Composition (CI) 3

GERM 3050 - Advanced German Grammar and  
Composition (CI) 3

GERM 3300 - Contemporary German Speaking Cultures  
(DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3540 - Techniques in Translating German Texts  
(CI) 3

GERM 3550 - Cultural History of German Speaking  
Peoples (DHA) 3

GERM 3600 - Survey of German Literature I (DHA) 3

GERM 3610 - Survey of German Literature II (DHA) 3

GERM 3800 - German III Study Abroad 1-4 (3 credits  
required)

GERM 3880 - Individual Readings 1-4

GERM 4200 - Applied German Linguistics and Phonetics  
3 3

GERM 4610 - German Narratives 3

GERM 4650 - Trends in Modern German Literature  
(DHA) 3

GERM 4800 - German IV Study Abroad 1-4

GERM 4880 - Individual Readings 1-4

GERM 4900 - Special Topics 3

GERM 4910 - German for Special Purposes 3

GERM 4920 - German Language Tutoring 1 1

Also one of the following four courses:

CMST 3330 - Intercultural Communication (DSS) 3

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

LING 4900 - Analysis of Cross-Cultural Difference 3

Note:

Credits obtained in lower-division German courses  
cannot be applied toward the German major programs.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

German - Teaching Emphasis - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements .

Students must also complete the University Studies Depth Requirements :

GERM 3040 and GERM 3050 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these

goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Language Major Requirements

German Major and Minor Requirements

Minimum Departmental Requirements

## Total Credits:

German Major 33

German Major, Teaching Emphasis 35 GERM & 27 SCED

German Minor 12

German Minor, Teaching Emphasis 20 GERM & 27 SCED

German Major, Teaching Emphasis without licensure 35

German Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be  
earned at USU

### Note:

Courses for German Majors and Minors require a  
minimum of C- or better.

Courses for German Majors and Minors may not be taken  
on a Pass/ Fail Basis.

German Major - Teaching Emphasis with Secondary  
School Licensure (35 GERM credits & 27 SCED credits)  
(2.5 GPA)

### Note:

The following requirements only specify courses offered  
by the Department of Languages, Philosophy, and  
Communication Studies. To be licensed to teach in the  
Utah public secondary school system, students with a  
teaching emphasis must also complete additional courses  
(approximately 31 credits) required by the Secondary  
Education Program. For more information, please contact  
the Secondary Education Program, Education Building  
330, or review the supplementary section, entitled  
Secondary Teacher Education Program (STEP) Level  
Outline.

## I. German and Linguistics Courses (35 credits)

### A. Required Courses (23 credits)

GERM 3000 - Introduction to German Studies (DHA) 3

GERM 3040 - Advanced German Grammar and  
Composition (CI) 3

GERM 3300 - Contemporary German Speaking Cultures  
(DHA) 3 or

GERM 3550 - Cultural History of German Speaking  
Peoples (DHA) 3

GERM 4200 - Applied German Linguistics and Phonetics  
3 3

GERM 4920 - German Language Tutoring 1 1

LING 4100 - The Study of Language 3 2

LING 4900 - Analysis of Cross-Cultural Difference 3 or

CMST 3330 - Intercultural Communication (DSS) 3

LING 4300 - Clinical Experience II 1 4

LING 4400 - Teaching Modern Languages 3 4 (LING 4300  
and LING 4400 are also listed within STEP program  
courses)

### B. Elective Courses (12 credits)

GERM 3300 - Contemporary German Speaking Cultures  
(DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3540 - Techniques in Translating German Texts  
(CI) 3

GERM 3550 - Cultural History of German Speaking  
Peoples (DHA) 3

GERM 3600 - Survey of German Literature I (DHA) 3

GERM 3610 - Survey of German Literature II (DHA) 3

GERM 3800 - German III Study Abroad 1-4

GERM 3880 - Individual Readings 1-4

GERM 4610 - German Narratives 3

GERM 4880 - Individual Readings 1-4

GERM 4900 - Special Topics 3

GERM 4910 - German for Special Purposes 3

GERM 4920 - German Language Tutoring 1

### Note:

1 Only 2 credits of GERM 4920 may count toward the  
German major.

2 LING 4100 should be taken at the beginning of the student's coursework.

3 GERM 4200 should be taken near the end of the student's coursework. However, GERM 4200 is not offered every year. Therefore, students should check to see when the course will be offered.

4 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the German Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information at bottom of page.

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies

27 credits

Most of the courses listed below count for both teaching major emphasis and the teaching minor.

A. Level 1 (first semester in program)

ITLS 4015 - Technology Tools and Integration for  
Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may  
be taken earlier)

B. Level 2

LING 4300 - Clinical Experience II 1 1,3

LING 4400 - Teaching Modern Languages 3 2,3 (LING  
4300 and LING 4400 are also listed within Major  
program courses)

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Clinical Experience II course is taught under course number 4300 in various departments. Course title varies among departments.

2 The Special Methods II course is taught under course number 4400.

3 LING 4300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the major or minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the French/German/Spanish Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information below.

German Major and/or Teaching Emphasis without  
Secondary School Licensure (major 35 credits, minor 20  
credits) (2.5 GPA)

It is possible to have a teaching emphasis within a major or minor in German without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able to teach in Utah public schools (nor at many private ones). Graduating without licensure may allow employment at some community colleges and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to [teal.usu.edu](http://teal.usu.edu) and click on undergraduate programs, and then secondary programs.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

German Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Course Requirements

German Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

German Major 33

German Major, Teaching Emphasis 35 GERM & 27 SCED

German Minor 12

German Minor, Teaching Emphasis 20 GERM & 27 SCED

German Major, Teaching Emphasis without licensure 35

German Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major or minor credits must be earned at USU

Note:

Courses for German Majors and Minors require a minimum of C- or better.

Courses for German Majors and Minors may not be taken on a Pass/ Fail Basis.

German Minor (12 credits) (2.5 GPA)

Elective Courses (12 credits)

Students must complete at least 12 credits of upper-division coursework selected from the following list:

GERM 3000 - Introduction to German Studies (DHA) 3

GERM 3040 - Advanced German Grammar and Composition (CI) 3

GERM 3050 - Advanced German Grammar and Composition (CI) 3

GERM 3300 - Contemporary German Speaking Cultures (DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3540 - Techniques in Translating German Texts (CI) 3

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

GERM 3600 - Survey of German Literature I (DHA) 3

GERM 3610 - Survey of German Literature II (DHA) 3

GERM 3800 - German III Study Abroad 1-4 3

GERM 3880 - Individual Readings 1-4

GERM 4200 - Applied German Linguistics and Phonetics  
3 2

GERM 4610 - German Narratives 3

GERM 4650 - Trends in Modern German Literature  
(DHA) 3

GERM 4800 - German IV Study Abroad 1-4 3

GERM 4880 - Individual Readings 1-4

GERM 4900 - Special Topics 3

GERM 4910 - German for Special Purposes 3

GERM 4920 - German Language Tutoring 1 1

Note:

1 Only 2 credits of GERM 4920 may count toward the German major.

2 GERM 4200 should be taken near the end of the student's coursework. However, GERM 4200 is not offered every year. Therefore, students should check to see when the course will be offered.

3 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPSC office prior to participating.

Return to: Academic Departments and Programs

German Minor Teaching Emphasis

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and  
Communication Studies

Course Requirements

German Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

German Major 33

German Major, Teaching Emphasis 35 GERM & 27 SCED

German Minor 12

German Minor, Teaching Emphasis 20 GERM & 27 SCED

German Major, Teaching Emphasis without licensure 35

German Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 2.5  
Career GPA

Grade Point Average to Graduate with Major or Minor 2.5  
GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be  
earned at USU

Note:

Courses for German Majors and Minors require a  
minimum of C- or better.

Courses for German Majors and Minors may not be taken  
on a Pass/ Fail Basis.

German Minor—Teaching Emphasis with Licensure (47  
credits) (2.5 GPA)

Note:

The following requirements only specify courses offered  
by the Department of Languages, Philosophy, and  
Communication Studies. To be licensed to teach in the  
Utah public secondary school system, students with a  
teaching emphasis must also complete additional courses  
(approximately 27 credits) required by the Secondary  
Education Program. For more information, please contact  
the Secondary Education Program, Education Building  
330, or review the supplementary section, entitled  
Secondary Teacher Education Program (STEP) Level  
Outline.

Students should note that only 1 credit from GERM 4920  
may count toward the German Minor—Teaching  
Emphasis. In addition, courses taken for the German  
minor programs may not be taken on a pass/fail basis.

I. German and Linguistics Courses (20 credits)

A. Required Courses (17 credits)

GERM 3040 - Advanced German Grammar and  
Composition (CI) 3

GERM 3300 - Contemporary German Speaking Cultures  
(DHA) 3 or

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

GERM 4200 - Applied German Linguistics and Phonetics 3 2

GERM 4920 - German Language Tutoring 1 1

LING 4900 - Analysis of Cross-Cultural Difference 3 or

CMST 3330 - Intercultural Communication (DSS) 3

LING 3300 - Clinical Experience I 1 4

LING 4400 - Teaching Modern Languages 3 4 (LING 3300 and LING 4400 are also listed within STEP program courses)

#### B. Elective Courses (3 credits)

GERM 3300 - Contemporary German Speaking Cultures (DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3540 - Techniques in Translating German Texts (CI) 3

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

GERM 3600 - Survey of German Literature I (DHA) 3

GERM 3610 - Survey of German Literature II (DHA) 3

GERM 3800 - German III Study Abroad 1-4 3

GERM 3880 - Individual Readings 1-4

GERM 4610 - German Narratives 3

GERM 4650 - Trends in Modern German Literature (DHA) 3

GERM 4800 - German IV Study Abroad 1-4 3

GERM 4880 - Individual Readings 1-4

GERM 4900 - Special Topics 3

GERM 4910 - German for Special Purposes 3

Note:

1 Only 2 credits of GERM 4920 may count toward the German major.

2 GERM 4200 should be taken near the end of the student's coursework. However, GERM 4200 is not offered every year. Therefore, students should check to see when the course will be offered.

3 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPSC office prior to participating.

4 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the German Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See additional non-licensure information at bottom of page.

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies (27 credits)

Most of the courses listed below count for both the teaching emphasis and the teaching minor.

#### A. Level I (first semester in program)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may be taken earlier)

#### B. Level 2

LING 3300 - Clinical Experience I 1 2

LING 4400 - Teaching Modern Languages 3 1,2 (LING 3300 and LING 4400 are also listed within Minor program courses)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

#### C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course

listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Special Methods II course is taught under course number 4400.

2 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the French/German Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See non-licensure information below.

German Major and/or Teaching Emphasis without Secondary School Licensure (major 35 credits, minor 20 credits) (2.5 GPA)

It is possible to have a teaching emphasis within a major or minor in German without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able to teach in Utah public schools (nor at many private ones). Graduating without licensure may allow employment at some community colleges and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to [teal.usu.edu](http://teal.usu.edu) and click on undergraduate programs, and then secondary programs.

Return to: Academic Departments and Programs

Global Communication - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Course Requirements

Global Communication Major Requirements

Minimum Departmental Requirements

## Total Credits:

Global Communication Major  
36

Grade Point Average to Declare a Major or Minor  
2.5 Career GPA

Grade Point Average to Graduate with Major  
2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU

### Note:

Courses for the Global Communication Major require minimum grades of C- or better

Courses for the Global Communication Major may not be taken on a Pass/Fail basis

Global Communication Major Requirements (36 credits)  
(2.5 GPA)

### Note:

No more than 9 credit hours of the Global Communication major can overlap with an additional declared major.

As many as 18 credits completed at other colleges or universities may be used to partially satisfy these requirements. For more information, students should contact their advisor.

Students must earn an overall GPA of at least 2.5 in all classes applied toward the major.

### A. Culture General Requirement (6 credits)

CMST 3330 - Intercultural Communication (DSS) 3

CMST 4330 - Communication in a Global Era 3 or

LANG 4330 - Communication in a Global Era 3

### B. Communication Requirement (9 credits)

#### Area I

CMST 2110 - Interpersonal Communication (BHU/HR) 3  
or

CMST 3400 - Persuasion (CI) 3 or

CMST 4200 - Language, Thought, and Action (DSS) 3

#### Area II

CMST 3250 - Organizational Communication (CI) 3 or

CMST 3500 - Communication and Leadership 3 or

CMST 4350 - Organizations and Social Change 3

#### Area III

CMST 3270 - Culture and Public Discourse 3 or

CMST 3700 - Introduction to Health Communication 3 or

CMST 3600 - Communication and Conflict 3

### C. Ethics Requirement (3 credits)

PHIL 1120 - Social Ethics (BHU) 3 or

PHIL 2400 - Ethics (BHU) 3 or

PHIL 3520 - Business Ethics (DHA) 3

### D. World Affairs Requirement (6 credits)

ANTH 3130 - Peoples of Latin America (CI) 3

ENGL 3700 - Regional Folklore (CI) 3

ENGL 5700 - Folk Narrative 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3330 - The Soviet Union and its Heirs 3

HIST 3410 - The Modern Middle East 3

HIST 3481 - China's Cultural Revolution 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3490 - Modern Japan 3

HIST 3510 - Africa and the World 3

HIST 3560 - Modern East Asia (DHA) 3

HIST 3630 - History of Modern Latin America 3

HIST 3640 - History of Social Movements in Latin America 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

LANG 3550 - Culture of East Asia (DHA) 3

LANG 3570 - Narrative Ethics in Asian Literature and Film 3

LING 3100 - Language in Context 3

POLS 3100 - Global Issues 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 4210 - European Union Politics 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4410 - Global Negotiations 3

E. Language/Culture Specific Requirement (9 credits)

One course with 3 or 4 credits are required from each of the three options below. Important: All three language courses must be from the same language.

Option I - One 3000 level language grammar course from the following:

ARBC 3010 - Advanced Arabic I 3

CHIN 3010 - Chinese Third Year I 4 or

CHIN 3020 - Chinese Third Year II 4

FREN 3060 - French Conversation (CI) 3 or

FREN 3090 - French Intermediate Written Communication (CI) 3

GERM 3040 - Advanced German Grammar and Composition (CI) 3

JAPN 3010 - Japanese Third Year I 4 or

JAPN 3020 - Japanese Third Year II 4

PORT 3040 - Advanced Portuguese Grammar and Composition (CI) 3

RUSS 3040 - Advanced Russian Grammar and Composition 3 or

RUSS 3050 - Advanced Russian Grammar and Composition 3

SPAN 3040 - Advanced Spanish Grammar 3 or

SPAN 3060 - Advanced Spanish Conversation and Composition (CI) 3

Option II - One language specific business course from the following:

ARBC 4040 - Language and Culture of the Arab World 3

CHIN 3510 - Chinese Business Language 3

FREN 3510 - Business French (CI) 3

GERM 3510 - Business German (CI) 3

JAPN 3510 - Japanese for the Business Environment 3

PORT 3540 - Introduction to Translation Studies in Portuguese 3 or

PORT 3510 - Business Portuguese 3

RUSS 3510 - Business Russian (CI) 3

SPAN 3510 - Business Spanish 3

Option III - One culture, history or civilization course from the following:

ARBC 3030 - Introduction to Islam (DHA) 3

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

FREN 3550 - French Civilization (DHA) 3 or

FREN 3570 - France Today 3

GERM 3000 - Introduction to German Studies (DHA) 3 or

GERM 3300 - Contemporary German Speaking Cultures (DHA) 3 or

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

JAPN 3100 - Readings in Contemporary Japanese Culture 3

PORT 3400 - Popular Music in the Portuguese-Speaking World 3

RUSS 3300 - Contemporary Russian Language and Culture (DHA) 3

SPAN 3550 - Spanish Culture and Civilization (DHA) 3 or

SPAN 3560 - Introduction to U.S. Latino/a Culture 3 or

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

## F. Practicum (3 credits)

The Practicum may not be completed (not concurrent enrollment) until the student has taken at least one course in each of the five areas (A-E) shown above. This practicum should tie together various elements of the program through practical experience, in-service learning, or internship experience in a cultural community distinct from the student's own culture. Approval for a particular practicum experience must be granted by the student's Faculty advisor and the LPCS Department Head prior to the experience. Please visit with the Faculty advisor early in the decision process.

CMST 5950 - Global Communication Practicum 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Japanese Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Japanese Minor

12

Grade Point Average to Declare Minor

2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes 2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors require a minimum grade of C- or better.

Select 12 credits from the following courses:

JAPN 3010 - Japanese Third Year I 4

JAPN 3020 - Japanese Third Year II 4

JAPN 3050 - Japanese Calligraphy 1 1

JAPN 3100 - Readings in Contemporary Japanese Culture 3

JAPN 3510 - Japanese for the Business Environment 3

JAPN 3560 - Studies in Japanese Film 3

JAPN 4920 - Japanese Language Tutoring 1 1

Note:

1 This course is repeatable for credit, and may be taken a maximum of three times.

Return to: Academic Departments and Programs

## Liberal Arts - BA

### Return to: Academic Departments and Programs

#### College of Humanities and Social Sciences

#### Department of Languages, Philosophy and Communication Studies

Department Head: Bradford 'J' Hall

Location: Main 204

Phone: (435) 797-8757

E-mail: [brad.hall@usu.edu](mailto:brad.hall@usu.edu)

Program Director: Harrison Kleiner

Location: Main 311

Phone: (435) 797-2388

FAX: (435) 797-1392

E-mail: [harrison.kleiner@usu.edu](mailto:harrison.kleiner@usu.edu)

Advisor: Susan Parkinson

Location: Student Center 302

Phone: (435) 797-3883

FAX: (435) 797-2096

E-mail: [susie.parkinson@usu.edu](mailto:susie.parkinson@usu.edu)

Degree Offered: Bachelor of Arts (BA) in Liberal Arts

The Liberal Arts Major offers a broad and challenging course of study in the humanities, sciences, arts, and social sciences. Emphasizing a multidisciplinary approach to learning, the program encourages the student to seek a full, creative and satisfying expression of his or her individual talents and abilities. By challenging the student's intellectual curiosity, scholarly habits and attitudes for lifelong education and discovery are developed.

Through close work with a Liberal Arts advisor, each student develops an individualized program of study. The program offers the opportunity for coursework to prepare for employment or further professional training. Students should define their learning goals early in the program, to make course choices easier. Promoting a synthesis of knowledge between and among disciplines, the student can integrate an understanding of social,

cultural, scientific, and political bases of world cultures. To increase knowledge and understanding, the Liberal Arts major requires a demonstration of competence in five major areas:

1. Communication Skills. The ability to speak and write effectively enhances educational and employment opportunities. In addition to courses in writing and interpersonal communication, a student needs two years of a foreign language. This sharpens English language skills and provides abilities for international business opportunities.

2. Civic and Social Skills. Students in the Liberal Arts major are expected to increase their social concerns, participate in political processes, and demonstrate leadership in civic decision-making processes. As such, students are encouraged to broaden their understanding of history, sociology, political science, and philosophy.

3. Analytical Skills. Found in science, mathematics, and many social sciences and humanities classes, analytical skills enable students to analyze problems, develop solutions, and come to understand the physical world around them.

4. Human Relations Skills. Liberal Arts students tend to be people-oriented. Studies in psychology, communication, sociology, and even biological sciences develop an increased understanding and appreciation of the needs of others and of oneself.

5. Personal Competencies. Students are encouraged to establish personal goals and enroll in courses related to professional aspirations or future employment.

Through a multi-disciplinary but coherent approach to learning, the program meets the needs of students majoring in professional fields, as well as those desiring a general background for adaptability and mobility in employment. The Liberal Arts Major offers USU students the training required to be competitive and to contribute effectively in the organizations, professions, and communities of the twenty-first century.

Although the emphasis of this major is in the humanities and social sciences, the student is encouraged to seek out other educational interests as part of an academic program. The following credit distribution will be typical of most students:

University Studies (30 credits)

The University Studies Program (which is required for all students seeking a bachelor's degree) consists of two sets of requirements: General Education Requirements and University Studies Depth Requirements. Included in the General Education Requirements are Competency Requirements, including Communications Literacy and Quantitative Literacy. General Education also includes Breadth Requirements in the areas of American Institutions, Creative Arts, Humanities, Life Sciences, Physical Sciences, and Social Sciences. To complete the Depth Education Requirements, students must complete two Communications Intensive courses, one Quantitative Intensive course, and two Depth courses. For more information about the University Studies Program, as well as lists of courses approved for meeting University Studies Requirements in this catalog. Students should consult with the program advisor to determine which University Studies courses will best meet their learning goals.

### Focus of Study

The guiding philosophy for the Liberal Arts major is to promote a broadly-based liberal education, providing the student with an understanding and appreciation of history and historical processes, for social and cultural development, for expanded capacities for critical thought, and understandings of the legal and ethical foundations of society.

"The chief ends of a liberal education are a better understanding of the world, a mind disciplined to think accurately and fairly, and discrimination about values."  
—Professor Brand Blanchard, from *The Uses of a Liberal Education*

### Program Requirements

Admission GPA: 2.5 USU cumulative, 2.5 minimum career total

#### Major Requirements:

Minimum Grade: C in major courses

Minimum Graduation GPA: 2.5 in major courses, 2.0 USU cumulative

Number of Required Credits: 36, 18 must be in upper-division courses

Other Requirements for Major: Must complete the University's Bachelor of Arts requirements

The focus of study for the Liberal Arts major is to help students gain a basic understanding of the development of civilization, including historical and cultural traditions, political institutions and processes, an appreciation of arts and literature, and expanded capacities for critical thought. Students will work with an academic advisor to develop a program of interdisciplinary courses which will provide this base of knowledge. Although the student's program should be outlined and approved by the academic advisor, the student will be able to choose from a number of courses and disciplines in defining his or her program of study. The program requirements are as listed:

Four goals for learning have been identified, and courses are selected to fulfill these goals.

Students must choose 9 credits of coursework from each goal for a total of 36 credits.

Students must complete courses from a minimum of two different departments listed under each goal.

Of the 36 total credits, students must earn 18 credits in courses numbered 3000 or higher.

All credits counting in the 36-credit minimum must have a letter grade of C or better and cannot be taken pass/fail.

At least 18 credits used in the goal areas must be completed at USU.

At least 18 credits used in the goal areas must be no older than 10 years.

The Liberal Arts Goal areas as structured as follows:

#### Goal 1— Historical and Cultural Traditions

Purpose: To acquire an understanding of the historical and cultural traditions of Western and/or other civilizations.

(9 credits minimum)

Students must choose courses from at least two of the following areas:

- Any History Courses
- Any Anthropology Courses
- Any Folklore Courses
- Any Religious Studies Courses

- World/Regional Geography Courses

- Upper-division Language Courses dealing with culture or civilization (Does not include grammar or conversation courses.)

- Selected Linguistics Courses dealing with culture or civilization

Goal 2— Social and Legal Institutions

Purpose: To develop an understanding of social and legal institutions.

(9 credits minimum)

Students must choose courses from at least two of the following areas:

- Any Sociology Courses
- Any Political Science Courses
- Any Family, Consumer, and Human Development Courses
- Any Economics Courses (except orientation courses)
- Any Psychology Courses (except for study skills or career exploration courses)
- Any Management Courses (except orientation courses or leadership courses)

Goal 3— Arts and Literature

Purpose: To develop and strengthen an appreciation of the arts and literature.

(9 credits minimum)

Courses selected must be theory or history based, not skill based.

Students must choose courses from at least two of the following areas:

- Art
- Theatre Arts
- Music
- Literature (English or Upper-division Foreign Language Courses)
- Selected Landscape Architecture and Environmental Planning Courses

- Selected Interior Design Courses

Goal 4— Critical Thinking, Reasoning and Ethical Inquiry

Purpose: To promote habits of critical, reasonable, and ethical inquiry, providing logic and intellectual integrity in seeking truths.

(9 credits minimum)

Students must choose courses from at least two of the following areas:

- Any Philosophy Courses
- Any departmental Ethics Courses
- Upper-division Speech Courses dealing with persuasion, debate, influence, and argumentation.
- Other courses from other areas may be approved in the goals by consultation with the academic advisor.

"Methods Course" Requirement: A Statistics or methods course must be taken as part of the 9-credit minimum for Goal 4 if not taken as a part of the University Studies Quantitative Literacy requirement.

Foreign Language Requirement

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages or American Sign Language. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of American Sign Language IV (COMD 4920) and Socio-Cultural Aspects of Deafness (COMD 4780), and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Second Majors/Minors/Area Studies Certificates

Students in the Liberal Arts major are strongly encouraged, but not required, to seek out second majors, strong minors, or area studies certificates, which provide knowledge and prerequisite skills for further professional education or to improve opportunities for employment in the public or private sectors. Students may not use coursework from the Liberal Arts major to fulfill requirements for either their minor(s) or dual major.

#### Pre-professional and Elective Credits

Depending on a student's career objectives, a student may take courses leading to further study in medicine, law, business, or other graduate programs, or continue to study in a number of different disciplines.

#### Additional Information

Details of requirements for the Liberal Arts major, as well as a worksheet for students to record their progress, can be found on the major requirement sheet, available from the College of HaSS Advising Center.

#### Liberal Arts Major Four Year Plan (Suggested Schedule)

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

Freshman Year (32 credits)

First Semester (16 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Foreign Language 1010 course 4

University Breadth courses (General Education Requirement) 9

Second Semester (16 credits)

STAT 1040 - Introduction to Statistics (QL) 3

Foreign Language 1020 course 4

University Breadth courses (General Education Requirement) 9

Sophomore Year (32 credits)

First Semester (16 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Foreign Language 2010 course 4

Arts/Literature course 3

University Breadth course (General Education Requirement) 3

Upper Division Elective course 3

Second Semester (16 credits)

Foreign Language 2020 course 4

Historical/Cultural Traditions course 3

Social Sciences course 3

Critical/Ethical Inquiry course 3

University QI course (Graduation Requirement) 3

Junior Year (30 credits)

First Semester (15 credits)

Social Sciences course 3

Critical/Ethical Inquiry course 3

University CI course (Graduation Requirement) 3

Upper Division Elective courses 6

Second Semester (15 credits)

Historical/Cultural Traditions course 3

Arts/Literature course 3

Critical/Ethical Inquiry course 3

Liberal Arts Methods course 3

Upper Division Elective course 3

Senior Year (26 credits)

First Semester (12 credits)

Historical/Cultural Traditions course 3

University DSS course (Graduation Requirement) 3

University CI course (Graduation Requirement) 3

Upper Division Elective course 3

Second Semester (14 credits)

Social Sciences course 3

Arts/Literature course 3

University DSC course (Graduation Requirement) 3

Upper Division Elective course 3

Elective course 2

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Linguistics Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Linguistics Minor

12

Grade Point Average to Declare Minor

2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes

2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors may not be taken on a Pass/Fail basis with the exception of LING 3300, LING 5500 and LING 5630.

Courses for Minors require a minimum grade of C- or better.

Select 6 credits from the following courses:

LING 2100 - Languages in Society (BSS) 3

LING 3100 - Language in Context 3

LING 4100 - The Study of Language 3

Select 6 credits from the following courses:

ARBC 4040 - Language and Culture of the Arab World 3

CHIN 3540 - Translating Into and From Chinese 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 4200 - Language, Thought, and Action (DSS) 3

ENGL 3020 - Perspectives in Linguistics (DHA) 3

ENGL 4200 - Linguistic Structures 3

ENGL 4210 - History of the English Language 3

ENGL 5210 - Topics in Linguistics 3 (repeatable with different topics)

FREN 4200 - Applied French Linguistics and Phonetics 3

GERM 4200 - Applied German Linguistics and Phonetics 3

LING 4400 - Teaching Modern Languages 3

PORT 3540 - Introduction to Translation Studies in Portuguese 3

SPAN 4200 - Introduction to Hispanic Linguistics 3

Note:

For additional information on language major and minor programs offered by the Department of Languages, Philosophy, and Communication Studies, contact the department office.

Return to: Academic Departments and Programs

Organizational Communication Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Course Requirements

Minimum Departmental Requirements

Total Credits:

Communication Studies Major 34

Organizational Communication Minor 15

Speech Communication Teaching Minor 19

Grade Point Average to Declare a Major or Minor 2.75  
Career GPA

Overall Grade Point Average to Graduate 2.0 Career GPA

Grade Point Average to Graduate in Major or Minor  
Classes 2.5 GPA

A minimum of half (50 percent) of major credits must be completed through USU and be approved by the department head

As many as 6 credits completed at other colleges or universities may be used to partially satisfy these requirements. At least 6 of the 15 total credits must be completed in courses offered at the 3000 level or above. For more information, students should contact their advisor. Students must earn an overall GPA of at least 2.5 in all classes applied toward the minor.

A. Communication in Organizational Settings (6 credits)

CMST 1020 - Public Speaking (BHU) 3

CMST 2120 - Small Group Communication (HR) 3

CMST 3050 - Technical and Professional Communication (DSS) 3

CMST 3140 - Communication in Family Contexts 3

CMST 3250 - Organizational Communication (CI) 3

CMST 3500 - Communication and Leadership 3

CMST 4350 - Organizations and Social Change 3

B. Elective Communication Courses (9 credits)

Courses listed in section A or listed below may serve as an elective.

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2250 - Introductory Internship/Co-op 1-6 (Up to three internship credits)

CMST 2270 - Argumentation and Debate 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 3400 - Persuasion (CI) 3

CMST 3600 - Communication and Conflict 3

CMST 3700 - Introduction to Health Communication 3

CMST 4200 - Language, Thought, and Action (DSS) 3

CMST 4250 - Advanced Internship/Co-op 1-6 (Up to three internship credits)

CMST 4330 - Communication in a Global Era 3

CMST 4430 - Negotiation in a Global World 3

CMST 4460 - Communication Criticism 3

CMST 5250 - Communication, Social Justice and the Environment 3

CMST 5300 - Visual Rhetoric 3

CMST 5400 - Advanced Persuasion 3

Return to: Academic Departments and Programs

Philosophy - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

(33 credits) (2.5 GPA)

Students must complete the General Education Requirements:

PHIL 1120, PHIL 1250 or PHIL 2400 will fulfill the Humanities requirement in the Breadth requirements (BHU)

Students must also complete the University Studies Depth Requirements:

PHIL 3100, PHIL 3120, PHIL 3150 and PHIL 3180 will fulfill the Communications Intensive (CI) requirement

PHIL 2200, if chosen for the major, will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS). PHIL 4530 will not satisfy this requirement, but ADVS 3200 will.

All philosophy majors must complete 33 credits of philosophy. Up to 6 pass/fail credits in philosophy

courses may be applied toward the philosophy major. The requirements are distributed as follows:

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Philosophy Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

Philosophy Major - BA

Philosophy Major – BA Concentration in Ethics

33

Philosophy Major - BS

33

Philosophy Major – BS Concentration in Ethics

33

Philosophy Minor

18

Grade Point Average to Declare a Major or Minor

2.5 Career GPA

Grade Point Average to Graduate with Major or Minor

2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU.

#### Notes

Courses for Philosophy Majors and Minors require a minimum grade of C- or better.

Bachelor of Arts (BA) degree additional requirements include two years of language, or same as University Requirement. The Bachelor of Science (BS) degree in philosophy can be awarded to philosophy majors who have taken 12 credits in math or science beyond the University Studies Requirements, as approved by an advisor.

A Philosophy DSC course will not satisfy the DSC (Depth Life and Physical Sciences) General Education requirement for a Philosophy Major. But if ADVS 3200 is taken (a DSC attribute course) it will fulfill the DSC requirement and will also fulfill a Philosophy elective.

Bachelor of Arts in Philosophy Major (33 credits) (2.5 GPA)

#### Course Requirements

##### A. Required Courses (15 credits)

PHIL 1120 - Social Ethics (BHU) 3 or

PHIL 2400 - Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3 or

PHIL 2200 - Deductive Logic (QI) 3

PHIL 3100 - Ancient Philosophy (CI) 3 or

PHIL 3110 - Medieval Philosophy 3

PHIL 3120 - Early Modern Philosophy (CI) 3 or

PHIL 3150 - Kant and the Nineteenth Century (CI) 3

PHIL 4300 - Epistemology (DHA) 3 or

PHIL 4310 - Philosophy of Science (DHA) 3 or

PHIL 4400 - Metaphysics 3 or

PHIL 4410 - Philosophy of Mind 3

##### B. Elective Courses (15 credits)

Choose five other philosophy courses not already taken above, four of which must be at the upper-division level (3000 or higher).

PHIL 3180 - Contemporary European Philosophy (CI) 3

PHIL 3500 - Medical Ethics 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 3600 - Philosophy of Religion (DHA) 3

PHIL 3710 - Philosophies of East Asia 3

PHIL 3720 - Philosophical Theology 3

PHIL 4310 - Philosophy of Science (DHA) 3

PHIL 4410 - Philosophy of Mind 3

PHIL 4500 - Contemporary Ethical Theory 3

PHIL 4530 - Ethics and Biotechnology (DSC) 3 or

ADVS 3200 - Ethical Issues in Genetic Engineering and Biotechnology (DSC) 3

PHIL 4600 - Philosophy of Law 3

PHIL 3700 - Political Philosophy 3 or

POLS 4310 - History of Political Thought I (CI) 3 or

POLS 4320 - History of Political Thought II (DSS) 3

PHIL 4900 - Special Topics 3

PHIL 4910 - Readings and Research 1-4

PHIL 4920 - Senior Honors Seminar 1

PHIL 4930 - Senior Honors Thesis 1-4

PHIL 4990 - Philosophy Seminar 3

#### C. Philosophy Senior Project Options (3 credits)

I. "Thesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and write an essay (around 20 pages); suitable for publication in an undergraduate journal on an agreed-upon topic.

II. "Synthesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and undertake a project which in some way documents or expresses the relevance of their philosophical studies to an important issue of contemporary life, or to their personal development. Students must work out in advance the details of the project, including grading criteria, with a faculty member.

III. "Extra Class" Option: The student will complete an additional 3000 or 4000-level class (not 4910).

#### D. Language Requirement

To receive a Bachelor of Arts (BA) degree, students must also complete the foreign language requirement.

Bachelor of Arts in Philosophy with Concentration in Ethics (33 credits) (2.5 GPA)

All philosophy majors must complete 30 credits of philosophy. Up to 6 pass/fail credits in philosophy courses may be applied toward the philosophy major. The requirements are distributed as follows:

#### A. Required Courses (21 credits)

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3 or

PHIL 2200 - Deductive Logic (QI) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3100 - Ancient Philosophy (CI) 3 or

PHIL 3110 - Medieval Philosophy 3

PHIL 3120 - Early Modern Philosophy (CI) 3 or

PHIL 3150 - Kant and the Nineteenth Century (CI) 3

PHIL 4300 - Epistemology (DHA) 3 or

PHIL 4310 - Philosophy of Science (DHA) 3 or

PHIL 4400 - Metaphysics 3 or

PHIL 4410 - Philosophy of Mind 3

Select one of the following four courses:

PHIL 3500 - Medical Ethics 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 4530 - Ethics and Biotechnology (DSC) 3

#### B. Elective Courses (9 credits)

Choose three other philosophy courses not already taken above, two of which must be at the upper-division level (3000 or higher). (See list of elective courses for Bachelor of Arts in Philosophy, shown in previous elective courses listing.)

#### C. Philosophy Senior Project Options (3 credits)

I. "Thesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and write an essay (around 20 pages); suitable for publication in an undergraduate journal on an agreed-upon topic.

II. "Synthesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and undertake a project which in some way documents or expresses the relevance of their philosophical studies to an important issue of contemporary life, or to their personal development. Students must work out in advance the details of the project, including grading criteria, with a faculty member.

III. "Extra Class" Option: The student will complete an additional 3000 or 4000-level class (not 4910).

#### D. Language Requirement

To receive a Bachelor of Arts (BA) degree, students must also complete the foreign language requirement.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Philosophy - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

(33 credits) (2.5 GPA)

Students must complete the General Education Requirements:

PHIL 1120, PHIL 1250 or PHIL 2400 will fulfill the Humanities requirement in the Breadth requirements (BHU)

Students must also complete the University Studies Depth Requirements:

PHIL 3100, PHIL 3120, PHIL 3150 and PHIL 3180 will fulfill the Communications Intensive (CI) requirement

PHIL 2200, if chosen for the major, will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS). PHIL 4530 will not satisfy this requirement, but ADVS 3200 will.

All philosophy majors must complete 33 credits of philosophy. Up to 6 pass/fail credits in philosophy courses may be applied toward the philosophy major. The requirements are distributed as follows:

Philosophy Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

Philosophy Major - BA

33

Philosophy Major – BA Concentration in Ethics

33

Philosophy Major - BS

33

Philosophy Major – BS Concentration in Ethics

33

Philosophy Minor

18

Grade Point Average to Declare a Major or Minor

2.5 Career GPA

Grade Point Average to Graduate with Major or Minor

2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU.

Notes

Courses for Philosophy Majors and Minors require a minimum grade of C- or better.

Bachelor of Arts (BA) degree additional requirements include two years of language, or same as University Requirement. The Bachelor of Science (BS) degree in philosophy can be awarded to philosophy majors who have taken 12 credits in math or science beyond the University Studies Requirements, as approved by an advisor.

A Philosophy DSC course will not satisfy the DSC (Depth Life and Physical Sciences) General Education requirement for a Philosophy Major. But if ADVS 3200 is taken (a DSC attribute course) it will fulfill the DSC requirement and will also fulfill a Philosophy elective.

Bachelor of Science in Philosophy Major (33 credits) (2.5 GPA)

### Course Requirements

#### A. Required Courses (15 credits)

PHIL 1120 - Social Ethics (BHU) 3 or

PHIL 2400 - Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3 or

PHIL 2200 - Deductive Logic (QI) 3

PHIL 3100 - Ancient Philosophy (CI) 3 or

PHIL 3110 - Medieval Philosophy 3

PHIL 3120 - Early Modern Philosophy (CI) 3 or

PHIL 3150 - Kant and the Nineteenth Century (CI) 3

PHIL 4300 - Epistemology (DHA) 3 or

PHIL 4310 - Philosophy of Science (DHA) 3 or

PHIL 4400 - Metaphysics 3 or

PHIL 4410 - Philosophy of Mind 3

#### B. Elective Courses (15 credits)

Choose five other philosophy courses not already taken above, four of which must be at the upper-division level (3000 or higher).

PHIL 3180 - Contemporary European Philosophy (CI) 3

PHIL 3500 - Medical Ethics 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 3600 - Philosophy of Religion (DHA) 3

PHIL 3710 - Philosophies of East Asia 3

PHIL 3720 - Philosophical Theology 3

PHIL 4310 - Philosophy of Science (DHA) 3

PHIL 4410 - Philosophy of Mind 3

PHIL 4500 - Contemporary Ethical Theory 3

PHIL 4530 - Ethics and Biotechnology (DSC) 3 or

ADVS 3200 - Ethical Issues in Genetic Engineering and Biotechnology (DSC) 3

PHIL 4600 - Philosophy of Law 3

PHIL 3700 - Political Philosophy 3 or

POLS 4310 - History of Political Thought I (CI) 3 or

POLS 4320 - History of Political Thought II (DSS) 3

PHIL 4900 - Special Topics 3

PHIL 4910 - Readings and Research 1-4

PHIL 4920 - Senior Honors Seminar 1

PHIL 4930 - Senior Honors Thesis 1-4

PHIL 4990 - Philosophy Seminar 3

#### C. Philosophy Senior Project Options (3 credits)

I. "Thesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and write an essay (around 20 pages); suitable for publication in an undergraduate journal on an agreed-upon topic.

II. "Synthesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and undertake a project which in some way documents or expresses the relevance of their philosophical studies to an important issue of contemporary life, or to their personal development. Students must work out in advance the details of the project, including grading criteria, with a faculty member.

III. "Extra Class" Option: The student will complete an additional 3000 or 4000-level class (not 4910).

D. Science Requirement

To receive a Bachelor of Science (BS) degree, students must take 12 credits in math or science beyond the University Studies Requirements, as approved by an advisor.

Bachelor of Science in Philosophy with Concentration in Ethics (33 credits) (2.5 GPA)

All philosophy majors must complete 33 credits of philosophy. Up to 6 pass/fail credits in philosophy courses may be applied toward the philosophy major. The requirements are distributed as follows:

A. Required Courses (21 credits)

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3 or

PHIL 2200 - Deductive Logic (QI) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3100 - Ancient Philosophy (CI) 3 or

PHIL 3110 - Medieval Philosophy 3

PHIL 3120 - Early Modern Philosophy (CI) 3 or

PHIL 3150 - Kant and the Nineteenth Century (CI) 3

PHIL 4300 - Epistemology (DHA) 3 or

PHIL 4310 - Philosophy of Science (DHA) 3 or

PHIL 4400 - Metaphysics 3 or

PHIL 4410 - Philosophy of Mind 3

Select one of the following four courses:

PHIL 3500 - Medical Ethics 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 4530 - Ethics and Biotechnology (DSC) 3

B. Elective Courses (9 credits)

Choose three other philosophy courses not already taken above, two of which must be at the upper-division level

(3000 or higher). (See list of elective courses for Bachelor of Arts in Philosophy, shown in previous elective courses listing.)

C. Philosophy Senior Project Options (3 credits)

I. "Thesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and write an essay (around 20 pages); suitable for publication in an undergraduate journal on an agreed-upon topic.

II. "Synthesis" Option: After completing at least 24 credits toward the Philosophy major, the student will enroll in PHIL 4910 (3 credits) with a faculty member and undertake a project which in some way documents or expresses the relevance of their philosophical studies to an important issue of contemporary life, or to their personal development. Students must work out in advance the details of the project, including grading criteria, with a faculty member.

III. "Extra Class" Option: The student will complete an additional 3000 or 4000-level class (not 4910).

D. Science Requirement

To receive a Bachelor of Science (BS) degree, students must take 12 credits in math or science beyond the University Studies Requirements, as approved by an advisor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Philosophy Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Philosophy Major - BA

33

Philosophy Major – BA Concentration in Ethics

33

Philosophy Major - BS

33

Philosophy Major – BS Concentration in Ethics

33

Philosophy Minor

18

Grade Point Average to Declare a Major or Minor

2.5 Career GPA

Grade Point Average to Graduate with Major or Minor

2.5 GPA within Major/Minor Classes

A minimum of 50 percent of major credits must be earned at USU.

Notes

Courses for Philosophy Majors and Minors require a minimum grade of C- or better.

Bachelor of Arts (BA) degree additional requirements include two years of language, or same as University Requirement. The Bachelor of Science (BS) degree in philosophy can be awarded to philosophy majors who have taken 12 credits in math or science beyond the University Studies Requirements, as approved by an advisor.

A Philosophy DSC course will not satisfy the DSC (Depth Life and Physical Sciences) General Education requirement for a Philosophy Major. But if ADVS 3200 is taken (a DSC attribute course) it will fulfill the DSC requirement and will also fulfill a Philosophy elective.

Must complete six of the following courses (18 credits)

At least four of which must be at the upper-division level. Up to 3 pass/fail credits in philosophy courses may be applied toward the philosophy minor.

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2200 - Deductive Logic (QI) 3

PHIL 2400 - Ethics (BHU) 3

PHIL 3100 - Ancient Philosophy (CI) 3

PHIL 3110 - Medieval Philosophy 3

PHIL 3120 - Early Modern Philosophy (CI) 3

PHIL 3150 - Kant and the Nineteenth Century (CI) 3

PHIL 3180 - Contemporary European Philosophy (CI) 3

PHIL 3500 - Medical Ethics 3

PHIL 3530 - Environmental Ethics (DHA) 3

PHIL 3520 - Business Ethics (DHA) 3

PHIL 3710 - Philosophies of East Asia 3

PHIL 3720 - Philosophical Theology 3

PHIL 4300 - Epistemology (DHA) 3

PHIL 4310 - Philosophy of Science (DHA) 3

PHIL 4400 - Metaphysics 3

PHIL 4410 - Philosophy of Mind 3

PHIL 4500 - Contemporary Ethical Theory 3

PHIL 4530 - Ethics and Biotechnology (DSC) 3

PHIL 4600 - Philosophy of Law 3

PHIL 3700 - Political Philosophy 3

PHIL 4900 - Special Topics 3

PHIL 4910 - Readings and Research 1-4

PHIL 4920 - Senior Honors Seminar 1

PHIL 4930 - Senior Honors Thesis 1-4

PHIL 4990 - Philosophy Seminar 3

Return to: Academic Departments and Programs

Portuguese Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Portuguese Minor  
12

Grade Point Average to Declare Minor  
2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes                      2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors may not be taken on a Pass/Fail basis with the exception of LING 3300, LING 5500 and LING 5630.

Courses for Minors require a minimum grade of C- or better.

Requirements for Portuguese Minor (12 credits)

Complete 12 upper-division credits in Portuguese from the following courses:

Students must complete the following course (3 credits):

PORT 3040 - Advanced Portuguese Grammar and Composition (CI) 3

Students must complete 9 credit hours from the following courses:

PORT 3400 - Popular Music in the Portuguese-Speaking World 3

PORT 3510 - Business Portuguese 3

PORT 3540 - Introduction to Translation Studies in Portuguese 3

PORT 3570 - Brazilian Culture and Civilization (DHA) 3

PORT 3630 - Survey of Brazilian Literature (DHA) 3

Return to: Academic Departments and Programs

Russian Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Minimum Departmental Requirements

Total Credits:

Russian Minor  
12

Grade Point Average to Declare Minor  
2.5 Career GPA

Grade Point Average to Graduate with Minor and 2.5 GPA within Minor Classes                      2.0 Career GPA

A minimum of 50 percent of major credits must be earned at USU

Note:

Courses for Minors may not be taken on a Pass/Fail basis with the exception of LING 3300, LING 5500 and LING 5630.

Courses for Minors require a minimum grade of C- or better.

Requirements for Russian Minor (12 credits)

Select 12 credits from the following courses:

RUSS 3040 - Advanced Russian Grammar and Composition 3

RUSS 3050 - Advanced Russian Grammar and Composition 3

RUSS 3300 - Contemporary Russian Language and Culture (DHA) 3

RUSS 3510 - Business Russian (CI) 3

RUSS 3540 - Russian Translation for Science, Business, and Culture 3

Return to: Academic Departments and Programs

Second Language Teaching - MSLT

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

The Master of Second Language Teaching (MSLT) degree program is designed for students desiring additional training at the graduate level in an integrative, interdisciplinary program combining coursework in the field of Foreign Language Education, Bilingual Education, and ESL/EFL Education. Attainment of the degree requires the completion of a minimum of 30 credits of coursework in the MSLT program. The program leading to the MSLT consists of a core curriculum of 18 credits and a professional curriculum of 12 credits. Courses in the core curriculum are designed to respond to the program's emphasis areas in language, literacy, and culture. Courses in the professional curriculum address

teaching methodology, curriculum preparation, materials development, and testing. A Master's Project in the form of a substantial, cumulative Master's Portfolio is also required. The Master's Portfolio will include a comprehensive statement of the candidate's philosophy of second language teaching and learning and how this philosophy will be applied in a professional environment. This project will be defended at the end of the degree program. All candidates must take a series of research courses in the professional curriculum designed to aid in preparing the Portfolio Project.

This master's degree program does not lead to licensure by the Utah State Board of Education. Individuals who do not have Utah State Board of Education licensure and wish to obtain that credential must take the three-semester Secondary Teacher Education Program (STEP) in the Secondary Education Program of the School of Teacher Education and Leadership (TEAL) in the Emma Eccles Jones College of Education and Human Services.

For program information, including admission requirements, degree requirements, courses, and financial assistance, contact the departmental office or see the program's website at: <http://lpsc.usu.edu>

Return to: Academic Departments and Programs

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

(31 credits; 35 credits including courses for teaching emphasis/minor)

Most of the courses listed below count for both the teaching emphasis and the teaching minor.

A. Level 1 (first semester in program)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may be taken earlier)

#### B. Level 2

LING 3300 - Clinical Experience I 1 1,3 or

LING 4300 - Clinical Experience II 1 1,3

LING 4400 - Teaching Modern Languages 3 2,3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

#### C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the courses listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Clinical Experience II course is taught under course number 4300 in various departments. Course title varies among departments.

2 The Special Methods II course is taught under course number 4400.

3 LING 3300 or LING 4300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the major or minor. Those courses should be taken the Fall semester just before student teaching.

Return to: Academic Departments and Programs

Spanish - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

If chosen as an elective, SPAN 3060 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Spanish Major and Minor Requirements

#### Minimum Departmental Requirements

#### Total Credits:

Spanish Major 33

Spanish Major, Teaching Emphasis 38 SPAN & 27 SCED

Spanish Minor 15

Spanish Minor, Teaching Emphasis 20 SPAN & 27 SCED

Spanish Major, Teaching Emphasis without licensure 38

Spanish Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 3.00  
Career GPA

Grade Point Average to Graduate with Major or Minor  
3.00 GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be earned at USU

At least half (50 percent) of the credits earned for these degrees must be completed in upper-division USU courses offered by the Department of Languages, Philosophy, and Communication Studies, and having prefixes of SPAN or LING. All other credits (including transfer and study abroad credits) must be approved by the Spanish faculty in order to be counted toward these degrees.

#### Note:

Courses for Spanish Majors and Minors require a minimum of C- or better.

Courses for Spanish Majors and Minors may not be taken on a Pass/ Fail Basis (except for courses designated as Pass/Fail, such as LING 3300, LING 4300, SPAN 3010, SPAN 3520, SPAN 4920).

Students with prior language credit or language experience should take the department placement test before admission to the Spanish Major or Minor. Credits obtained in lower-division Spanish courses cannot be applied toward the Spanish major or minor programs.

### Course Requirements

#### Language Major Requirements

Spanish Major (33 credits) (3.00 GPA)

#### A. Required Courses (24 credits)

SPAN 3300 - Introduction to Hispanic Literature and Literary Analysis 3

Select at least one of the following four courses:

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3560 - Introduction to U.S. Latino/a Culture 3

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

SPAN 4800 - Hispanic Culture and Civilization - Study Abroad 1-4 3

Select at least three courses from the following two areas:

Select at least one or two courses from the Spanish language group:

SPAN 3600 - Survey of Spanish Literature I (DHA) 3

SPAN 3610 - Survey of Spanish Literature II (DHA) 3

SPAN 3650 - Spanish Literature - Study Abroad 1-4 3

Select at least one or two courses from the U.S. & Latin American language group:

SPAN 3620 - Survey of Hispanic American Literature I (DHA) 3

SPAN 3630 - Survey of Hispanic American Literature II (DHA) 3

SPAN 3640 - Introduction to U.S. Latino/a Literature 3

SPAN 3660 - Hispanic American Literature - Study Abroad 1-4 3

Complete two of the following three courses:

SPAN 4900 - Topics of Spanish Literature 3

SPAN 4910 - Topics of Hispanic American Cultural Production 3

SPAN 4930 - Topics of U.S. Latina/o Literature and Culture 3

B. Elective Courses (12 credits)

Students must complete 12 additional credits in the courses either not taken above or selected from the following list:

SPAN 3010 - Hispanic Outreach Practicum 1-4 1

SPAN 3040 - Advanced Spanish Grammar 3

SPAN 3060 - Advanced Spanish Conversation and Composition (CI) 3

SPAN 3100 - Spanish for Healthcare Professionals 3

SPAN 3300 - Introduction to Hispanic Literature and Literary Analysis 3

SPAN 3510 - Business Spanish 3 1

SPAN 3520 - Business Spanish Practicum 1-4 1

SPAN 4200 - Introduction to Hispanic Linguistics 3 2

SPAN 4880 - Individual Readings 1-4 3

SPAN 4920 - Spanish Language Tutoring 1 1,2

CMST 3330 - Intercultural Communication (DSS) 3 or

LING 4900 - Analysis of Cross-Cultural Difference 3

LING 4100 - The Study of Language 3

Note:

1 Only 3 credits maximum in practicum courses may count toward a Spanish major or minor.

2 This course or practicum is required for a teaching emphasis in the Spanish major or minor.

3 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPCS office prior to participating.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Spanish - Teaching Emphasis - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

If chosen as an elective, SPAN 3060 will fulfill the Communications Intensive (CI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

#### French, German, and Spanish Major Programs

The goal of the French, German, and Spanish BA degree programs is to prepare students to be able to take advanced studies in these languages, literatures, and cultures; to be quality teachers of these languages, literatures, and cultures in the public schools; and to provide those who may enter other professions a solid grounding in these languages, literatures, and cultures, in order that they may function as members of the international community. The curricula supporting these goals includes courses in language, literature, civilization, culture, and linguistics. See the course requirements which follow.

#### Bachelor of Arts Degree Language Requirement

##### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a

prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Course Requirements

##### Language Major Requirements

##### Spanish Major and Minor Requirements

##### Minimum Departmental Requirements

##### Total Credits:

Spanish Major 33

Spanish Major, Teaching Emphasis 38 SPAN & 27 SCED

Spanish Minor 15

Spanish Minor, Teaching Emphasis 20 SPAN & 27 SCED

Spanish Major, Teaching Emphasis without licensure 38

Spanish Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 3.00  
Career GPA

Grade Point Average to Graduate with Major or Minor  
3.00 GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be earned at USU

At least half (50 percent) of the credits earned for these degrees must be completed in upper-division USU courses offered by the Department of Languages, Philosophy, and Communication Studies, and having prefixes of SPAN or LING. All other credits (including transfer and study abroad credits) must be approved by the Spanish faculty in order to be counted toward these degrees.

Note:

Courses for Spanish Majors and Minors require a minimum of C- or better.

Courses for Spanish Majors and Minors may not be taken on a Pass/ Fail Basis (except for courses designated as Pass/Fail, such as LING 3300, LING 4300, SPAN 3010, SPAN 3520, SPAN 4920).

Students with prior language credit or language experience should take the department placement test before admission to the Spanish Major or Minor. Credits obtained in lower-division Spanish courses cannot be applied toward the Spanish major or minor programs.

Spanish Major—Teaching Emphasis with Secondary School Licensure (38 Spanish credits and 27 SCED credits) (3.00 GPA)

Note:

The following requirements only specify courses offered by the Department of Languages, Philosophy, and Communication Studies. To be licensed to teach in the Utah public secondary school system, students with a teaching emphasis must also complete additional courses (approximately 31 credits) required by the Secondary Education Program. For more information, please contact the Secondary Education Program, Education Building 330, or review the supplementary section, entitled Secondary Teacher Education Program (STEP) Level Outline.

I. Spanish and Linguistics Courses (38 credits)

A. Required Courses (28 credits)

LING 4100 - The Study of Language 3

LING 4300 - Clinical Experience II 1 2,4

LING 4400 - Teaching Modern Languages 3 2,4 (LING 4300 and LING 4400 are also listed within STEP program courses)

SPAN 3300 - Introduction to Hispanic Literature and Literary Analysis 3

SPAN 4200 - Introduction to Hispanic Linguistics 3 2

SPAN 4920 - Spanish Language Tutoring 1 1,2

Select at least one of the following two courses:

SPAN 3040 - Advanced Spanish Grammar 3

SPAN 3800 - Spanish III Study Abroad 1-4 3

Select at least one of the following four courses:

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3560 - Introduction to U.S. Latino/a Culture 3

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

SPAN 4800 - Hispanic Culture and Civilization - Study Abroad 1-4 3

Select at least two of the following seven courses:

SPAN 3600 - Survey of Spanish Literature I (DHA) 3

SPAN 3610 - Survey of Spanish Literature II (DHA) 3

SPAN 3620 - Survey of Hispanic American Literature I (DHA) 3

SPAN 3630 - Survey of Hispanic American Literature II (DHA) 3

SPAN 3640 - Introduction to U.S. Latino/a Literature 3

SPAN 3650 - Spanish Literature - Study Abroad 1-4 3

SPAN 3660 - Hispanic American Literature - Study Abroad 1-4 3

Complete two of the following three courses:

SPAN 4900 - Topics of Spanish Literature 3

SPAN 4910 - Topics of Hispanic American Cultural Production 3

SPAN 4930 - Topics of U.S. Latina/o Literature and Culture 3

B. Elective Courses (6 credits)

Students must complete 6 additional credits in courses either not taken above or selected from the following list:

SPAN 3010 - Hispanic Outreach Practicum 1-4 1

SPAN 3060 - Advanced Spanish Conversation and Composition (CI) 3

SPAN 3100 - Spanish for Healthcare Professionals 3

SPAN 3510 - Business Spanish 3

SPAN 3520 - Business Spanish Practicum 1-4 1

SPAN 4880 - Individual Readings 1-4

CMST 3330 - Intercultural Communication (DSS) 3 or

LING 4900 - Analysis of Cross-Cultural Difference 3

Note:

1 Only 3 credits maximum in practicum courses may count toward a Spanish major or minor.

2 This course or practicum is required for a teaching emphasis in the Spanish major or minor.

3 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPCS office prior to participating.

4 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the major. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the Spanish Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information at bottom of page.

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies

27 credits

Most of the courses listed below count for both teaching major emphasis and the teaching minor.

A. Level 1 (first semester in program)

ITLS 4015 - Technology Tools and Integration for  
Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may  
be taken earlier)

B. Level 2

LING 4300 - Clinical Experience II 1 1,3

LING 4400 - Teaching Modern Languages 3 2,3 (LING  
4300 and LING 4400 are also listed within Major  
program courses)

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Clinical Experience II course is taught under course number 4300 in various departments. Course title varies among departments.

2 The Special Methods II course is taught under course number 4400.

3 LING 4300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the major or minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and major requirements for those seeking the French/German/Spanish Teaching Major/non-licensure so the non-licensure majors understand the complete list of requirements. See additional non-licensure information below.

Teaching Emphasis for Spanish Major and Minor

Spanish Major and/or Minor—Teaching Emphasis with  
Secondary School Licensure

To receive secondary school licensure, students must complete the Secondary Teacher Education Program (STEP). For further information, review the Secondary Teacher Education Program (STEP) Level Outline.

Spanish Major and/or Minor—Teaching Emphasis  
without Secondary School Licensure (major 38 credits,  
minor 20 credits) (3.00 GPA)

It is possible to have a teaching emphasis within a major or minor in Spanish without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able

to teach in Utah public schools (nor at many private ones). Graduating without licensure may allow employment at some community college and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to [teal.usu.edu](http://teal.usu.edu) and click on undergraduate programs, and then secondary programs.

#### Minimum University Requirements

##### Total Credits

120

##### Grade Point Average (most majors require higher GPA)

2.00 GPA

##### Credits of C- or better

100

##### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

##### Completion of approved major program of study

See college advisor

##### Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

##### General Education Requirements and University Studies Depth Requirements

[Return to: Academic Departments and Programs](#)

#### Spanish Minor

[Return to: Academic Departments and Programs](#)

#### College of Humanities and Social Sciences

##### Department of Languages, Philosophy and Communication Studies

##### Course Requirements

##### Spanish Major and Minor Requirements

##### Minimum Departmental Requirements

##### Total Credits:

Spanish Major 33

Spanish Major, Teaching Emphasis 38 SPAN & 27 SCED

Spanish Minor 15

Spanish Minor, Teaching Emphasis 20 SPAN & 27 SCED

Spanish Major, Teaching Emphasis without licensure 38

Spanish Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 3.00 Career GPA

Grade Point Average to Graduate with Major or Minor 3.00 GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be earned at USU

At least half (50 percent) of the credits earned for these degrees must be completed in upper-division USU courses offered by the Department of Languages, Philosophy, and Communication Studies, and having prefixes of SPAN or LING. All other credits (including transfer and study abroad credits) must be approved by the Spanish faculty in order to be counted toward these degrees.

##### Note:

Courses for Spanish Majors and Minors require a minimum of C- or better.

Courses for Spanish Majors and Minors may not be taken on a Pass/ Fail Basis (except for courses designated as Pass/Fail, such as LING 3300, LING 4300, SPAN 3010, SPAN 3520, SPAN 4920).

Students with prior language credit or language experience should take the department placement test before admission to the Spanish Major or Minor. Credits

obtained in lower-division Spanish courses cannot be applied toward the Spanish major or minor programs.

Spanish Minor (15 credits) (3.00 GPA)

A. Required Courses (9 credits)

Select the following course:

SPAN 3300 - Introduction to Hispanic Literature and Literary Analysis 3

Select at least one of the following three courses:

SPAN 3040 - Advanced Spanish Grammar 3

SPAN 3060 - Advanced Spanish Conversation and Composition (CI) 3

SPAN 3800 - Spanish III Study Abroad 1-4 2

Select at least one course from this group:

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3560 - Introduction to U.S. Latino/a Culture 3

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

SPAN 4800 - Hispanic Culture and Civilization - Study Abroad 1-4 2

B. Elective Courses (6 credits)

Select 6 credits from this group or taken from the lists above:

LING 4100 - The Study of Language 3

CMST 3330 - Intercultural Communication (DSS) 3 or

LING 4900 - Analysis of Cross-Cultural Difference 3

SPAN 3010 - Hispanic Outreach Practicum 1-4

SPAN 3100 - Spanish for Healthcare Professionals 3

SPAN 3510 - Business Spanish 3

SPAN 3520 - Business Spanish Practicum 1-4

SPAN 3600 - Survey of Spanish Literature I (DHA) 3

SPAN 3610 - Survey of Spanish Literature II (DHA) 3

SPAN 3620 - Survey of Hispanic American Literature I (DHA) 3

SPAN 3630 - Survey of Hispanic American Literature II (DHA) 3

SPAN 3640 - Introduction to U.S. Latino/a Literature 3

SPAN 3650 - Spanish Literature - Study Abroad 1-4

SPAN 3660 - Hispanic American Literature - Study Abroad 1-4

SPAN 4200 - Introduction to Hispanic Linguistics 3 1

SPAN 4880 - Individual Readings 1-4

SPAN 4920 - Spanish Language Tutoring 1 1

Note:

1 This course or practicum is required for a teaching emphasis in the Spanish minor

2 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPCS office prior to participating.

Return to: Academic Departments and Programs

Spanish Minor Teaching Emphasis

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and Communication Studies

Course Requirements

Spanish Major and Minor Requirements

Minimum Departmental Requirements

Total Credits:

Spanish Major 33

Spanish Major, Teaching Emphasis 38 SPAN & 27 SCED

Spanish Minor 15

Spanish Minor, Teaching Emphasis 20 SPAN & 27 SCED

Spanish Major, Teaching Emphasis without licensure 38

Spanish Minor, Teaching Emphasis without licensure 20

Grade Point Average to Declare a Major or Minor 3.00  
Career GPA

Grade Point Average to Graduate with Major or Minor  
3.00 GPA within Major/Minor Classes

A minimum of 50 percent of minor credits must be  
earned at USU

At least half (50 percent) of the credits earned for these  
degrees must be completed in upper-division USU  
courses offered by the Department of Languages,  
Philosophy, and Communication Studies, and having  
prefixes of SPAN or LING. All other credits (including  
transfer and study abroad credits) must be approved by  
the Spanish faculty in order to be counted toward these  
degrees.

Note:

Courses for Spanish Majors and Minors require a  
minimum of C- or better.

Courses for Spanish Majors and Minors may not be taken  
on a Pass/ Fail Basis (except for courses designated as  
Pass/Fail, such as LING 3300, LING 4300, SPAN 3010,  
SPAN 3520, SPAN 4920).

Students with prior language credit or language  
experience should take the department placement test  
before admission to the Spanish Major or Minor. Credits  
obtained in lower-division Spanish courses cannot be  
applied toward the Spanish major or minor programs.

Spanish Minor Teaching Emphasis with Licensure (47  
credits) (3.00 GPA)

Note:

The following requirements only specify courses offered  
by the Department of Languages, Philosophy, and  
Communication Studies. To be licensed to teach in the  
Utah public secondary school system, students with a  
teaching emphasis must also complete additional courses  
(approximately 27 credits) required by the Secondary  
Education Program. For more information, please contact  
the Secondary Education Program, Education Building  
330, or review the supplementary section, entitled  
Secondary Teacher Education Program (STEP) Level  
Outline. Information is also provided on the Web at:  
<http://teal.usu.edu/htm/seced/adstep>

A. Required Courses (11 credits)

SPAN 3040 - Advanced Spanish Grammar 3 or

SPAN 3800 - Spanish III Study Abroad 1-4 2

SPAN 4200 - Introduction to Hispanic Linguistics 3 1

SPAN 4920 - Spanish Language Tutoring 1 1

LING 3300 - Clinical Experience I 1 1,3

LING 4400 - Teaching Modern Languages 3 1,3 (LING  
3300 and LING 4400 are also listed in STEP program  
courses)

B. Elective Courses (9 credits)

Choose at least three courses from the following twelve  
courses, one or two from each group (9 credits total):

Select one or two courses from this group:

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3560 - Introduction to U.S. Latino/a Culture 3

SPAN 3570 - Hispanic American Culture and Civilization  
(DHA) 3

SPAN 4800 - Hispanic Culture and Civilization - Study  
Abroad 1-4 2

Select one or two courses from this group:

SPAN 3300 - Introduction to Hispanic Literature and  
Literary Analysis 3

SPAN 3600 - Survey of Spanish Literature I (DHA) 3

SPAN 3610 - Survey of Spanish Literature II (DHA) 3

SPAN 3620 - Survey of Hispanic American Literature I  
(DHA) 3

SPAN 3630 - Survey of Hispanic American Literature II  
(DHA) 3

SPAN 3640 - Introduction to U.S. Latino/a Literature 3

SPAN 3650 - Spanish Literature - Study Abroad 1-4 2

SPAN 3660 - Hispanic American Literature - Study  
Abroad 1-4 2

Note:

1 This course or practicum is required for a teaching  
emphasis in the Spanish minor

2 Students desiring to apply study abroad credits toward these degrees must obtain approval from the LPCS office prior to participating.

3 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the Spanish Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See additional non-licensure information at bottom of page.

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies (27 credits)

Most of the courses listed below count for both the teaching emphasis and the teaching minor.

#### A. Level I (first semester in program)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may be taken earlier)

#### B. Level 2

LING 3300 - Clinical Experience I 1 2

LING 4400 - Teaching Modern Languages 3 1,2 (LING 3300 and LING 4400 are also listed within Minor program courses)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

#### C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

Note:

1 The Special Methods II course is taught under course number 4400.

2 LING 3300 and LING 4400 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken the Fall semester before student teaching. LING 3300 and LING 4400 are listed in both the STEP and minor requirements for those seeking the French/German Teaching Minor/non-licensure so the non-licensure minors understand the complete list of minor requirements. See non-licensure information below.

Teaching Emphasis for Spanish Major and Minor

Spanish Major and/or Minor—Teaching Emphasis with Secondary School Licensure

To receive secondary school licensure, students must complete the Secondary Teacher Education Program (STEP). For further information, review the Secondary Teacher Education Program (STEP) Level Outline.

Spanish Major and/or Minor—Teaching Emphasis without Secondary School Licensure (major 38 credits, minor 20 credits) (3.00 GPA)

It is possible to have a teaching emphasis within a major or minor in Spanish without receiving Secondary School teaching licensure. However, unless the student is an elementary education major, he or she would not be able to teach in Utah public schools (nor at many private ones). Graduating without licensure may allow employment at some community college and universities.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to [teal.usu.edu](http://teal.usu.edu) and click on undergraduate programs, and then secondary programs.

Return to: Academic Departments and Programs

Speech Communication Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Languages, Philosophy and  
Communication Studies

Note:

The following requirements only specify courses offered by the Department of Languages, Philosophy, and Communication Studies. To be licensed to teach in the Utah public secondary school system, students with a teaching emphasis must also complete an approved teaching major and STEP courses required by the Secondary Education Program. CMST 5370 and either CMST 3300 or CMST 4300 are part of the STEP requirements. For more information, please contact the Secondary Education Program, Education Building 330, or review the supplementary section, entitled Secondary Teacher Education Program (STEP) Level Outline. Information is also provided on the Web at: <http://teal.usu.edu/htm/seced/adstep>

Also Note: CMST 1020, CMST 2110, and CMST 3000 should be completed prior to enrollment in the 4000- and 5000-level courses. A minimum grade of C- is required in each of these classes.

Minimum Departmental Requirements

Total Credits:

Communication Studies Major 34

Organizational Communication Minor 15

Speech Communication Teaching Minor 23

Grade Point Average to Declare a Major or Minor 2.75  
Career GPA

Overall Grade Point Average to Graduate 2.0 Career GPA

Grade Point Average to Graduate in Major or Minor  
Classes 2.5 GPA

A minimum of half (50 percent) of major credits must be completed through USU and be approved by the department head

Speech Communication Teaching Minor Courses (23 credits) (2.5 GPA)

Core Required Courses (14 credits)

CMST 1020 - Public Speaking (BHU) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2270 - Argumentation and Debate 3

CMST 3000 - Speech Communication Teaching Practicum  
1

CMST 3300 - Clinical Experience I 1 1,3

CMST 5370 - Methods in Teaching Speech  
Communication 3 2,3 (CMST 3300 and CMST 5370 are  
also listed within STEP program courses.) CMST 5370 is  
a fall only class and must be taken with CMST 3300.

Elective Courses: (9 credits)

CMST 2120 - Small Group Communication (HR) 3

CMST 3250 - Organizational Communication (CI) 3

CMST 3330 - Intercultural Communication (DSS) 3

CMST 3600 - Communication and Conflict 3

CMST 4200 - Language, Thought, and Action (DSS) 3

CMST 5280 - Communication Education Theory 3

Secondary Teacher Education Program (STEP)-  
Languages, Philosophy, and Communication Studies

27 credits

Most of the courses listed below count for both the  
teaching emphasis and the teaching minor.

A. Level 1 (first semester in program)

ITLS 4015 - Technology Tools and Integration for  
Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2 (may  
be taken earlier)

B. Level 2

CMST 3300 - Clinical Experience I 1 1,3

CMST 5370 - Methods in Teaching Speech  
Communication 3 2,3 (CMST 3300 and CMST 5370 are  
also listed within Minor program courses.)

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

## SCED 4210 - Assessment and Curriculum Design 3

### C. Level 3

Because student teaching requires a major commitment of time and energy, students should take only the course listed below during this semester. Students are also urged to forgo outside employment, if possible, during the student teaching experience.

LING 5500 - Student Teaching Seminar 2

LING 5630 - Student Teaching in Secondary Schools 10

#### Notes:

1 The Clinical Experience II course is taught under course number 3300 in various departments. Course title varies among departments.

2 This Special Methods II course is taught under course number 5370.

3 CMST 3300 and CMST 5370 must be taken during the same semester, and should be the last courses taken for the minor. These courses should be taken just before student teaching. CMST 3300 and CMST 5370 are listed in both the STEP and minor requirements listings to clarify all minor requirements and when they should be taken during the STEP program. Contact the LPCS department head for availability of these courses but are currently offered Fall semesters when needed.

For more information, please contact the School of Teacher Education and Leadership in the Jones Education Building 330, or go online to <http://teal.usu.edu> and click on undergraduate programs, and then secondary programs.

Return to: Academic Departments and Programs

Business Administration - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 1500 will fulfill the American Institutions requirement

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in MGT 3500 and MGT 3700.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an

overall GPA of at least 2.67 and completion of at least 40 credits.

Business Administration Major (27 credits)

The Business Administration major is a general degree that recognizes that most business students will have multiple business responsibilities throughout their career. This degree provides broad cross-discipline experience in the core business areas.

Required Courses (19 credits)

MGT 3250 - Introduction to Human Resource Management 3

MGT 3820 - International Management (DSS) 2

MGT 4530 - Marketing Research 3

MGT 4600 - Negotiations 2

MGT 4730 - Business and Society 2

MGT 4790 - Managing Global Value Chains 2

MGT 4890 - Strategic Planning and Execution (CI) 3

MGT 5730 - Problem Solving and Continuous Improvement 2

Elective Courses (8 credits)

MGT 4250 - Management Internship 1-3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3540 - New Venture Financing 2

MGT 3710 - Team Management 2

MGT 3800 - Leadership 2

MGT 3810 - Employment Law and Policy Development (DSS) 3

MGT 3900 - Strategic Marketing in Hospitality and Tourism 3 or

MGT 3910 - Revenue and Cost Management in Hospitality and Tourism 3

MGT 3920 - Hospitality Management and Operations 3 or

MGT 3930 - Tourism and Events Administration 3

MGT 4510 - Buyer Behavior 2

MGT 4550 - Brand Management 2

MGT 4560 - Strategic Sales 2

MGT 4720 - Production Planning and Control 2

Business Administration Major Four Year Plan  
(Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits  
required) (USU 1010 starts the week prior to fall  
semester and is completed after the first 3 weeks of fall  
semester)

Breadth Life Science (BLS) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Creative Arts (BCA) course 3

Elective course 2

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions  
and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 2100 - Principles of Management Information  
Systems 3

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 3500 - Fundamentals of Marketing 3 (B- grade  
required)

MIS 3200 - Business Communication (CI) 3

Breadth Humanities (BHU) course 3

Depth Life and Physical Sciences (DSC) course 3

Junior Year (30 credits)

MGT 4250 (BA elective) is recommended between the  
Junior and Senior year.

First Semester (15 credits)

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3250 - Introduction to Human Resource  
Management 3

MGT 3700 - Operations Management 3 (B- grade  
required)

MGT 4530 - Marketing Research 3

Elective course 3

Second Semester (15 credits)

FIN 3400 - Corporate Finance (QI) 3

MGT 3820 - International Management (DSS) 2

MGT 4600 - Negotiations 2

MGT 4730 - Business and Society 2

BA Elective course 2-3

Elective course(s) 4

Senior Year (30 credits)

First Semester (15 credits)

MGT 4790 - Managing Global Value Chains 2

BA Elective courses 4-6

Depth Humanities and Creative Arts (DHA) course 2-3

Elective courses 4-7

Second Semester (15 credits)

MGT 4890 - Strategic Planning and Execution (CI) 3

MGT 5730 - Problem Solving and Continuous Improvement 2

BA Elective course 2-3

Elective courses 7-8

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Business Administration - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 1500 will fulfill the American Institutions requirement

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in MGT 3500 and MGT 3700.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

Business Administration Major (27 credits)

The Business Administration major is a general degree that recognizes that most business students will have multiple business responsibilities throughout their career. This degree provides broad cross-discipline experience in the core business areas.

Required Courses (19 credits)

MGT 3250 - Introduction to Human Resource Management 3

MGT 3820 - International Management (DSS) 2

MGT 4530 - Marketing Research 3

MGT 4600 - Negotiations 2

MGT 4730 - Business and Society 2

MGT 4790 - Managing Global Value Chains 2

MGT 4890 - Strategic Planning and Execution (CI) 3

MGT 5730 - Problem Solving and Continuous Improvement 2

Elective Courses (8 credits)

MGT 4250 - Management Internship 1-3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3540 - New Venture Financing 2

MGT 3710 - Team Management 2

MGT 3800 - Leadership 2

MGT 3810 - Employment Law and Policy Development (DSS) 3

MGT 3900 - Strategic Marketing in Hospitality and Tourism 3 or

MGT 3910 - Revenue and Cost Management in Hospitality and Tourism 3

MGT 3920 - Hospitality Management and Operations 3 or

MGT 3930 - Tourism and Events Administration 3

MGT 4510 - Buyer Behavior 2

MGT 4550 - Brand Management 2

MGT 4560 - Strategic Sales 2

MGT 4720 - Production Planning and Control 2

Business Administration Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (USU 1010 starts the week prior to fall

semester and is completed after the first 3 weeks of fall semester)

Breadth Life Science (BLS) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Creative Arts (BCA) course 3

Elective course 2

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 3500 - Fundamentals of Marketing 3 (B- grade required)

MIS 3200 - Business Communication (CI) 3

Breadth Humanities (BHU) course 3

Depth Life and Physical Sciences (DSC) course 3

Junior Year (30 credits)

MGT 4250 (BA elective) is recommended between the Junior and Senior year.

First Semester (15 credits)

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3250 - Introduction to Human Resource Management 3

MGT 3700 - Operations Management 3 (B- grade required)

MGT 4530 - Marketing Research 3

Elective course 3

Second Semester (15 credits)

FIN 3400 - Corporate Finance (QI) 3

MGT 3820 - International Management (DSS) 2

MGT 4600 - Negotiations 2

MGT 4730 - Business and Society 2

BA Elective course 2-3

Elective course(s) 4

Senior Year (30 credits)

First Semester (15 credits)

MGT 4790 - Managing Global Value Chains 2

BA Elective courses 4-6

Depth Humanities and Creative Arts (DHA) course 2-3

Elective courses 4-7

Second Semester (15 credits)

MGT 4890 - Strategic Planning and Execution (CI) 3

MGT 5730 - Problem Solving and Continuous Improvement 2

BA Elective course 2-3

Elective courses 7-8

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Entrepreneurship Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

Requirements for Minors

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

Required Courses (12 credits)

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3530 - New Venture Marketing 2

MGT 3540 - New Venture Financing 2

MGT 3560 - New Venture Planning 2

MGT 3570 - New Venture Social Responsibility 2

Optional Course:

MGT 3580 - New Venture Execution 2

Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management. MGT 3510 is recommended before continuing with all Entrepreneurship courses.

Return to: Academic Departments and Programs

Hospitality and Tourism Management Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

Requirements for Minors

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

Required Courses (15 credits)

ENVS 3400 - Fundamentals of Tourism 3

MGT 3900 - Strategic Marketing in Hospitality and Tourism 3

MGT 3910 - Revenue and Cost Management in Hospitality and Tourism 3

MGT 3920 - Hospitality Management and Operations 3

## MGT 3930 - Tourism and Events Administration 3

### Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management.

Return to: Academic Departments and Programs

## Human Resource Management Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

### Requirements for Minors

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

### Required Courses (12 credits)

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3250 - Introduction to Human Resource Management 3 (B- or better)

MGT 3810 - Employment Law and Policy Development (DSS) 3

MGT 4630 - Human Resource Strategy 3

### Elective Course (2 credits)

Choose one of the following courses:

MGT 3710 - Team Management 2

MGT 3800 - Leadership 2

MGT 3820 - International Management (DSS) 2

MGT 4600 - Negotiations 2

### Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management.

Return to: Academic Departments and Programs

## International Business - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 1500 will fulfill the American Institutions requirement

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in FIN 3400, MGT 3500 and MGT 3700.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

International Business Major (28 credits)

The international business major develops the skills and knowledge needed to provide leadership in the global marketplace. This requires not only being able to manage customers, products, and processes in global supply chains, but also understanding the social, political, and cultural dimensions of business in an international environment. For the BA degree in International Business, students must complete 19 credits of required courses, 6 credits of supporting coursework, and one 3-credit elective course (as shown below). In addition to coursework requirements, students are required to demonstrate competence in a second language, and complete an international experience. Competence in a second language can be demonstrated by one of the following: (1) successful completion of a minor or major in a second language; (2) passing 16 semester credits of a second language at an accredited college or university; (3) passing a language challenge competency exam and successfully completing the next higher class; (4) successful completion of the BYU Language Test (minimum of 16 credits); or (5) completion of 16 credits from the Intensive English Language Institute or

attainment of a TOEFL score of at least 173  
computerized, 500 paper/pencil, or 61 on the iBT.

The international experience can be fulfilled by meeting  
one of the following requirements:

Demonstration of international work experience or  
completion of an internship. The work  
experience/internship is either to be completed overseas  
or to provide substantial and approved international  
experience. It is to be of no less than nine weeks in  
duration.

Or

Completion of a minimum of one semester of study at an  
approved overseas institute of higher education or  
participation in an approved overseas study tour.

Required Courses (19 credits)

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

FIN 4300 - International Finance 3

MGT 3820 - International Management (DSS) 2

MGT 3830 - International Law 2

MGT 4050 - International Marketing 2

MGT 4730 - Business and Society 2

MGT 4790 - Managing Global Value Chains 2

MGT 4890 - Strategic Planning and Execution (CI) 3

Supporting Coursework (6 credits)

Students must complete 6 credits of coursework from the  
following:

See note 1

ECN 3300 - Contemporary Issues in International Trade  
3 (Huntsman Scholars) or

MGT 3300 - Contemporary Issues in International Trade  
3 (Huntsman Scholars)

ECN 4500 - The Political Economy of the European  
Union 3 (Huntsman Scholars)

ECN 5400 - International Trade Theory 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3280 - East Central Europe Since 1520 3

HIST 3460 - Comparative Asian History 3

HIST 3481 - China's Cultural Revolution 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3510 - Africa and the World 3

HIST 3630 - History of Modern Latin America 3

HIST 3660 - History of Mexico 3

HIST 4330 - Modern Germany with Special Emphasis on  
the Twentieth Century 3

HIST 4890 - Cold War in Asia (DHA) 3

POLS 3100 - Global Issues 3

POLS 3210 - Western European Government and Politics  
(DSS) 3

POLS 3220 - Russian and East European Government and  
Politics (DSS) 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics  
(DSS) 3

POLS 4210 - European Union Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 5120 - Economics of Russia and Eastern Europe,  
9th Century to 21st Century 3

POLS 5480 - International Trade Policy 3

Electives (select 3 credits)

Students must complete one elective, selected from the  
following:

MGT 4250 - Management Internship 1-3 (3 credits  
required)

CHIN 3100 - Readings in Contemporary Chinese Culture  
(DHA) 3

CHIN 3510 - Chinese Business Language 3

FREN 3510 - Business French (CI) 3

FREN 3550 - French Civilization (DHA) 3

FREN 3570 - France Today 3

GERM 3300 - Contemporary German Speaking Cultures (DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

JAPN 3100 - Readings in Contemporary Japanese Culture 3

JAPN 3510 - Japanese for the Business Environment 3

MIS 4550 - Principles of International Business Communications (CI) 3

PORT 3570 - Brazilian Culture and Civilization (DHA) 3

RUSS 3300 - Contemporary Russian Language and Culture (DHA) 3

RUSS 3510 - Business Russian (CI) 3

RUSS 3540 - Russian Translation for Science, Business, and Culture 3

SPAN 3510 - Business Spanish 3

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

Any class from supporting area classes (if not already taken) 3

Note:

1 In the event that a course required for a supporting area is not offered or available, an approved alternative course may be substituted.

International Business Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Global Learning Experience/Summer Program is recommended between the Sophomore and Junior year OR MGT 4250 (international) is recommended between the Junior and Senior year.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (USU 1010 starts the week prior to fall semester and is completed after the first 3 weeks of fall semester)

Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Life Science (BLS) course 3

Elective course 2

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 3500 - Fundamentals of Marketing 3 (B- grade required)

MIS 3200 - Business Communication (CI) 3

Breadth Humanities (BHU) course 3

Language course 3-4

Junior Year (30 credits)	Total Credits
First Semester (15 credits)	120
ECN 5150 - Comparative Economic Systems (CI/DSS) 3	Grade Point Average (most majors require higher GPA)
MGT 3110 - Managing Organizations and People (DSS) 3	2.00 GPA
MGT 3700 - Operations Management 3 (B- grade required)	Credits of C- or better
Supporting Coursework Elective course 3	100
Language course 3-4	Credits of upper-division courses (#3000 or above)
Second Semester (15 credits)	40
FIN 3400 - Corporate Finance (QI) 3 (B- grade required)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
MGT 3820 - International Management (DSS) 2	30 USU credits
MGT 3830 - International Law 2	Completion of approved major program of study
MGT 4730 - Business and Society 2	See college advisor
Language course 3-4	Credits in minor (if required)
Elective course 2-3	12
Senior Year (30 credits)	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
First Semester (15 credits)	3
FIN 4300 - International Finance 3	General Education Requirements and University Studies Depth Requirements
MGT 4050 - International Marketing 2	Return to: Academic Departments and Programs
International Business Elective course 3	International Business - BS
Language course 3-4	Return to: Academic Departments and Programs
Depth Humanities and Creative Arts (DHA) course 2-3	Jon M. Huntsman School of Business
Elective course 0-2	Department of Management
Second Semester (15 credits)	University Studies Requirements for Major
MGT 4790 - Managing Global Value Chains 2	Students must complete the General Education Requirements:
MGT 4890 - Strategic Planning and Execution (CI) 3	ECN 1500 will fulfill the American Institutions requirement
Supporting Coursework Elective course 3	
Language course 3-4	
Depth Life and Physical Sciences (DSC) course 3	
Elective course 0-1	
Minimum University Requirements	

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in FIN 3400, MGT 3500 and MGT 3700.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

International Business Major (28 credits)

The international business major develops the skills and knowledge needed to provide leadership in the global marketplace. This requires not only being able to manage customers, products, and processes in global supply chains, but also understanding the social, political, and cultural dimensions of business in an international environment. For the BA degree in International Business, students must complete 19 credits of required courses, 6 credits of supporting coursework, and one 3-credit elective course (as shown below). In addition to coursework requirements, students are required to demonstrate competence in a second language, and complete an international experience. Competence in a second language can be demonstrated by one of the following: (1) successful completion of a minor or major in a second language; (2) passing 16 semester credits of a second language at an accredited college or university; (3) passing a language challenge competency exam and successfully completing the next higher class; (4) successful completion of the BYU Language Test (minimum of 16 credits); or (5) completion of 16 credits from the Intensive English Language Institute or attainment of a TOEFL score of at least 173 computerized, 500 paper/pencil, or 61 on the iBT.

The international experience can be fulfilled by meeting one of the following requirements:

Demonstration of international work experience or completion of an internship. The work experience/internship is either to be completed overseas or to provide substantial and approved international experience. It is to be of no less than nine weeks in duration.

Or

Completion of a minimum of one semester of study at an approved overseas institute of higher education or participation in an approved overseas study tour.

## Required Courses (19 credits)

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

FIN 4300 - International Finance 3

MGT 3820 - International Management (DSS) 2

MGT 3830 - International Law 2

MGT 4050 - International Marketing 2

MGT 4730 - Business and Society 2

MGT 4790 - Managing Global Value Chains 2

MGT 4890 - Strategic Planning and Execution (CI) 3

## Supporting Coursework (6 credits)

Students must complete 6 credits of coursework from the following:

See note 1

ECN 3300 - Contemporary Issues in International Trade 3 (Huntsman Scholars) or

MGT 3300 - Contemporary Issues in International Trade 3 (Huntsman Scholars)

ECN 4500 - The Political Economy of the European Union 3 (Huntsman Scholars)

ECN 5400 - International Trade Theory 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3280 - East Central Europe Since 1520 3

HIST 3460 - Comparative Asian History 3

HIST 3481 - China's Cultural Revolution 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3510 - Africa and the World 3

HIST 3630 - History of Modern Latin America 3

HIST 3660 - History of Mexico 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

HIST 4890 - Cold War in Asia (DHA) 3

POLS 3100 - Global Issues 3

POLS 3210 - Western European Government and Politics (DSS) 3

POLS 3220 - Russian and East European Government and Politics (DSS) 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 4210 - European Union Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

POLS 5480 - International Trade Policy 3

## Electives (select 3 credits)

Students must complete one elective, selected from the following:

MGT 4250 - Management Internship 1-3 (3 credits required)

CHIN 3100 - Readings in Contemporary Chinese Culture (DHA) 3

CHIN 3510 - Chinese Business Language 3

FREN 3510 - Business French (CI) 3

FREN 3550 - French Civilization (DHA) 3

FREN 3570 - France Today 3

GERM 3300 - Contemporary German Speaking Cultures (DHA) 3

GERM 3510 - Business German (CI) 3

GERM 3550 - Cultural History of German Speaking Peoples (DHA) 3

JAPN 3100 - Readings in Contemporary Japanese Culture 3

JAPN 3510 - Japanese for the Business Environment 3

MIS 4550 - Principles of International Business Communications (CI) 3

PORT 3570 - Brazilian Culture and Civilization (DHA) 3

RUSS 3300 - Contemporary Russian Language and Culture (DHA) 3

RUSS 3510 - Business Russian (CI) 3

RUSS 3540 - Russian Translation for Science, Business, and Culture 3

SPAN 3510 - Business Spanish 3

SPAN 3550 - Spanish Culture and Civilization (DHA) 3

SPAN 3570 - Hispanic American Culture and Civilization (DHA) 3

Any class from supporting area classes (if not already taken) 3

Note:

1 In the event that a course required for a supporting area is not offered or available, an approved alternative course may be substituted.

International Business Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Global Learning Experience/Summer Program is recommended between the Sophomore and Junior year OR MGT 4250 (international) is recommended between the Junior and Senior year.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (USU 1010 starts the week prior to fall semester and is completed after the first 3 weeks of fall semester)

Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Life Science (BLS) course 3

Elective course 2

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 3500 - Fundamentals of Marketing 3 (B- grade required)

MIS 3200 - Business Communication (CI) 3

Breadth Humanities (BHU) course 3

Language course 3-4

Junior Year (30 credits)

First Semester (15 credits)

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3 (B- grade required)

Supporting Coursework Elective course 3

Language course 3-4

Second Semester (15 credits)

FIN 3400 - Corporate Finance (QI) 3 (B- grade required)

MGT 3820 - International Management (DSS) 2	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
MGT 3830 - International Law 2	
MGT 4730 - Business and Society 2	30 USU credits
Language course 3-4	Completion of approved major program of study
Elective course 2-3	See college advisor
Senior Year (30 credits)	Credits in minor (if required)
First Semester (15 credits)	12
FIN 4300 - International Finance 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
MGT 4050 - International Marketing 2	
International Business Elective course 3	3
Language course 3-4	General Education Requirements and University Studies Depth Requirements
Depth Humanities and Creative Arts (DHA) course 2-3	
Elective course 0-2	Return to: Academic Departments and Programs
Second Semester (15 credits)	
MGT 4790 - Managing Global Value Chains 2	International Business Minor
MGT 4890 - Strategic Planning and Execution (CI) 3	Return to: Academic Departments and Programs
Supporting Coursework Elective course 3	Jon M. Huntsman School of Business
Language course 3-4	Department of Management
Depth Life and Physical Sciences (DSC) course 3	This minor is designed primarily for business majors. A student from outside the Huntsman School of Business who desires to pursue the minor must recognize that there are several pre-requisites to the required courses, which may themselves have pre-requisites. As an alternative, students from outside the Huntsman School of Business may want to consider the minor in Business.
Elective course 0-1	
Minimum University Requirements	
Total Credits	Requirements for Minors
120	Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.
Grade Point Average (most majors require higher GPA)	
2.00 GPA	
Credits of C- or better	
100	
Credits of upper-division courses (#3000 or above)	
40	

## Required Courses

FIN 4300 - International Finance 3

MGT 3820 - International Management (DSS) 2

MGT 4050 - International Marketing 2

MGT 4790 - Managing Global Value Chains 2

Select one of the following courses:

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

MGT 3830 - International Law 2

Students must also complete one of sections A, B, C, or D below:

### A. Electives (6 credits)

Students who choose this option must complete 6 credits from the following supporting courses:

ECN 5400 - International Trade Theory 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3280 - East Central Europe Since 1520 3

HIST 3460 - Comparative Asian History 3

HIST 3481 - China's Cultural Revolution 3

HIST 3483 - Modern China, 1800 to Present (CI/DHA) 3

HIST 3510 - Africa and the World 3

HIST 3630 - History of Modern Latin America 3

HIST 3660 - History of Mexico 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

HIST 4890 - Cold War in Asia (DHA) 3

POLS 3100 - Global Issues 3

POLS 3210 - Western European Government and Politics (DSS) 3

POLS 3220 - Russian and East European Government and Politics (DSS) 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 4210 - European Union Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

POLS 5480 - International Trade Policy 3

### B. Second Language Competence

Students selecting this option must demonstrate competence in a second language by one of the following five methods:

A minor or major in a second language

Completion of 16 semester credits of a second language, earned at an accredited institution

Passing a language challenge competency exam and successful completion of the next higher class

Successful completion of the BYU Language Test (minimum of 16 credits)

Completion of 16 credits from the Intensive English Language Institute or a TOEFL score of at least 173 computerized, 500 paper/pencil, or 61 on the iBT

### C. International Work Experience or Internship

For this option, work experience or an internship must either be completed overseas or must provide substantial and approved international experience. This work experience or internship must be at least nine weeks in duration.

### D. Study Overseas

Students selecting this option must either spend a minimum of one semester studying at an approved overseas institution of higher education or must participate in an approved overseas study tour.

Note:

1 An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management.

Return to: Academic Departments and Programs

Management Minor

[Return to: Academic Departments and Programs](#)

[Jon M. Huntsman School of Business](#)

[Department of Management](#)

[Requirements for Minors](#)

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

Please Note:

If you are majoring in Business Administration, you may not receive a minor in Management.

[Required Course \(3 credits\)](#)

[MGT 3110 - Managing Organizations and People \(DSS\) 3](#)

[Electives \(10 credits minimum\)](#)

Choose at least 10 credits from the following courses:

[MGT 3250 - Introduction to Human Resource Management 3](#)

[MGT 3510 - New Venture Fundamentals 2](#)

[MGT 3520 - New Venture Management 2](#)

[MGT 3560 - New Venture Planning 2](#)

[MGT 3710 - Team Management 2](#)

[MGT 3800 - Leadership 2](#)

[MGT 3810 - Employment Law and Policy Development \(DSS\) 3](#)

[MGT 3820 - International Management \(DSS\) 2](#)

Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management.

[Return to: Academic Departments and Programs](#)

[Marketing - BA](#)

[Return to: Academic Departments and Programs](#)

[Jon M. Huntsman School of Business](#)

[Department of Management](#)

[University Studies Requirements for Major](#)

Students must complete the General Education Requirements:

ECN 1500 will fulfill the American Institutions requirement

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

[Bachelor of Arts Degree Language Requirement](#)

[Bachelor of Arts Degree](#)

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in MGT 3500.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

Marketing Major (27 credits)

Modern marketing consists of a system of activities designed to help the marketer understand and influence buyer and seller behavior. Within the socio-economic and political environment, the marketer must plan, price, promote, and distribute want-satisfying goods and services to society.

Required Courses (19 credits)

MGT 4510 - Buyer Behavior 2

MGT 4530 - Marketing Research 3

MGT 4535 - Promotional Strategy 2

MGT 4550 - Brand Management 2

MGT 4560 - Strategic Sales 2

MGT 4590 - Marketing Strategy 3

MGT 4730 - Business and Society 2

MGT 4890 - Strategic Planning and Execution (CI) 3

Electives (8 credits)

Choose four courses:

MGT 3530 - New Venture Marketing 2

MGT 3850 - Sports Management 2

MGT 4050 - International Marketing 2

MGT 4540 - Social and New Media 2

MGT 4545 - Marketing and Sales Technology 3

MGT 4570 - Consumer Choice Modeling 2

MGT 4600 - Negotiations 2

MGT 4790 - Managing Global Value Chains 2

MGT 4250 - Management Internship 1-3 (2 credits required) OR BUS 2000 - Foundations for Global Learning Experiences 1-3 (2 credits required).

MIS 3860 - Big Data Analytics 3

PSY 3010 - Psychological Statistics (QI) 4

Marketing Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (USU 1010 starts the week prior to fall semester and is complete after the first 3 weeks of fall semester)

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Humanities (BHU) course 3

Elective course 2

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Life Science (BLS) course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MGT 3500 - Fundamentals of Marketing 3 (B- grade required)

MIS 3200 - Business Communication (CI) 3

Breadth Creative Arts (BCA) course 3

Depth Life and Physical Sciences (DSC) course 3

Junior Year (30 credits)

MGT 4250 (Marketing elective) is recommended between the Junior and Senior year.

First Semester (15 credits)

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3700 - Operations Management 3

MGT 4530 - Marketing Research 3

MGT 4535 - Promotional Strategy 2

MGT 4560 - Strategic Sales 2

Elective course 2

Second Semester (15 credits)

FIN 3400 - Corporate Finance (QI) 3

MGT 4510 - Buyer Behavior 2

MGT 4550 - Brand Management 2

Marketing Elective course 2

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

MGT 4590 - Marketing Strategy 3

MGT 4730 - Business and Society 2

Marketing Elective course 2

Depth Humanities and Creative Arts (DHA) course 2-3

Elective courses 5-6

Second Semester (15 credits)

MGT 4890 - Strategic Planning and Execution (CI) 3

Marketing Elective courses 4

Elective courses 8

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Marketing - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 1500 will fulfill the American Institutions requirement

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

For Huntsman School of Business students, courses taken for their major may meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Courses taken for their major will fulfill the Communications Intensive (CI) and Quantitative Intensive (QI) requirements for students in the Huntsman School of Business, Management Department.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

All majors in the Department of Management must complete the following business acumen, in addition to the specific courses listed for the major. ECN 1500, ENGL 2010, and STAT 2300 or STAT 2000 must be completed with a grade of C or better. Additionally, students must receive a grade of B- or better in MGT 3500.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4 or

STAT 2000 - Statistical Methods (QI) 4

Note:

All 3000-, 4000-, and 5000-level courses in the Huntsman School of Business are restricted to students admitted to the Huntsman School or another USU major with an overall GPA of at least 2.67 and completion of at least 40 credits.

Marketing Major (27 credits)

Modern marketing consists of a system of activities designed to help the marketer understand and influence buyer and seller behavior. Within the socio-economic and political environment, the marketer must plan, price, promote, and distribute want-satisfying goods and services to society.

Required Courses (19 credits)

MGT 4510 - Buyer Behavior 2

MGT 4530 - Marketing Research 3

MGT 4535 - Promotional Strategy 2

MGT 4550 - Brand Management 2

MGT 4560 - Strategic Sales 2

MGT 4590 - Marketing Strategy 3

MGT 4730 - Business and Society 2

MGT 4890 - Strategic Planning and Execution (CI) 3

Electives (8 credits)

Choose four courses:

MGT 3530 - New Venture Marketing 2

MGT 3850 - Sports Management 2

MGT 4050 - International Marketing 2

MGT 4540 - Social and New Media 2

MGT 4545 - Marketing and Sales Technology 3

MGT 4570 - Consumer Choice Modeling 2

MGT 4600 - Negotiations 2

MGT 4790 - Managing Global Value Chains 2

MGT 4250 - Management Internship 1-3 (2 credits required) OR BUS 2000 - Foundations for Global Learning Experiences 1-3 (2 credits required).

MIS 3860 - Big Data Analytics 3

PSY 3010 - Psychological Statistics (QI) 4

Marketing Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade required)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (USU 1010 starts the week prior to fall semester and is complete after the first 3 weeks of fall semester)

Breadth Physical Science (BPS) course 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade required)

STAT 2000 - Statistical Methods (QI) 4 or

STAT 2300 - Business Statistics (QL) 4 (C grade required)

Breadth Humanities (BHU) course 3	Marketing Elective course 2
Elective course 2	Elective courses 6
Sophomore Year (30 credits)	Senior Year (30 credits)
First Semester (15 credits)	First Semester (15 credits)
ACCT 2010 - Financial Accounting Principles 3	MGT 4590 - Marketing Strategy 3
ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3	MGT 4730 - Business and Society 2
MGT 2050 - Legal and Ethical Environment of Business 3	Marketing Elective course 2
MIS 2100 - Principles of Management Information Systems 3	Depth Humanities and Creative Arts (DHA) course 2-3
Breadth Life Science (BLS) course 3	Elective courses 5-6
Second Semester (15 credits)	Second Semester (15 credits)
ACCT 2020 - Managerial Accounting Principles 3	MGT 4890 - Strategic Planning and Execution (CI) 3
MGT 3500 - Fundamentals of Marketing 3 (B- grade required)	Marketing Elective courses 4
MIS 3200 - Business Communication (CI) 3	Elective courses 8
Breadth Creative Arts (BCA) course 3	Minimum University Requirements
Depth Life and Physical Sciences (DSC) course 3	Total Credits
Junior Year (30 credits)	120
MGT 4250 (Marketing elective) is recommended between the Junior and Senior year.	Grade Point Average (most majors require higher GPA)
First Semester (15 credits)	2.00 GPA
MGT 3110 - Managing Organizations and People (DSS) 3	Credits of C- or better
MGT 3700 - Operations Management 3	100
MGT 4530 - Marketing Research 3	Credits of upper-division courses (#3000 or above)
MGT 4535 - Promotional Strategy 2	40
MGT 4560 - Strategic Sales 2	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
Elective course 2	30 USU credits
Second Semester (15 credits)	Completion of approved major program of study
FIN 3400 - Corporate Finance (QI) 3	See college advisor
MGT 4510 - Buyer Behavior 2	Credits in minor (if required)
MGT 4550 - Brand Management 2	12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Marketing Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

Requirements for Minors

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

Required Courses (11 credits)

MGT 3500 - Fundamentals of Marketing 3 (B- or better)

MGT 4510 - Buyer Behavior 2

MGT 4530 - Marketing Research 3

MGT 4590 - Marketing Strategy 3

Elective Course (2 credits)

Choose one of the following courses:

MGT 4535 - Promotional Strategy 2

MGT 4560 - Strategic Sales 2

Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the

Department of Management. A B- grade or better in MGT 3500 is required before continuing with Marketing courses.

Return to: Academic Departments and Programs

Master of Human Resources (MHR)

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

Objectives

The Master of Human Resources degree prepares students for professional careers in Human Resource Management. The program is competency based and prepares students to take a strategic role, assisting organizations in attracting, retaining, developing and mobilizing human talent at all levels. Students receive training in talent acquisition and retention, employment law, applied HR research, team and interpersonal effectiveness, training and organizational development, total rewards and employee performance, employee relations and the labor movement, international human resource management, leadership and operational excellence, applied human resource analytics, human resource policy and strategy, and negotiation and mediation. In addition, students in the full-time campus program complete a 3 month internship and an international experience. A streamlined program is also available, allowing students to sequentially complete both the MHR and an MBA in 2 years. Students are also required to demonstrate business acumen and complete an internship as part of the program.

Admission Requirements

See Admission Procedures. Students from any accredited undergraduate major are invited to apply. Students are required to submit scores on the Miller Analogies Test (MAT), Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE). Applicants are expected to have strong written and oral communication skills.

Students are expected to be admitted to the program as matriculated students before taking coursework leading to the degree.

Western Regional Graduate Program

Designated as the Western Regional Graduate Program (WRGP) in Human Resources, residents of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming can attend the MHR program at Utah State University for in-state tuition.

### Degree Requirements

Students are held responsible for meeting requirements as outlined below. It is the student's responsibility to be aware of all requirements and initiate the resolution of apparent inconsistencies.

The typical degree option is Plan C, which includes coursework to meet the degree requirements.

The Master of Human Resources degree requires a minimum of 33 to 43.5 credits, depending upon the undergraduate preparation of the student. Students entering the program without an undergraduate business degree will be required to complete a minimum of 9 credits in business acumen, including FIN 3400, ACCT 2010, ACCT 2020, and MGT 3500, or their equivalents. Students wishing to be considered for the concurrent MHR/MBA program, must meet the business acumen requirements for the MBA. Students with an undergraduate degree from an AACSB-International accredited business school will generally not be required to take the business acumen.

Beyond the business acumen, students generally complete the following courses: MGT 6310, MGT 6320, MGT 6330, MGT 6550, MGT 6620, MGT 6630, MGT 6650, MGT 6670, MGT 6680, MGT 6690, MGT 6760, MGT 6870; and BUS 6250. Completion of BUS 6250 (Graduate Internship) is optional for students in the MHR Executive Program as they are currently employed full-time or have significant work experience. Students generally complete the MHR program on a cohort basis, and are expected to complete the program of study as scheduled for their cohort. Any adjustments must be approved by the MHR steering committee.

Additional information about the Masters of Human Resources degree may be obtained by contacting the Department of Management or by visiting <http://huntsman.usu.edu/MHR/>

Return to: Academic Departments and Programs

### Operations Management Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management

### Requirements for Minors

Any deviation from the program as outlined must be submitted in writing, with justification for the changes, to the department head for approval. A minimum 2.50 GPA in the minor courses is required. Students in a declared major may be eligible to earn a minor in Entrepreneurship, Hospitality and Tourism Management, Human Resource Management, International Business, Management, Marketing, or Operations Management. Students would be expected to satisfy all course prerequisites as well, with a GPA of at least 2.50.

### Required Courses (12 credits)

MGT 3700 - Operations Management 3 (B- or better)

MGT 4720 - Production Planning and Control 2

MGT 4790 - Managing Global Value Chains 2

MGT 5730 - Problem Solving and Continuous Improvement 2

MIS 3860 - Big Data Analytics 3

### Note:

An overall GPA of 2.67, completion of at least 40 credits, and admission into a degree-seeking major are required for enrollment in 3000- or 4000-level courses in the Department of Management. A B- grade or better in MGT 3700 is required before continuing with Operations Management courses.

Return to: Academic Departments and Programs

### Management Information Systems - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management Information Systems

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

ECN 1500 will fulfill the American Institutions requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

For Huntsman School of Business students, MIS 3200 will count as one of the Communication Intensive (CI) courses

For Huntsman School of Business students, courses taken for their major will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Requirements for Bachelor's Degree in Management Information Systems

To earn a bachelor's degree in Management Information Systems, a student must complete the USU requirements for a bachelor's degree and the following categories of coursework in the Huntsman School of Business: Huntsman School of Business Acumen, MIS Department Core, and four MIS elective courses (12 credits).

Huntsman School of Business Acumen (40 credits)

Prior to Huntsman School of Business admission and prior to enrolling in courses numbered 3000 or above, ECN 1500, MIS 3200, and STAT 2300 must be completed with a grade of C or better.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

MIS Department Core Requirements (10-13 credits)

BUS 4250 - Advanced Internship 1-9 (waived for Huntsman Scholars) (3 credits required)

MIS 3330 - Database Management 3

MIS 3800 - IT Infrastructure 3

MIS 5900 - Systems Design and Implementation (CI) 3

MIS 5910 - Systems Design Laboratory 1

Programming Requirement (3-4 credits)

Students must complete either MIS 3500 or both CS 1400 and CS 1405.

MIS 3500 - Introduction to Business Applications Programming 3

Or

CS 1400 - Introduction to Computer Science--CS 1 3 and

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 (take concurrently with CS 1400)

Elective Courses (12 credits)

Students must select four elective courses from the following list:

MIS 3450 - Designing Graphical User Interfaces for Electronic Commerce 3

MIS 4330 - Database Implementation 3

MIS 4350 - Introduction to Performance Improvement Projects 3

MIS 4800 - Security of Business Information Systems 3

MIS 5050 - Advanced Web-Based Management Information Systems Development 3

MIS 5150 - Special Topics: Emerging Technologies in Management Information Systems 3

MIS 5300 - Advanced Data Communications 3

MIS 5350 - Data Modeling and Analytics 3

MIS 5650 - Advanced Website Development 3

MIS 5700 - Internet Management and Electronic Commerce (DSS) 3

Management Information Systems Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade is required)

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required )(USU 1010 starts the week prior to fall semester and is completed after the first three weeks of fall semester)

Breadth Physical Sciences (BPS) course 3

Elective course 3

Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4 (C grade is required)

Breadth Humanities (BHU) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth Creative Arts (BCA) course 3	MGT 3500 - Fundamentals of Marketing 3
Elective course 3	MIS 5900 - Systems Design and Implementation (CI) 3
Second Semester (15 credits)	Depth Humanities and Creative Arts (DHA) course 2-3
ACCT 2020 - Managerial Accounting Principles 3	Elective courses 5-6
MIS 3200 - Business Communication (CI) 3	MIS 5910 - Systems Design Laboratory 1
MIS 3330 - Database Management 3	Minimum University Requirements
Breadth Life Science (BLS) course 3	Total Credits
Elective course 3	120
Junior Year (30-31 credits)	Grade Point Average (most majors require higher GPA)
First Semester (15-16 credits)	2.00 GPA
FIN 3400 - Corporate Finance (QI) 3	Credits of C- or better
MGT 2050 - Legal and Ethical Environment of Business 3	100
MIS 3500 - Introduction to Business Applications Programming 3	Credits of upper-division courses (#3000 or above)
OR	40
CS 1400 - Introduction to Computer Science--CS 1 3 and	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
CS 1405 - Introduction to Computer Science--CS 1 Lab 1	30 USU credits
MIS 3800 - IT Infrastructure 3	Completion of approved major program of study
Elective course 3	See college advisor
Second Semester (15 credits)	Credits in minor (if required)
MGT 3700 - Operations Management 3	12
MIS Elective courses 6	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Communication Intensive (CI) course 3	3
Elective course 3	General Education Requirements and University Studies Depth Requirements
Senior Year (29-31 credits)	Return to: Academic Departments and Programs
First Semester (15 credits)	Management Information Systems - BS
BUS 4250 - Advanced Internship 1-9 (3 credits required)	Return to: Academic Departments and Programs
MGT 3110 - Managing Organizations and People (DSS) 3	
MIS Elective courses 6	
Depth Life and Physical Science (DSC) course 3	
Second Semester (14-16 credits)	

Jon M. Huntsman School of Business

Department of Management Information Systems

University Studies Requirements for Major

Students must complete the General Education Requirements:

ECN 2010 will fulfill the Social Sciences requirement for students in the Huntsman School of Business

ECN 1500 will fulfill the American Institutions requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement

Students must also complete the University Studies Depth Requirements:

For Huntsman School of Business students, MIS 3200 will count as one of the Communication Intensive (CI) courses

For Huntsman School of Business students, courses taken for their major will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Requirements for Bachelor's Degree in Management Information Systems

To earn a bachelor's degree in Management Information Systems, a student must complete the USU requirements for a bachelor's degree and the following categories of coursework in the Huntsman School of Business: Huntsman School of Business Acumen, MIS Department Core, and four MIS elective courses (12 credits).

Huntsman School of Business Acumen (40 credits)

Prior to Huntsman School of Business admission and prior to enrolling in courses numbered 3000 or above, ECN 1500, MIS 3200, and STAT 2300 must be completed with a grade of C or better.

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

MIS Department Core Requirements (10-13 credits)

BUS 4250 - Advanced Internship 1-9 (waived for Huntsman Scholars) (3 credits required)

MIS 3330 - Database Management 3

MIS 3800 - IT Infrastructure 3

MIS 5900 - Systems Design and Implementation (CI) 3

MIS 5910 - Systems Design Laboratory 1

Programming Requirement (3-4 credits)

Students must complete either MIS 3500 or both CS 1400 and CS 1405.

MIS 3500 - Introduction to Business Applications Programming 3

Or

CS 1400 - Introduction to Computer Science--CS 1 3 and

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 (take concurrently with CS 1400)

Elective Courses (12 credits)

Students must select four elective courses from the following list:

MIS 3450 - Designing Graphical User Interfaces for Electronic Commerce 3

MIS 4330 - Database Implementation 3

MIS 4350 - Introduction to Performance Improvement Projects 3

MIS 4800 - Security of Business Information Systems 3

MIS 5050 - Advanced Web-Based Management Information Systems Development 3

MIS 5150 - Special Topics: Emerging Technologies in Management Information Systems 3

MIS 5300 - Advanced Data Communications 3

MIS 5350 - Data Modeling and Analytics 3

MIS 5650 - Advanced Website Development 3

MIS 5700 - Internet Management and Electronic Commerce (DSS) 3

Management Information Systems Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade is required)

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required )(USU 1010 starts the week prior to fall semester and is completed after the first three weeks of fall semester)

Breadth Physical Sciences (BPS) course 3

Elective course 3

Second Semester (16 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MIS 2100 - Principles of Management Information Systems 3

STAT 2300 - Business Statistics (QL) 4 (C grade is required)

Breadth Humanities (BHU) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth Creative Arts (BCA) course 3

Elective course 3

Second Semester (15 credits)

ACCT 2020 - Managerial Accounting Principles 3

MIS 3200 - Business Communication (CI) 3

MIS 3330 - Database Management 3

Breadth Life Science (BLS) course 3

Elective course 3

Junior Year (30-31 credits)

First Semester (15-16 credits)

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 3500 - Introduction to Business Applications Programming 3

OR

CS 1400 - Introduction to Computer Science--CS 1 3 and

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MIS 3800 - IT Infrastructure 3

Elective course 3

Second Semester (15 credits)

MGT 3700 - Operations Management 3

MIS Elective courses 6

Communication Intensive (CI) course 3

Elective course 3

Senior Year (29-31 credits)

First Semester (15 credits)

BUS 4250 - Advanced Internship 1-9 (3 credits required)

MGT 3110 - Managing Organizations and People (DSS) 3

MIS Elective courses 6

Depth Life and Physical Science (DSC) course 3

Second Semester (14-16 credits)

MGT 3500 - Fundamentals of Marketing 3

MIS 5900 - Systems Design and Implementation (CI) 3

Depth Humanities and Creative Arts (DHA) course 2-3

Elective courses 5-6

MIS 5910 - Systems Design Laboratory 1

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

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Management Information Systems - MMIS

Return to: Academic Departments and Programs

Jon M. Hunstman School of Business

Department of Management Information Systems

Required Core Courses (21 credits)

MIS 5050 - Advanced Web-Based Management Information Systems Development 3 or

MIS 6650 - Advanced Website Development 3

MIS 5300 - Advanced Data Communications 3

MIS 6230 - Management of Database Systems 3

MIS 6610 - MIS Strategy for IT Professionals 3

MIS 6900 - IS Development 3

MIS 6330 - Database Implementation 3

Choose one of the following courses:

MIS 6110 - Workshop 1-3 (Data Visualization & Dashboards, Advanced Business Analytics Using Distributed Computing or Advanced Business Intelligence & Data Mining) (3 credits each)

OR

MIS 6860 - Business Intelligence and Analytics 2-3 (2 credits required)

MIS 6861 - Business Intelligence and Analytics Laboratory 1

Elective Courses (Minimum of 12 credits)

MIS 6110 - Workshop 1-3 (Data Visualization & Dashboards, Advanced Business Analytics Using

Distributed Computing or Advanced Business Intelligence & Data Mining (3 credits each)

MIS 6150 - Communication for Business 3

MIS 6350 - Introduction to Performance Improvement Projects 3

MIS 6650 - Advanced Website Development 3

MIS 6800 - Security of Business Information Systems 3

MIS 6860 - Business Intelligence and Analytics 2-3 (2 credits required) and

MIS 6861 - Business Intelligence and Analytics Laboratory 1

Select no more than two of the following courses:

MIS 6250 - Graduate Internship 1-6 (3 credits required)

MIS 6950 - Independent Readings 1-3 (3 credits required)

No more than 9 credit hours of the 5XXX level courses:

MIS 5050 - Advanced Web-Based Management Information Systems Development 3

MIS 5150 - Special Topics: Emerging Technologies in Management Information Systems 3

MIS 5350 - Data Modeling and Analytics 3

MIS 5700 - Internet Management and Electronic Commerce (DSS) 3

Other Approved 6XXX level courses (3 credits)

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Management Information Systems - MS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management Information Systems

The Master of Science in Management Information Systems at the Jon M. Huntsman School of Business provides a unique blend of technical knowledge, business acumen, and project management skills integrating lean manufacturing principles.

Elective courses are selected from an IT Management Track or Information Technology Track. The IT Management Track complements other courses in the student's degree by adding a technical background in MIS, providing a managerial focus. Coursework includes operations management, financial modeling, global strategy, and entrepreneurship. The Information Technology Track provides a marketable foundation in IT application theory and development. Coursework includes security and advanced web development. Additional electives may also be taken from other disciplines, including management, engineering, computer science, and instructional technology.

Students having degrees in areas outside of business are welcome to apply to the MS program in Management Information Systems. However, candidates who have not graduated from an AACSB-accredited business program must complete a business foundation accelerated core (i.e., accounting, economics, management, and finance).

Admission requirements for the MS program in Management Information Systems include the following:

Bachelor's degree, earned from an accredited institution

Minimum GMAT verbal, quantitative, and total scores all in the 40th percentile or higher

Or

Minimum GRE verbal, quantitative, and total scores all in the 40th percentile or higher

For applicants whose first language is not English, minimum TOEFL score of 600 on the paper version or 213 on the computer version or 79 on the Internet version

Or

Minimum IELTS score of 6.0

Favorable letters of reference from legitimate sources

Under special circumstances, permanent U.S. residents may be admitted provisionally. However, no more than 12 graduate credits may be completed before full matriculation. Because of student visa regulations from the U.S. Immigration and Naturalization Service, provisional matriculation is generally not available to international students.

Prospective students should note that meeting the matriculation requirements shown above does not guarantee admission.

For further information about the MS degree in Management Information Systems, see:  
<http://huntsman.usu.edu/msmis/>

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#### Management Information Systems Minor

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

Department of Management Information Systems

(15-16 credits)

A minimum 2.50 GPA is required in all courses counted toward the minor.

Required Courses (6-7 credits)

MIS 3330 - Database Management 3

Complete either MIS 3500 or CS 1400 and 1405 (3-4 credits)

MIS 3500 - Introduction to Business Applications Programming 3

Or

CS 1400 - Introduction to Computer Science--CS 1 3 and

CS 1405 - Introduction to Computer Science--CS 1 Lab 1 (take concurrently with CS 1400)

Elective Courses (9-10 credits)

Choose three of the following courses:

ACCT 4500 - Accounting Information Systems 3

MIS 3450 - Designing Graphical User Interfaces for Electronic Commerce 3

MIS 3800 - IT Infrastructure 3

MIS 4330 - Database Implementation 3

MIS 4350 - Introduction to Performance Improvement Projects 3

MIS 4800 - Security of Business Information Systems 3

MIS 5050 - Advanced Web-Based Management Information Systems Development 3

MIS 5150 - Special Topics: Emerging Technologies in Management Information Systems 3

MIS 5300 - Advanced Data Communications 3

MIS 5350 - Data Modeling and Analytics 3

MIS 5650 - Advanced Website Development 3

MIS 5700 - Internet Management and Electronic Commerce (DSS) 3

MIS 5900 - Systems Design and Implementation (CI) 3 and

MIS 5910 - Systems Design Laboratory 1

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#### Biomathematics Minor (Mathematics and Statistics)

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

(36-40 credits)

#### Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

##### A. Required Courses (28 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

STAT 3000 - Statistics for Scientists (QI) 3

MATH 4230 - Applied Mathematics in Biology (QI) 3 or

BIOL 4230 - Applied Mathematics in Biology (QI) 3

B. Elective Courses (8-12 credits)

Biology majors must take one course from the biology electives (listed below), and two courses from the mathematics and statistics electives (listed below). Mathematics and Statistics majors must take two courses from the biology electives, and one course from the mathematics and statistics electives. All other majors must take two courses from each set of electives.

Biology Electives

BIOL 3220 - Field Ecology (QI) 2

BIOL 5380 - Evolutionary Genetics 4

BIOL 5600 - Comparative Animal Physiology 3

PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3

PUBH 5330 - Industrial Hygiene Chemical Hazard Control (QI) 3

WILD 3810 - Plant and Animal Populations 3

Mathematics and Statistics Electives

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application of Nonlinear Dynamical Systems 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5710 - Introduction to Probability 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5200 - Design of Experiments 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

Return to: Academic Departments and Programs

Economics and Statistics (Mathematics and Statistics) - MS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Masters Program in Economics and Statistics

The Master of Science (MS) degree in Economics and Statistics is offered through the Department of Mathematics and Statistics, College of Science (in collaboration with the Department of Applied Economics, College of Agriculture and Applied Sciences), is primarily intended to prepare students for subsequent doctoral study in Economics. Consequently, students are required to take the same first-year core theory and econometrics courses as the PhD students.

Our graduates in Economics and Statistics are well-prepared to continue their studies at the doctoral level, particularly in programs with a strong quantitative emphasis. Graduates have recently continued their studies at a variety of institutions, including Brown University, the University of Oregon, Harvard Law School, University of California at Irvine, and George Mason University.

Admission Requirements

Admission to this Masters program requires a minimum grade point average (GPA) of 3.0 (4.0 = A) for the last 60 semester credits earned prior to applying for the program. Educational requirements include previous bachelors (BA or BS) level (or above) courses in intermediate microeconomic theory, econometrics/statistics, and mathematical economics/calculus. Students whose prior academic performance warrants admission, although some of these courses have not been taken, may be admitted provisionally. These students will be required to make up deficiencies by enrolling in appropriate courses prior to beginning the Masters program.

The Graduate Record Examination (GRE) is required. GRE scores should be included with the application. Scores must be at or above the 40th percentile for both the quantitative and verbal portions of the examination. A TOEFL score is also required of all students whose native tongue is not English. Application forms and more information about application requirements (such as GRE and TOEFL scores) can be found online at [www.usu.edu/graduateschool/](http://www.usu.edu/graduateschool/) or by phoning 435-797-1189.

### Program Requirements

A student must earn a minimum of 30 credits above a bachelor's degree for Plan A (thesis) or Plan B (research paper), or 33 credits for Plan C (coursework only). For Plan A students, these credit requirements include a minimum of 6 (maximum of 15) thesis research credits. For Plan B students, these credit requirements include a minimum of 2 (maximum of 3) thesis research credits. The thesis or Plan B paper is typically completed by the end of the second fall semester or the end of the second spring semester.

The Plan of Study (POS) is as follows:

#### Fall Semester (12 credits)

APEC 7130

APEC 7350

APEC 7310

MATH 5710

#### Spring Semester (12 credits)

APEC 7140

APEC 7360

APEC 7320

MATH 5720

#### Second Fall Semester (Plan B and C only)

Additional 6000-level or above economics or mathematics and statistics courses as necessary.

Note: For those Plan B and C students interested in studying Macroeconomic Theory, the Department of Economics and Finance in the Huntsman School of Business offers two courses at the Master's/Ph.D level (cross-listed as APEC 7240 that can be taken during the Second Fall Semester. Also, the two Math courses taken during the first fall and spring semesters (MATH 5710 and MATH 5720) are pre-requisites for higher-level math and statistics courses offered through the Mathematics and Statistics Department. These higher-level math courses can therefore be taken during the Second Fall Semester as well.

### For More Information

Arthur J. Caplan

Director of Graduate Programs

Department of Applied Economics

3530 Old Main Hill, Logan, Utah 84322-3530

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website: [apec.usu.edu](http://apec.usu.edu)

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Industrial Mathematics - MS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

The Industrial Mathematics master's degree is designed to broaden the learning experiences and job opportunities for master's students in mathematics. The program of study incorporates fundamental applied mathematics and interdisciplinary coursework in support of an industrial internship experience.

This degree requires 36 credits of coursework at or above the 5000 level. At least 15 of these credits must be completed in MATH courses at the 6000 level or above. Additionally, students must complete a total of 9 credits outside of Mathematics which complement their internship and final project. A maximum of 3 of these

credits may be taken at the 5000-level (i.e., one 3-credit course in another department). See the departmental website or the Graduate Handbook for more detailed information about coursework requirements.

Students in the MS program in Industrial Mathematics are required to pass the Advanced Calculus examination (see the Master of Science in Mathematics examination requirements) or an examination based on material presented in four core courses chosen by the student during the first year. The exam, which can be taken before or at the beginning of the student's second year in the program, is usually given in May or October. Students are also required to complete a final project based on work done during an internship, either with a company or possibly with another department on campus. The project will include a technical write-up suitable to the industry/field, and presentation to the involved faculty and students in the program. This follows the Plan B option listed for the Master of Science in Mathematics degree.

The Departmental Graduate Committee supervises all MS and MMath students until a supervisory committee for the student is established and approved. Prior to advancement to candidacy, students in Plan A and Plan B options for the MS degree in mathematics and statistics must pass an examination in English writing. This exam is administered by the Department of Mathematics and Statistics.

Return to: Academic Departments and Programs

## Mathematical Sciences - PhD

Return to: Academic Departments and Programs

## College of Science

### Department of Mathematics and Statistics

This is a terminal degree for mathematics and statistics researchers in academe, government, and industry, and for prospective college teachers.

### Specializations for PhD in Mathematical Sciences

The College Teaching Specialization is designed to prepare students to teach undergraduate mathematics in two- and four-year colleges and in universities. This program is less specialized than the other two options. Students in the College Teaching specialization receive

broad training in pure and applied mathematics. The dissertation for this specialization includes exposition of important mathematical theories and their historical relationships in an area of mathematics of the student's choosing.

The Interdisciplinary Studies Specialization offers students the opportunity to receive advanced training in mathematics and/or statistics in the context of another field of inquiry, such as biology, ecology, business, economics, engineering, or education. Students in this specialization will usually take about two thirds of their coursework in the Department of Mathematics and Statistics, and the remaining third in the other discipline. The student's dissertation committee will choose two members from outside the Department of Mathematics and Statistics. The dissertation itself will generally entail the development of advanced mathematical or statistical methods to solve problems in the other subject area.

The Pure and Applied Mathematics Specialization is a traditional doctoral program in mathematics, offering broad training in the foundations of modern mathematics together with specialized training in an area of mathematical research. The dissertation represents a significant contribution to mathematics research in the chosen area of specialization.

The Statistics Specialization offers broad training in theoretical and applied statistics for students seeking careers in academia, industry, or government. The dissertation represents a significant contribution to statistical research.

All four specializations require a course of study of 60 credits beyond a master's degree or 90 credits beyond a bachelor's degree. In almost all cases, a student who applies to the PhD program who does not already have a master's degree will first be directed to the MS programs in mathematics and statistics. Satisfactory performance in one of these programs can lead to admission to the PhD program in mathematical sciences.

The core requirements for the PhD degree in Mathematical Sciences that are common to all four specializations include the following:

Passing a standard written qualifying examination appropriate for the specialization.

Passing a comprehensive examination that is constructed specifically for the student by his or her supervisory committee. The form of the examination may be written

or oral, or may include a combination of written and oral components. The length and content of the exam are determined by the student's supervisory committee.

Successfully complete a test of technical English writing skills. Usually the student's dissertation proposal will serve this purpose.

Complete a dissertation.

Successfully defend the dissertation in a final oral examination.

After completing items 1-3, a PhD student may be advanced to candidacy.

Requirements that are specific to the specialization of the PhD in Mathematical Sciences are listed below. In all cases, it is assumed that the student already has a master's degree in mathematics or statistics.

The College Teaching Specialization requires at least 60 credits in mathematics courses numbered 6000 or higher, excluding MATH 7990 and MATH 6990, of which no more than 20 can be completed in MATH 7970 (Dissertation Research). At least 6 credits should be selected from classes and seminars at the 7000 level, and 6 credits of MATH 7910 (College Teaching Internship) are also required. Students in this specialization take a qualifying examination in Real Analysis. The student's dissertation in this specialization may take several forms, including a traditional, publishable contribution to some area of mathematics; a significant contribution in the area of mathematics education; or an exposition of important mathematical theories and their historic relationships in an area of the student's choosing.

The Interdisciplinary Studies Specialization requires at least 60 credits numbered 6000 or higher, excluding MATH 7990, STAT 7990, MATH 6990, and STAT 6990. No more than 30 of the credits may be completed in MATH 7970 or STAT 7970 (Dissertation Research). At least 20 of the credits should be in mathematics and/or statistics, of which at least 6 should be in seminars and classes at the 7000 level. An additional 10 credits in the student's chosen interdisciplinary area are also required. Students in this specialization may take a qualifying examination in Real Analysis or in Probability and Mathematical Statistics, depending on whether the majority of their coursework is in mathematics or in statistics. The student's PhD supervisory committee should include two persons in the student's selected interdisciplinary area, and the comprehensive examination should have a

significant interdisciplinary component. The dissertation for a student in this specialization should involve the development and application of mathematical or statistical methods to solve problems in the chosen interdisciplinary area, and should be publishable in journals in that area.

The Pure and Applied Mathematics Specialization requires at least 60 credits in mathematics numbered 6000 or higher, excluding MATH 6990 and MATH 7990. At least 6 credits must be selected from seminars or classes numbered 7000 or higher, and no more than 30 of the credits can be completed in MATH 7970 (Dissertation Research). The qualifying examination for this option is in Real Analysis. The dissertation should be a publishable, significant contribution to research in an area of mathematics.

The Statistics Specialization requires at least 60 credits in statistics at the 6000 and 7000 level, excluding STAT 6990 and STAT 7990. With the permission of the student's supervisory committee, some of these credits may be in mathematics or in another discipline. At least 6 credits must be selected from seminars and classes numbered 7000 and higher, and a maximum of 30 credits may be completed in STAT 7970 (Dissertation Research). Students in this specialization take a qualifying examination in Probability and Mathematical Statistics. The dissertation constitutes a publishable, significant contribution to research in statistics.

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Mathematics - BA

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

For this degree, students must complete the major requirements for the corresponding BS degree, plus the equivalent of two years of training in a foreign language. The Languages, Philosophy, and Communication Studies Department is responsible for approving the foreign language coursework for this degree.

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4  
and

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

Mathematics Major (53 credits)

A. Required Courses (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5310 - Introduction to Modern Algebra 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5710 - Introduction to Probability 3

B. Elective Courses (9 credits)

Select at least three courses (9 credits) from the  
following:

MATH 5110 - Differential Geometry 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application  
of Nonlinear Dynamical Systems 3

MATH 5510 - Introduction to Topology 3

MATH 5610 - Computational Linear Algebra and Solution  
of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential  
Equations 3

MATH 5720 - Introduction to Mathematical Statistics 3

Actuarial Science Emphasis (59 credits)

The Actuarial Science Emphasis is available in either the  
Mathematics Major or the Statistics Major. Students  
should register for either the Mathematics Major with  
Actuarial Science Emphasis or the Statistics Major with  
Actuarial Science Emphasis. Only the required courses  
for the emphasis, as listed below, need to be completed.

A. Mathematics and Statistics Courses (for Mathematics  
Majors) (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5560 - Actuarial Financial Mathematics 3 or

FIN 3400 - Corporate Finance (QI) 3

MATH 5570 - Actuarial Math I 3

MATH 5580 - Actuarial Math II (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

B. Mathematics and Statistics Courses (for Statistics Majors) (44 credits)

Statistics Majors must complete all of the courses listed above in Section A, except for the following two courses:

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

In addition, students must complete the following:

STAT 5200 - Design of Experiments 3

Elective STAT course numbered above 5000 3

C. Required Accounting, Economics, Finance, and Management Courses (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3 or

APEC 2010 - Introduction to Microeconomics (BSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

Note:

Admission to the Actuarial Science Emphasis requires explicit departmental approval.

Computational Mathematics Emphasis (60 credits)

The Computational Mathematics Emphasis is available in the Mathematics Major. Students should register for the Mathematics Major with Computational Mathematics Emphasis. Only the required courses for the emphasis, as listed below, need to be completed.

A. Required Mathematics Courses (35 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5710 - Introduction to Probability 3

B. Required Computer Science Courses (13 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2410 - Introduction to Graphical User Interface Development in Java 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

C. Mathematics Elective Courses (6 credits)

Select two courses (6 credits) in mathematics numbered above 5010, excluding MATH 5570 (Actuarial Math I) and MATH 5580 (Actuarial Math II).

D. Computer Science Elective Courses (6 credits)

Select at least two courses (6 credits) in computer science numbered above 4000.

Note:

Students who complete the Computer Science coursework with a GPA of at least 2.5 automatically earn a minor in Computer Science.

Applied Mathematics Option (68 credits)

The Applied Mathematics Option is available in the Mathematics Major. Students should register for the Mathematics Major with Applied Mathematics Option. Only the required courses for the option, as listed below, need to be completed. (Note: The student's diploma will display the Mathematics Major only.)

A. Required Mathematics Courses (41 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5710 - Introduction to Probability 3

STAT 3000 - Statistics for Scientists (QI) 3

B. Required Physics and Computer Science Courses (12 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

C. Elective Courses (6 credits)

Select two courses (6 credits) from the following:

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5640 - Optimization 3

D. Additional Elective Courses (9 credits)

Select three courses (9 credits) from STAT courses numbered 5000 and above; or from MATH courses numbered 5000 and above, excluding courses listed above and excluding MATH 5570 and MATH 5580 (Actuarial Math I and II) and MATH 5010.

Mathematics Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

This does not fulfill the 120 credits or the upper division credits needed for graduation.

Freshman Year (28 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Humanities course 3

Second Semester (14 credits)

MATH 1220 - Calculus II (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Breadth Social Sciences course 3

Sophomore Year (24 credits)

First Semester (12 credits)

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth American Institutions course 3

Breadth Physical Science course 3

Second Semester (12 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

Breadth Life Science course 3

Junior Year (19-21 credits)

First Semester (11-12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5710 - Introduction to Probability 3

Depth Humanities course 2-3

Second Semester (8-9 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5310 - Introduction to Modern Algebra 3

Depth Social Science course 2-3

Senior Year (18 credits)

First Semester (9 credits)

MATH 5210 - Introduction to Analysis I 3

MATH 5xxx Elective courses 6

Second Semester (9 credits)

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5xxx Elective course 3

Mathematics and/or Statistics Major with Actuarial  
Science Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Mathematics and Statistics majors with the Actuary  
emphasis usually don't have enough high level credits to  
graduate or enough credits over all. They might want to  
consider a minor.

Freshman Year (34 credits)

First Semester (17 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Life Sciences course 3

Second Semester (17 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth Physical Sciences course 3

Depth Social Sciences course 3

Second Semester (15 credits)

MATH 2280 - Ordinary Differential Equations (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Humanities course 3

Breadth Creative Arts course 3

Junior Year (21-24 credits)

First Semester (12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3  
(If Mathematics Actuary)

MATH 5710 - Introduction to Probability 3

STAT 5200 - Design of Experiments 3 (If Statistics  
Actuary)

Depth Humanities/Creative Arts course 3

Second Semester (9-12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5560 - Actuarial Financial Mathematics 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course (if Statistics Actuary) 3

Senior Year (6-9 credits)

First Semester (3-6 credits)

MATH 5210 - Introduction to Analysis I 3 (If Mathematics Actuary)

MATH 5570 - Actuarial Math I 3

Second Semester (3 credits)

MATH 5580 - Actuarial Math II (CI) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Mathematics - BS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Mathematics Major (53 credits)

A. Required Courses (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5310 - Introduction to Modern Algebra 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5710 - Introduction to Probability 3

B. Elective Courses (9 credits)

Select at least three courses (9 credits) from the following:

MATH 5110 - Differential Geometry 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5460 - Introduction to the Theory and Application of Nonlinear Dynamical Systems 3

MATH 5510 - Introduction to Topology 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5720 - Introduction to Mathematical Statistics 3

Actuarial Science Emphasis (59 credits)

The Actuarial Science Emphasis is available in either the Mathematics Major or the Statistics Major. Students should register for either the Mathematics Major with Actuarial Science Emphasis or the Statistics Major with Actuarial Science Emphasis. Only the required courses for the emphasis, as listed below, need to be completed.

A. Mathematics and Statistics Courses (for Mathematics Majors) (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5560 - Actuarial Financial Mathematics 3 or

FIN 3400 - Corporate Finance (QI) 3

MATH 5570 - Actuarial Math I 3

MATH 5580 - Actuarial Math II (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI)  
3

B. Mathematics and Statistics Courses (for Statistics  
Majors) (44 credits)

Statistics Majors must complete all of the courses listed  
above in Section A, except for the following two courses:

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

In addition, students must complete the following:

STAT 5200 - Design of Experiments 3

Elective STAT course numbered above 5000 3

C. Required Accounting, Economics, Finance, and  
Management Courses (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3 or

APEC 2010 - Introduction to Microeconomics (BSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

Note:

Admission to the Actuarial Science Emphasis requires  
explicit departmental approval.

Computational Mathematics Emphasis (60 credits)

The Computational Mathematics Emphasis is available in  
the Mathematics Major. Students should register for the  
Mathematics Major with Computational Mathematics

Emphasis. Only the required courses for the emphasis, as  
listed below, need to be completed.

A. Required Mathematics Courses (35 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5610 - Computational Linear Algebra and Solution  
of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential  
Equations 3

MATH 5710 - Introduction to Probability 3

B. Required Computer Science Courses (13 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

CS 1410 - Introduction to Computer Science--CS 2 (QI) 3

CS 2410 - Introduction to Graphical User Interface  
Development in Java 3

CS 2420 - Algorithms and Data Structures--CS 3 (QI) 3

C. Mathematics Elective Courses (6 credits)

Select two courses (6 credits) in mathematics numbered  
above 5010, excluding MATH 5570 (Actuarial Math I)  
and MATH 5580 (Actuarial Math II).

D. Computer Science Elective Courses (6 credits)

Select at least two courses (6 credits) in computer  
science numbered above 4000.

Note:

Students who complete the Computer Science  
coursework with a GPA of at least 2.5 automatically earn  
a minor in Computer Science.

## Applied Mathematics Option (68 credits)

The Applied Mathematics Option is available in the Mathematics Major. Students should register for the Mathematics Major with Applied Mathematics Option. Only the required courses for the option, as listed below, need to be completed. (Note: The student's diploma will display the Mathematics Major only.)

### A. Required Mathematics Courses (41 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5410 - Methods of Applied Mathematics 3

MATH 5420 - Partial Differential Equations 3

MATH 5710 - Introduction to Probability 3

STAT 3000 - Statistics for Scientists (QI) 3

### B. Required Physics and Computer Science Courses (12 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

### C. Elective Courses (6 credits)

Select two courses (6 credits) from the following:

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5620 - Numerical Solution of Differential Equations 3

MATH 5640 - Optimization 3

## D. Additional Elective Courses (9 credits)

Select three courses (9 credits) from STAT courses numbered 5000 and above; or from MATH courses numbered 5000 and above, excluding courses listed above and excluding MATH 5570 and MATH 5580 (Actuarial Math I and II) and MATH 5010.

### Mathematics Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

This does not fulfill the 120 credits or the upper division credits needed for graduation.

#### Freshman Year (28 credits)

##### First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Humanities course 3

##### Second Semester (14 credits)

MATH 1220 - Calculus II (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Breadth Social Sciences course 3

#### Sophomore Year (24 credits)

##### First Semester (12 credits)

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth American Institutions course 3

Breadth Physical Science course 3

##### Second Semester (12 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3310 - Discrete Mathematics 3

Breadth Life Science course 3

Junior Year (19-21 credits)

First Semester (11-12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5340 - Theory of Linear Algebra 3

MATH 5710 - Introduction to Probability 3

Depth Humanities course 2-3

Second Semester (8-9 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5310 - Introduction to Modern Algebra 3

Depth Social Science course 2-3

Senior Year (18 credits)

First Semester (9 credits)

MATH 5210 - Introduction to Analysis I 3

MATH 5xxx Elective courses 6

Second Semester (9 credits)

MATH 5220 - Introduction to Analysis II 3

MATH 5270 - Complex Variables 3

MATH 5xxx Elective course 3

Mathematics and/or Statistics Major with Actuarial  
Science Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

Mathematics and Statistics majors with the Actuary  
emphasis usually don't have enough high level credits to  
graduate or enough credits over all. They might want to  
consider a minor.

Freshman Year (34 credits)

First Semester (17 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Life Sciences course 3

Second Semester (17 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth Physical Sciences course 3

Depth Social Sciences course 3

Second Semester (15 credits)

MATH 2280 - Ordinary Differential Equations (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Humanities course 3

Breadth Creative Arts course 3

Junior Year (21-24 credits)

First Semester (12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3  
(If Mathematics Actuary)

MATH 5710 - Introduction to Probability 3

STAT 5200 - Design of Experiments 3 (If Statistics  
Actuary)

Depth Humanities/Creative Arts course 3

Second Semester (9-12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5560 - Actuarial Financial Mathematics 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course (if Statistics Actuary) 3

Senior Year (6-9 credits)

First Semester (3-6 credits)

MATH 5210 - Introduction to Analysis I 3 (If Mathematics Actuary)

MATH 5570 - Actuarial Math I 3

Second Semester (3 credits)

MATH 5580 - Actuarial Math II (CI) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Mathematics - MMath

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

This program is designed specifically for secondary school teachers of mathematics. The purpose of this degree is to provide students with a broad background in mathematics.

This program requires at least 36 credits approved by the Graduate Committee within the Department of Mathematics and Statistics. At least 21 of these credits must come from mathematics classes numbered above 5000, and the remaining credits must be chosen from approved courses offered within the Emma Eccles Jones College of Education and Human Services. The GPA for the 36 credits and for the 21 math credits must be at least 3.0.

All students in the Master of Mathematics program must pass a written qualifying examination. They may take the Advanced Calculus Exam, covering the introductory analysis and advanced calculus material presented in MATH 4200, MATH 5210, and MATH 5220, or the qualifying exam in Mathematics Teaching. Students may take these exams before beginning formal coursework in the program, but must take these exams before the end of the first year of matriculation. The Advanced Calculus exam is typically given twice a year, in May and October, while the Mathematics Teaching exam is given in May. Matriculated students who fail on their first try must pass the exam at the next scheduled opportunity.

Return to: Academic Departments and Programs

Mathematics - MS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

This program prepares students to work as mathematicians in government, business, and industry. This degree may also be a “stepping stone” for students who ultimately wish to pursue a doctorate in mathematics or a closely related subject.

This degree requires 30 credits of approved coursework at or above the 5000 level. At least 18 of these credits must be at the 6000 level or above, excluding MATH 6990 and MATH 7990 (Continuing Graduate Advisement) and MATH 7910 (College Teaching Internship). Generally, most of the coursework will be in mathematics, but the student’s supervisory committee may approve courses in statistics, physics, engineering, or any other discipline, if it seems such coursework is appropriate for the student’s program of study.

The MS in mathematics has three options. The Plan A or the thesis option requires taking 6 credits of MATH 6970 (Thesis and Research) and working with a faculty member on a substantial research project. The research must be presented in a thesis, which must be approved by the student’s supervisory committee and the dean of the School of Graduate Studies. An oral defense of the thesis must be arranged through the School of Graduate Studies.

The Plan B or project option requires taking 3 credits of MATH 6970 and working with a faculty member on a smaller research project. A written report of the research must be approved by the student’s supervisory committee. An oral defense of the report must be scheduled through the School of Graduate Studies.

The third option of the MS in Mathematics requires only coursework, and is called the Plan C option. This option is only for students simultaneously working on degrees in other departments.

All students in the MS program in Mathematics must pass a written qualifying examination covering the introductory analysis and advanced calculus material presented in MATH 4200, MATH 5210, and MATH 5220. Students may take this exam before beginning formal coursework in the MS program, and must take the exam at the end of the first full year of matriculation. The exam is typically given twice a year, in May and October. Matriculated students who fail on their first try must pass the exam at the next scheduled opportunity. A detailed exam syllabus is contained in the Graduate Handbook, available from the department.

Return to: Academic Departments and Programs

Mathematics Education - BA with a Teaching Minor

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Admission Requirements For This Major

In addition to Utah State University's admissions requirements, the mathematics education program has additional requirements:

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000) will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories:

## Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor

requirements in effect at the beginning of Fall Semester 2011 are given below.

### College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Mathematics Education Major with a Teaching Minor (73 credits, plus the number of credits required by the teaching minor)

A. Mathematics and Statistics Courses (39 credits)

STAT 3000 - Statistics for Scientists (QI) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3 and MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3110 - Modern Geometry 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 4400 - History of Mathematics and Number Theory 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

MATH 5710 - Introduction to Probability 3

B. Teaching Minor Content Courses (number of credits vary by minor)

C. Pedagogy Courses (22 credits)

See note 1

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3 or

MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3

MATH 4300 - School Laboratory for Mathematics Teachers Level II 1

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

Teaching Methods in Minor course 3 1

Clinical Experience course 1 2

D. Student Teaching Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Note:

Acceptance to teacher education is required prior to enrolling in SCED 3100, SCED 3210, SCED 4200, or SCED 4210. This acceptance requires an overall GPA of at least 2.75, successful completion of a speech and hearing test, writing competency test, and passing a criminal background check.

All USU teacher education candidates will be required to take and pass the content exam approved by the Utah State Office of Education in their major content area prior to student teaching.

1 Students with a science teaching minor are required to take two science teaching methods courses (i.e., SCED 3400 and SCED 4400), thus raising the total for pedagogy courses to 25 credits.

2 The prefix for this course, numbered 3300, depends on the teaching minor.

Mathematics Education Major with a Teaching Minor  
Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Second Semester (17 credits)

MATH 1220 - Calculus II (QL) 4

College of Science course 4	MATH 4400 - History of Mathematics and Number Theory 3
Breadth Life Science course 3	
Breadth American Institutions course 3	MATH 5710 - Introduction to Probability 3
Education Minor course 3	SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3
Sophomore Year (30 credits)	Education Minor course 3
See advisor to apply to Secondary Education	Senior Year (29 credits)
First Semester (15 credits)	First Semester (17 credits)
ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3	MATH 4300 - School Laboratory for Mathematics Teachers Level II 1
MATH 2210 - Multivariable Calculus (QI) 3	MATH 4500 - Methods of Secondary School Mathematics Teaching 3
Breadth Physical Science course 3	
Breadth Social Science course 3	MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3
Education Minor course 3	MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3
Second Semester (15 credits)	Minor Methods course 3
MATH 2250 - Linear Algebra and Differential Equations (QI) 4	Minor Clinicals course 1
MATH 3110 - Modern Geometry 3	BHU course 3
SPED 4000 - Education of Exceptional Individuals 2	Second Semester (12 credits)
STAT 3000 - Statistics for Scientists (QI) 3	SCED 5500 - Student Teaching Seminar 2
Education Minor course 3	SCED 5630 - Student Teaching in Secondary Schools 10
Junior Year (32 credits)	Minimum University Requirements
Take Praxis, see education advisor for details	Total Credits
First Semester (17 credits)	120
MATH 3310 - Discrete Mathematics 3	Grade Point Average (most majors require higher GPA)
MATH 4200 - Foundations of Analysis (CI) 3	2.00 GPA
SCED 3100 - Motivation and Classroom Management 3	Credits of C- or better
SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3	100
Education Minor course 3	Credits of upper-division courses (#3000 or above)
DHA course 2	40
Second Semester (15 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
MATH 4310 - Introduction to Algebraic Structures (CI) 3	

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Mathematics Education - BS with a Teaching Minor

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Admission Requirements For This Major

In addition to Utah State University's admissions requirements, the mathematics education program has additional requirements:

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000) will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Mathematics Education Major with a Teaching Minor (73 credits, plus the number of credits required by the teaching minor)

A. Mathematics and Statistics Courses (39 credits)

STAT 3000 - Statistics for Scientists (QI) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3 and MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3110 - Modern Geometry 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 4400 - History of Mathematics and Number Theory 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

MATH 5710 - Introduction to Probability 3

B. Teaching Minor Content Courses (number of credits vary by minor)

C. Pedagogy Courses (22 credits)

See note 1

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3 or

MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3

MATH 4300 - School Laboratory for Mathematics Teachers Level II 1

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

Teaching Methods in Minor course 3 1

Clinical Experience course 1 2

D. Student Teaching Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Note:

Acceptance to teacher education is required prior to enrolling in SCED 3100, SCED 3210, SCED 4200, or SCED 4210. This acceptance requires an overall GPA of at least 2.75, successful completion of a speech and hearing test, writing competency test, and passing a criminal background check.

All USU teacher education candidates will be required to take and pass the content exam approved by the Utah

State Office of Education in their major content area prior to student teaching.

1 Students with a science teaching minor are required to take two science teaching methods courses (i.e., SCED 3400 and SCED 4400), thus raising the total for pedagogy courses to 25 credits.

2 The prefix for this course, numbered 3300, depends on the teaching minor.

#### Mathematics Education Major with a Teaching Minor Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Second Semester (17 credits)

MATH 1220 - Calculus II (QL) 4

College of Science course 4

Breadth Life Science course 3

Breadth American Institutions course 3

Education Minor course 3

Sophomore Year (30 credits)

See advisor to apply to Secondary Education

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

Breadth Physical Science course 3

Breadth Social Science course 3

Education Minor course 3

Second Semester (15 credits)

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

MATH 3110 - Modern Geometry 3

SPED 4000 - Education of Exceptional Individuals 2

STAT 3000 - Statistics for Scientists (QI) 3

Education Minor course 3

Junior Year (32 credits)

Take Praxis, see education advisor for details

First Semester (17 credits)

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

Education Minor course 3

DHA course 2

Second Semester (15 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 4400 - History of Mathematics and Number Theory 3

MATH 5710 - Introduction to Probability 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

Education Minor course 3

Senior Year (29 credits)

First Semester (17 credits)

MATH 4300 - School Laboratory for Mathematics Teachers Level II 1

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3

Minor Methods course 3

Minor Clinicals course 1

BHU course 3

Second Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Mathematics Education Minor

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

(42 credits)

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

Requirements:

STAT 1040 - Introduction to Statistics (QL) 3 or

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 or

MATH 2270 - Linear Algebra (QI) 3 and

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 3110 - Modern Geometry 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 4400 - History of Mathematics and Number Theory 3

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

## MATH 5710 - Introduction to Probability 3

Note:

Completion of the Secondary Teacher Education Program (STEP) for the student's Secondary Education major is also required, as well as MATH 4500, and either MATH 3300 or MATH 4300. Admission to the STEP requires a GPA of at least 3.00 in the equivalent of MATH 1210, MATH 1220, and MATH 2210, and an overall GPA of at least 2.75. Graduation from this minor also requires an overall GPA of at least 2.75. No more than three repeats in all required courses may be used in GPA computations. The STEP is normally completed during the last three semesters of study, and consequently nearly all the mathematics classes in the Mathematics Education Minor must be completed before beginning the STEP.

Acceptance to teacher education is required prior to enrolling in SCED 3100, SCED 3210, SCED 4200, or SCED 4210. This acceptance requires an overall GPA of at least 2.75, successful completion of a speech and hearing test, writing competency test, and passing a criminal background check.

Return to: Academic Departments and Programs

### Mathematics Minor

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

(23 credits)

### Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

#### A. Required Courses (17 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

## MATH 2210 - Multivariable Calculus (QI) 3

## MATH 2270 - Linear Algebra (QI) 3

## MATH 2280 - Ordinary Differential Equations (QI) 3

### B. Elective Courses (6 credits)

Select at least two additional courses (6 credits) in mathematics numbered above 4000, excluding the following courses: MATH 4300, MATH 4500, MATH 5570, and MATH 5580.

Return to: Academic Departments and Programs

Mathematics/Statistics (Composite) - BS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

(59 credits)

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and

STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

#### College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

#### A. Required Courses (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

CS 1400 - Introduction to Computer Science--CS 1 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

STAT 5200 - Design of Experiments 3

#### B. Elective Mathematics Courses (6 credits)

Select at least two courses (6 credits) in mathematics numbered above 5000, excluding MATH 5010.

#### C. Elective Statistics Courses (9 credits)

Select at least three courses (9 credits) in statistics numbered above 5000. Either MATH 5760 (Stochastic Processes) or MATH 5570 (Actuarial Math I) may substitute for one of the statistics elective courses.

Mathematics/Statistics (Composite) Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

This does not fulfill the 120 credits needed for graduation.

Freshman Year (28 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

Breadth Creative Arts course 3

College of Science course 4

Second Semester (14 credits)

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

Breadth Humanities course 3

College of Science course 4

Sophomore Year (25 credits)

First Semester (12 credits)

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Social Science course 3

Second Semester (13 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MATH 2280 - Ordinary Differential Equations (QI) 3

STAT 5200 - Design of Experiments 3

Breadth American Institutions course 3

Junior Year (24 credits)

First Semester (12 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5710 - Introduction to Probability 3

Breadth Physical Science course 3

Second Semester (12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course 3

Breadth Life Science course 3

Senior Year (19-21 credits)

First Semester (11-12 credits)

MATH 5210 - Introduction to Analysis I 3

MATH 5xxx Elective course 3

STAT 5xxx Elective course 3

Depth Humanities course 2-3

Second Semester (8-9 credits)

MATH 5xxx Elective course 3

STAT 5xxx Elective course 3

Depth Social Science course 2-3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Mathematics/Statistics Education (Composite) - BS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Admission Requirements For This Major

In addition to Utah State University's admissions requirements, the mathematics/statistics education (composite) program has additional requirements:

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890)

will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

A. Mathematics and Statistics Courses (45-47 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

Or

MATH 2270 - Linear Algebra (QI) 3 and

MATH 2280 - Ordinary Differential Equations (QI) 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

MATH 3110 - Modern Geometry 3

MATH 3310 - Discrete Mathematics 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 4400 - History of Mathematics and Number Theory 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3 or

5000-level course with STAT prefix (other than STAT 5100) (3 cr) 3

B. Pedagogy Courses (22 credits)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SPED 4000 - Education of Exceptional Individuals 2

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3 or

MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3

MATH 3300 - School Laboratory for Mathematics Teachers Level I 1

MATH 4300 - School Laboratory for Mathematics Teachers Level II 1

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

STAT 4500 - Methods of Teaching Statistics in Secondary and Middle School 3

C. Student Teaching Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Note:

Acceptance to teacher education is required prior to enrolling in SCED 3100, SCED 3210, SCED 4200, or SCED 4210 . This acceptance requires an overall GPA of at least 2.75, successful completion of a speech and hearing test, writing competency test, and passing a criminal background check.

All USU teacher education candidates will be required to take and pass the content exam approved by the Utah State Office of Education in their major content area prior to student teaching.

Mathematics/Statistics (Composite) Education Major  
Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (31 credits)

First Semester (17 credits)

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Life Science course 3

Breadth Social Science course 3

Breadth Physical Sciences course 3

Second Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 3310 - Discrete Mathematics 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Humanities course 3

Second Semester (15 credits)

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

MATH 3310 - Discrete Mathematics 3

SPED 4000 - Education of Exceptional Individuals 2

Breadth Creative Arts course 3

Breadth American Institutions course 3

Junior Year (27 credits)

Take the Praxis Test and apply for the Secondary Education Program. Meet with your advisor about this process.

First Semester (12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5710 - Introduction to Probability 3

Depth Humanities and Creative Arts course 3

Second Semester (15 credits)

MATH 4400 - History of Mathematics and Number Theory 3

MATH 5720 - Introduction to Mathematical Statistics 3

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

Senior Year (26 credits)

First Semester (14 credits)

MATH 3300 - School Laboratory for Mathematics Teachers Level I 1

MATH 4300 - School Laboratory for Mathematics Teachers Level II 1

MATH 4500 - Methods of Secondary School Mathematics Teaching 3

MATH 5010 - Capstone Mathematics, Statistics, and Technology for Teachers 3

MATH 5020 - Mathematical Cognition and Assessment of Mathematical Achievement 3

STAT 4500 - Methods of Teaching Statistics in Secondary and Middle School 3

Second Semester (12 credits)

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Statistics - BA

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

Students must complete the General Education Requirements:

CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement

One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

### College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Statistics Major

(47 credits)

A. Required Courses (35 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

CS 1400 - Introduction to Computer Science--CS 1 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

STAT 5200 - Design of Experiments 3

B. Elective Courses (12 credits)

Select four courses (12 credits) in statistics numbered above 5000. One of the three elective classes may be selected from:

MATH 5570 - Actuarial Math I 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5760 - Stochastic Processes 3

Actuarial Science Emphasis (59 credits)

The Actuarial Science Emphasis is available in either the Mathematics Major or the Statistics Major. Students should register for either the Mathematics Major with Actuarial Science Emphasis or the Statistics Major with Actuarial Science Emphasis. Only the required courses for the emphasis, as listed below, need to be completed.

A. Mathematics and Statistics Courses (for Mathematics Majors) (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5560 - Actuarial Financial Mathematics 3 or

FIN 3400 - Corporate Finance (QI) 3

MATH 5570 - Actuarial Math I 3

MATH 5580 - Actuarial Math II (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

B. Mathematics and Statistics Courses (for Statistics Majors) (44 credits)

Statistics Majors must complete all of the courses listed above in Section A, except for the following two courses:

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

In addition, students must complete the following:

STAT 5200 - Design of Experiments 3

Elective STAT course numbered above 5000 3

C. Required Accounting, Economics, Finance, and Management Courses (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3 or

APEC 2010 - Introduction to Microeconomics (BSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

Note:

Admission to the Actuarial Science Emphasis requires explicit departmental approval.

Statistics Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

This does not fulfill the 120 credits or 40 upper division credits needed for graduation.

Students who complete MATH 2280 along with these requirements, qualify for a Math Minor.

Freshman Year (28 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Second Semester (14 credits)

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Breadth American Institutions course 3

Sophomore Year (25 credits)

First Semester (12 credits)

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Social Science course 3

Second Semester (13 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

STAT 5200 - Design of Experiments 3

Breadth Humanities course 3

Junior Year (21 credits)

First Semester (12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5710 - Introduction to Probability 3

STAT 5xxx Elective course 3

Breadth Life Science course 3

Second Semester (9 credits)

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course 3

Breadth Physical Science course 3

Senior Year (10-12 credits)

First Semester (10-12 credits)

STAT 5xxx Elective courses 6

Depth Humanities course 2-3

Depth Social Science course 2-3

Mathematics and/or Statistics Major with Actuarial Science Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Mathematics and Statistics majors with the Actuary emphasis usually don't have enough high level credits to

graduate or enough credits over all. They might want to consider a minor.

Freshman Year (34 credits)

First Semester (17 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Life Sciences course 3

Second Semester (17 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth Physical Sciences course 3

Depth Social Sciences course 3

Second Semester (15 credits)

MATH 2280 - Ordinary Differential Equations (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Humanities course 3

Breadth Creative Arts course 3

Junior Year (21-24 credits)

First Semester (12 credits)	Completion of approved major program of study
MATH 4310 - Introduction to Algebraic Structures (CI) 3 (If Mathematics Actuary)	See college advisor
MATH 5710 - Introduction to Probability 3	Credits in minor (if required)
STAT 5200 - Design of Experiments 3 (If Statistics Actuary)	12
Depth Humanities/Creative Arts course 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Second Semester (9-12 credits)	3
MATH 4200 - Foundations of Analysis (CI) 3	General Education Requirements and University Studies Depth Requirements
MATH 5560 - Actuarial Financial Mathematics 3	Return to: Academic Departments and Programs
MATH 5720 - Introduction to Mathematical Statistics 3	
STAT 5xxx Elective course (if Statistics Actuary) 3	
Senior Year (6-9 credits)	Statistics - BS
First Semester (3-6 credits)	Return to: Academic Departments and Programs
MATH 5210 - Introduction to Analysis I 3 (If Mathematics Actuary)	College of Science
MATH 5570 - Actuarial Math I 3	Department of Mathematics and Statistics
Second Semester (3 credits)	Students must complete the General Education Requirements:
MATH 5580 - Actuarial Math II (CI) 3	CHEM 1120 or GEO 1110 will fulfill the Physical Sciences requirement
Minimum University Requirements	Students must also complete the University Studies Depth Requirements:
Total Credits	Two courses having CI designation (such as MATH 4200, MATH 4310, MATH 5580; and STAT 5100, STAT 5890) will meet the Communications Intensive (CI) requirement
120	One course having QI designation (such as MATH 2210, MATH 2250, MATH 2270, MATH 2280; and STAT 2000, STAT 3000 will meet the Quantitative Intensive (QI) requirement
Grade Point Average (most majors require higher GPA)	Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)
2.00 GPA	Major Requirements
Credits of C- or better	Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact
100	
Credits of upper-division courses (#3000 or above)	
40	
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	
30 USU credits	

requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

### College of Science Requirements

Every bachelor's degree candidate in the College of Science must complete the following coursework or its equivalent:

1. One year of calculus:

MATH 1210 - Calculus I (QL) 4 and

MATH 1220 - Calculus II (QL) 4

Note:

In some degrees or emphases within degrees, the second semester of calculus may be replaced by STAT 3000. The substitution will be for specific degree programs, not by student choice.

2. One of the following year-long sequences. The chosen sequence must be outside the student's major department.

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 3200 - The Earth Through Time (DSC) 4

Or

PHYS 2110 - General Physics - Life Sciences I 4 and

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Or

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 and

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Statistics Major

(47 credits)

A. Required Courses (35 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

CS 1400 - Introduction to Computer Science--CS 1 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

STAT 5200 - Design of Experiments 3

B. Elective Courses (12 credits)

Select four courses (12 credits) in statistics numbered above 5000. One of the three elective classes may be selected from:

MATH 5570 - Actuarial Math I 3

MATH 5610 - Computational Linear Algebra and Solution of Systems of Equations 3

MATH 5760 - Stochastic Processes 3

Actuarial Science Emphasis (59 credits)

The Actuarial Science Emphasis is available in either the Mathematics Major or the Statistics Major. Students should register for either the Mathematics Major with Actuarial Science Emphasis or the Statistics Major with Actuarial Science Emphasis. Only the required courses for the emphasis, as listed below, need to be completed.

A. Mathematics and Statistics Courses (for Mathematics Majors) (44 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

MATH 2280 - Ordinary Differential Equations (QI) 3

MATH 4200 - Foundations of Analysis (CI) 3

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

MATH 5560 - Actuarial Financial Mathematics 3 or

FIN 3400 - Corporate Finance (QI) 3

MATH 5570 - Actuarial Math I 3

MATH 5580 - Actuarial Math II (CI) 3

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI)  
3

B. Mathematics and Statistics Courses (for Statistics  
Majors) (44 credits)

Statistics Majors must complete all of the courses listed  
above in Section A, except for the following two courses:

MATH 4310 - Introduction to Algebraic Structures (CI) 3

MATH 5210 - Introduction to Analysis I 3

In addition, students must complete the following:

STAT 5200 - Design of Experiments 3

Elective STAT course numbered above 5000 3

C. Required Accounting, Economics, Finance, and  
Management Courses (15 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions,  
History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3 or

APEC 2010 - Introduction to Microeconomics (BSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

Note:

Admission to the Actuarial Science Emphasis requires  
explicit departmental approval.

Statistics Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific  
four year plan.

This does not fulfill the 120 credits or 40 upper division  
credits needed for graduation.

Students who complete MATH 2280 along with these  
requirements, qualify for a Math Minor.

Freshman Year (28 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Creative Arts course 3

Second Semester (14 credits)

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Breadth American Institutions course 3

Sophomore Year (25 credits)

First Semester (12 credits)

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Social Science course 3

Second Semester (13 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

STAT 5200 - Design of Experiments 3

Breadth Humanities course 3

Junior Year (21 credits)

First Semester (12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5710 - Introduction to Probability 3

STAT 5xxx Elective course 3

Breadth Life Science course 3

Second Semester (9 credits)

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course 3

Breadth Physical Science course 3

Senior Year (10-12 credits)

First Semester (10-12 credits)

STAT 5xxx Elective courses 6

Depth Humanities course 2-3

Depth Social Science course 2-3

Mathematics and/or Statistics Major with Actuarial Science Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Mathematics and Statistics majors with the Actuary emphasis usually don't have enough high level credits to graduate or enough credits over all. They might want to consider a minor.

Freshman Year (34 credits)

First Semester (17 credits)

ACCT 2010 - Financial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1210 - Calculus I (QL) 4

College of Science course 4

Breadth Life Sciences course 3

Second Semester (17 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

College of Science course 4

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2270 - Linear Algebra (QI) 3

Breadth Physical Sciences course 3

Depth Social Sciences course 3

Second Semester (15 credits)

MATH 2280 - Ordinary Differential Equations (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

STAT 5100 - Linear Regression and Time Series (CI/QI) 3

Breadth Humanities course 3

Breadth Creative Arts course 3

Junior Year (21-24 credits)

First Semester (12 credits)

MATH 4310 - Introduction to Algebraic Structures (CI) 3 (If Mathematics Actuary)

MATH 5710 - Introduction to Probability 3

STAT 5200 - Design of Experiments 3 (If Statistics Actuary)

Depth Humanities/Creative Arts course 3

Second Semester (9-12 credits)

MATH 4200 - Foundations of Analysis (CI) 3

MATH 5560 - Actuarial Financial Mathematics 3

MATH 5720 - Introduction to Mathematical Statistics 3

STAT 5xxx Elective course (if Statistics Actuary) 3

Senior Year (6-9 credits)

First Semester (3-6 credits)

MATH 5210 - Introduction to Analysis I 3 (If Mathematics Actuary)

MATH 5570 - Actuarial Math I 3

Second Semester (3 credits)

MATH 5580 - Actuarial Math II (CI) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Statistics - MS

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

This program is primarily designed to prepare students for careers in business, industry, and federal, state, and local government. Students pursuing graduate degrees in other disciplines, such as biology, natural resources, engineering, business, economics, epidemiology, and the social sciences, may elect to earn an MS in statistics concurrent with their other degree programs. For most students, the MS in statistics will prove sufficient for career preparation. However, some graduates may ultimately pursue a doctorate in statistics, biostatistics, or a closely related discipline.

This degree requires 30 credits of approved coursework at or above the 5000 level. At least 18 credits must be at the 6000 level or above, excluding STAT 6990 and STAT 7990 (Continuing Graduate Advisement). All students must take STAT 6710 and STAT 6720 (Mathematical Statistics I and II). Generally, most of the coursework will be in statistics, but the student's supervisory committee may approve courses in mathematics, biology, economics, or any other discipline if it deems such coursework to be appropriate for the student's program of study.

The MS in Statistics has Plan A (thesis), Plan B (report), and Plan C (coursework only) options. The Plan A and Plan B options require students to work with a faculty member on a research project, taking 6 or 3 credits of STAT 6970, respectively, and presenting the results of the research in a written report. For both the Plan A and Plan B options, the report must be approved by the student's supervisory committee. A Plan A report (thesis) must also be approved by the dean of the School of

Graduate Studies. Both Plan A and Plan B reports require an oral defense that must be scheduled through the School of Graduate Studies.

There is no qualifying examination for students in the MS program in Statistics. The qualifying requirement is that students must earn a B or better for both semesters of either the MATH 5710/MATH 5720 sequence or the STAT 6710/STAT 6720 sequence.

The Plan C option of the MS program in Statistics is only for students simultaneously working on a degree in another department. Students in this option must pass both MATH 5710 and MATH 5720, or both STAT 6710 and STAT 6720 with a grade of B+ or better.

Return to: Academic Departments and Programs

Statistics Minor

Return to: Academic Departments and Programs

College of Science

Department of Mathematics and Statistics

(15 credits)

Major Requirements

Major and minor requirements in the Department of Mathematics and Statistics vary from time to time. Exact requirements in effect at any given time may be found in the USU online General Catalog. All grades for MATH and STAT courses applied toward a departmental major or minor must be C- or better. Major and minor requirements in effect at the beginning of Fall Semester 2011 are given below.

A. Required Courses (9 credits)

STAT 3000 - Statistics for Scientists (QI) 3 or

STAT 2000 - Statistical Methods (QI) 4

STAT 5100 - Linear Regression and Time Series (CI/QI)  
3

STAT 5200 - Design of Experiments 3

B. Elective Courses (6 credits)

Select two additional courses (6 credits) from statistics courses numbered above 5000, or from the following courses:

MATH 5710 - Introduction to Probability 3

MATH 5720 - Introduction to Mathematical Statistics 3

MATH 5760 - Stochastic Processes 3

Return to: Academic Departments and Programs

Aerospace Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Mechanical and Aerospace Engineering

The Plan A Thesis MS degree in Aerospace Engineering requires 12 credits from the Aerospace Engineering Core course list (including two Aerospace Fundamental Classes—MAE 5500 and MAE 5560); a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; 6 credits of thesis (MAE 6970); and 9 credits of other approved technical electives. No more than 15 credits of 5000-level coursework may be used toward the MS degree in Aerospace Engineering.

The Plan B Report MS degree in Aerospace Engineering requires 15 credits from the Aerospace Engineering Core course list (including two Aerospace Fundamental Classes—MAE 5500 and MAE 5560); a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; 3 credits of report (MAE 6950); and 9 credits of other approved technical electives. No more than 15 credits of 5000-level coursework may be used toward the MS degree in Aerospace Engineering.

The Plan C Coursework Only MS degree in Aerospace Engineering requires 15 credits from the Aerospace Engineering Core course list (including two Aerospace Fundamental Classes—MAE 5500 and MAE 5560); a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; and 15 credits of other approved technical electives. No more than 15 credits of 5000-level coursework may be used toward the MS degree in Aerospace Engineering.

GPA Requirement

All students who complete a graduate degree at USU must maintain a minimum 3.0 GPA. Consult your department for additional requirements.

### Course Requirements

The specific course requirements for the ME, MS, and PhD degrees offered through the department may occasionally change. For this reason, prospective students are advised to seek current details concerning graduate degree requirements and program coursework by contacting the department or sending an Internet e-mail request to Chris Spall at: [chris.spall@usu.edu](mailto:chris.spall@usu.edu).

Return to: Academic Departments and Programs

### Mechanical Engineering - BS

Return to: Academic Departments and Programs

### College of Engineering

#### Department of Mechanical and Aerospace Engineering

Effective for students beginning degree Summer Semester 2014 through Spring Semester 2015.

#### Admission to the College of Engineering

In addition to the policies of the University concerning admission of students, the following regulations apply to the College of Engineering:

1. Transfer students from other colleges or universities will be referred to the Engineering Admission Committee for evaluation. Criteria considered in admission decisions for transfer students include resources available in the requested department and the transfer GPA, along with an evaluation of the program of the former college or university. Decisions concerning academic standing once the student is admitted to USU will be based solely on USU grades.

2. Students registered on campus (including Undeclared) must be approved by the Engineering Admission Committee before transferring to the College of Engineering. Students in this category must have demonstrated, by courses taken at USU, a potential to succeed in the major of their choice.

### Pre-Engineering and Professional Engineering Requirements

Students interested in Engineering careers enter the University with a wide variety of educational backgrounds. Therefore, it is necessary for all students to demonstrate a satisfactory level of proficiency in basic engineering, mathematics, science, and English before they are admitted into a professional engineering program. Specific courses used to evaluate this proficiency are listed on the applications to the Professional Program available in the individual departments or in the College of Engineering Dean's Office. The professional engineering programs consist of the last two years of study listed in the departmental sections of the General Catalog. Students will not be admitted into engineering classes numbered 3000 or higher until they have been admitted into a professional engineering program. Applications listing the required pre-professional courses and admission standards are available from the various departments and the office of the Dean of Engineering. The minimum requirements a student must satisfy in order to be considered for admission to a professional program are:

1. The student must achieve a grade of C- or better in every required preprofessional course. The P/D+, D, F grading option may not be used except in freshman English composition.
2. The student must achieve an overall grade point average of 2.80 or better for all required pre-professional coursework completed at USU.
3. A student can repeat no more than three of the required pre-professional courses in order to satisfy the eligibility requirements. Multiple repeats of the same course are included in the total of three repeats. Audits count as a time taking a class unless prior written approval is obtained from the college academic advisor. Satisfying minimum eligibility requirements does not ensure that a student will be admitted to a professional program in a specific department. The number of students accepted will be based upon the number of students that can be accommodated in upper-division classes. Applicants will be ranked and selected in order of their academic standing in the required pre-professional courses.

### Recommended High School Courses

Students interested in entering any field of engineering should take two or three years of algebra, one year of geometry, and one-half year of trigonometry while in high school. Four years of English and courses in

chemistry, physics, and mechanical drawing are also recommended. If the suggested mathematics courses are not taken in high school, they must be taken in college prior to starting calculus. This additional work need not cause delay in graduation if CLEP or AP credit is earned or if summer semester enrollment is used to supplement course credits.

#### Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements at least annually. If they do not know who their advisor is, students should contact the Engineering Advising Center, ENGR 314A.

#### Academic Requirements

The Engineering Advising Center maintains a handout sheet giving current details of all academic regulations of the college. It is the responsibility of the student to know the current regulations and to follow these regulations.

#### Pre-professional Program

Students must maintain a USU GPA of 2.0 to remain in good standing both in the college and the University. Students in a pre-professional program who are not making satisfactory progress toward acceptance into a professional program or who become ineligible to enter a professional program will be suspended from the college. Students in good standing in a pre-professional program must still meet the entrance requirements for admission into a professional program.

#### Professional Program

For all engineering majors in the professional program, the following academic regulations apply in addition to University regulations:

1. A GPA of 2.0 or higher must be maintained in all upper-division engineering/ math/science courses required for, or used as technical electives in, the chosen major. Courses which were part of the pre-professional program requirements and University Studies courses are not included in this GPA calculation.
2. No more than 10 hours of D or D+ credit may be applied toward meeting graduation requirements in engineering/math/science classes.
3. College of Engineering courses may be repeated only once. Audits count as a time taking a class unless prior

written approval is obtained from the department head. Only one required or elective course completed as part of a professional program can be repeated in order to meet graduation requirements. (Courses completed as part of a pre-professional program are not included).

- a. A student must earn a "C" or better in CS 1400 and CS 1405 (one repeat in CS 1400, 1405 allowed).

4. The P/D+, D, F grading option may not be used in required or elective courses completed as part of a professional program. (The P/D+, D, F grading option is approved for University Studies Courses.)

5. The academic regulations listed above (1-4) apply to required coursework and any elective engineering/math/science course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.

6. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree, will be placed on probation.

- a. Students will be placed on probation if they (i) earn an F in an engineering/ math/science course which could be used to satisfy graduation requirements for the chosen degree (see No. 5 above); (ii) have more than 10 hours of D credit (see No. 2 above); or (iii) have an upper-division GPA of less than 2.0 (see No. 1 above).

- b. Students remain on probation until they improve their standing by repeating and passing all failed classes, repeating classes to reduce the number of D credits to 10 or less, and/or by raising their upper-division GPA above 2.0.

- c. While on probation, a student must earn a semester GPA of 2.0 or higher in engineering/math/science classes and must not earn any grades of D or F. While on probation, a student may not preregister. The student's major code will be changed to a pre-professional code. The student must meet at least once per semester with the college academic advisor to work out a schedule having the primary goal of correcting the existing academic problems.

Students must complete the General Education Requirements:

PHYS 2220 will fulfill the Physical Sciences requirement

MATH 1210 and MATH 1220 will fulfill the Quantitative Literacy (QL) and/or Exploration requirement

Students must also complete the University Studies Depth Requirements:

MAE 4400 and MAE 4800 will fulfill the Communications Intensive (CI) requirement

MATH 2250 or MATH 2210 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Transfer Students

Transfer students coming to USU with an associate degree from a regionally- accredited institution may be deemed as having satisfied the General Education portion of the USU University Studies Requirements, but not necessarily the College of Engineering requirements. Students with transfer credits in University Studies areas will need to have their transfer credit evaluated by the College of Engineering to determine which of the University Studies requirements it will satisfy. In general, transfer students will still need to satisfy the Depth Education portion of University Studies. Also, since not all associate degrees granted by institutions outside of Utah include an American Institutions course (a State of Utah requirement), students may need to complete such a course while at USU.

### The Program

Mechanical Engineering graduates are prepared to pursue careers in such widely diverse industries as aerospace, agricultural equipment, automotive, biotechnical, chemical processing, composite materials, computer equipment, defense, electrical utilities, food processing, industrial equipment, manufacturing, materials processing, nuclear, petroleum, robotics, and solar energy. Most Mechanical Engineering graduates are prepared for graduate studies and enhanced career prospects in engineering or other areas, such as consulting, law, medicine, business management, or teaching. In addition, students who are preparing to apply for admission to medical school will find that Mechanical Engineering provides an excellent foundation for the increasingly technology-oriented field of medicine.

Students may choose to obtain an Aerospace Engineering emphasis within the Mechanical Engineering BS degree. The Aerospace Emphasis focuses on the mechanics and dynamics of both flight within the atmosphere and space flight. Included within its scope are studies in aerodynamics, aircraft flight dynamics and control, aircraft design, spacecraft orbital mechanics, spacecraft attitude motion and control, and space systems design. Graduates who complete the aerospace engineering emphasis are prepared to pursue careers in aircraft design and development, aircraft flight testing, spacecraft and space systems design, and spacecraft trajectory design and analysis. As fully qualified Mechanical Engineers, graduates with the aerospace engineering emphasis are also well-prepared to pursue graduate studies or careers in the industries listed above under Mechanical Engineering.

The first two years of the MAE curriculum are structured to concentrate on the fundamentals of mathematics, chemistry, physics, computer science, and basic engineering science. During the second two years, students apply these fundamentals to more concentrated courses in the essentials of mechanical or aerospace engineering. Laboratory activities and computer usage are integrated throughout the curriculum to give students opportunities for hands-on exposure to modern computer hardware and software, as well as other modern hardware and laboratory facilities. Engineering design activities begin during the first two years and progress in depth as the student's proficiency increases. The engineering design experience culminates in a capstone senior design course, integrating the engineering coursework into a focused, realistic design project.

The Mechanical Engineering degree is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). The Aerospace Engineering emphasis is included within the Mechanical Engineering degree.

A passing grade on the Fundamentals of Engineering Exam, the first step in becoming a licensed professional engineer, is required for graduation. Past experience has shown that the USU Mechanical and Aerospace Engineering students are well-prepared for this locally administered, national exam.

For additional information on academic requirements, see the College of Engineering and the Undergraduate Graduation Requirements sections of this catalog. The

four-year plan is suggested for students employed less than 20 hours per week.

Required Coursework (126-127 credits)

Pre-professional Program

The curriculum for the first two years is common for all MAE students.

Freshman Year (29 credits)

Fall Semester (15 credits)

CHEM 1210 - Principles of Chemistry I 4 2

CHEM 1215 - Chemical Principles Laboratory I 1 2

MATH 1210 - Calculus I (QL) 4 2

University Studies Breadth courses 6

Spring Semester (14 credits)

MAE 1200 - Engineering Graphics 2 2

MATH 1220 - Calculus II (QL) 4 2

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 2

PHYS 2215 - Physics for Scientists and Engineers Lab I 1 2

University Studies Breadth course 3

Sophomore Year (34 credits)

Fall Semester (17 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENGR 2010 - Engineering Mechanics Statics 3 2

ENGR 2210 - Fundamental Electronics for Engineers 3 2

MATH 2210 - Multivariable Calculus (QI) 3 2

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4 2

PHYS 2225 - Physics for Scientists and Engineers Lab II 1 2

Spring Semester (17 credits)

ENGR 2030 - Engineering Mechanics Dynamics 3 2

ENGR 2140 - Strength of Materials 3 2

MAE 2160 - Material Science 3 2

MAE 2165 - Material Science Laboratory 1

MAE 2300 - Thermodynamics I 3 2

MATH 2250 - Linear Algebra and Differential Equations (QI) 4 2

Professional Program in Mechanical Engineering

Junior Year (32 credits)

Fall Semester (17 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MAE 3040 - Mechanics of Solids 3

MAE 3320 - Advanced Dynamics 3

MAE 3420 - Fluid Mechanics 3

MAE 3600 - Engineering Professionalism and Ethics 1

ENGR 3080 - Technical Communication for Engineers (CI) 3

Spring Semester (15 credits)

MAE 3210 - Engineering Numerical Methods 3

MAE 3340 - Instrumentation and Measurements 3

MAE 3440 - Heat Transfer (QI) 3

MAE 4300 - Machine Design 3

University Studies Breadth course 3

Senior Year (31-32 credits)

Fall Semester (17 credits)

MAE 4400 - Fluids/Thermal Laboratory (CI) 2

MAE 4800 - Capstone Design I (CI) 3

MAE 5300 - Vibrations 3

Technical Elective course 6 1

University Studies Breadth course 3

Spring Semester (14-15 credits)

MAE 4810 - Capstone Design II 3

Technical Elective courses 6 1

University Studies Depth Social Sciences (DSS) course 3

University Studies Depth Humanities and Arts (DHA)  
course 2-3

Note:

Elective courses, once selected and completed by a student, become part of the required program for that student.

The selection of elective courses needs to be given careful consideration. The preparation for a career in the broad field of mechanical and aerospace engineering and the selection of classes by real interest is more important than the maximization of the undergraduate grade point average.

#### MAE Technical Elective Courses

Technical electives are designed to improve student ability in foundational areas of mechanical engineering. Four technical electives are required, and students are encouraged to choose from any of the 5000-level courses offered in MAE (except MAE 5300 or MAE 5900 after May 2011) to satisfy the requirement. Unless it is taken as a regular course with multiple students, MAE 5930 may only count as one technical elective. At least two technical electives must be courses with an MAE prefix. The following courses also meet the definition of a technical elective:

ECE 5230, ECE 5320, MATH 5110, MATH 5270, MATH 5340, MATH 5410, MATH 5420, MATH 5460, MATH 5610, MATH 5620, MATH 5640, MATH 5710, MATH 5760, STAT 5200, CS 5050, CS 5200, CS 5500, CS 5650, CS 5700.

Students are encouraged to take additional, non-required courses to enhance their education; however, many courses may not meet the purpose of a technical elective. With satisfactory justification, other courses not listed above that meet the technical elective description may be petitioned to the faculty for consideration.

#### Professional Program in Aerospace Engineering Emphasis

In addition to completing the pre-professional program, students who choose to graduate with the Aerospace

Engineering emphasis must complete the following courses as their elective selection. 3

Junior Year (32 credits)

Fall Semester (17 credits)

CS 1400 - Introduction to Computer Science--CS 1 3

CS 1405 - Introduction to Computer Science--CS 1 Lab 1

MAE 3040 - Mechanics of Solids 3

MAE 3320 - Advanced Dynamics 3

MAE 3420 - Fluid Mechanics 3

MAE 3600 - Engineering Professionalism and Ethics 1

ENGR 3080 - Technical Communication for Engineers (CI) 3

Spring Semester (15 credits)

MAE 3210 - Engineering Numerical Methods 3

MAE 3340 - Instrumentation and Measurements 3

MAE 3440 - Heat Transfer (QI) 3

MAE 4300 - Machine Design 3

University Studies Breadth course 3

Senior Year (31-32 credits)

Fall Semester (17 credits)

MAE 4400 - Fluids/Thermal Laboratory (CI) 2

MAE 4800 - Capstone Design I (CI) 3

MAE 5300 - Vibrations 3

Aerospace Technical course 3 3

Aerospace Technical course 3 3

University Studies Breadth course 3

Spring Semester (14-15 credits)

MAE 4810 - Capstone Design II 3

Aerospace Technical courses 6 3

University Studies Depth Humanities and Creative Arts (DHA) course 2-3

University Studies Depth Social Sciences (DSS) course 3

## Note:

1 Students must select 12 credits of technical elective courses from the list of approved MAE Technical Elective Courses.

2 These courses are required for admission to the Professional Engineering Program (PEP).

3 During their senior year, Aerospace Engineering Emphasis students must take a minimum of 9 credits (3 classes) from Group 1 and a total of 12 credits (4 classes) from Group 1 or Group 1 and Group 2 combined. Group 1: ECE 5230, MAE 5420, MAE 5500, MAE 5510, MAE 5520, MAE 5540, MAE 5560; Group 2: MAE 5020, MAE 5060, MAE 5310, MAE 5440. This provides greater flexibility for students who want a more specific focus.

Mechanical and Aerospace Engineering Mentors

Mechanical and Aerospace Engineering Mentors

The following list of faculty interests is provided to help students select the appropriate faculty member to contact for career and elective selection counseling.

H. Ban, thermofluids, thermophysical properties, microfluidics, energy and environment

S. L. Folkman, structures and dynamics

T. H. Fronk, composite structures

R. R. Fullmer, control systems, spacecraft, robotics

D. K. Geller, spacecraft guidance and navigation

C. Hailey, thermo fluid dynamics, education

A. J. Katz, fluid mechanics, CFD

L. Liu, solid mechanics

J. Quinn, systems modeling, LCA, biofuels

N. Roberts, thermal sciences, energy conservation, nano fabrication

B. L. Smith, thermal/fluids

R. E. Spall, fluid mechanics, computational engineering

S. A. Whitmore, high-speed aerodynamics

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

For information contact

Mechanical and Aerospace Engineering Department;  
Engineering 419; Utah State University; 4130 Old Main Hill; Logan UT 84322-4130; tel. (435) 797-2867; mae@engineering.usu.edu; www.mae.usu.edu/

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Mechanical Engineering - ME

Return to: Academic Departments and Programs

College of Engineering

Department of Mechanical and Aerospace Engineering

The Master of Engineering Degree requires 15 credits of 6000-level (or above) MAE coursework exclusive of MAE 6930, MAE 6950, MAE 6970, MAE 6990, MAE 7930, MAE 7970, and MAE 7990; a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; and either 15 credits selected from Group A or at least 9 credits from Group A and the remainder chosen from Group B. (Contact Chris Spall at [chris.spall@usu.edu](mailto:chris.spall@usu.edu) for requirement details.) A minimum of 30 credits is required beyond the BS, which may not include a thesis (MAE 6970), but may include up to three credits of Design Project (MAE 6950). MAE 6950 requires a report written to thesis standards. Students are not required to defend the report. However, the report must be approved by the major professor.

Specializations

The Department of Mechanical and Aerospace Engineering offers ME, MS, and PhD degrees in Mechanical Engineering, with specializations in Aerospace Engineering and Mechanical Engineering. An MS degree in Aerospace Engineering is also offered.

Aerospace Engineering addresses atmospheric and space flight. Included are such disciplines as computational fluid dynamics, experimental fluid mechanics, aerodynamics, aircraft flight dynamics, aircraft design, spacecraft orbital mechanics, spacecraft navigation, guidance and attitude control, aircraft and spacecraft propulsion systems, space system design, and the space environment. Mechanical Engineering graduates choosing the aerospace engineering specialization may pursue careers in such areas as aircraft design and development, aircraft flight testing, spacecraft GN&C systems and space systems design, and spacecraft trajectory design and analysis, as well as the broader, traditional mechanical engineering fields.

Mechanical Engineering deals with the mechanical systems and machines that serve society. Areas of emphasis include solid mechanics, thermal/fluids, and dynamics and control. The solid mechanics emphasis is concerned with the mechanics of displacement and stress analysis combined with material science for selection of an optimum design. Students learn to use the finite element method as well as classical methods for the

determination of stresses, strains, and displacements. Included are studies of elasticity, plasticity, and failure in traditional metals and high-tech composite materials. The thermal/fluids emphasis is concerned with the transport of mass, momentum, and energy in solids, liquids, and gasses. Included within its scope are the fundamental studies of thermodynamics, heat transfer, and fluid mechanics. The dynamics and control emphasis is concerned with describing and controlling the motion of mechanical systems. Included within its scope are the fundamental studies of dynamics, kinematics, vibrations, control theory, hydraulics and pneumatics, electromechanical systems, and machine design. Graduates who select the broad mechanical engineering specialization are prepared to pursue careers in such widely diverse disciplines as aerospace, automotive, building, chemical, defense, electronics, environmental engineering, food processing, heating and air conditioning, heavy equipment, machine tools, manufacturing, nuclear, petroleum, public utilities, and solar energy.

Course Requirements

The specific course requirements for the ME, MS, and PhD degrees offered through the department may occasionally change. For this reason, prospective students are advised to seek current details concerning graduate degree requirements and program coursework by contacting the department or sending an Internet e-mail request to Chris Spall at: [chris.spall@usu.edu](mailto:chris.spall@usu.edu).

Return to: Academic Departments and Programs

Mechanical Engineering - MS

Return to: Academic Departments and Programs

College of Engineering

Department of Mechanical and Aerospace Engineering

The Plan A MS Degree requires a minimum of 30 credits beyond the BS with a minimum GPA of 3.0. Requirements include: 12 credits of 6000-level (or above) MAE coursework, exclusive of MAE 6930, MAE 6950, MAE 6970, and MAE 6990; a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; and 6 credits of thesis (MAE 6970). The thesis must meet School of Graduate Studies requirements.

The Plan B MS Degree requires a minimum of 30 credits beyond the BS with a minimum GPA of 3.0. Requirements include: 12 credits of 6000-level (or above) MAE coursework, exclusive of MAE 6930, MAE 6950, MAE 6970, and MAE 6990; a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics; and 3 credits of report (MAE 6950). The report must meet MAE's requirements.

The Plan C MS Degree requires a minimum of 33 credits beyond the BS with a minimum GPA of 3.0. Requirements include: 6 credits of MAE Engineering fundamentals MAE 6040, MAE 6410; 18 credits of MAE 6000-level (or above) coursework (including MAE 6040 and MAE 6410) exclusive of MAE 6930, MAE 6950, MAE 6970, and MAE 6990; and a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics.

### Specializations

The Department of Mechanical and Aerospace Engineering offers ME, MS, and PhD degrees in Mechanical Engineering, with specializations in Aerospace Engineering and Mechanical Engineering. An MS degree in Aerospace Engineering is also offered.

Aerospace Engineering addresses atmospheric and space flight. Included are such disciplines as computational fluid dynamics, experimental fluid mechanics, aerodynamics, aircraft flight dynamics, aircraft design, spacecraft orbital mechanics, spacecraft navigation, guidance and attitude control, aircraft and spacecraft propulsion systems, space system design, and the space environment. Mechanical Engineering graduates choosing the aerospace engineering specialization may pursue careers in such areas as aircraft design and development, aircraft flight testing, spacecraft GN&C systems and space systems design, and spacecraft trajectory design and analysis, as well as the broader, traditional mechanical engineering fields.

Mechanical Engineering deals with the mechanical systems and machines that serve society. Areas of emphasis include solid mechanics, thermal/fluids, and dynamics and control. The solid mechanics emphasis is concerned with the mechanics of displacement and stress analysis combined with material science for selection of an optimum design. Students learn to use the finite element method as well as classical methods for the determination of stresses, strains, and displacements. Included are studies of elasticity, plasticity, and failure in traditional metals and high-tech composite materials.

The thermal/fluids emphasis is concerned with the transport of mass, momentum, and energy in solids, liquids, and gasses. Included within its scope are the fundamental studies of thermodynamics, heat transfer, and fluid mechanics. The dynamics and control emphasis is concerned with describing and controlling the motion of mechanical systems. Included within its scope are the fundamental studies of dynamics, kinematics, vibrations, control theory, hydraulics and pneumatics, electromechanical systems, and machine design. Graduates who select the broad mechanical engineering specialization are prepared to pursue careers in such widely diverse disciplines as aerospace, automotive, building, chemical, defense, electronics, environmental engineering, food processing, heating and air conditioning, heavy equipment, machine tools, manufacturing, nuclear, petroleum, public utilities, and solar energy.

### Course Requirements

The specific course requirements for the ME, MS, and PhD degrees offered through the department may occasionally change. For this reason, prospective students are advised to seek current details concerning graduate degree requirements and program coursework by contacting the department or sending an Internet e-mail request to Chris Spall at: [chris.spall@usu.edu](mailto:chris.spall@usu.edu).

Return to: Academic Departments and Programs

### Mechanical Engineering - PhD

Return to: Academic Departments and Programs

### College of Engineering

### Department of Mechanical and Aerospace Engineering

The PhD Degree beyond a BS degree requires 24 credits of 6000-level (or above) MAE coursework, exclusive of MAE 6930, MAE 6950, MAE 6970, MAE 6990, MAE 7930, MAE 7970, and MAE 7990; and a minimum of 6 credits of 5000-level (or above) coursework in approved mathematics. A minimum of 72 credits is required beyond the BS, including a dissertation (MAE 7970). The dissertation must meet School of Graduate Studies requirements and be 21 credits. A Qualifying Exam is required and must be passed before completing 18 credits at the PhD level. A paper must be submitted for publication in a refereed journal prior to scheduling the

final defense. The paper must be related to the dissertation and have the student as first author.

The PhD Degree beyond an MS degree requires 12 credits of 6000-level (or above) MAE coursework, exclusive of MAE 6930, MAE 6950, MAE 6970, MAE 6990, MAE 7930, MAE 7970, and MAE 7990; and a minimum of 3 credits of 5000-level (or above) coursework in approved mathematics. A minimum of 42 credits is required beyond the MS, including a dissertation (MAE 7970). The dissertation must meet School of Graduate Studies requirements and be 21 credits. A Qualifying Exam is required and must be passed before completing 18 credits at the PhD level. A paper must be submitted for publication in a refereed journal prior to scheduling the final defense. The paper must be related to the dissertation and have the student as first author.

### Specializations

The Department of Mechanical and Aerospace Engineering offers ME, MS, and PhD degrees in Mechanical Engineering, with specializations in Aerospace Engineering and Mechanical Engineering. An MS degree in Aerospace Engineering is also offered.

Aerospace Engineering addresses atmospheric and space flight. Included are such disciplines as computational fluid dynamics, experimental fluid mechanics, aerodynamics, aircraft flight dynamics, aircraft design, spacecraft orbital mechanics, spacecraft navigation, guidance and attitude control, aircraft and spacecraft propulsion systems, space system design, and the space environment. Mechanical Engineering graduates choosing the aerospace engineering specialization may pursue careers in such areas as aircraft design and development, aircraft flight testing, spacecraft GN&C systems and space systems design, and spacecraft trajectory design and analysis, as well as the broader, traditional mechanical engineering fields.

Mechanical Engineering deals with the mechanical systems and machines that serve society. Areas of emphasis include solid mechanics, thermal/fluids, and dynamics and control. The solid mechanics emphasis is concerned with the mechanics of displacement and stress analysis combined with material science for selection of an optimum design. Students learn to use the finite element method as well as classical methods for the determination of stresses, strains, and displacements. Included are studies of elasticity, plasticity, and failure in traditional metals and high-tech composite materials.

The thermal/fluids emphasis is concerned with the transport of mass, momentum, and energy in solids, liquids, and gasses. Included within its scope are the fundamental studies of thermodynamics, heat transfer, and fluid mechanics. The dynamics and control emphasis is concerned with describing and controlling the motion of mechanical systems. Included within its scope are the fundamental studies of dynamics, kinematics, vibrations, control theory, hydraulics and pneumatics, electromechanical systems, and machine design. Graduates who select the broad mechanical engineering specialization are prepared to pursue careers in such widely diverse disciplines as aerospace, automotive, building, chemical, defense, electronics, environmental engineering, food processing, heating and air conditioning, heavy equipment, machine tools, manufacturing, nuclear, petroleum, public utilities, and solar energy.

### Course Requirements

The specific course requirements for the ME, MS, and PhD degrees offered through the department may occasionally change. For this reason, prospective students are advised to seek current details concerning graduate degree requirements and program coursework by contacting the department or sending an Internet e-mail request to Chris Spall at: [chris.spall@usu.edu](mailto:chris.spall@usu.edu).

Return to: Academic Departments and Programs

Military Science (Army ROTC Commission)

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Military Science

Basic Course Requirements (8 credits)

A lab is included in each of the following MSL courses:

MSL 1010 - Leadership and Personal Development 2

MSL 1020 - Foundations in Leadership 2

MSL 2010 - Innovative Tactical Leadership 2

MSL 2020 - Leadership in Changing Environments 2

Advanced Course Requirements (15 credits)

A lab is included in each of the following MSL courses:

MSL 3010 - Adaptive Team Leadership 3

MSL 3020 - Leadership Under Fire 3

MSL 4510 - ROTC Leader Development and Assessment Course 1-3

(Must be taken summer after MSL 3020, does NOT need to be taken for credit)

MSL 4010 - Developing Adaptive Leaders (CI) 3

MSL 4020 - Leadership in a Complex World 3

HIST 4810 - American Military History 3

Return to: Academic Departments and Programs

Military Science Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Military Science

Grade Requirements

Students must obtain a grade of C or better in all courses used toward the minor, as well as maintain a cumulative GPA of 2.5 for these courses.

Credit Requirements

A minimum of 23 credits must be earned in Military Science and related courses, as follows:

Course Requirements for Military Science Minor (23 credits)

A lab is included in each of the following MSL courses:

MSL 1010 - Leadership and Personal Development 2

MSL 1020 - Foundations in Leadership 2

MSL 2010 - Innovative Tactical Leadership 2

MSL 2020 - Leadership in Changing Environments 2

MSL 3010 - Adaptive Team Leadership 3

MSL 3020 - Leadership Under Fire 3

MSL 4010 - Developing Adaptive Leaders (CI) 3

MSL 4020 - Leadership in a Complex World 3

HIST 4810 - American Military History 3 (no lab required)

Elective Course Offerings

MSL 1015 - Military Science Leadership Lab 1

MSL 1025 - Military Science Leadership Lab 1

MSL 2015 - Military Science Leadership Lab 1

MSL 2025 - Military Science Leadership Lab 1

MSL 2400 - Physical Readiness 1

MSL 2420 - Ranger Preparation 2

MSL 2430 - Air Assault 2

MSL 2440 - Airborne Operations 2

MSL 2510 - Leader's Training Course 1-6

MSL 3015 - Military Science Leadership Lab 1

MSL 3025 - Military Science Leadership Lab 1

MSL 3110 - Staff Organization and Operations 1-3

MSL 3210 - Independent Study 1-3

MSL 4015 - Military Science Leadership Lab 1

MSL 4025 - Military Science Leadership Lab 1

MSL 4110 - Advanced Staff Operations 1-3

MSL 4400 - Advanced Physical Readiness 1

MSL 4510 - ROTC Leader Development and Assessment Course 1-3

MSL 4520 - Cadet Troop Leadership Training 2

Return to: Academic Departments and Programs

Basic Music Minor

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Music

Admission to Music Minor Programs

To be admitted as music minors, students must meet with Marianne Sidwell in Fine Arts 102 and fill out a Change of Matriculation Form.

Basic Music Minor (21 credits)

MUSC 1010 - Introduction to Music (BCA) 3 (online only)(fulfills the BCA requirement)

MUSC 1100 - Fundamentals of Music (BCA) 3

MUSC 1480 - Individual Piano Instruction for Nonmusic Majors 1-2 (1 credit)

MUSC 3010 - Masterpieces of Music (DHA) 3

MUSC 3020 - History of Jazz (DHA) 3 (fulfills the DHA requirement)

Large or Small Ensemble 4

Individual Instruction (nonmajor) 4

Return to: Academic Departments and Programs

Elementary School Music Teaching Minor

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Music

(19 credits)

This minor is for Early Childhood Education or Elementary Education majors only.

Advisor: Professor Leslie Timmons, 797-3699, Fine Arts 105

Admission to Music Minor Programs

To be admitted as music minors, students must meet with Marianne Sidwell in Fine Arts 102 and fill out a Change of Matriculation Form.

Requirements:

MUSC 1010 - Introduction to Music (BCA) 3 (online only)

MUSC 1100 - Fundamentals of Music (BCA) 3 (online only)

MUSC 1150 - Beginning Group Piano 1

MUSC 1480 - Individual Piano Instruction for Nonmusic Majors 1-2 (1 credit) or

MUSC 1550 - Beginning Group Guitar 1 or

MUSC 1560 - Intermediate Group Guitar 1

MUSC 1600 - Voice Techniques 1 or

MUSC 1630 - Individual Vocal Instruction for Nonmusic Majors 1-2 (1 credit)

MUSC 3260 - Elementary School Music 2 1

Level 1 Orff Schulwerk Teacher Training (Summer only) 4 2

Choral Ensemble 2

Large or Small Ensemble 2

Note:

1 Students must have completed a minimum of 45 credits prior to enrolling in MUSC 3260. It is recommended that students complete MUSC 1100 and MUSC 1150.

2 The Orff Schulwerk teacher training course, taught as a workshop through the Music Department, is offered only during summer semester. The prefix and course number for this course varies; see Professor Timmons for further information. Prior to taking this course, students should complete MUSC 1100 and MUSC 3260.

Return to: Academic Departments and Programs

Music - BM

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Music

Students must complete the General Education requirements

Students must also complete the University Studies requirements

Two courses having CI designation (such as MUSC 3190, MUSC 3620 or SCED 3210 or SCED 4200 will fulfill the Communications Intensive (CI) requirement

One course having a QI designation will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DSC) and Social Sciences (DSS)

#### Music Core Curriculum Requirements (37 credits)

All majors in the department must complete the music core curriculum. Although it is possible to complete the degree if these courses are begun after the first year of study, the department strongly recommends that students begin the core curriculum during the first year, completing the courses in the following recommended sequence.

#### Freshman Year

##### Fall Semester

MUSC 1105 - Fundamentals for Music Majors (BCA) 3

MUSC 1170 - Keyboard Harmony I 1

MUSC 2180 - Computer Applications in Music 2

##### Spring Semester

MUSC 1110 - Music Theory I 3

MUSC 1130 - Aural Skills I 1

MUSC 1180 - Keyboard Harmony II 1

MUSC 1190 - World Music 2-3 (2 credits required)

#### Sophomore Year

##### Fall Semester

MUSC 1120 - Music Theory II 3

MUSC 1140 - Aural Skills II 1

MUSC 3110 - Music History I: Origins through Baroque 3

##### Spring Semester

MUSC 2110 - Music Theory III 3

MUSC 2130 - Aural Skills III 1

MUSC 2350 - Conducting 2 1

MUSC 3120 - Music History II: Classical and Romantic Periods 3

#### Junior Year

##### Fall Semester

MUSC 2120 - Music Theory IV 3

MUSC 3190 - Music History III: Music of the Twentieth Century (CI) 3

##### Spring Semester

MUSC 3180 - Orchestration 2 2

Note:

1 MUSC 2350 is not required for the Piano Performance and Piano Pedagogy Emphases.

2 MUSC 3180 is not required for the Vocal Performance Emphasis.

#### Degree Composite Major in Music Education

Music majors must maintain a minimum GPA of 3.0 in Music courses. A grade of C- or better must be earned in all core and emphasis classes. A 2.75 cumulative GPA is required for graduation. Additional requirements, such as piano proficiency, concert attendance, etc., are stipulated in the Department of Music's Student Handbook.

#### Emphasis Area

Students must select one area of emphasis and complete the required coursework for that emphasis. The student's transcript will show the area of emphasis selected by the student from those listed below. Please note that all music majors are required to participate in major departmental ensemble organizations each semester. The student and an advisor will determine the organizations in which the student will participate.

Music Education (Band) (35-40 credits)

MUSC 1500 - String Techniques I 1

MUSC 1600 - Voice Techniques 1

MUSC 1800 - Percussion Techniques 1

MUSC 2600 - Women's Choir 1 or

MUSC 4600 - University Chorale (DHA) 1

MUSC 2700 - Woodwind Techniques I: Flute, Clarinet 1

MUSC 2710 - Woodwind Techniques II: Saxophone, Oboe, Bassoon 1

MUSC 3785 - Marching Band 1 (4 semesters) (2 cr, repeatable) (8 credits required)

MUSC 2800 - Brass Techniques I: Trumpet, French Horn 1

MUSC 2810 - Brass Techniques II: Trombone, Tuba, Euphonium 1

MUSC 3100 - Motivation and Classroom Management Strategies in Secondary Classroom Music 3

MUSC 3220 - Choral Methods and Materials 2

MUSC 3240 - Instrumental Methods and Materials 2

MUSC 3790 - Symphonic Band (DHA) 1 (1 cr, repeatable) or

MUSC 4700 - Wind Orchestra (DHA) 1 (1 cr, repeatable) (7 credits required)

MUSC 3900 - Improvisation I 2

MUSC 4240 - Advanced Conducting 2

MUSC 4920 - Individual Recital 1-6

Small Ensembles (2 credits)

Select 2 credits from the following:

MUSC 3700 - Woodwind Ensemble 1-2

MUSC 3780 - Flute Ensemble 1

MUSC 3800 - Trombone Ensemble 1

MUSC 3850 - Brass Ensemble 1

MUSC 3870 - Percussion Ensemble 1

Individual Instruction (7 credits)

Students should complete 7 credits from the following on their major instrument.

MUSC 3710 - Individual Flute Instruction for Music Majors 1-2

MUSC 3720 - Individual Oboe Instruction for Music Majors 1-2

MUSC 3730 - Individual Clarinet Instruction for Music Majors 1-2

MUSC 3740 - Individual Bassoon Instruction for Music Majors 1-2

MUSC 3750 - Individual Saxophone Instruction for Music Majors 1-2

MUSC 3810 - Individual Trumpet Instruction for Music Majors 1-2

MUSC 3820 - Individual Trombone Instruction for Music Majors 1-2

MUSC 3830 - Individual French Horn Instruction for Music Majors 1-2

MUSC 3840 - Individual Tuba/Euphonium Instruction for Music Majors 1-2

MUSC 3860 - Individual Percussion Instruction for Music Majors 1-2

Music Education (Orchestra) (31-36 credits)

MUSC 1500 - String Techniques I 1

MUSC 1600 - Voice Techniques 1

MUSC 1800 - Percussion Techniques 1

MUSC 2600 - Women's Choir 1 or

MUSC 4600 - University Chorale (DHA) 1

MUSC 2700 - Woodwind Techniques I: Flute, Clarinet 1 or

MUSC 2710 - Woodwind Techniques II: Saxophone, Oboe, Bassoon 1

MUSC 2800 - Brass Techniques I: Trumpet, French Horn 1 or

MUSC 2810 - Brass Techniques II: Trombone, Tuba, Euphonium 1

MUSC 3100 - Motivation and Classroom Management Strategies in Secondary Classroom Music 3

MUSC 3220 - Choral Methods and Materials 2

MUSC 3240 - Instrumental Methods and Materials 2

MUSC 3500 - Symphony Orchestra (DHA) 1 (7 credit minimum)

MUSC 3510 - Orchestra Literature 2

MUSC 3520 - String Pedagogy and Solo Literature 2

MUSC 4240 - Advanced Conducting 2

MUSC 4500 - String Ensemble 1 (4 credit minimum)

MUSC 4920 - Individual Recital 1-6

Individual String Instruction (7 credits)

Select 7 credits from the following:

MUSC 4510 - Individual Violin Instruction for Music Majors 1-2

MUSC 4520 - Individual Viola Instruction for Music Majors 1-2

MUSC 4530 - Individual Cello Instruction for Music Majors 1-2

MUSC 4540 - Individual String Bass Instruction for Music Majors 1-2

Music Education (Choral) (35-40 credits)

MUSC 1500 - String Techniques I 1

MUSC 1800 - Percussion Techniques 1

MUSC 2600 - Women's Choir 1 or

MUSC 4600 - University Chorale (DHA) 1 or

MUSC 4650 - Chamber Singers (DHA) 1 (7 credit minimum)

MUSC 2700 - Woodwind Techniques I: Flute, Clarinet 1 or

MUSC 2710 - Woodwind Techniques II: Saxophone, Oboe, Bassoon 1

MUSC 2800 - Brass Techniques I: Trumpet, French Horn 1 or

MUSC 2810 - Brass Techniques II: Trombone, Tuba, Euphonium 1

MUSC 3100 - Motivation and Classroom Management Strategies in Secondary Classroom Music 3

MUSC 3220 - Choral Methods and Materials 2

MUSC 3230 - Choral Literature 2

MUSC 3240 - Instrumental Methods and Materials 2

MUSC 3570 - Guitar Pedagogy I 2

MUSC 3630 - Vocal Pedagogy I 3

MUSC 3670 - Individual Vocal Instruction for Music Majors 1-2 (7 credits required)

MUSC 4240 - Advanced Conducting 2

MUSC 4920 - Individual Recital 1-6

Music Education (Guitar) (39-47 credits)

MUSC 1500 - String Techniques I 1

MUSC 1600 - Voice Techniques 1

MUSC 1800 - Percussion Techniques 1

MUSC 2550 - Guitar Styles: Blues 2

MUSC 2560 - Guitar Styles: Bluegrass/Folk 2

MUSC 2570 - Fingerboard Theory I 2

MUSC 2580 - Fingerboard Theory II 2

MUSC 2600 - Women's Choir 1 or

MUSC 4600 - University Chorale (DHA) 1

MUSC 2700 - Woodwind Techniques I: Flute, Clarinet 1

MUSC 3100 - Motivation and Classroom Management Strategies in Secondary Classroom Music 3

MUSC 3220 - Choral Methods and Materials 2

MUSC 3240 - Instrumental Methods and Materials 2

MUSC 3550 - Individual Guitar Instruction for Music Majors 1-2 (7 credits required)

MUSC 3560 - Guitar History and Literature 3

MUSC 3570 - Guitar Pedagogy I 2

MUSC 3580 - Guitar Pedagogy II 2

MUSC 3590 - Electric Guitar Ensemble 1 or

MUSC 4550 - Acoustic Guitar Ensemble 1 (4-7 credits)

MUSC 4240 - Advanced Conducting 2

MUSC 4920 - Individual Recital 1-6

Bachelor of Music Degree (Performance Emphases) (2.75 cumulative GPA; 3.00 GPA in Music courses)

The Bachelor of Music Degree with one of the performance emphases requires completion of University Studies Requirements, Core Requirements, and Emphasis Area Requirements. A grade of C- or better must be earned in all core and emphasis classes.

#### Music Core Curriculum Requirements (37 credits)

All of the Music Core Curriculum courses are required, with the following exceptions:

MUSC 3180 is not required for the Vocal Performance Emphasis.

#### Emphasis Area

Students must select one area of emphasis and complete the required coursework for that emphasis. The student's transcript will show the area of emphasis selected by the student from those listed below. Please note that all music majors are required to participate in major departmental ensemble organizations each semester. The student and an advisor will determine the organizations in which the student will participate.

#### Harp Performance (50-51 credits)

MUSC 1600 - Voice Techniques 1 or

MUSC 2640 - Individual Vocal Instruction (Second Instrument) for Music Majors 1

MUSC 2890 - Individual Percussion Instruction (Second Instrument) for Music Majors 1

Select 8 credits from the following five courses:

MUSC 2600 - Women's Choir 1

MUSC 3500 - Symphony Orchestra (DHA) 1

MUSC 3790 - Symphonic Band (DHA) 1

MUSC 4650 - Chamber Singers (DHA) 1

MUSC 4700 - Wind Orchestra (DHA) 1

MUSC 3210 - Individual Harp Instruction for Music Majors 1-2 (8 credits)

MUSC 3140 - Musical Form and Analysis 3

MUSC 4920 - Individual Recital 1-6 (Junior recital-2cr., Senior recital-2cr.)

MUSC 4730 - Directed Project in Instrumental Pedagogy and Literature (CI) 3 or

MUSC 4930 - Readings and Conference 1-6 (4 credits)

Chamber Music (8 credits)

Harp Pedagogy & Solo Literature (2 credits)

Music Electives (8 credits)

Electives (7-8 credits)

PE 1057 - Yoga 1

Piano Performance (57 credits)

MUSC 1420 - Pedagogy Practicum 3 (9 credits required)

MUSC 1430 - Piano Pedagogy I 3

MUSC 1440 - Piano Pedagogy II 3

MUSC 2420 - Piano Literature I 3

MUSC 2430 - Piano Literature II 3

MUSC 2440 - Piano Literature III 3

MUSC 2450 - Piano Literature IV 3

MUSC 3400 - Individual Piano Instruction for Music Majors 1-2 (8 credits required)

MUSC 3140 - Musical Form and Analysis 3

MUSC 3410 - Ensemble and Accompanying 1-2 (4 credits required)

MUSC 3420 - Keyboard Skills I 3

MUSC 3430 - Keyboard Skills II 3

MUSC 4410 - Advanced Piano Pedagogy I 1-2 (3 credits required)

MUSC 4420 - Advanced Piano Pedagogy II 1-2 (3 credits required)

MUSC 4920 - Individual Recital 1-6 (sophomore year, 30 minutes, 1 credit required; senior year, 1 hr, 2 credits required)

String Performance (45 credits)

MUSC 2490 - Individual Piano Instruction (Second Instrument) for Music Majors 1 (2 credits required)

MUSC 3140 - Musical Form and Analysis 3

MUSC 3500 - Symphony Orchestra (DHA) 1 (8 credits required)

MUSC 3510 - Orchestra Literature 2 (section 2 for viola/bass or section 3 for violin/cello)

MUSC 3520 - String Pedagogy and Solo Literature 2

MUSC 4500 - String Ensemble 1 (8 credits required)

MUSC 4920 - Individual Recital 1-6 (Junior; 2 credits; Senior, 2 credits)

MUSC 4930 - Readings and Conference 1-6 (4 credits required)

Music Electives 11

PE 1057 - Yoga 1

Individual String Instruction (8 credits)

See note 1

Students must complete 8 credits from one of the following:

MUSC 4510 - Individual Violin Instruction for Music Majors 1-2

MUSC 4520 - Individual Viola Instruction for Music Majors 1-2

MUSC 4530 - Individual Cello Instruction for Music Majors 1-2

MUSC 4540 - Individual String Bass Instruction for Music Majors 1-2

Vocal Performance (55 credits)

MUSC 2490 - Individual Piano Instruction (Second Instrument) for Music Majors 1 (6 credits maximum)

MUSC 2660 - Italian Diction for Singers 2

MUSC 2670 - German Diction for Singers 2

MUSC 2680 - French Diction for Singers 2

MUSC 3600 - Opera Theatre Production 1-3 (8 credits required)

MUSC 3610 - Vocal Repertory I 2

MUSC 3620 - Vocal Repertory II (CI) 2

MUSC 3630 - Vocal Pedagogy I 3

MUSC 3640 - Vocal Pedagogy II 3

MUSC 3670 - Individual Vocal Instruction for Music Majors 1-2 (8 credits required)

MUSC 4920 - Individual Recital 1-6 (Junior year, 1 credit required; Senior year, 2 credits required)

Major Performance Group (MUSC 4600, MUSC 4650, MUSC 2610, or MUSC 2600) 8

Italian or German or French (2 semesters) 8

Note:

All students selecting the Vocal Performance Emphasis must complete performance level 5 in piano or MUSC 2490 until level requirement is met.

Wind/Brass/Percussion Performance (52-56 credits)

Individual Instruction (8 credits)

See note 1

Students must complete 8 credits from one of the following three groups of courses in their area (Individual Woodwind Instruction or Individual Brass Instruction or Individual Percussion Instruction).

Individual Woodwind Instruction

MUSC 3710 - Individual Flute Instruction for Music Majors 1-2

MUSC 3720 - Individual Oboe Instruction for Music Majors 1-2

MUSC 3730 - Individual Clarinet Instruction for Music Majors 1-2

MUSC 3740 - Individual Bassoon Instruction for Music Majors 1-2

MUSC 3750 - Individual Saxophone Instruction for Music Majors 1-2

Individual Brass Instruction

MUSC 3810 - Individual Trumpet Instruction for Music Majors 1-2

MUSC 3820 - Individual Trombone Instruction for Music Majors 1-2

MUSC 3830 - Individual French Horn Instruction for Music Majors 1-2

MUSC 3840 - Individual Tuba/Euphonium Instruction for Music Majors 1-2

Individual Percussion Instruction

MUSC 3860 - Individual Percussion Instruction for Music Majors 1-2

Large Ensembles (8 credits)

See note 2

Select 8 credits from the following:

MUSC 3500 - Symphony Orchestra (DHA) 1

MUSC 3790 - Symphonic Band (DHA) 1

MUSC 4700 - Wind Orchestra (DHA) 1

Small Ensembles (4 credits)

Select 4 credits from the following six courses:

MUSC 3700 - Woodwind Ensemble 1-2

MUSC 3780 - Flute Ensemble 1

MUSC 3800 - Trombone Ensemble 1

MUSC 3850 - Brass Ensemble 1

MUSC 3870 - Percussion Ensemble 1

MUSC 4720 - Saxophone Quartet 1-2

Additional Courses (32-36 credits)

MUSC 1800 - Percussion Techniques 1

MUSC 2700 - Woodwind Techniques I: Flute, Clarinet 1  
or

MUSC 2710 - Woodwind Techniques II: Saxophone, Oboe,  
Bassoon 1 or

MUSC 2800 - Brass Techniques I: Trumpet, French Horn  
1 or

MUSC 2810 - Brass Techniques II: Trombone, Tuba,  
Euphonium 1

MUSC 3240 - Instrumental Methods and Materials 2 or

MUSC 4730 - Directed Project in Instrumental Pedagogy  
and Literature (CI) 3 or

MUSC 4930 - Readings and Conference 1-6 (2 credits  
required)

MUSC 3900 - Improvisation I 2

MUSC 4920 - Individual Recital 1-6 (Junior, 1-2 credits  
required; Senior, 3-6 credits required)

Secondary Instrument Course 2 3

Music Electives 4

Electives 15 4

Guitar Performance (53 credits)

MUSC 2550 - Guitar Styles: Blues 2

MUSC 2560 - Guitar Styles: Bluegrass/Folk 2

MUSC 2570 - Fingerboard Theory I 2

MUSC 2580 - Fingerboard Theory II 2

MUSC 3550 - Individual Guitar Instruction for Music  
Majors 1-2 (8 credits required)

MUSC 3560 - Guitar History and Literature 3

MUSC 3570 - Guitar Pedagogy I 2

MUSC 3580 - Guitar Pedagogy II 2

MUSC 3590 - Electric Guitar Ensemble 1 (1 cr,  
repeatable) (8 credits required) or

MUSC 4550 - Acoustic Guitar Ensemble 1 (1 cr,  
repeatable) (8 credits required)

MUSC 3900 - Improvisation I 2

MUSC 4920 - Individual Recital 1-6 (Junior year, 1 credit  
required; Senior year, 2 credits required)

MUSC 4930 - Readings and Conference 1-6 (2 credits  
required)

Music Electives 6

Electives 9

Bachelor of Music Degree (Piano Pedagogy Emphasis)  
(2.75 cumulative GPA; 3.00 GPA in Music courses)

The Bachelor of Music Degree with an emphasis in Piano  
Pedagogy requires completion of University Studies  
Requirements, Core Requirements, Pedagogy Emphasis,  
and Electives. Music majors must maintain a minimum  
GPA of 3.00 in Music courses. A grade of C- or better must  
be earned in all core and emphasis classes. A 2.75  
cumulative GPA is required for graduation. Additional

requirements, such as piano proficiency, concert attendance, etc., are stipulated in the Department of Music's Student Handbook.

#### Music Core Curriculum Requirements (37 credits)

Students in the Piano Pedagogy emphasis must complete the 37 credit music core curriculum.

#### Pedagogy Emphasis Requirements (56-57 credits)

MUSC 1420 - Pedagogy Practicum 3 (9 credits required)

MUSC 1430 - Piano Pedagogy I 3

MUSC 1440 - Piano Pedagogy II 3

MUSC 2420 - Piano Literature I 3

MUSC 2430 - Piano Literature II 3

MUSC 2440 - Piano Literature III 3

MUSC 2450 - Piano Literature IV 3

MUSC 3400 - Individual Piano Instruction for Music Majors 1-2 (8 credits required)

MUSC 3410 - Ensemble and Accompanying 1-2 (4 credits required)

MUSC 3420 - Keyboard Skills I 3

MUSC 3430 - Keyboard Skills II 3

MUSC 4410 - Advanced Piano Pedagogy I 1-2 (2 credits required)

MUSC 4420 - Advanced Piano Pedagogy II 1-2 (2 credits required)

MUSC 3140 - Musical Form and Analysis 3

MUSC 4920 - Individual Recital 1-6 (Senior Recital, 30 minutes, 1 credit required)

Electives 4

Note:

1A student in this program will study privately each semester of residency.

2 A student in this program will participate in a large ensemble for each semester of residency.

3 Choose 2 credits from: MUSC 2470, MUSC 2490, MUSC 2750, MUSC 2760, MUSC 2770, MUSC 2780, MUSC 2790,

MUSC 2850, MUSC 2860, MUSC 2870, MUSC 2880, MUSC 2890.

4 At least 3 credits must be from a course that is designated as Communications Intensive and at least 3 credits must be from a course that is designated as Quantitative Intensive.

#### Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Music - MM

Return to: Academic Departments and Programs

Caine College of the Arts

## Department of Music

The Music Department offers a Master of Music (MM) degree, with specializations in Piano performance and Pedagogy, Performance, and Conducting. Master of Music students have the opportunity to acquire comprehensive knowledge in their emphasis through research and both classroom and individualized instruction, to develop and practice professional skills and to gain leadership experience.

The Piano Performance and Pedagogy emphasis integrates instruction in piano pedagogy with advanced levels of piano performance, preparing graduates who will offer piano instruction from private studios, as well as those who will teach in a college environment. Graduates of this program will also be equipped to pursue Doctor of Musical Arts degrees at other institutions. Students in the program must complete a minimum of 36 approved semester credits, divided into three main areas: (1) 12 credits in performance, (2) 12 credits in pedagogy, and (3) 12 credits in history and theory. Selected students will be offered graduate instructorship positions.

The Performance emphasis focuses on individual instruction, ensemble performance and advisor-approved independent study which focuses on the student's career and educational objectives. Students in the program must complete a minimum of 30 approved semester credits, divided into two main areas: (1) 16 credits in performance and (2) 14 credits in other studies in music.

The Conducting emphasis focuses on ensemble performance, advanced conducting and rehearsal techniques, repertory and literature, and advisor-approved independent study which focuses on the student's career and educational objectives. Students in the program must complete a minimum of 33 approved semester credits, divided into two main areas: (1) 20 credits in performance and (2) 13 credits in other studies in music.

To qualify for admission to the MM program, applicants must have a bachelor's degree in any field of study, with a GPA of at least 3.0. Students must have scores on the verbal and either the quantitative or analytical portions of the Graduate Record Examination (GRE) at or above the 40th percentile. International applicants must take the Test of English as a Foreign Language (TOEFL) and earn a minimum score of 213. Three satisfactory letters

of recommendation are also required. An audition and interview is required for admission to the degree. If a live audition is impractical, applicants may send an audiovisual recording demonstrating their level of proficiency with regard to both piano performance and teaching. Candidates will also be required to pass diagnostic examinations in music theory and music history, ensuring their preparation for graduate-level study in these fields.

Return to: Academic Departments and Programs

Music Therapy - BS

Return to: Academic Departments and Programs

Caine College of the Arts

Department of Music

Students must complete the General Education requirements

STAT 1040 (Stat 1040 is required for the Music Therapy major for Quantitative Literacy (QL)

Students must also complete the University Studies requirements

MUSC 3190 and MUSC 4320 will fulfill the Communications Intensive (CI) requirement

PSY 3010 is suggested for fulfilling the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Life and Physical Sciences (DHA) and Social Sciences (DSS)

Music Core Curriculum Requirements (37 credits)

All majors in the department must complete the music core curriculum. Although it is possible to complete the degree if these courses are begun after the first year of study, the department strongly recommends that students begin the core curriculum during the first year, completing the courses in the following recommended sequence.

Freshman Year

Fall Semester

MUSC 1105 - Fundamentals for Music Majors (BCA) 3

MUSC 1170 - Keyboard Harmony I 1

MUSC 2180 - Computer Applications in Music 2

Spring Semester

MUSC 1110 - Music Theory I 3

MUSC 1130 - Aural Skills I 1

MUSC 1180 - Keyboard Harmony II 1

MUSC 1190 - World Music 2-3 (2 credits required)

Sophomore Year

Fall Semester

MUSC 1120 - Music Theory II 3

MUSC 1140 - Aural Skills II 1

MUSC 3110 - Music History I: Origins through Baroque 3

Spring Semester

MUSC 2110 - Music Theory III 3

MUSC 2130 - Aural Skills III 1

MUSC 2350 - Conducting 2 1

MUSC 3120 - Music History II: Classical and Romantic Periods 3

Junior Year

Fall Semester

MUSC 2120 - Music Theory IV 3

MUSC 3190 - Music History III: Music of the Twentieth Century (CI) 3

Spring Semester

MUSC 3180 - Orchestration 2 2

Note:

1 MUSC 2350 is not required for the Piano Performance and Piano Pedagogy Emphases.

2 MUSC 3180 is not required for the Vocal Performance Emphasis.

Music Therapy Requirements

Students must complete an application process through the Music Department in order to be accepted for the Music Therapy major. Music Therapy majors must maintain a minimum GPA of 3.00 in Music Therapy courses. A grade of C- or better must be earned in all required classes. A 2.75 total GPA is required for graduation. Additional requirements, such as piano proficiency, concert attendance, etc., are stipulated in the Department of Music's Student Handbook and Music Therapy Addendum to the Handbook.

Music Therapy Core Courses (31 credits)

MUSC 1310 - Introduction to Music Therapy 2

MUSC 1320 - Music Therapy Ensemble 1

MUSC 2310 - Introduction to Observational and Behavioral Methods in Music Therapy 2

MUSC 2320 - Music Therapy Methods and Materials 2

MUSC 3310 - Music Therapy and the Exceptional Child 3

MUSC 3320 - Psychology of Music 2

MUSC 3330 - Music Therapy Practicum 1-3 (9 credits minimum)

MUSC 4310 - Music Therapy with Adult Populations 3

MUSC 4320 - Research in Music Therapy (CI) 2

MUSC 4330 - Clinical and Professional Issues in Music Therapy 3

MUSC 4340 - Internship in Music Therapy 2 (taken only after all academic coursework has been completed)

Additional Music Coursework (3 credits)

MUSC 1800 - Percussion Techniques 1

MUSC 2350 - Conducting 2

Ensemble Performance (2 credits)

Select from the following courses:

MUSC 2600 - Women's Choir 1

MUSC 2610 - American Festival Chorus 1

MUSC 3785 - Marching Band 1

MUSC 3500 - Symphony Orchestra (DHA) 1

MUSC 3700 - Woodwind Ensemble 1-2

MUSC 3780 - Flute Ensemble 1

MUSC 3790 - Symphonic Band (DHA) 1

MUSC 3800 - Trombone Ensemble 1

MUSC 3850 - Brass Ensemble 1

MUSC 3870 - Percussion Ensemble 1

MUSC 4500 - String Ensemble 1

MUSC 4550 - Acoustic Guitar Ensemble 1

MUSC 4600 - University Chorale (DHA) 1

MUSC 4650 - Chamber Singers (DHA) 1

Individual Instruction (Major Instrument) (Minimum Requirement: 4 semesters, 4 credits)

Guitar Requirements (with advisor approval) (1-4 credits)

Select from the following courses:

MUSC 1550 - Beginning Group Guitar 1

MUSC 1560 - Intermediate Group Guitar 1

MUSC 2550 - Guitar Styles: Blues 2

MUSC 2560 - Guitar Styles: Bluegrass/Folk 2

MUSC 2590 - Individual Guitar Instruction (Second Instrument) for Music Majors 1

MUSC 3550 - Individual Guitar Instruction for Music Majors 1-2

Piano Requirements (with advisor approval) (1-4 credits)

Select from the following courses:

MUSC 2490 - Individual Piano Instruction (Second Instrument) for Music Majors 1 (repeatable)

MUSC 3400 - Individual Piano Instruction for Music Majors 1-2 (repeatable)

Vocal Requirements (with advisor approval) (1-4 credits)

Select from the following courses:

MUSC 1600 - Voice Techniques 1

MUSC 2640 - Individual Vocal Instruction (Second Instrument) for Music Majors 1 (repeatable)

MUSC 3670 - Individual Vocal Instruction for Music Majors 1-2 (repeatable)

Note: Music Therapy Majors will be individually advised regarding additional instruction required in piano, voice and guitar.

Additional Required Courses for Music Therapy (16 credits)

BIOL 2320 - Human Anatomy 4

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PSY 1010 - General Psychology (BSS) 3

PSY 3210 - Abnormal Psychology (DSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Behavioral Health/Natural Sciences Electives (9 credits minimum)

Electives must be chosen from the following courses or with approval of the student's area advisor.

COMD 2500 - Language, Speech, and Hearing Development 3

COMD 3010 - American Sign Language I (CI) 4

FCHD 2400 - Marriage and Family Relationships (BSS) 3

FCHD 3100 - Abuse and Neglect in Family Context 3

PSY 1100 - Lifespan Development 3

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3

PSY 3460 - Neuroscience I 3

PSY 3510 - Social Psychology (DSS) 3

PSY 4210 - Personality Theory (DSS) 3

PSY 4230 - Psychology of Gender (DSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

Minimum University Requirements

Total Credits  
120

Grade Point Average (most majors require higher GPA)  
2.00 GPA

Credits of C- or better  
100

Credits of upper-division courses (#3000 or above)  
40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)  
30 USU credits

Completion of approved major program of study  
See college advisor

Credits in minor (if required)  
12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)  
3

General Education Requirements and University Studies Depth Requirements  
Return to: Academic Departments and Programs

Secondary Teacher Education Program (STEP)-Music  
Return to: Academic Departments and Programs  
Caine College of the Arts  
Department of Music  
(25 credits)

Admission to the STEP curriculum requires action by the Office of the Associate Dean for Teacher Education, Graduation, and Educator Licensing, as well as the department where the major work is being offered. Students are not generally permitted to enroll in the

following STEP courses unless they have been admitted to the STEP.

Requirements:

Level 1 Courses (6 credits)

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1 (Arranged)

SPED 4000 - Education of Exceptional Individuals 2 (may be taken anytime)

Level 2 Courses (7 credits)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1 (Arranged)

Level 3 Courses (12 credits)

SCED 5500 - Student Teaching Seminar 2 (2 weeks)

SCED 5630 - Student Teaching in Secondary Schools 10 (13 weeks, full-time)

Dual Licensure (Recommended)

Students receiving licensure in secondary music education are encouraged to qualify for teaching music (vocal and/or instrumental) in the elementary schools. In addition to the graduation and licensure requirements for the BM Degree in Music Education, the following courses are required.

PSY 1100 - Lifespan Development 3 or

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 1

MUSC 3260 - Elementary School Music 2 2

Level 1 Orff Schulwerk Teacher Training (Su)4 4

Note:

1 Will fulfill the University Studies Breadth Social Sciences (BSS) requirement.

2 The Orff Schulwerk teacher training course, taught as a workshop through the Music Department, is offered only during summer semester. The prefix and course number

for this course varies; see Music Department for further information. Prior to taking this course, students should complete MUSC 1110, MUSC 1130, and MUSC 3260.

Return to: Academic Departments and Programs

Medical Laboratory Technician - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Science

Department of Biology

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Medical Laboratory Technician:

BIOL 1010 - Biology and the Citizen (BLS) 3

BIOL 1013 - Biology and the Citizen Lab 1

BIOL 1500 - Anatomy and Physiology (BLS) 3

BUSN 2390 - Organizational Behavior (HR) 3 or

CMST 2110 - Interpersonal Communication (BHU/HR) 3  
or

CMST 2120 - Small Group Communication (HR) 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

CHEM 1015 - Introduction to Chemistry Laboratory 1

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1115 - General Chemistry I Laboratory 1

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1050 - College Algebra (QL) 4

MLT 1010 - Medical Laboratory Techniques 3

MLT 2230 - Clinical Laboratory Practices 2

MLT 2240 - Hematology 4

MLT 2270 - Immunology/Serology 3

MLT 2280 - Immunohematology 4

MLT 2430 - Clinical Chemistry I 3

MLT 2450 - Clinical Chemistry II 3

MLT 2550 - Practicum in Medical Technology 3

MLT 2570 - Clinical Microbiology I 3

MLT 2580 - Clinical Microbiology II 2

NURS 1008 - Medical Terminology 2

PSY 1010 - General Psychology (BSS) 3

STAT 2000 - Statistical Methods (QI) 4

National Certification

After the successful completion of the program, students are eligible to apply to sit for the National Certification Exam. Use the link below to access the application. Click on certifications.

<http://www.americanmedtech.org/default.aspx>

Return to: Academic Departments and Programs

Nursing - AAS

Return to: Academic Departments and Programs

Associate of Applied Science Degree

In addition to the Practical Nursing Certificate admissions requirements, AAS students must also:

Submit a completed nursing admission application to the nursing department by the third Thursday in May.

Have a current practical nursing license in good standing in the State of Utah, or be currently enrolled in a practical nursing program.

Once admitted, ADN students must pass the NCLEX-PN prior to the first day of Fall semester.

Obtain successful performance on the LPN proficiency examination in nursing (ATI PN Predictor).

Have a minimum grade of B- in each prerequisite course: BIOL 2320 and BIOL 2420 (within 5 years), BIOL 2060, and MATH 1050.

The Associate of Applied Science Degree builds upon the practical nursing certificate and is designed for students who wish to complete their education and obtain licensure as a registered nurse (RN). A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Nursing:

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1115 - General Chemistry I Laboratory 1

NURS 2010 - Transition to Associate Degree Nursing 2

NURS 2020 - Nursing Process II 4

NURS 2030 - Nursing Process II Clinical 4

NURS 2120 - Family Nursing II 1

NURS 2220 - Manager of Care 5

NURS 2230 - Manager of Care Clinical 5

Return to: Academic Departments and Programs

Practical Nursing Certificate

Return to: Academic Departments and Programs

The Practical Nursing Certificate of Completion is designed for students who wish to complete their education and obtain licensure as a licensed practical nurse (LPN). A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses.

Requirements for Admission

Fulfill requirements for admission to USU.

Submit transcript(s) for the following prerequisites: high school chemistry or equivalent, high school biology or equivalent, a documented math competency (through a college entrance exam or by completion of MATH 1010 ); and the following college courses: ENGL 1010, FCHD 1500, and PSY 1010 .

Receive a score of proficient or higher on the Test of Essential Academic Skills (TEAS).

Possess personal characteristics conducive to working and relating with others.

Provide for transportation to clinical sites.

Possess mental and physical health, which would permit the applicant to safely and competently practice nursing.

After acceptance: Submit results of a criminal background check and a negative drug screen.

The following courses are required for the Certificate of Completion in the Practical Nursing Program:

BIOL 2060 - Elementary Microbiology 4

BIOL 2320 - Human Anatomy 4

BIOL 2420 - Human Physiology 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

NURS 1010 - Introduction to Nursing 2

NURS 1020 - Fundamental Concepts of Nursing 5

NURS 1030 - Fundamental Concepts of Nursing Clinical 4

NURS 1110 - Pharmacology 3

NURS 1120 - Family Nursing I 1

NURS 1220 - Nursing Process I 3

NURS 1230 - Nursing Process I Clinical 4

PSY 1010 - General Psychology (BSS) 3

Return to: Academic Departments and Programs

Dietetic Internship Graduate Certificate

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

The Dietetic Internship (DI) is a graduate certificate program that provides the required supervised practice experience for students that have completed the necessary didactic dietetics coursework and have a desire to become a Registered Dietitian. Dietetic interns complete 31 weeks of supervised practice and concurrent graduate online courses in clinical, community, and foodservice management with a program emphasis in Child Nutrition Programs and School Food Service Systems Management. All Prior Assessed Learning (PAL) internship hours that are waived will be noted on the transcript. The completion of the practice hours and online courses results in a total of 26 graduate credits. These credits can later be used towards obtaining the Master of Dietetics Administration (MDA) degree. On completion of the internship, the students are awarded a graduate certificate recognizing their completion of the graduate coursework and are eligible to sit for the national registered dietitian examination.

A Registered Dietitian is a highly-qualified health professional, recognized as an expert on food and nutrition. Dietitians are employed in a variety of settings and work in management or as clinicians in: healthcare institutions, schools, universities, industry, home health agencies, government-funded agencies, wellness programs, research and so forth.

Dietetic Internship Admission Requirements

Students seeking admission must meet the minimum selection criteria and satisfy the admissions requirements for the DI program. This includes participating in the DICAS online centralized dietetic internship application and D&D Digital Dietetic Internship Matching service.

Program Schedule

The DI is designed to allow students to train in their current location or a location that is convenient for the individual student. As part of the application process, prospective students are responsible for finding their own training facilities and preceptors in their desired location, based on the USU DI guidelines.

The online courses listed below are variable credits and students are enrolled in classes corresponding to their supervised practice schedule.

Required Courses (26 credits)

NDFS 6050 - Community Nutrition Internship 2-6 (5 credits required)

NDFS 6250 - Clinical Nutrition Internship 2-10 (9 credits required)

NDFS 6350 - Food Service Management Internship 2-12 (11 credits required)

NDFS 6900 - Special Problems 1-4 (1 credit required)

Return to: Academic Departments and Programs

Dietetics Administration - MDA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

The MDA degree is a professional degree designed to provide dietitians with in-depth training in management and leadership in food and nutrition program administration. Nationwide, there is a need for professionally trained managers at local, district, state, and federal levels in food and nutrition programs, including school, university, and hospital food services; public health programs; and clinical management. This program provides in-depth training in financial management, human resource management, marketing, and dietetics-specific management.

MDA Admission Requirements

Candidates for the MDA program must qualify for one of the following categories: Option 1: Must have completed the USU Distance Dietetics Internship; or Option 2: Must be currently registered as dietitian with at least two years of work experience. Students seeking entry must also satisfy: (1) admission requirements of the USU School of Graduate Studies; (2) admission requirements of the NDFS Department; and (3) admission requirements of the MDA program, including a letter of application and an approved Program of Study.

The MDA Advisory Committee is responsible for reviewing applications, accepting students into the MDA program, and assigning students to an advisor.

## MDA Program of Study

### Option 1

Option 1 is tailored for applicants who have completed the USU Distance Dietetics Internship. There are two tracks of study for students choosing Option 1.

#### Track 1

Track 1 is a Plan B research project. Students must complete a minimum of 41 credits and a Plan B thesis. The completed USU Distance Dietetics Internship provides 26 of the 41 credits. Students completing this track will need to attend a thesis defense meeting held at the USU Logan Campus.

Following the internship, 15 additional credits are required including:

NDFS 6770 - Advanced Management in Dietetics I 3

NDFS 6780 - Advanced Management in Dietetics II 3

NDFS 6970 - Thesis Research 1-12 (2 credits required)

NDFS 7800 - Seminar 1

Quantitative/Research Elective 3

Skills Enhancement Elective 3

#### Track 2

Track 2 is a professional program comprised of 18 credits of coursework including a practicum project. Students choosing this track should be employed in the dietetics field during the program. Students will complete the coursework in three semesters beginning Fall semester of each year. The professional program track does not require travel to the Logan campus.

The coursework is as follows:

#### Fall

NDFS 6750 - Advanced Dietetics Practicum 1-6 (1 credit required)

NDFS 6770 - Advanced Management in Dietetics I 3

Elective 3

#### Spring

NDFS 6750 - Advanced Dietetics Practicum 1-6 (1 credit required)

NDFS 6780 - Advanced Management in Dietetics II 3

NDFS 6900 - Special Problems 1-4 (3 credits required)

#### Summer

NDFS 6750 - Advanced Dietetics Practicum 1-6 (1 credit required)

#### Elective 3

### Option 2

Option 2 is tailored to the registered dietitian with at least two years of work experience. A minimum of 30 credits is required for this Plan B option or 33 credits from the professional program track. Students must complete 18 credits from the NDFS Department and a minimum of 6 credits each in two of the three related disciplines. These disciplines include overall management, financial management, and human resource management. Coursework will be based on the student's career goals and competencies.

The following courses are required:

NDFS 4750 - Transition to Professional Practice 2

NDFS 5200 - Nutritional Epidemiology 2

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

NDFS 5510 - Food Laws and Regulations 2

NDFS 6750 - Advanced Dietetics Practicum 1-6 (will substitute for NDFS 6970 and NDFS 7800 if a student opts for the professional program track)

NDFS 6780 - Advanced Management in Dietetics II 3

NDFS 6900 - Special Problems 1-4 (3 credits required)

NDFS 6970 - Thesis Research 1-12 (2 credits required)

NDFS 7800 - Seminar 1

The remaining courses must be at least 5000 level and will be determined by the MDA candidate and the Advisory Committee. Required classes may be substituted with other coursework if approved by the Advisory Committee.

Return to: Academic Departments and Programs

Food Safety and Quality- MFSQ

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

(Plan C)

Welcome to the Department of Nutrition, Dietetics and Food Sciences. We, the faculty, sincerely hope that your experiences will be stimulating and rewarding; and that you will experience the thrill of discovery and the satisfaction of learning and service during your graduate studies. Progress toward the Master of Food Safety and Quality is outlined below.

About the Program

The Master of Food Safety and Quality is a professional (Plan C) graduate degree designed to provide in-depth training in food science and food safety. This program is flexible to meet the needs of most students who desire to enhance their careers.

Tuition and Financial Aid

The MFSQ program does not provide financial aid (assistantships). The MFSQ program participates in the WICHE ([www.wiche.edu](http://www.wiche.edu)) exchange program providing in-state tuition rates to students from the western US states of AK, AZ, CA, CO, HI, ID, MT, NM, ND, OR, SD, WA, and WY. Despite the fact that this program does not provide assistantships, there may be a few opportunities for work-study or graduate assistant stipends. Assistantships are arranged with individual faculty members.

Admission

The MFSQ program of study has been tailored for students with undergraduate training in food science or majors closely related. It is preferable if candidates have some background in chemistry, statistics, and microbiology. Prior course work in food science is desirable. Students may be accepted into this program with deficiencies with the understanding that their supervisory committee will require they achieve minimum food science competencies.

MAT or GMAT

40th percentile or above

Graduate Record Examination (GRE)

40th percentile on both the Verbal and Quantitative tests

Bachelor's degree

Completed before the student enters the program or Utah State University students can file a split form that allows MFSQ courses to be taken in the final year of their BS/BA degree.

Grade point average

≥ 3.0 (out of 4) on last 60 semester or 90 quarter credits

Letters of recommendation

Satisfactory letters from 3 people

(International Students) English proficiency

Computer-based TOEFL ≥ 213, internet-based TOEFL ≥ 79, or ≥ 6.0 on the IELTS.

Application, review, and acceptance

Applicants are encouraged to contact the MFSQ program coordinator prior to or after completing the University online application for graduate studies. Other food science faculty can also provide assistance in determining if the MFSQ program is a good fit for your career goals. The School of Graduate Studies will hold your application until it is complete, and it will then be reviewed by the NDFS department. If you have not received notification within 3 weeks of completing your application please contact the NDFS Department (1-435-797-2126) to inquire on your status. When students are accepted into the program, they will be assigned a major professor within the food science group in NDFS.

Defining a Program of Study

Students register for their first semester based on advice from their major professor. Students and their major professor prepare a Program of Study, that will fulfill the requirements of the MFSQ Program. The proposed Program of Study should be completed by the end of the first semester. The major professor will review and approve the students program of study by addressing:

MFSQ core course requirements

MFSQ optional course selections

MFSQ program special projects/topics selections

Students select a Program of Study for the MFSQ that compliments their BS studies and their career goals. In general;

Food science students with a BS from USU cannot include in their MFSQ program any courses that are dual listed with courses in their BS program.

Food science students with a BS From another university can select dual-listed courses that are distinctly different from those included in their BS program.

Students should bring a copy of their BS transcript when they meet with their major professor if dual-listed courses are to be included in their Program of Study.

The student will send an electronic copy of their program of study to the departments Graduate Study Coordinator who will then send it to the Graduate School for electronic signatures.

Registration for all subsequent semesters should be based on the approved Program of Study. Changes in the Program of Study requires an electronic program of study revision form to be sent to the department GPC. The student may register for courses not listed on the Program of Study with approval of their major professor.

#### Program Requirements

The MFSQ program of study requires 33 credit hours minimum that consists of a core of courses that all MFSQ students are required to complete, with the remaining courses being selected based on the student's background and career interests from the list of elective courses. Other elective courses can be included with the major professors approval.

Students are required to take the following core courses (unless they have received a grade of B or higher in a similar course in their BS studies). Students will need to meet with their major professor explaining why they are requesting a waiver of any of the core courses.

Core Courses (All of the following):

NDFS 6110 - Food Microbiology (4 credits required)(Waived if passed NDFS 5110 with a B or higher)

NDFS 6150 - Principles of Food Sanitation (On-line course)

NDFS 6160 - Principles of Food Toxicology (On-line course)

NDFS 6170 - Food Safety & Quality

NDFS 6510 - Food Laws and Regulations (Waived if passed NDFS 5510 with B or higher)

NDFS 6900 - Special Problems MFSQ Capstone Report 2

NDFS 7800 - Seminar (Including oral presentation of capstone report)

Students select optional courses based upon their field of interest and past experiences. For example, students may choose courses that provide emphasis in microbial aspects of food safety and quality, or other various science aspects related to foods. Courses that are dual listed (e.g. NDFS 5000/6000 level courses) or were included in the student's undergraduate program cannot be retaken at the graduate (6000) level.

Choose remaining credits from other courses:

Students select other coursework in consultation with their supervisor according to their career goals.

ADVS 6400 - Environmental Toxicology

ADVS 6600 - Advanced and Molecular Toxicology (Can also qualify as an elective course)

ASTE 6260 - Environmental Impacts of Agricultural Systems (Can also qualify as an elective course)

BIOL 5300 - Microbial Physiology (QI)

NDFS 5250 - Occupational Experiences in Nutrition and Food Sciences 3

NDFS 6020 - Meat Technology and Processing

NDFS 6030 - Dairy Technology and Processing

NDFS 6500 - Food Analysis (4 credits required)

NDFS 6560 - Food Chemistry

NDFS 6620 - Microbiology of Fermented Dairy Foods

NDFS 6900 - Special Problems

NDFS 6910 - Teaching Experiences in Nutrition and Food Sciences

PUBH 4030 - Communicable Disease Control (Can also qualify as an elective course)

Students may include additional graduate level coursework (other than listed) in their program of study through a request to the major professor that includes a description of the course and justification for how this course enhances their learning as part of their career objectives.

### Capstone Report

The MFSQ program of study requires the production of a formal written capstone report. There are two options: (a) literature review or (b) special projects portfolio. The depth of the report is reflected in the number of credits taken from of 1-3 (NDFS 6900). Expectations and credits should be discussed with the major professor. If a literature review is chosen it must be written in a similar style as a thesis. The literature review should be appropriately scientific with conclusions drawn. Since this program is a Plan "C" the literature review is not submitted to the graduate school. The second option is a special projects portfolio. This document should reflect the experiential development of the student based on the "Special Problem" courses the student will be engaged in during their MFSQ program of study at USU. Students should make use of the University Writing Center to correct formatting, grammar and presentation for either capstone report. The capstone report is submitted to the supervising professor for approval by the 5th week of the student's final semester.

The NDFS graduate seminar (NDFS 7800) is held from 4:00 to 5:30 pm each Wednesday of Fall and Spring semesters. During the student's final semester in the MFSQ program, the student will make an oral presentation of their literature review or experiential portfolio. This needs to be scheduled with the NDFS graduate seminar instructor as well as the members of the major professor who is invited to attend this presentation.

1Dual listed courses include: NDFS 6020, NDFS 6030, NDFS 6100, NDFS 6110, NDFS 6170, NDFS 6500, NDFS 6560

2The MFSQ capstone involves, e.g., a literature review or situational report of an area of food safety or quality that is relevant to the student's interests and requires approval from the supervisory committee

3Occupational Experiences can be designed to enhance the student's study of the quality and safety of food and requires supervisory committee approval

4Prerequisite courses are not included in the 33 credits of the MFSQ Degree. For example, BIOL 3060 is a prerequisite course for BIOL 5300

Return to: Academic Departments and Programs

### Food Science Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

Students with majors outside of the Nutrition, Dietetics, and Food Sciences Department may graduate with a minor in Food Sciences by completing NDFS 1000, NDFS 1020, NDFS 3110, NDFS 5020 and NDFS 5560 with a minimum cumulative GPA of 2.5 for these courses. Prerequisite courses must also be completed.

Return to: Academic Departments and Programs

### Nutrition and Food Sciences - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

MS and PhD Programs

### Admission Requirements

Candidates for graduate study in the Department of Nutrition, Dietetics, and Food Sciences need a background in chemistry, biochemistry, physics, mathematics, statistics, bacteriology and physiology. Prior coursework in food science or nutrition is desirable. Students may be accepted into the NDFS graduate program with deficiencies in these areas; however, their supervisory committee will require that competence equivalent to a BS degree in Nutrition, Dietetics, and Food Sciences be obtained as part of the Program of Study.

Students must meet some departmental requirements, in addition to requirements of the School of Graduate Studies, as shown at:

<http://www.usu.edu/graduateschool/apply/>

Departmental requirements include the following:

Students must attain Graduate Record Examination (GRE) scores at the 40th percentile minimum on the Verbal, Quantitative, and Analytical Writing tests.

Before acceptance into a PhD program, a student must have obtained an MS degree or have a manuscript reporting original research accepted for publication in a refereed journal.

Before acceptance into the Department of Nutrition, Dietetics, and Food Sciences, potential MS and PhD graduate students must be accepted by a faculty member who is willing to add them to his or her research team.

#### Registration Requirements

Once admitted, students are required to maintain enrollment as follows:

Registered for 9 or more graduate credits or enrollment in at least 3 credits per semester in order to use University facilities and receive direction (including thesis or dissertation direction) from their major professor.

Enrollment in at least 6 credits per semester if receiving an assistantship or fellowship from Utah State University.

#### Assistantship Policy on Additional Employment

Graduate students in the department receiving a 0.5 FTE assistantship may not accept additional employment without written permission of their major professor and the department head; this policy is to ensure that graduate students have sufficient time available to complete the academic requirements of their degree in a timely fashion.

#### Selecting a Major Professor

Initially, students are accepted into the department when at least one faculty member has expressed a willingness to add the student to his or her research team. By doing so, the faculty member guarantees at the time of acceptance that the student may work in his or her research program. However, offers of financial aid must be discussed directly with the faculty member. Students

may choose as their major professor any faculty member who can and is willing to accommodate them.

#### Establishing a Supervisory Committee

A supervisory committee must be selected by the student in conjunction with his or her major professor during the student's first semester as an NDFS graduate student. The major professor serves as the chair of the supervisory committee. A minimum of three members (at least two from the department) including the major professor are required for the MS program.

The Supervisory Committee Approval Form needs to be submitted to the GPC by the second semester for MS students and the third semester for PhD students. It is the student's responsibility to meet with the proposed committee members to make certain they are able and willing to serve. The Supervisory Committee Approval Form is sent to the GPC to be forwarded to the Graduate School. (Note: The Supervisory Committee Approval Form may be found on the School of Graduate Studies website at:

<http://rgs.usu.edu/graduateschool/htm.forms>.

#### Defining a Program of Study

Students should register for their first semester based on advice from their major professor. Students should then prepare a Program of Study in conjunction with their major professor. The Program of Study should ensure fulfillment of the minimum requirements for all NDFS graduate students (shown below) and also include other courses providing the background necessary to conduct their research.

Students need to schedule a meeting with their supervisory committee to discuss the proposed Program of Study by the end of the second semester for MS students and by the end of the third semester for PhD students. A copy of the proposed Program of Study should be given to each committee member several days prior to the committee meeting.

The purpose of the committee meeting is to secure the supervisory committee's approval of the Program of Study. The committee will determine any deficiencies in core BS competencies or academic background. Students in the NDFS graduate program should have already taken undergraduate general chemistry, organic chemistry, biochemistry, algebra, and statistics. Although these courses may be taken as part of the graduate program,

they will not be counted as graduate credit in the Program of Study.

The supervisory committee is responsible for ensuring NDFS graduate students have (or obtain during their program of study) the expected core competencies of NDFS bachelor's degree graduates. This can be based upon transcripts of courses from prior studies, passing courses listed in the program of study (with a minimum grade of B), or by administering a written or oral examination.

The committee will also determine that the courses included in the Program of Study meet the minimum requirements for obtaining an MS or PhD in Nutrition and Food Sciences (as shown below). All members of the committee, as well as the department head, must sign the Program of Study Form before it is sent to the School of Graduate Studies. Registration for all subsequent semesters should be based on the approved Program of Study. Changes to the Program of Study require electronic revision form to be sent to the GPC then forwarded to the Graduate School.

The student may register for courses not listed on the Program of Study with approval of his or her major professor (especially if the student is receiving a research assistantship).

#### Minimum Course Requirements for MS/PhD Students in Nutrition and Food Sciences

##### Program of Study for MS and PhD Degrees

##### Total Credits Required

For the MS degree, 30 total credits are required. For the PhD degree, 70 total credits are required from Bachelors degree (PhD70) and 48 total credits from Masters degree (PhD48).

The following courses are required. For further information, see the School of Graduate Studies section of this catalog.

NDFS Graduate courses. 5 credits for MS, 10 credits for PhD.

Biochemistry and Statistics. Biochemistry (CHEM 5700): 3 credits for MS, 3 credits for PhD; Statistics (STAT 5100, STAT 5120, STAT 5200, STAT 5600): 3 credits for MS, 6 credits for PhD.

NDFS Graduate Seminar (NDFS 7800). 2 credits for MS, 2 credits for PhD48, 4 credits for PhD70.

Teaching or Occupational Experience. NDFS 6910 or NDFS 5250: 2 credits required for PhD. (Credits in this area are not required for MS.)

Other Graduate Courses. USU courses approved for graduate studies: 5-11 credits for MS; 13-18 credits for PhD48, 18-27 credits for PhD70.

Research. NDFS 6970: 6-12 credits for MS; NDFS 7970: 12-17 credits for PhD48, 18-27 for PhD70.

##### Research Proposal

In consultation with the major professor, the student must choose a research area suitable for the MS thesis or PhD dissertation, and then prepare a research proposal. Research proposals should be written and approved by the end of the second semester for students completing the MS degree and by the end of the third semester for PhD students.

The content and duration of the proposed research should be appropriate for the degree. It is expected that MS research and coursework (including writing and defense of the thesis) should be completed within 2 years (24 months). The length of research being proposed for the PhD dissertation is dependent on the discovery by the student of a substantial level of new information that can be added to their field of specialization.

The proposal should include the following:

Title

Description of the problem, based on the most current literature

Statement of the purpose of the intended research

Research Plan

List of references cited, presented in a form acceptable for publication in a scientific journal in the student's field

The student prepares the research proposal under the guidance of the major professor. Once the research proposal is completed, it is the student's responsibility to schedule a meeting with his or her supervisory committee, and to provide each committee member with a copy of the research proposal at least two weeks prior to the meeting.

During the committee meeting, the student is expected to provide an oral presentation of the proposed research, and discuss any regulated aspects of the research, such as hazardous materials, experimental animals, or human subjects. After all members of the supervisory committee have approved the research proposal, a copy of the proposal will be sent to the graduate school.

### Departmental Seminar

The NDFS graduate seminar (NDFS 7800) is held in the Nutrition and Food Sciences Building, room 202 from 4:00 to 5:30 p.m. each Wednesday during fall and spring semesters. All NDFS MS and PhD students are expected to register for and attend this seminar during each semester for which they are enrolled as full-time graduate students.

This seminar will include presentations by NDFS faculty members, faculty members from other USU departments, invited speakers, and graduate students. In addition to the presentations, NDFS 7800 will also include assignments on topics such as critical thinking, scientific writing, poster preparation, and grant proposal writing. The theme of the seminar will be chosen by the NDFS faculty member who is assigned as the course instructor.

During the semester in which they defend their thesis or dissertation, all MS and PhD students are required to give a presentation (a 30 to 45 minute seminar) on the results of their research. This presentation will be given to the NDFS faculty members and students as part of the NDFS 7800 seminar series. The student must invite all members of the supervisory committee to attend this seminar presentation. At the beginning of the semester in which they plan to defend their thesis or dissertation, students need to schedule a date for their presentation with the NDFS 7800 instructor.

### Comprehensive Examination (PhD students only)

Before a student can become a candidate for the PhD degree, he or she must take a comprehensive examination, as required by the School of Graduate Studies. After completion of the courses listed in the Program of Study, the student should schedule a meeting of their committee for the comprehensive examination. This is usually an oral examination (although committee members have the option of providing a written exam), and the student should bring the Application for Candidacy for Doctoral Degree Form to the examination.

Typically students will be asked questions related to their area of specialization and their field of research. However, the comprehensive exam can also be used to test students' overall knowledge of food science or nutrition, and committee members can ask any questions that will test the student's knowledge and ability to synthesize nutrition and food science information, as well as answer questions. The form should be completed at this time. On the Application for Candidacy for Doctoral Degree Form, the committee members will list the field in which they examined the student, and then sign the form accordingly.

### Thesis or Dissertation Final Examination

Students write the thesis or dissertation under the guidance of their major professor. To schedule a tentative date for the final examination (or defense) of the thesis or dissertation, students should also contact their supervisory committee members. Students need to plan well in advance, so that there will be sufficient time allowed for the student to complete their writing and for the committee members to read the thesis or dissertation. When the thesis or dissertation is ready to be defended, and at least four weeks prior to the tentative defense (or final) examination date and time, the student submits a copy to each committee member.

After the committee members have read the thesis or dissertation and have determined that it is indeed ready to be defended, the student prepares the Appointment for Examination Form. Each of the supervisory committee members is required to sign this form, indicating that they have read and tentatively approve the content and format of the thesis or dissertation, and that they can be in attendance at the defense.

The Appointment for Examination Form needs to be submitted to the School of Graduate Studies a minimum of 10 working days prior to the defense. The School of Graduate Studies will appoint one of the supervisory committee members (other than the major professor) to chair the defense examination.

### Completing the Thesis or Dissertation

After a successful defense of the thesis or dissertation, the student is required to make any changes to the thesis or dissertation that are required as a consequence of the final examination. At this time, the student can schedule with the School of Graduate Studies a date by which he or she expects to have the thesis or dissertation available for review. If the thesis or dissertation is not submitted

to the School of Graduate Studies prior to this date, it will be reviewed at the next available date.

When the thesis or dissertation has been revised to the satisfaction of the committee member(s) assigned the responsibility of ensuring such changes are completed to the satisfaction of the supervisory committee (usually the major professor), the front page of the thesis or dissertation can be signed. The student then completes the Thesis/Dissertation Format and Style Form and obtains the major professor's signature (in the NDFS Department the major professor also acts as the departmental format/style reviewer) and submits the thesis or dissertation to the School of Graduate Studies.

Following review by the School of Graduate Studies, the thesis or dissertation is collected by the NDFS Department and returned to the major professor, along with a list of corrections. The major professor then has the responsibility of ensuring that the thesis or dissertation is revised (if necessary), and of signing a release indicating that the thesis or dissertation is ready for binding. The student may then make the needed copies of the thesis or dissertation and submit them for binding. It is also the student's responsibility to ensure that all other forms and fees related to the thesis or dissertation and to the completion of his or her degree are finalized.

Return to: Academic Departments and Programs

Nutrition and Food Sciences - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

MS and PhD Programs

Admission Requirements

Candidates for graduate study in the Department of Nutrition, Dietetics, and Food Sciences need a background in chemistry, biochemistry, physics, mathematics, statistics, bacteriology and physiology. Prior coursework in food science or nutrition is desirable. Students may be accepted into the NDFS graduate program with deficiencies in these areas; however, their supervisory committee will require that competence equivalent to a BS degree in Nutrition,

Dietetics, and Food Sciences be obtained as part of the Program of Study.

Students must meet some departmental requirements, in addition to requirements of the School of Graduate Studies, as shown at:

<http://www.usu.edu/graduateschool/apply/>

Departmental requirements include the following:

Students must attain Graduate Record Examination (GRE) scores at the 40th percentile minimum on the Verbal, Quantitative, and Analytical Writing tests.

Before acceptance into a PhD program, a student must have obtained an MS degree or have a manuscript reporting original research accepted for publication in a refereed journal.

Before acceptance into the Department of Nutrition, Dietetics, and Food Sciences, potential MS and PhD graduate students must be accepted by a faculty member who is willing to add them to his or her research team.

Registration Requirements

Once admitted, students are required to maintain enrollment as follows:

Registered for 9 or more graduate credits or enrollment in at least 3 credits per semester in order to use University facilities and receive direction (including thesis or dissertation direction) from their major professor.

Enrollment in at least 6 credits per semester if receiving an assistantship or fellowship from Utah State University.

Assistantship Policy on Additional Employment

Graduate students in the department receiving a 0.5 FTE assistantship may not accept additional employment without written permission of their major professor and the department head; this policy is to ensure that graduate students have sufficient time available to complete the academic requirements of their degree in a timely fashion.

Selecting a Major Professor

Initially, students are accepted into the department when at least one faculty member has expressed a willingness to add the student to his or her research team. By doing so, the faculty member guarantees at the time of acceptance that the student may work in his or her

research program. However, offers of financial aid must be discussed directly with the faculty member. Students may choose as their major professor any faculty member who can and is willing to accommodate them.

### Establishing a Supervisory Committee

A supervisory committee must be selected by the student in conjunction with his or her major professor during the student's first semester as an NDFS graduate student. The major professor serves as the chair of the supervisory committee. A minimum of three members (at least two from the department) including the major professor are required for the MS program.

The Supervisory Committee Approval Form needs to be submitted to the GPC by the second semester for MS students and the third semester for PhD students. It is the student's responsibility to meet with the proposed committee members to make certain they are able and willing to serve. The Supervisory Committee Approval Form is sent to the GPC to be forwarded to the Graduate School. (Note: The Supervisory Committee Approval Form may be found on the School of Graduate Studies website at:

<http://rgs.usu.edu/graduateschool/htm.forms>.

### Defining a Program of Study

Students should register for their first semester based on advise from their major professor. Students should then prepare a Program of Study in conjunction with their major professor. The Program of Study should ensure fulfillment of the minimum requirements for all NDFS graduate students (shown below) and also include other courses providing the background necessary to conduct their research.

Students need to schedule a meeting with their supervisory committee to discuss the proposed Program of Study by the end of the second semester for MS students and by the end of the third semester for PhD students. A copy of the proposed Program of Study should be given to each committee member several days prior to the committee meeting.

The purpose of the committee meeting is to secure the supervisory committee's approval of the Program of Study. The committee will determine any deficiencies in core BS competencies or academic background. Students in the NDFS graduate program should have already taken undergraduate general chemistry, organic chemistry, biochemistry, algebra, and statistics. Although these

courses may be taken as part of the graduate program, they will not be counted as graduate credit in the Program of Study.

The supervisory committee is responsible for ensuring NDFS graduate students have (or obtain during their program of study) the expected core competencies of NDFS bachelor's degree graduates. This can be based upon transcripts of courses from prior studies, passing courses listed in the program of study (with a minimum grade of B), or by administering a written or oral examination.

The committee will also determine that the courses included in the Program of Study meet the minimum requirements for obtaining an MS or PhD in Nutrition and Food Sciences (as shown below). All members of the committee, as well as the department head, must sign the Program of Study Form before it is sent to the School of Graduate Studies. Registration for all subsequent semesters should be based on the approved Program of Study. Changes to the Program of Study require electronic revision form to be sent to the GPC then forwarded to the Graduate School.

The student may register for courses not listed on the Program of Study with approval of his or her major professor (especially if the student is receiving a research assistantship).

### Minimum Course Requirements for MS/PhD Students in Nutrition and Food Sciences

#### Program of Study for MS and PhD Degrees

#### Total Credits Required

For the MS degree, 30 total credits are required. For the PhD degree, 70 total credits are required from Bachelors degree (PhD70) and 48 total credits from Masters degree (PhD48).

The following courses are required. For further information, see the School of Graduate Studies section of this catalog.

NDFS Graduate courses. 5 credits for MS, 10 credits for PhD.

Biochemistry and Statistics. Biochemistry (CHEM 5700): 3 credits for MS, 3 credits for PhD; Statistics (STAT 5100, STAT 5120, STAT 5200, STAT 5600): 3 credits for MS, 6 credits for PhD.

NDFS Graduate Seminar (NDFS 7800). 2 credits for MS, 2 credits for PhD48, 4 credits for PhD70.

Teaching or Occupational Experience. NDFS 6910 or NDFS 5250: 2 credits required for PhD. (Credits in this area are not required for MS.)

Other Graduate Courses. USU courses approved for graduate studies: 5-11 credits for MS; 13-18 credits for PhD48, 18-27 credits for PhD70.

Research. NDFS 6970: 6-12 credits for MS; NDFS 7970: 12-17 credits for PhD48, 18-27 for PhD70.

### Research Proposal

In consultation with the major professor, the student must choose a research area suitable for the MS thesis or PhD dissertation, and then prepare a research proposal. Research proposals should be written and approved by the end of the second semester for students completing the MS degree and by the end of the third semester for PhD students.

The content and duration of the proposed research should be appropriate for the degree. It is expected that MS research and coursework (including writing and defense of the thesis) should be completed within 2 years (24 months). The length of research being proposed for the PhD dissertation is dependent on the discovery by the student of a substantial level of new information that can be added to their field of specialization.

The proposal should include the following:

Title

Description of the problem, based on the most current literature

Statement of the purpose of the intended research

Research Plan

List of references cited, presented in a form acceptable for publication in a scientific journal in the student's field

The student prepares the research proposal under the guidance of the major professor. Once the research proposal is completed, it is the student's responsibility to schedule a meeting with his or her supervisory committee, and to provide each committee member with a copy of the research proposal at least two weeks prior to the meeting.

During the committee meeting, the student is expected to provide an oral presentation of the proposed research, and discuss any regulated aspects of the research, such as hazardous materials, experimental animals, or human subjects. After all members of the supervisory committee have approved the research proposal, a copy of the proposal will be sent to the graduate school.

### Departmental Seminar

The NDFS graduate seminar (NDFS 7800) is held in the Nutrition and Food Sciences Building, room 202 from 4:00 to 5:30 p.m. each Wednesday during fall and spring semesters. All NDFS MS and PhD students are expected to register for and attend this seminar during each semester for which they are enrolled as full-time graduate students.

This seminar will include presentations by NDFS faculty members, faculty members from other USU departments, invited speakers, and graduate students. In addition to the presentations, NDFS 7800 will also include assignments on topics such as critical thinking, scientific writing, poster preparation, and grant proposal writing. The theme of the seminar will be chosen by the NFS faculty member who is assigned as the course instructor.

During the semester in which they defend their thesis or dissertation, all MS and PhD students are required to give a presentation (a 30 to 45 minute seminar) on the results of their research. This presentation will be given to the NDFS faculty members and students as part of the NDFS 7800 seminar series. The student must invite all members of the supervisory committee to attend this seminar presentation. At the beginning of the semester in which they plan to defend their thesis or dissertation, students need to schedule a date for their presentation with the NDFS 7800 instructor.

### Comprehensive Examination (PhD students only)

Before a student can become a candidate for the PhD degree, he or she must take a comprehensive examination, as required by the School of Graduate Studies. After completion of the courses listed in the Program of Study, the student should schedule a meeting of their committee for the comprehensive examination. This is usually an oral examination (although committee members have the option of providing a written exam), and the student should bring the Application for Candidacy for Doctoral Degree Form to the examination.

Typically students will be asked questions related to their area of specialization and their field of research. However, the comprehensive exam can also be used to test students' overall knowledge of food science or nutrition, and committee members can ask any questions that will test the student's knowledge and ability to synthesize nutrition and food science information, as well as answer questions. The form should be completed at this time. On the Application for Candidacy for Doctoral Degree Form, the committee members will list the field in which they examined the student, and then sign the form accordingly.

### Thesis or Dissertation Final Examination

Students write the thesis or dissertation under the guidance of their major professor. To schedule a tentative date for the final examination (or defense) of the thesis or dissertation, students should also contact their supervisory committee members. Students need to plan well in advance, so that there will be sufficient time allowed for the student to complete their writing and for the committee members to read the thesis or dissertation. When the thesis or dissertation is ready to be defended, and at least four weeks prior to the tentative defense (or final) examination date and time, the student submits a copy to each committee member.

After the committee members have read the thesis or dissertation and have determined that it is indeed ready to be defended, the student prepares the Appointment for Examination Form. Each of the supervisory committee members is required to sign this form, indicating that they have read and tentatively approve the content and format of the thesis or dissertation, and that they can be in attendance at the defense.

The Appointment for Examination Form needs to be submitted to the School of Graduate Studies a minimum of 10 working days prior to the defense. The School of Graduate Studies will appoint one of the supervisory committee members (other than the major professor) to chair the defense examination.

### Completing the Thesis or Dissertation

After a successful defense of the thesis or dissertation, the student is required to make any changes to the thesis or dissertation that are required as a consequence of the final examination. At this time, the student can schedule with the School of Graduate Studies a date by which he or she expects to have the thesis or dissertation available for review. If the thesis or dissertation is not submitted

to the School of Graduate Studies prior to this date, it will be reviewed at the next available date.

When the thesis or dissertation has been revised to the satisfaction of the committee member(s) assigned the responsibility of ensuring such changes are completed to the satisfaction of the supervisory committee (usually the major professor), the front page of the thesis or dissertation can be signed. The student then completes the Thesis/Dissertation Format and Style Form and obtains the major professor's signature (in the NDFS Department the major professor also acts as the departmental format/style reviewer) and submits the thesis or dissertation to the School of Graduate Studies.

Following review by the School of Graduate Studies, the thesis or dissertation is collected by the NDFS Department and returned to the major professor, along with a list of corrections. The major professor then has the responsibility of ensuring that the thesis or dissertation is revised (if necessary), and of signing a release indicating that the thesis or dissertation is ready for binding. The student may then make the needed copies of the thesis or dissertation and submit them for binding. It is also the student's responsibility to ensure that all other forms and fees related to the thesis or dissertation and to the completion of his or her degree are finalized.

Return to: Academic Departments and Programs

Nutrition, Dietetics and Food Sciences - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Nutrition, Dietetics and Food Sciences

Departmental Admission Requirements

Admission requirements for the Department of Nutrition, Dietetics and Food Sciences are the same as those described for the University. Students in good standing may apply for admission to the department. Students planning to major in Nutrition, Dietetics and Food Sciences should take algebra, chemistry, and biology in high school.

Students must complete the General Education requirements

NDFS 1020 will fulfill the Life Sciences requirement and

CHEM 1010, CHEM 1110 or CHEM 1220 will fulfill the Physical Sciences requirement for students in the Nutrition, Dietetics and Food Sciences major

Students must also complete the University Studies requirements

Two courses having CI designation (such as NDFS 4060, NDFS 4560, NDFS 4660, NDFS 4780, NDFS 5110, NDFS 5210, NDFS 5410 and NDFS 5920) will fulfill the Communications Intensive (CI) requirement

One course having QI designation (such as BIOL 3060, NDFS 4420, NDFS 4440, NDFS 4720, NDFS 5100, NDFS 5500, PSC 4600, STAT 2000 and STAT 3000) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

#### Graduation Requirements

All graduates from the department must have completed one of the four emphasis areas in the department and must meet the following minimum requirements:

Grade point average (GPA) must be 2.5 or higher in all courses required for the major. Students in the Coordinated Program in Dietetics emphasis or the Didactic Program in Dietetics emphasis, must attain an overall GPA of at least 3.0.

A grade of C or better must be received in every required course offered through the department (i.e., courses having an NDFS prefix).

Courses required for the major may be repeated only once to improve a grade, unless approved by the department head or program director.

Courses required for the major may not be taken as Pass-D-Fail credits.

#### Major and Minor Requirements

Specific requirements for each emphasis are listed below. Requirements change periodically, and sequence of courses is important.

#### Dietetics Emphasis

Students selecting the Dietetics Emphasis must choose either the Coordinated Program in Dietetics (CPD) or the

Didactic Program in Dietetics (DPD). Courses followed by an asterisk (\*) are suggested for fulfilling University Studies Requirements.

#### Coordinated Program in Dietetics (CPD)

##### Freshman Year

##### Fall Semester

CHEM 1210 - Principles of Chemistry I 4

MATH 1050 - College Algebra (QL) 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 1260 - Food Literacy 3

PSY 1010 - General Psychology (BSS) 3 or

SOC 1010 - Introductory Sociology (BSS) 3

##### Spring Semester

CHEM 1220 - Principles of Chemistry II (BPS) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Humanities (BHU) 3

Univ. Studies Depth Humanities and Creative Arts (DHA) Course 2

##### Sophomore Year

##### Fall Semester

BIOL 2420 - Human Physiology 4

CHEM 2300 - Principles of Organic Chemistry 3

FCHD 3350 - Family Finance (DSS) 3 or

MGT 3110 - Managing Organizations and People (DSS) 3

NDFS 3020 - Nutrition and Physical Performance 2

USU 1300 - U.S. Institutions (BAI) 3 \*

USU 1330 - Civilization: Creative Arts (BCA) 3 \*

##### Spring Semester

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

NDFS 1250 - Sanitation and Safety 3

NDFS 3070 - Science of Food Preparation 3

NDFS 3600 - Medical Terminology for Health Care Professionals 1

Junior Year

Fall Semester

NDFS 4020 - Advanced Nutrition 3

NDFS 4050 - Education and Counseling Methods in Dietetics I (CI) 2

NDFS 4480 - Community Nutrition 3

NDFS 4550 - Medical Nutrition Therapy I 4

NDFS 4570 - Clinical Nutrition Experience I 1

NDFS 4710 - Food Service Systems 2

NDFS 4730 - Food Service Systems Lab 2

Spring Semester

NDFS 4060 - Education and Counseling Methods in Dietetics II (CI) 2

NDFS 4560 - Medical Nutrition Therapy II (CI) 4

NDFS 4580 - Clinical Nutrition Experience II 2

NDFS 4720 - Food Service Organization and Management (QI) 2

NDFS 4740 - Food Service Organization and Management Lab 2

NDFS 4780 - Maternal and Child Nutrition (CI) 2

NDFS 4790 - Maternal and Child Nutrition Lab 1

Senior Year

Fall Semester

NDFS 4660 - Medical Dietetics (CI) 12

Spring Semester

NDFS 4750 - Transition to Professional Practice 2

NDFS 4760 - Transition to Professional Practice Lab 2

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

NDFS 5410 - Nutrient Gene Interactions (CI) 3

NDFS 5750 - Advanced Dietetics Practicum 1-6 (2 credits required)

Didactic Program in Dietetics (DPD)

Freshman Year

Fall Semester

CHEM 1210 - Principles of Chemistry I 4

MATH 1050 - College Algebra (QL) 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 1260 - Food Literacy 3

PSY 1010 - General Psychology (BSS) 3 or

SOC 1010 - Introductory Sociology (BSS) 3

Spring Semester

CHEM 1220 - Principles of Chemistry II (BPS) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Humanities (BHU) 3

Univ. Studies Depth Humanities and Creative Arts (DHA) Course 2

Sophomore Year

Fall Semester

BIOL 2420 - Human Physiology 4

CHEM 2300 - Principles of Organic Chemistry 3

FCHD 3350 - Family Finance (DSS) 3 or

MGT 3110 - Managing Organizations and People (DSS) 3

NDFS 3020 - Nutrition and Physical Performance 2

Breadth American Institutions (BAI) 3

Breadth Creative Arts (BCA) 3

Spring Semester

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

NDFS 1250 - Sanitation and Safety 3

NDFS 3070 - Science of Food Preparation 3

NDFS 3600 - Medical Terminology for Health Care Professionals 1

Junior Year

Fall Semester

NDFS 4020 - Advanced Nutrition 3

NDFS 4050 - Education and Counseling Methods in Dietetics I (CI) 2

NDFS 4480 - Community Nutrition 3

NDFS 4550 - Medical Nutrition Therapy I 4

NDFS 4710 - Food Service Systems 2

Spring Semester

NDFS 4060 - Education and Counseling Methods in Dietetics II (CI) 2

NDFS 4560 - Medical Nutrition Therapy II (CI) 4

NDFS 4720 - Food Service Organization and Management (QI) 2

NDFS 4780 - Maternal and Child Nutrition (CI) 2 (2 credits required)

Senior Year

Fall Semester

NDFS 5200 - Nutritional Epidemiology 2

NDFS 5750 - Advanced Dietetics Practicum 1-6 (3 credits required)

Spring Semester

NDFS 4750 - Transition to Professional Practice 2

NDFS 4760 - Transition to Professional Practice Lab 2

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

NDFS 5230 - Communication of Current Topics in Nutrition (CI) 3

NDFS 5410 - Nutrient Gene Interactions (CI) 3

Nutrition Science Emphasis

Courses followed by an asterisk (\*) are suggested for fulfilling University Studies Requirements. Note: Students interested in the Pre-Medical School Option are encouraged to meet with the departmental advisor to create a more customized schedule that meets admission requirements for most pre-medical schools.

Freshman Year

Fall Semester

BIOL 1610 - Biology I 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1050 - College Algebra (QL) 4

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Spring Semester

BIOL 1620 - Biology II (BLS) 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1060 - Trigonometry 2

Sophomore Year

Fall Semester

CHEM 2300 - Principles of Organic Chemistry 3 or

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

Breadth Humanities (BHU) 3

Elective course 3

Spring Semester

BIOL 2420 - Human Physiology 4

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

NDFS 3600 - Medical Terminology for Health Care Professionals 1

Elective - recommend CHEM 2320(4 credits) and CHEM 2325(1 credit)

Junior Year

Fall Semester

NDFS 4020 - Advanced Nutrition 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Breadth Social Science (BSS) 3

Elective course 3 - recommend PHYS 2110 (4 credits)

Spring Semester

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth American Institutions (BAI) 3

Breadth Creative Arts (BCA) 3

Elective course 6 - Recommend PHYS 2120 (4 credits), BIOL 2320 (4 credits)

Senior Year

Fall Semester

NDFS 4480 - Community Nutrition 3

NDFS 5220 - Endocrine Aspects of Nutrition 3

NDFS 5250 - Occupational Experiences in Nutrition and Food Sciences 1-3 (2 credits required)

Elective course 3

Spring Semester

NDFS 5210 - Advanced Public Health Nutrition (CI) 2

NDFS 5230 - Communication of Current Topics in Nutrition (CI) 3

NDFS 5410 - Nutrient Gene Interactions (CI) 3

Elective course(s) 6

Electives

Students in the Nutrition Science Emphasis must select a minimum of 15 credits from the following courses to meet their career objectives. Alternative courses must be approved by the department head and program director.

BIOL 2320 - Human Anatomy 4

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 3100 - Bioethics (CI) 3

BIOL 3300 - General Microbiology 4

BIOL 5210 - Cell Biology 3

CHEM 2320 - Organic Chemistry II 4

CHEM 2325 - Organic Chemistry Laboratory II 1

ENGL 3080 - Introduction to Technical Communication (CI) 3

MATH 1220 - Calculus II (QL) 4

NDFS 5200 - Nutritional Epidemiology 2

NDFS 5420 - Molecular Nutrition Laboratory 2

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

PUBH 4030 - Communicable Disease Control 3

Food Science Emphasis

Freshman Year

Fall Semester

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

MATH 1050 - College Algebra (QL) 4

NDFS 1000 - Food Science from Farm to Fork 1

Breadth Social Science (BSS) 3

Spring Semester

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1060 - Trigonometry 2

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth American Institutions (BAI) 3

Sophomore Year

Fall Semester

BIOL 1610 - Biology I 4

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

MATH 1210 - Calculus I (QL) 4

NDFS 3110 - Food, Technology, and Health (DSC) 3

Spring Semester

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

NDFS 1250 - Sanitation and Safety 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Junior Year

Fall Semester

BIOL 3300 - General Microbiology 4

NDFS 5020 - Meat Technology and Processing 4

NDFS 5560 - Food Chemistry 4

PHYS 2110 - General Physics - Life Sciences I 4

Spring Semester

NDFS 5100 - Sensory Evaluation of Food (QI) 3

NDFS 5110 - Food Microbiology (CI) 3

NDFS 5500 - Food Analysis (QI) 4

PSC 4600 - Cereal Science (DSC/QI) 3

Exploratory Breadth Course 3-4

Senior Year

Fall Semester

NDFS 4440 - Fundamentals of Food Engineering (QI) 4

NDFS 5030 - Dairy Technology and Processing 3

NDFS 5040 - Dairy Foods Processing Laboratory 1

NDFS 5250 - Occupational Experiences in Nutrition and Food Sciences 1-3

NDFS 5920 - Food Product Development (CI) 3

Breadth Creative Arts (BCA) 3

Spring Semester

NDFS 5510 - Food Laws and Regulations 2 \*

Breadth Humanities (BHU) 3

Depth Creative Arts (DHA) (2 credits required)

CMST xxxx Speech Course Requirement 3

Depth Social Sciences course 3

Food Technology Management Emphasis with Business Minor

Food Technology Management students must also fulfill requirements for a minor in either Business or Operations Management. The following four-year plan includes all courses required for a Business Minor.

Courses followed by an asterisk (\*) are suggested for fulfilling University Studies Requirements.

Freshman Year

Fall Semester

CHEM 1110 - General Chemistry I (BPS) 4

MATH 1050 - College Algebra (QL) 4

NDFS 1000 - Food Science from Farm to Fork 1

Breadth Social Science (BSS) 3

Exploratory Breadth Course 3-4

Spring Semester

CHEM 1120 - General Chemistry II (BPS) 4

MATH 1100 - Calculus Techniques (QL) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth American Institutions 3

Sophomore Year

Fall Semester

BIOL 2060 - Elementary Microbiology 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Breadth Humanities (BHU) 3

Breadth Creative Arts (BCA) 3

Spring Semester

ACCT 2010 - Financial Accounting Principles 3 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

NDFS 1250 - Sanitation and Safety 3

NDFS 3070 - Science of Food Preparation 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Junior Year

Fall Semester

BUS 3110 - Management Fundamentals (DSS) 3 or

MGT 3110 - Managing Organizations and People (DSS) 3  
1

BUS 3500 - Marketing Principles 3 or

MGT 3500 - Fundamentals of Marketing 3 1

NDFS 5020 - Meat Technology and Processing 4

NDFS 5560 - Food Chemistry 4

Spring Semester

NDFS 5100 - Sensory Evaluation of Food (QI) 3

NDFS 5110 - Food Microbiology (CI) 3

NDFS 5500 - Food Analysis (QI) 4

NDFS 5510 - Food Laws and Regulations 2

Senior Year

Fall Semester

NDFS 4440 - Fundamentals of Food Engineering (QI) 4

NDFS 5030 - Dairy Technology and Processing 3

NDFS 5040 - Dairy Foods Processing Laboratory 1

NDFS 5250 - Occupational Experiences in Nutrition and Food Sciences 1-3 (2 credits required)

NDFS 5920 - Food Product Development (CI) 3

Spring Semester

BUS 3400 - Finance Fundamentals (QI) 3 or

FIN 3400 - Corporate Finance (QI) 3 or

PFP 3460 - Fundamentals of Personal Investing 3

Depth Humanities/Arts (DHA) (2 credits required)

Business Minor elective courses 6 3

CMST xxxx Speech Course Requirement 3

Depth Social Sciences course 3

Business Minor Elective Courses

Students must select two of the following courses:

ACCT 2020 - Managerial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

BUS 3700 - Operations Management Fundamentals 3 or

MGT 3700 - Operations Management 3

BUS 3100 - Survey of Management Information Systems (DSS) 3 or

MIS 2100 - Principles of Management Information Systems 3

Food Technology Management Emphasis with Operations Management Minor

Food Technology Management students must also fulfill requirements for a minor in either Business or Operations Management. The following four-year plan includes all courses required for an Operations Management Minor.

Courses followed by an asterisk (\*) are suggested for fulfilling University Studies Requirements.

Freshman Year

Fall Semester

CHEM 1110 - General Chemistry I (BPS) 4

MATH 1050 - College Algebra (QL) 4

NDFS 1000 - Food Science from Farm to Fork 1

Breadth Social Sciences 3

Exploratory Breadth Course 3-4

Spring Semester

CHEM 1120 - General Chemistry II (BPS) 4

MATH 1100 - Calculus Techniques (QL) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

Breadth American Institutions (BAI) 3

Sophomore Year

Fall Semester

BIOL 2060 - Elementary Microbiology 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Breadth Humanities (BHU) 3

Breadth Creative Arts (BCA) 3

Spring Semester

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

NDFS 1250 - Sanitation and Safety 3

NDFS 3070 - Science of Food Preparation 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Junior Year

Fall Semester

MGT 3700 - Operations Management 3 4

MIS 3860 - Big Data Analytics 3 4

NDFS 5020 - Meat Technology and Processing 4

NDFS 5560 - Food Chemistry 4

Spring Semester

NDFS 5100 - Sensory Evaluation of Food (QI) 3

NDFS 5110 - Food Microbiology (CI) 3

NDFS 5500 - Food Analysis (QI) 4

NDFS 5510 - Food Laws and Regulations 2

Senior Year

Fall Semester

MGT 5730 - Problem Solving and Continuous Improvement 2 4

NDFS 4440 - Fundamentals of Food Engineering (QI) 4

NDFS 5030 - Dairy Technology and Processing 3

NDFS 5920 - Food Product Development (CI) 3

Spring Semester

MGT 4720 - Production Planning and Control 2

NDFS 5250 - Occupational Experiences in Nutrition and Food Sciences 1-3 (2 credits required) \*

Depth Humanities/Arts 3 (2 credits required)

CMST xxxx Speech Course Requirement 3

Depth Social Sciences course 3

Note:

1 This course is required as part of the Business Minor.

2 Students must complete either FIN 3400 or PFP 3460 as part of the Business Minor.

3 Choose 6 credits from the Business Minor Elective Courses.

4 This course is required as part of the Operations Management Minor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Physical Science (Composite Teaching)(Physics) - BS

Return to: Academic Departments and Programs

College of Science

Department of Physics

Students must complete the General Education Requirements and the University Studies Depth Requirements.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS) for the Depth Course requirements.

Bachelor's Degree and Core Requirements

The Physics Department awards the following degrees: BS in Physics, BA in Physics, BS in Physics with a Professional Emphasis, BS in Physics with an Applied Emphasis, BS in Mathematics and Physics Dual Major Option, BS in Physics Teaching, and BS in Composite Teaching-Physical Science.

A. Required Physics Courses (16 credits)

PHYS 1040 - Introductory Astronomy (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

B. Elective Physics Courses (5 credits)

Select 5 additional credits from PHYS 2710 and/or courses at the 3000 level and above. (Not to include physics courses designated as USU Depth courses.) Research in physics education may be included.

C. Required Mathematics and Statistics Courses (11 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

D. Required Chemistry Courses (14-15 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3 or

CHEM 2310 - Organic Chemistry I 4

CHEM 2315 - Organic Chemistry Laboratory I 1

E. Required Science Courses (10 credits)

BIOL 1010 - Biology and the Citizen (BLS) 3

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

PSC 2000 - The Atmosphere and Weather (BPS) 3

Note:

Students with a Composite Teaching major in Physical Science must complete the requirements for STEP, as listed on this page. Admission to STEP with this major requires minimum ACT scores of: Composite-21, Math-19, English-20 and an over-all GPA of 3.0. A minimum GPA of 2.75 in PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225; and a minimum GPA of 2.75 in CHEM 1210, CHEM 1215, CHEM 1220 and CHEM 1225 is required.

All USU teacher education candidates will be required to take and pass the content exam approved by the Utah State Office of Education in their major content area prior to student teaching.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Physics - BA

Return to: Academic Departments and Programs

College of Science

Department of Physics

Students must complete the General Education Requirements and the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS) for the Depth Course requirements

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### College of Science Requirements

The College of Science requires a year of mathematics (8 credits) and a year sequence in science (8 credits) for all of its majors. For Physics majors, the College of Science requirements are:

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

Choose one of the following pairs of courses:

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1 and

GEO 3200 - The Earth Through Time (DSC) 4

#### Bachelor's Degrees and Core Requirements

The Physics Department awards the following degrees: BS in Physics, BA in Physics, BS in Physics with a Professional Emphasis, BS in Physics with an Applied Emphasis, BS in Mathematics and Physics Dual Major Option, BS in Physics Teaching, and BS in Composite Teaching—Physical Science.

Except for the two Teaching Majors, all degrees require a common core (48 credits):

A. College of Science Requirements (16 credits)

B. Required Physics Courses (25 credits)

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PHYS 2500 - Introduction to Computer Methods in Physics 2

PHYS 2710 - Introductory Modern Physics 3

PHYS 3550 - Intermediate Classical Mechanics 3

PHYS 3600 - Electromagnetism I 3

PHYS 3870 - Intermediate Physics Laboratory (CI) 2

PHYS 4900 - Research in Physics (CI) 1-3 (2 credits required)

C. Required Mathematics Courses (7 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

The specific requirements beyond this core for the various bachelor's degrees are:

Bachelor of Arts Degree

## Elective Physics Courses (6 credits)

Select 6 additional credits from PHYS courses at the 3500 level and above (not to include PHYS courses designated as University Studies depth courses)

## Required Philosophy Courses (6 credits)

PHIL 4310 - Philosophy of Science (DHA) 3

PHIL 4300 - Epistemology (DHA) 3

## Required Language Courses (16 credits)

Two years' training or equivalent in a foreign language approved by the Languages, Philosophy and Speech Communication Department.

## Mathematics and Physics Dual Major Option

By fulfilling all degree requirements for any two separate majors, it is possible for a student to receive a diploma having two majors listed. Because most physics majors are required to complete a minimum of 14 credits in mathematics courses, many students elect to complete the requirements for a BS degree in mathematics, as well as the requirements for their physics degree.

## Minimum University Requirements

### Total Credits

120

### Grade Point Average (most majors require higher GPA)

2.00 GPA

### Credits of C- or better

100

### Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

### Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Physics - BS

Return to: Academic Departments and Programs

College of Science

Department of Physics

Students must complete the General Education Requirements and the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS) for the Depth Course requirements

College of Science Requirements

The College of Science requires a year of mathematics (8 credits) and a year sequence in science (8 credits) for all of its majors. For Physics majors, the College of Science requirements are:

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

Choose one of the following pairs of courses:

BIOL 1610 - Biology I 4 and

BIOL 1620 - Biology II (BLS) 4

Or

CHEM 1210 - Principles of Chemistry I 4 and

CHEM 1220 - Principles of Chemistry II (BPS) 4

Or

GEO 1110 - Physical Geology (BPS) 3 and

GEO 1115 - Physical Geology Laboratory 1 and

GEO 3200 - The Earth Through Time (DSC) 4

### Bachelor's Degrees and Core Requirements

The Physics Department awards the following degrees:

BS in Physics, BA in Physics, BS in Physics with a Professional Emphasis, BS in Physics with an Applied Emphasis, BS in Mathematics and Physics Dual Major Option, BS in Physics Teaching, and BS in Composite Teaching—Physical Science.

Except for the two Teaching Majors, all degrees require a common core (48 credits):

A. College of Science Requirements (16 credits)

B. Required Physics Courses (25 credits)

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PHYS 2500 - Introduction to Computer Methods in Physics 2

PHYS 2710 - Introductory Modern Physics 3

PHYS 3550 - Intermediate Classical Mechanics 3

PHYS 3600 - Electromagnetism I 3

PHYS 3870 - Intermediate Physics Laboratory (CI) 2

PHYS 4900 - Research in Physics (CI) 1-3 (2 credits required)

C. Required Mathematics Courses (7 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2210 - Multivariable Calculus (QI) 3

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

The specific requirements beyond this core for the various bachelor's degrees are:

Bachelor of Science Degree in Physics

Required Physics Courses (6 credits)

PHYS 3700 - Thermal Physics 3 or

PHYS 4650 - Optics I 3

PHYS 3710 - Intermediate Modern Physics 3

Elective Physics Courses (5 credits)

Select 5 additional credits from PHYS courses at the 3500 level and above (not to include PHYS courses designated as University Studies depth courses).

Bachelor of Science Degree in Physics with Professional Emphasis

The Professional Emphasis is recommended for students preparing for graduate work in physics, astronomy or a closely related discipline.

Required Common Core Coursework (46 credits)

Required Physics Courses (25 credits)

PHYS 3700 - Thermal Physics 3

PHYS 3710 - Intermediate Modern Physics 3

PHYS 3750 - Foundations of Wave Phenomena 3

PHYS 3880 - Advanced Physics Laboratory (CI) 2

PHYS 4600 - Electromagnetism II 3

PHYS 4650 - Optics I 3

PHYS 4700 - Quantum Mechanics I 3

PHYS 4710 - Quantum Mechanics II 3

PHYS 4900 - Research in Physics (CI) 1-3

Bachelor of Science Degree in Physics with Applied Emphasis

The Applied Emphasis is recommended for students preparing for graduate work in applied physics, engineering physics, materials science or an interdisciplinary area such as biophysics, medical physics, geophysics or chemical physics.

Required Common Core Coursework (46 credits)

Required Physics Courses (8 credits)

PHYS 3700 - Thermal Physics 3

PHYS 3880 - Advanced Physics Laboratory (CI) 2

PHYS 4650 - Optics I 3

Elective Technical Courses (12 credits)

Select 12 credits from courses in other technical departments at the 3000 level and above (not to include courses designated as University Studies depth courses) with a coherent theme. Selected courses require approval from the Physics Department.

Mathematics and Physics Dual Major Option

By fulfilling all degree requirements for any two separate majors, it is possible for a student to receive a diploma having two majors listed. Because most physics majors are required to complete a minimum of 14 credits in mathematics courses, many students elect to complete the requirements for a BS degree in mathematics, as well as the requirements for their physics degree.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Physics - MS

Return to: Academic Departments and Programs

College of Science

Department of Physics

In addition to the general requirements, students completing a Plan A MS degree must complete four of the nine required PhD courses listed below (see Doctor of Philosophy). Plan B MS students must complete five of the nine courses. Each student is required to pass PHYS 5800 (Physics Colloquium) for four consecutive semesters, beginning with the first semester after matriculation. The student must also submit and orally defend either a thesis (Plan A) or a research report (Plan B) at the discretion of the student's supervisory committee. Plan A and Plan B MS candidates must present a colloquium to the department on the research topic during the time the thesis or research report is being written.

Master of Science (Upper Atmospheric Physics Specialization)

The department offers a specialization in Upper Atmospheric Physics for MS students. This degree is a Plan A MS. In consultation with his or her advisor, the student selects a minimum of 18 credits of classwork from the following courses:

PHYS 4600 - Electromagnetism II 3

PHYS 6240 - Space Environment and Engineering 3

PHYS 6310 - Solar-terrestrial Physics I 3

PHYS 6320 - Solar-terrestrial Physics II 3

PHYS 6330 - Plasma Physics I 3

PHYS 6340 - Plasma Physics II 3

PHYS 7210 - Spacecraft Instrumentation 3

PHYS 7500 - Advanced Topics in Physics (Topic) 3

Note:

Three to six additional credits may be chosen from courses in electrical engineering, computer science, mathematics, and biometeorology. The student may gain from 6 to 12 credits by research, to be written up as a thesis that must be defended orally. In addition, the student must present a colloquium on the topic of his or her research.

Return to: Academic Departments and Programs

Physics - PhD

Return to: Academic Departments and Programs

College of Science

Department of Physics

In addition to the general requirements, a total of 13 courses (36 credits) are required for all PhD students.

The required courses are:

PHYS 5340 - Methods of Theoretical Physics I 3

PHYS 5350 - Methods of Theoretical Physics II 3

PHYS 5500 - Intermediate Topics in Physics 1-3  
(Profession of Physics(1 credit) and Graduate Research in Physics(2+3 credits))

PHYS 6010 - Classical Mechanics I 3

PHYS 6110 - Electrodynamics I 3

PHYS 6120 - Electrodynamics II 3 (3 credits required)

PHYS 6210 - Quantum Mechanics I 3

PHYS 6410 - Statistical Mechanics I 3

PHYS 6330 - Plasma Physics I 3

PHYS 6530 - Solid State Physics I 3

PHYS 6910 - Relativity I 3

Note:

Each student is required to pass PHYS 5800 for four consecutive semesters, beginning with the first semester after matriculation. The student must also take an oral candidacy examination, consisting of a written report and a presentation made by the student, which is

followed by questions from departmental faculty. The candidacy exam is based upon a research topic set by the student's supervisory committee. The candidacy examination will normally occur no later than the fifth semester after the student begins graduate coursework. The student will have at least two months to prepare for the examination.

The Physics Department requires each PhD student to present at least two research seminars associated with his/her research (neither of which can be the Candidacy Examination oral presentation). One of these is associated with the dissertation defense, the other seminar can be a local seminar given to members of a local research group, a presentation at a regional, national, or international conference, or an invited talk at another institution.

Return to: Academic Departments and Programs

Physics Minor

Return to: Academic Departments and Programs

College of Science

Department of Physics

Majors in other departments may obtain a minor in physics by successfully completing the following courses:

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

Note:

To obtain a physics minor, students must also select 10 additional credits from PHYS 2500, PHYS 2710, and/or PHYS courses at the 3000 level and above (not to include PHYS courses designated as USU Depth courses).

Return to: Academic Departments and Programs

Physics Teaching - BS with a Teaching Minor

Return to: Academic Departments and Programs

## College of Science

### Department of Physics

Students must complete the General Education Requirements and the University Studies Depth Requirements.

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS) for the Depth Course requirements.

#### Bachelor's Degree and Core Requirements

The Physics Department awards the following degrees: BS in Physics, BA in Physics, BS in Physics with a Professional Emphasis, BS in Physics with an Applied Emphasis, BS in Mathematics and Physics Dual Major Option, BS in Physics Teaching, and BS in Composite Teaching—Physical Science.

##### A. Required Physics Courses (23 credits)

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2215 - Physics for Scientists and Engineers Lab I 1

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

PHYS 2225 - Physics for Scientists and Engineers Lab II 1

PHYS 2500 - Introduction to Computer Methods in Physics 2

PHYS 2710 - Introductory Modern Physics 3

PHYS 3710 - Intermediate Modern Physics 3

PHYS 3870 - Intermediate Physics Laboratory (CI) 2

##### B. Elective Physics Courses (5 credits)

Select 5 additional credits from PHYS courses at the 3000 level and above. Research in physics education may be included. (Not to include physics courses designated as USU Depth courses.)

##### C. Required Mathematics and Statistics Courses (15 credits)

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

MATH 2250 - Linear Algebra and Differential Equations (QI) 4

STAT 3000 - Statistics for Scientists (QI) 3

##### D. General Science Requirements (15-16 credits)

From the General Science Requirements list below, select one full science series (2 courses for 8 credits) and the first course from the other two series not selected, for a total of 16 credits.

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1220 - Principles of Chemistry II (BPS) 4

OR

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

GEO 3200 - The Earth Through Time (DSC) 4

Students with a Teaching Major in Physics must complete the requirements for the STEP

Students with a teaching major in Physics must complete the requirements for STEP. Admission to STEP with this major requires minimum ACT scores of: Composite-21, Math-19, English-20 and an over-all GPA of 3.0. A minimum GPA of 2.75 in PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225 is required.

Secondary Teacher Education Program (STEP)(35 credits)

Prior to enrolling in these courses, students must be approved for admission to the STEP by the Emma Eccles Jones College of Education and Human Services. Students must have a minimum of 60 credits and an overall GPA of 3.0, and minimum ACT scores of: Composite-21, Math-19, English-20. Students must meet the Department of Physics GPA standards; a minimum GPA of 2.75 in PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225. For information on other criteria that must be met for acceptance, students should consult with advisors in the Secondary Education Program, School of Teacher Education and Leadership (TEAL).

Level 1 (11 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SCED 3100 - Motivation and Classroom Management 3	
SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3	30 USU credits
SCED 3300 - Clinical Experience I 1	Completion of approved major program of study
SCED 3400 - Teaching Science I 3	See college advisor
ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)	Credits in minor (if required)
Level 2 (12 credits)	12
SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
SCED 4210 - Assessment and Curriculum Design 3	3
SCED 4300 - Clinical Experience II 1	General Education Requirements and University Studies Depth Requirements
SCED 4400 - Teaching Science II 3	Return to: Academic Departments and Programs
SPED 4000 - Education of Exceptional Individuals 2	
Level 3 (12 credits)	Physics Teaching Minor
SCED 5500 - Student Teaching Seminar 2	Return to: Academic Departments and Programs
SCED 5630 - Student Teaching in Secondary Schools 10	College of Science
Note:	Department of Physics
All USU teacher education candidates will be required to take and pass the Praxis content exam approved by the Utah State Office of Education in their major content area prior to student teaching.	Students who complete the Secondary Teacher Education Program (STEP) are eligible to obtain a Teaching Minor in Physics by successfully completing the following courses:
Minimum University Requirements	PHYS 1040 - Introductory Astronomy (BPS) 3
Total Credits	PHYS 2210 - Physics for Scientists and Engineers I (QI) 4
120	PHYS 2215 - Physics for Scientists and Engineers Lab I 1
Grade Point Average (most majors require higher GPA)	PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4
2.00 GPA	PHYS 2225 - Physics for Scientists and Engineers Lab II 1
Credits of C- or better	Elective courses in Physics chosen from PHYS 2500, PHYS 2710, and/or courses above the 3000 level (USU Depth courses are not allowed) 9
100	Note:
Credits of upper-division courses (#3000 or above)	
40	

The Teaching Minor in Physics requires completion of the Secondary Teacher Education Program (STEP). Admission to STEP with this minor requires minimum ACT scores of: Composite-21, Math-19, English-20 and an over-all GPA of 3.0. A minimum GPA of 2.75 in PHYS 2210, PHYS 2215, PHYS 2220 and PHYS 2225; and a minimum GPA of 2.75 in CHEM 1210, CHEM 1215, CHEM 1220 and CHEM 1225 is required.

Return to: Academic Departments and Programs

## Secondary Teacher Education Program (STEP)-Physics

Return to: Academic Departments and Programs

College of Science

Department of Physics

(35 credits)

Level 1 (11 credits)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1 (40 hours minimum) (fall only)

SCED 3400 - Teaching Science I 3 (fall only)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

Level 2 (12 credits)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1 (40 hours minimum) (spring only)

SCED 4400 - Teaching Science II 3 (spring only)

SPED 4000 - Education of Exceptional Individuals 2 (may be taken at any time)

Level 3 (12 credits)

SCED 5500 - Student Teaching Seminar 2 (2 weeks)

SCED 5630 - Student Teaching in Secondary Schools 10 (13 weeks, full-time)

Note:

The Teaching Science I and II courses (SCED 3400 and SCED 4400) are only taught once per year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

Return to: Academic Departments and Programs

## Agronomy Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Agronomy Minor Requirements (16 credits)

A minimum of 6 credits of Plant Science courses must be taken, including the following courses:

PSC 4280 - Field Crops 3

PSC 4320 - Forage Production and Pasture Ecology 3

Select the balance of credits from the following courses:

PSC 2200 - Pest Management Principles and Practices 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3810 - Turfgrass Management 3

PSC 4000 - Soil and Water Conservation 4

PSC 4400 - Modern Vegetable Production 3

PSC 4500 - Soil Reclamation 3

PSC 4700 - Irrigated Soils 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5270 - Environmental Plant Physiology 2

PSC 5310 - Soil Microbiology 3

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3

PSC 5550 - Weed Biology and Control 4

PSC 5560 - Analytical Techniques for the Soil Environment 3

PSC 5670 - Environmental Soil Physics 4

PSC 5700 - Advanced Plant Breeding 2

Return to: Academic Departments and Programs

Climate Change and Energy Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

(15 credits required)

The following three courses are required:

USU 1360 - Integrated Physical Science (BPS) 3 (Climate Change on Earth)

GEO 3150 - Energy in the Twenty-first Century (DSC/QI) 3 or

PHYS 3150 - Energy in the Twenty-first Century (DSC/QI) 3

PSC 4820 - Challenges in Climate Change and Energy 3

In addition to completing these required courses, students must select one course from each of the following two categories:

Climate Science

PSC 3820 - Climate and Climate Change (DSC/QI) 3 or

WATS 3820 - Climate and Climate Change (DSC/QI) 3

PSC 5680 - Paleoclimatology 3 or

WATS 5680 - Paleoclimatology 3

Socioeconomic

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

Return to: Academic Departments and Programs

Climate Sciences - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of-state students at in-state tuition rates through WICHE-WRGP.

Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

Climate Sciences - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and

management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of-state students at in-state tuition rates through WICHE-WRGP.

### Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

### Crop Biotechnology Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

(16 credits required)

The following courses are required:

PSC 3700 - Plant Propagation 4

PSC 5750 - Crop Biotechnology 2

Select the balance of credits from the following courses.

At least one of the production courses, marked with an asterisk, (\*) is required.

PSC 3500 - Structure and Function of Plants 3

PSC 4200 - Temperate Zone Fruit Production 3 \*

PSC 4280 - Field Crops 3 \*

PSC 4320 - Forage Production and Pasture Ecology 3 \*

PSC 4400 - Modern Vegetable Production 3 \*

PSC 5160 - Methods in Biotechnology: Cell Culture 3

PSC 5260 - Methods in Biotechnology: Molecular Cloning 3

PSC 5270 - Environmental Plant Physiology 2

PSC 5550 - Weed Biology and Control 4

PSC 5700 - Advanced Plant Breeding 2

Return to: Academic Departments and Programs

Ecology (Plants, Soils and Climate) - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

### Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

### Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

### Ecology Course Requirements

#### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is

required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

#### 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

5. Human Ecology

Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

Translational Ecology

ENVS 6410 - Translational Ecology 3

Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement  
3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of  
Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of  
Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change  
3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Ecology (Plants, Soils, and Climate) - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of  
Philosophy (PhD) in the following departments: Biology;  
Environment and Society; Plants, Soils, and Climate;  
Watershed Sciences; and Wildland Resources

## Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

## Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

## Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

## Ecology Course Requirements

### Master of Science

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One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

#### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

#### Functional (Core) Blocks

##### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

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WATS 6680 - Paleoclimatology 3

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PSC 6820 - Environmental Biophysics 2

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BIOL 6380 - Evolutionary Genetics 4

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##### 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

#### 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

#### 5. Human Ecology

##### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

##### Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

##### Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

#### Translational Ecology

ENVS 6410 - Translational Ecology 3

#### Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

#### Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

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HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Environmental Soil/Water Science - BA

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Students must complete the General Education requirements

GEO 1110, CHEM 1110, CHEM 1120, CHEM 1220 or PHYS 2120 will fulfill the Physical Sciences requirement for students in the Environmental Soil/Water Science major

Since several BPS courses are included in this major, one of these courses will fulfill the Physical Sciences requirement, while another will fulfill the Exploration requirement

Students must also complete the University Studies requirements

PSC 5740 will partially fulfill the Communications Intensive (CI) requirement

STAT 3000 or STAT 2000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Bachelor of Science Degree

The department offers the Bachelor of Science and Bachelor of Arts Degree in: Environmental Soil/Water Science, which deals with soil and water in relation to plant growth and environmental quality; a Bachelor of Science in three areas: (1) Plant Science with a horticulture and cropping systems emphasis, which deals with tree fruits, berries, vine fruits, vegetables and ornamental plants or field crops such as forages, grains, corn pasture, etc. (2) Plant Science with a research emphasis, which is designed for students who wish to participate in the development of plant-oriented technologies at any level of employment, and for those who intend to pursue a career in private or public research with requiring graduate degrees, and (3) Residential Landscape Design and Construction, which deals with design, construction, and maintenance of residential and small-scale, commercial landscapes. Each of the emphases within this major has been designed to allow students the flexibility to add courses or a minor to meet their own goals. All courses used to fill major requirements must be taken on an A-B-C-D-F basis. A minimum 2.5 GPA is required for courses used for the major. Transfer students are required to take at least 18 credits of major subject courses in residence at USU. A minor may be earned in Agronomy, Crop Biotechnology, Horticulture, Ornamental Horticulture, Climate Change and Energy, and Soil Science. A minimum of 16 approved credits are required (see lists below). All courses must be taken on an A-B-C-D-F basis and passed with a grade of C- or better. For information about receiving a Bachelor of Arts or Bachelor of Science degree, consult the departmental undergraduate advisor.

The Environmental Soil/Water Science Major is intended to provide each student with a fundamental understanding of the basic sciences and mathematics, as well as a strong background in both soil and water sciences. Preparatory requirements include chemistry, physics, mathematics, biology, geology, and statistics. The core courses for Environmental Soil/Water Science emphasize the interactive soil/water processes in the soil's plant-rooting zone—from the microscopic to the

landscape perspective. From this base, each student can design his or her own program of specialization in one of the many aspects of soil science, water science, or the integration of both soil and water sciences. Students may choose complementary classes in the Soil Emphasis, Water Emphasis, or Plant Emphasis in preparation for a variety of career opportunities. The Environmental Soil/Water Science Major is complementary to existing undergraduate programs at Utah State University in Geology, Environmental Studies, Watershed and Earth Systems, and Environmental Engineering.

The Plant Science Major with the horticulture and cropping systems emphasis is designed for students interested in learning more about applied aspects of crop production in the field, nursery, orchard or greenhouse. It also applies to management of plants in the golf course, botanical garden, campus, or other amenity landscapes. Some courses emphasize techniques and systems in plant production/management, while others provide students with an understanding of the underlying principles. Course topics include biology, chemistry, and control of insects, diseases and weeds.

The Plant Science Major with the research emphasis primarily prepares students for advanced study in graduate school. The department has an outstanding record of placing students in excellent graduate programs. The research emphasis provides students with a strong scientific base including mathematics, chemistry, physics, soil science, and biology. These are coupled with plant science courses that teach not only the "how" of plant culture, but the underlying "why".

The Residential Landscape Design and Construction (RLDC) Major prepares students for careers in the design, construction, and maintenance of small-scale, residential landscapes. Within these career areas, students will foster sustainable water-conserving landscape development by consumers. The overall curriculum strives to balance both landscape horticulture and landscape design. The core curriculum includes preparatory courses in chemistry, mathematics, biology, design, and graphics. Required program courses emphasize the plant sciences (i.e., plant materials, landscape management, weed control, and turfgrass management), soil sciences (fundamentals of soil science, soil reclamation, and remote sensing), and design/construction (i.e., residential landscape design, irrigation design, bidding and estimating, landscape construction, computer-based design, and water

conservation). The RLDC Major is complementary to the existing undergraduate major in Landscape Architecture.

The Land, Plant and Climate Systems Major offers students an integrative approach to understanding the living skin of the earth. Through foundational courses in plants, soils and climate students gain understanding of the physical, chemical, and biological processes that occur at the earth's surface. Students then choose from among the three emphases, Sustainable Food Production, Environmental Soil Science or Applied Climatology, in order to gain further focus. Students in the Sustainable Food Production emphasis develop an individualized path inclusive of animal and crop production as well as the economic and sociological implications of agricultural systems. Students will gain a firm foundation for a variety of career options such as owning their own farming enterprise or working as a farm manager for a larger conventional or organic operation. Students in the Environmental Soil Science emphasis study geology, soil chemistry, physics and ecology. Students graduating from this program will be well qualified for careers in the improvement of soil and water management to ensure high-quality soil and clean water for current and future generations. Students in the Applied Climatology emphasis study climate, environmental biophysics, earth sciences, atmospheric sciences and mathematics. Graduates are prepared for a careers in the public and private sectors involving climate interactions with land and water resources. Integrative capstone and internship opportunities bring the students together to approach real world problems in the framework of sustainability. Graduates from the LPCS major are prepared to pursue graduate education in a range of environmental, agricultural and physical sciences.

Environmental Soil/Water Science Major

Preparatory Core Courses (39-43 credits)

Required Courses (14-15 credits)

BIOL 1610 - Biology I 4

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3 or

BIOL 2220 - General Ecology 3

Chemistry Courses (9 or 10 credits)

Complete one of the two following blocks of Chemistry courses:

Block 1 (9 credits)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

Block 2 (10 credits)

See note 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Mathematics Courses (10 or 8 credits)

Complete one of the two following blocks of Mathematics courses:

Block 1 (10 credits)

MATH 1050 - College Algebra (QL) 4

MATH 1060 - Trigonometry 2

MATH 1210 - Calculus I (QL) 4

Block 2 (8 credits)

See note 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

Physics Courses (8 credits)

Complete one of the two following blocks of Physics courses:

Block 1 (8 credits)

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Block 2 (8 credits)

See note 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Professional Core Courses (23 credits)

PSC 3000 - Fundamentals of Soil Science 4

PSC 5050 - Principles of Environmental Soil Chemistry 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5310 - Soil Microbiology 3 or

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3  
2

PSC 5560 - Analytical Techniques for the Soil  
Environment 3

PSC 5670 - Environmental Soil Physics 4

PSC 5740 - Environmental Quality: Soil and Water (CI) 2

Emphases

Students must select 12 credits from one or a combination of the following three emphases.

Soil Emphasis

CEE 5190 - Geographic Information Systems for Civil  
Engineers 3

CHEM 3000 - Quantitative Analysis (QI) 3

GEO 3500 - Minerals and Rocks 4

GEO 3550 - Sedimentation and Stratigraphy 4

GEO 3600 - Geomorphology 4 or

WATS 3600 - Geomorphology 4

GEO 5600 - Geochemistry 3

GEO 5630 - Geologic Image Analysis 3

PSC 3100 - Soils and Civilization (DSC) 3

PSC 3200 - Microbes in Environmental Action (DSC) 3

PSC 4000 - Soil and Water Conservation 4

PSC 4500 - Soil Reclamation 3

PSC 5003 - Remote Sensing of Land Surfaces 4 or  
CEE 5003 - Remote Sensing of Land Surfaces 4 or  
WATS 5003 - Remote Sensing of Land Surfaces 4  
PSC 5200 - Site-Specific Agriculture and  
Landscape/Horticultural Management 3  
PSC 5310 - Soil Microbiology 3  
PSC 5350 - Wildland Soils 3  
PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3  
WATS 4930 - Advanced GIS and Spatial Analysis 3  
WILD 5750 - Applied Remote Sensing 3  
Water Emphasis  
ASTE 5260 - Environmental Impacts of Agricultural  
Systems (CI) 3  
CEE 5000 - Irrigation and Drainage of Agricultural Lands  
3  
CEE 3430 - Engineering Hydrology 3  
CHEM 3000 - Quantitative Analysis (QI) 3  
GEO 5150 - Fluvial Geomorphology 3 or  
WATS 5150 - Fluvial Geomorphology 3  
GEO 5510 - Groundwater Geology (QI) 3  
GEO 5520 - Techniques of Groundwater Investigations  
(CI) 3  
PSC 4000 - Soil and Water Conservation 4  
PSC 4700 - Irrigated Soils 3  
PSC 5003 - Remote Sensing of Land Surfaces 4 or  
CEE 5003 - Remote Sensing of Land Surfaces 4 or  
WATS 5003 - Remote Sensing of Land Surfaces 4  
PSC 5270 - Environmental Plant Physiology 2  
PSC 5400 - General Meteorology 3  
PSC 5500 - Environmental Physics of Land Ecosystems  
and Climate 3  
WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4500 - Limnology: Ecology of Inland Waters 3  
WATS 4510 - Aquatic Ecology Practicum 3  
WATS 4530 - Water Quality and Pollution 3  
WATS 5640 - Riparian Ecology and Management 3  
Plant Emphasis  
BIOL 4400 - Plant Physiology (QI) 4  
BIOL 4410 - Plant Structure 3  
BIOL 4421 - Plant Taxonomy I 2  
BIOL 4422 - Plant Taxonomy II 1  
PSC 1800 - Introduction to Horticulture (BLS) 3  
PSC 2600 - Herbaceous Plant Materials 3  
PSC 2620 - Woody Plant Materials: Trees and Shrubs for  
the Landscape 3  
PSC 3400 - Arboriculture 3  
PSC 3800 - Fundamentals of Organic Agriculture 3  
PSC 3810 - Turfgrass Management 3  
PSC 4200 - Temperate Zone Fruit Production 3  
PSC 4280 - Field Crops 3  
PSC 4320 - Forage Production and Pasture Ecology 3  
PSC 4400 - Modern Vegetable Production 3  
PSC 4700 - Irrigated Soils 3  
PSC 5100 - Professional Turf and Urban Landscape Water  
Management 3  
PSC 5270 - Environmental Plant Physiology 2  
PSC 5430 - Plant Nutrition 2  
PSC 5500 - Environmental Physics of Land Ecosystems  
and Climate 3  
PSC 5550 - Weed Biology and Control 4  
WILD 4750 - Monitoring and Assessment in Natural  
Resource and Environmental Management 4  
WILD 4910 - Assessment and Synthesis in Natural  
Resource Science 3

Note:

1 Students in the Water Emphasis should take the Block  
2 courses in Chemistry, Mathematics, and Physics.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Environmental Soil/Water Science - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Students must complete the General Education  
requirements

GEO 1110, CHEM 1110, CHEM 1120, CHEM 1220 or PHYS  
2120 will fulfill the Physical Sciences requirement for  
students in the Environmental Soil/Water Science major

Since several BPS courses are included in this major, one  
of these courses will fulfill the Physical Sciences  
requirement, while another will fulfill the Exploration  
requirement

Students must also complete the University Studies  
requirements

PSC 5740 will partially fulfill the Communications  
Intensive (CI) requirement

STAT 3000 or STAT 2000 will fulfill the Quantitative  
Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or  
above courses from each of the following two categories:  
Humanities and Creative Arts (DHA) and Social Sciences  
(DSS)

Bachelor of Science Degree

The department offers the Bachelor of Science and  
Bachelor of Arts Degree in: Environmental Soil/Water  
Science, which deals with soil and water in relation to  
plant growth and environmental quality; a Bachelor of  
Science in three areas: (1) Plant Science with a  
horticulture and cropping systems emphasis, which deals  
with tree fruits, berries, vine fruits, vegetables and  
ornamental plants or field crops such as forages, grains,  
corn pasture, etc. (2) Plant Science with a research  
emphasis, which is designed for students who wish to  
participate in the development of plant-oriented  
technologies at any level of employment, and for those  
who intend to pursue a career in private or public  
research with requiring graduate degrees, and (3)  
Residential Landscape Design and Construction, which  
deals with design, construction, and maintenance of  
residential and small-scale, commercial landscapes. Each  
of the emphases within this major has been designed to  
allow students the flexibility to add courses or a minor to  
meet their own goals. All courses used to fill major  
requirements must be taken on an A-B-C-D-F basis. A  
minimum 2.5 GPA is required for courses used for the  
major. Transfer students are required to take at least 18  
credits of major subject courses in residence at USU. A  
minor may be earned in Agronomy, Crop Biotechnology,

Horticulture, Ornamental Horticulture, Climate Change and Energy, and Soil Science. A minimum of 16 approved credits are required (see lists below). All courses must be taken on an A-B-C-D-F basis and passed with a grade of C- or better. For information about receiving a Bachelor of Arts or Bachelor of Science degree, consult the departmental undergraduate advisor.

The Environmental Soil/Water Science Major is intended to provide each student with a fundamental understanding of the basic sciences and mathematics, as well as a strong background in both soil and water sciences. Preparatory requirements include chemistry, physics, mathematics, biology, geology, and statistics. The core courses for Environmental Soil/Water Science emphasize the interactive soil/water processes in the soil's plant-rooting zone—from the microscopic to the landscape perspective. From this base, each student can design his or her own program of specialization in one of the many aspects of soil science, water science, or the integration of both soil and water sciences. Students may choose complementary classes in the Soil Emphasis, Water Emphasis, or Plant Emphasis in preparation for a variety of career opportunities. The Environmental Soil/Water Science Major is complementary to existing undergraduate programs at Utah State University in Geology, Environmental Studies, Watershed and Earth Systems, and Environmental Engineering.

The Plant Science Major with the horticulture and cropping systems emphasis is designed for students interested in learning more about applied aspects of crop production in the field, nursery, orchard or greenhouse. It also applies to management of plants in the golf course, botanical garden, campus, or other amenity landscapes. Some courses emphasize techniques and systems in plant production/management, while others provide students with an understanding of the underlying principles. Course topics include biology, chemistry, and control of insects, diseases and weeds.

The Plant Science Major with the research emphasis primarily prepares students for advanced study in graduate school. The department has an outstanding record of placing students in excellent graduate programs. The research emphasis provides students with a strong scientific base including mathematics, chemistry, physics, soil science, and biology. These are coupled with plant science courses that teach not only the "how" of plant culture, but the underlying "why".

The Residential Landscape Design and Construction (RLDC) Major prepares students for careers in the design, construction, and maintenance of small-scale, residential landscapes. Within these career areas, students will foster sustainable water-conserving landscape development by consumers. The overall curriculum strives to balance both landscape horticulture and landscape design. The core curriculum includes preparatory courses in chemistry, mathematics, biology, design, and graphics. Required program courses emphasize the plant sciences (i.e., plant materials, landscape management, weed control, and turfgrass management), soil sciences (fundamentals of soil science, soil reclamation, and remote sensing), and design/construction (i.e., residential landscape design, irrigation design, bidding and estimating, landscape construction, computer-based design, and water conservation). The RLDC Major is complementary to the existing undergraduate major in Landscape Architecture.

The Land, Plant and Climate Systems Major offers students an integrative approach to understanding the living skin of the earth. Through foundational courses in plants, soils and climate students gain understanding of the physical, chemical, and biological processes that occur at the earth's surface. Students then choose from among the three emphases, Sustainable Food Production, Environmental Soil Science or Applied Climatology, in order to gain further focus. Students in the Sustainable Food Production emphasis develop an individualized path inclusive of animal and crop production as well as the economic and sociological implications of agricultural systems. Students will gain a firm foundation for a variety of career options such as owning their own farming enterprise or working as a farm manager for a larger conventional or organic operation. Students in the Environmental Soil Science emphasis study geology, soil chemistry, physics and ecology. Students graduating from this program will be well qualified for careers in the improvement of soil and water management to ensure high-quality soil and clean water for current and future generations. Students in the Applied Climatology emphasis study climate, environmental biophysics, earth sciences, atmospheric sciences and mathematics. Graduates are prepared for a careers in the public and private sectors involving climate interactions with land and water resources. Integrative capstone and internship opportunities bring the students together to approach real world problems in the framework of sustainability. Graduates from the LPCS major are prepared to pursue

graduate education in a range of environmental, agricultural and physical sciences.

Environmental Soil/Water Science Major

Preparatory Core Courses (39-43 credits)

Required Courses (14-15 credits)

BIOL 1610 - Biology I 4

GEO 1110 - Physical Geology (BPS) 3

GEO 1115 - Physical Geology Laboratory 1

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3 or

BIOL 2220 - General Ecology 3

Chemistry Courses (9 or 10 credits)

Complete one of the two following blocks of Chemistry courses:

Block 1 (9 credits)

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

Block 2 (10 credits)

See note 1

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

Mathematics Courses (10 or 8 credits)

Complete one of the two following blocks of Mathematics courses:

Block 1 (10 credits)

MATH 1050 - College Algebra (QL) 4

MATH 1060 - Trigonometry 2

MATH 1210 - Calculus I (QL) 4

Block 2 (8 credits)

See note 1

MATH 1210 - Calculus I (QL) 4

MATH 1220 - Calculus II (QL) 4

Physics Courses (8 credits)

Complete one of the two following blocks of Physics courses:

Block 1 (8 credits)

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Block 2 (8 credits)

See note 1

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

Professional Core Courses (23 credits)

PSC 3000 - Fundamentals of Soil Science 4

PSC 5050 - Principles of Environmental Soil Chemistry 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5310 - Soil Microbiology 3 or

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3  
2

PSC 5560 - Analytical Techniques for the Soil Environment 3

PSC 5670 - Environmental Soil Physics 4

PSC 5740 - Environmental Quality: Soil and Water (CI) 2

Emphases

Students must select 12 credits from one or a combination of the following three emphases.

Soil Emphasis

CEE 5190 - Geographic Information Systems for Civil Engineers 3

CHEM 3000 - Quantitative Analysis (QI) 3

GEO 3500 - Minerals and Rocks 4	PSC 4000 - Soil and Water Conservation 4
GEO 3550 - Sedimentation and Stratigraphy 4	PSC 4700 - Irrigated Soils 3
GEO 3600 - Geomorphology 4 or	PSC 5003 - Remote Sensing of Land Surfaces 4 or
WATS 3600 - Geomorphology 4	CEE 5003 - Remote Sensing of Land Surfaces 4 or
GEO 5600 - Geochemistry 3	WATS 5003 - Remote Sensing of Land Surfaces 4
GEO 5630 - Geologic Image Analysis 3	PSC 5270 - Environmental Plant Physiology 2
PSC 3100 - Soils and Civilization (DSC) 3	PSC 5400 - General Meteorology 3
PSC 3200 - Microbes in Environmental Action (DSC) 3	PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3
PSC 4000 - Soil and Water Conservation 4	WATS 3700 - Fundamentals of Watershed Science (CI) 3
PSC 4500 - Soil Reclamation 3	WATS 4500 - Limnology: Ecology of Inland Waters 3
PSC 5003 - Remote Sensing of Land Surfaces 4 or	WATS 4510 - Aquatic Ecology Practicum 3
CEE 5003 - Remote Sensing of Land Surfaces 4 or	WATS 4530 - Water Quality and Pollution 3
WATS 5003 - Remote Sensing of Land Surfaces 4	WATS 5640 - Riparian Ecology and Management 3
PSC 5200 - Site-Specific Agriculture and Landscape/Horticultural Management 3	Plant Emphasis
PSC 5310 - Soil Microbiology 3	BIOL 4400 - Plant Physiology (QI) 4
PSC 5350 - Wildland Soils 3	BIOL 4410 - Plant Structure 3
PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3	BIOL 4421 - Plant Taxonomy I 2
WATS 4930 - Advanced GIS and Spatial Analysis 3	BIOL 4422 - Plant Taxonomy II 1
WILD 5750 - Applied Remote Sensing 3	PSC 1800 - Introduction to Horticulture (BLS) 3
Water Emphasis	PSC 2600 - Herbaceous Plant Materials 3
ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3	PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3
CEE 5000 - Irrigation and Drainage of Agricultural Lands 3	PSC 3400 - Arboriculture 3
CEE 3430 - Engineering Hydrology 3	PSC 3800 - Fundamentals of Organic Agriculture 3
CHEM 3000 - Quantitative Analysis (QI) 3	PSC 3810 - Turfgrass Management 3
GEO 5150 - Fluvial Geomorphology 3 or	PSC 4200 - Temperate Zone Fruit Production 3
WATS 5150 - Fluvial Geomorphology 3	PSC 4280 - Field Crops 3
GEO 5510 - Groundwater Geology (QI) 3	PSC 4320 - Forage Production and Pasture Ecology 3
GEO 5520 - Techniques of Groundwater Investigations (CI) 3	PSC 4400 - Modern Vegetable Production 3
	PSC 4700 - Irrigated Soils 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3

PSC 5270 - Environmental Plant Physiology 2

PSC 5430 - Plant Nutrition 2

PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 5550 - Weed Biology and Control 4

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

WILD 4910 - Assessment and Synthesis in Natural Resource Science 3

Note:

1 Students in the Water Emphasis should take the Block 2 courses in Chemistry, Mathematics, and Physics.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Horticulture - MPSH

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of-state students at in-state tuition rates through WICHE-WRGP.

Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

Horticulture Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Horticulture Minor Requirements (16 credits)

The following course is required:

PSC 2010 - Soils, Waters, and the Environment (BPS) 3 or

PSC 3000 - Fundamentals of Soil Science 4

Select 6 credits from the following courses:

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2200 - Pest Management Principles and Practices 3

PSC 4200 - Temperate Zone Fruit Production 3

PSC 4400 - Modern Vegetable Production 3

One ornamental horticulture course

Select the remaining credits from the following:

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3300 - Residential Landscapes 3

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop Production 4

Return to: Academic Departments and Programs

Ornamental Horticulture - AAS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

This program provides practical training in greenhouse and nursery management, turf production, and landscape management. Coursework encompasses pest control, plant identification, construction of landscapes, small business management, and the operation and maintenance of equipment, including small engines. As an integral part of their training, students are required to complete an internship in the industry. Students may work toward a one-year certificate or an Associate of Applied Science Degree.

Ornamental Horticulture Program Associate of Applied Science Degree (63 credits)

The 63 credits are distributed as follows. Some courses require biology prerequisite courses.

General Education Requirements (15-16 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

Breadth General Education Requirements

Select two of the following courses:

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

USU 1300 - U.S. Institutions (BAI) 3

USU 1320 - Civilization: Humanities (BHU) 3

USU 1340 - Social Systems and Issues (BSS) 3

Select one of the following courses:

CHEM 1110 - General Chemistry I (BPS) 4

PSC 1800 - Introduction to Horticulture (BLS) 3

Required Courses (15-17 credits)

PSC 1050 - Plants, Soils, and Climate Orientation 1-2 (1 credit required)

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2200 - Pest Management Principles and Practices 3

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 4250 - Internship in Plants, Soils, and/or Climate 1-4

Choose remaining credits from the following courses: (30-33 credits)

LAEP 1200 - Basic Graphics in Landscape Architecture 4 (take before PSC 3300)

PSC 3000 - Fundamentals of Soil Science 4

PSC 3010 - Basic Flower Arranging 2

PSC 3300 - Residential Landscapes 3

PSC 3400 - Arboriculture 3

PSC 3420 - Landscape Irrigation Design (QI) 2

PSC 3430 - Construction Methods for Residential Landscape Installation 2

PSC 3440 - Landscape Business Practices 3

PSC 3500 - Structure and Function of Plants 3

PSC 3700 - Plant Propagation 4

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop Production 4

PSC 4200 - Temperate Zone Fruit Production 3

PSC 4301 - Computer Aided Residential Landscape Design 2

PSC 4302 - Advanced Residential Landscape Design 2

PSC 4400 - Modern Vegetable Production 3

PSC 4500 - Soil Reclamation 3

PSC 4550 - Weed Management 3

PSC 4900 - Special Problems 1-4 (5 credits required)

PSC 5090 - Sustainable Low Water Landscaping 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3

PSC 5200 - Site-Specific Agriculture and Landscape/Horticultural Management 3

Elective Credits: A maximum of 11 credits can be taken

BIOL 1010 - Biology and the Citizen (BLS) 3 or

BIOL 1610 - Biology I 4

CHEM 1110 - General Chemistry I (BPS) 4

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3 (if not used as BCA)

MATH 1050 - College Algebra (QL) 4

WILD 2200 - Ecology of Our Changing World (BLS) 3

Return to: Academic Departments and Programs

Ornamental Horticulture Certificate

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

This program provides practical training in greenhouse and nursery management, turf production, and landscape management. Coursework encompasses pest control, plant identification, construction of landscapes, small business management, and the operation and maintenance of equipment, including small engines. As an integral part of their training, students are required to complete an internship in the industry. Students may work toward a one-year certificate or an Associate of Applied Science Degree.

The 27 credits are distributed as follows:

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

Additional PSC courses selected from Associate of Applied Science Core Classes\*\* 18

Courses selected from Approved Electives 3

Note:

\*\*Students should choose courses that emphasize Ornamental and Landscape Horticulture.

Return to: Academic Departments and Programs

Ornamental Horticulture Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

(16 credits required)

The following courses are required:

PSC 2010 - Soils, Waters, and the Environment (BPS) 3 or

PSC 3000 - Fundamentals of Soil Science 4

PSC 2200 - Pest Management Principles and Practices 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

Select the balance of credits from the following courses:

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2600 - Herbaceous Plant Materials 3

PSC 3300 - Residential Landscapes 3

PSC 3400 - Arboriculture 3

PSC 3420 - Landscape Irrigation Design (QI) 2

PSC 3430 - Construction Methods for Residential Landscape Installation 2

PSC 3700 - Plant Propagation 4

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop Production 4

PSC 4500 - Soil Reclamation 3

Return to: Academic Departments and Programs

Plant Science - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Students must complete the General Education requirements

BIOL 1620 will fulfill the Life Sciences requirement and

CHEM 1110, CHEM 1120 or CHEM 1220 will fulfill the Physical Sciences requirement for students in the Plant Science major

PHYS 1200 will fulfill the Exploration requirement

Students must also complete the University Studies requirements

PSC 4890, plus another course having a CI designation will fulfill the Communications Intensive (CI) requirement

PSC 5530 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

Bachelor of Science Degree

The department offers the Bachelor of Science and Bachelor of Arts Degree in: Environmental Soil/Water Science, which deals with soil and water in relation to plant growth and environmental quality; a Bachelor of Science in three areas: (1) Plant Science with a horticulture and cropping systems emphasis, which deals with tree fruits, berries, vine fruits, vegetables and ornamental plants or field crops such as forages, grains, corn pasture, etc. (2) Plant Science with a research emphasis, which is designed for students who wish to participate in the development of plant-oriented technologies at any level of employment, and for those who intend to pursue a career in private or public research with requiring graduate degrees, and (3) Residential Landscape Design and Construction, which deals with design, construction, and maintenance of residential and small-scale, commercial landscapes. Each of the emphases within this major has been designed to allow students the flexibility to add courses or a minor to meet their own goals. All courses used to fill major requirements must be taken on an A-B-C-D-F basis. A minimum 2.5 GPA is required for courses used for the major. Transfer students are required to take at least 18 credits of major subject courses in residence at USU. A minor may be earned in Agronomy, Crop Biotechnology, Horticulture, Ornamental Horticulture, Climate Change and Energy, and Soil Science. A minimum of 16 approved credits are required (see lists below). All courses must be taken on an A-B-C-D-F basis and passed with a grade of C- or better. For information about receiving a Bachelor of Arts or Bachelor of Science degree, consult the departmental undergraduate advisor.

The Environmental Soil/Water Science Major is intended to provide each student with a fundamental understanding of the basic sciences and mathematics, as well as a strong background in both soil and water sciences. Preparatory requirements include chemistry, physics, mathematics, biology, geology, and statistics. The core courses for Environmental Soil/Water Science emphasize the interactive soil/water processes in the soil's plant-rooting zone—from the microscopic to the

landscape perspective. From this base, each student can design his or her own program of specialization in one of the many aspects of soil science, water science, or the integration of both soil and water sciences. Students may choose complementary classes in the Soil Emphasis, Water Emphasis, or Plant Emphasis in preparation for a variety of career opportunities. The Environmental Soil/Water Science Major is complementary to existing undergraduate programs at Utah State University in Geology, Environmental Studies, Watershed and Earth Systems, and Environmental Engineering.

The Plant Science Major with the horticulture and cropping systems emphasis is designed for students interested in learning more about applied aspects of crop production in the field, nursery, orchard or greenhouse. It also applies to management of plants in the golf course, botanical garden, campus, or other amenity landscapes. Some courses emphasize techniques and systems in plant production/management, while others provide students with an understanding of the underlying principles. Course topics include biology, chemistry, and control of insects, diseases and weeds.

The Plant Science Major with the research emphasis primarily prepares students for advanced study in graduate school. The department has an outstanding record of placing students in excellent graduate programs. The research emphasis provides students with a strong scientific base including mathematics, chemistry, physics, soil science, and biology. These are coupled with plant science courses that teach not only the "how" of plant culture, but the underlying "why".

The Residential Landscape Design and Construction (RLDC) Major prepares students for careers in the design, construction, and maintenance of small-scale, residential landscapes. Within these career areas, students will foster sustainable water-conserving landscape development by consumers. The overall curriculum strives to balance both landscape horticulture and landscape design. The core curriculum includes preparatory courses in chemistry, mathematics, biology, design, and graphics. Required program courses emphasize the plant sciences (i.e., plant materials, landscape management, weed control, and turfgrass management), soil sciences (fundamentals of soil science, soil reclamation, and remote sensing), and design/construction (i.e., residential landscape design, irrigation design, bidding and estimating, landscape construction, computer-based design, and water

conservation). The RLDC Major is complementary to the existing undergraduate major in Landscape Architecture.

The Land, Plant and Climate Systems Major offers students an integrative approach to understanding the living skin of the earth. Through foundational courses in plants, soils and climate students gain understanding of the physical, chemical, and biological processes that occur at the earth's surface. Students then choose from among the three emphases, Sustainable Food Production, Environmental Soil Science or Applied Climatology, in order to gain further focus. Students in the Sustainable Food Production emphasis develop an individualized path inclusive of animal and crop production as well as the economic and sociological implications of agricultural systems. Students will gain a firm foundation for a variety of career options such as owning their own farming enterprise or working as a farm manager for a larger conventional or organic operation. Students in the Environmental Soil Science emphasis study geology, soil chemistry, physics and ecology. Students graduating from this program will be well qualified for careers in the improvement of soil and water management to ensure high-quality soil and clean water for current and future generations. Students in the Applied Climatology emphasis study climate, environmental biophysics, earth sciences, atmospheric sciences and mathematics. Graduates are prepared for a careers in the public and private sectors involving climate interactions with land and water resources. Integrative capstone and internship opportunities bring the students together to approach real world problems in the framework of sustainability. Graduates from the LPCS major are prepared to pursue graduate education in a range of environmental, agricultural and physical sciences.

## Plant Science Major

### Plant Science Core Requirements:

Complete ALL of the following courses:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

BIOL 4430 - Introduction to Plant Pathology 4

BIOL 4500 - Applied Entomology 3

PSC 1050 - Plants, Soils, and Climate Orientation 1-2

PSC 3000 - Fundamentals of Soil Science 4

PSC 4890 - Senior Seminar (CI) 1

PSC 5550 - Weed Biology and Control 4

Note:

In addition to the courses listed above, students must complete the course requirements for either Emphasis A (Horticulture and Cropping Systems) or B (Research).

#### A. Horticulture and Cropping Systems Core

Students must complete all of the following courses:

CHEM 1110 - General Chemistry I (BPS) 4

MATH 1050 - College Algebra (QL) 4 or

MATH 1100 - Calculus Techniques (QL) 3

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4

PSC 4250 - Internship in Plants, Soils, and/or Climate 1-4

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3

PSC 5700 - Advanced Plant Breeding 2 or

BIOL 3060 - Principles of Genetics (QI) 4

WILD 2200 - Ecology of Our Changing World (BLS) 3

#### Plant Biology Electives

Students must complete two courses.

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4410 - Plant Structure 3

PSC 3500 - Structure and Function of Plants 3

PSC 5270 - Environmental Plant Physiology 2

#### Production Electives

Students must complete seven courses, including at least two courses identified with an asterisk(\*).

PSC 2200 - Pest Management Principles and Practices 3

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 3400 - Arboriculture 3

PSC 3700 - Plant Propagation 4

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop Production 4 \*

PSC 4200 - Temperate Zone Fruit Production 3 \*

PSC 4280 - Field Crops 3 \*

PSC 4320 - Forage Production and Pasture Ecology 3 \*

PSC 4400 - Modern Vegetable Production 3 \*

PSC 4600 - Cereal Science (DSC/QI) 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3

#### Other Electives

Students must complete three courses from the following:

CHEM 1120 - General Chemistry II (BPS) 4

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 3200 - Microbes in Environmental Action (DSC) 3

PSC 3300 - Residential Landscapes 3

PSC 3820 - Climate and Climate Change (DSC/QI) 3

PSC 4000 - Soil and Water Conservation 4

PSC 4500 - Soil Reclamation 3

PSC 4700 - Irrigated Soils 3

PSC 5000 - Environmental Instrumentation 2

PSC 5050 - Principles of Environmental Soil Chemistry 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5200 - Site-Specific Agriculture and Landscape/Horticultural Management 3

PSC 5310 - Soil Microbiology 3

PSC 5350 - Wildland Soils 3

PSC 5400 - General Meteorology 3

PSC 5560 - Analytical Techniques for the Soil Environment 3

PSC 5620 - Aquatic Chemistry 3

PSC 5670 - Environmental Soil Physics 4

STAT 2000 - Statistical Methods (QI) 4

B. Research Emphasis Core

Students must complete ALL of the following courses:

BIOL 2220 - General Ecology 3

BIOL 3060 - Principles of Genetics (QI) 4

BIOL 4400 - Plant Physiology (QI) 4

BIOL 4410 - Plant Structure 3

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

CHEM 2300 - Principles of Organic Chemistry 3

CHEM 2315 - Organic Chemistry Laboratory I 1

ENGL 3080 - Introduction to Technical Communication (CI) 3

MATH 1210 - Calculus I (QL) 4

PHYS 2110 - General Physics - Life Sciences I 4

PHYS 2120 - General Physics - Life Sciences II (BPS) 4

Other Electives

Students must complete three of the following courses:

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 3400 - Arboriculture 3

PSC 3700 - Plant Propagation 4

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop Production 4

PSC 4200 - Temperate Zone Fruit Production 3

PSC 4280 - Field Crops 3

PSC 4320 - Forage Production and Pasture Ecology 3

PSC 4400 - Modern Vegetable Production 3

PSC 4600 - Cereal Science (DSC/QI) 3

PSC 5100 - Professional Turf and Urban Landscape Water Management 3

PSC 5270 - Environmental Plant Physiology 2

PSC 5700 - Advanced Plant Breeding 2

Soil-Science Electives

Students must complete two of the following courses:

PSC 3200 - Microbes in Environmental Action (DSC) 3

PSC 4000 - Soil and Water Conservation 4

PSC 4500 - Soil Reclamation 3

PSC 4700 - Irrigated Soils 3

PSC 5050 - Principles of Environmental Soil Chemistry 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5310 - Soil Microbiology 3

PSC 5350 - Wildland Soils 3

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3

PSC 5560 - Analytical Techniques for the Soil Environment 3

PSC 5620 - Aquatic Chemistry 3

PSC 5670 - Environmental Soil Physics 4

Recommended Electives

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2200 - Pest Management Principles and Practices 3

PSC 3500 - Structure and Function of Plants 3

PSC 4250 - Internship in Plants, Soils, and/or Climate 1-4

PSC 5000 - Environmental Instrumentation 2

PSC 5200 - Site-Specific Agriculture and  
Landscape/Horticultural Management 3

PSC 5260 - Methods in Biotechnology: Molecular Cloning  
3

PSC 5400 - General Meteorology 3

PSC 5750 - Crop Biotechnology 2

STAT 3000 - Statistics for Scientists (QI) 3

CHEM 3700 - Introductory Biochemistry 3

CHEM 3710 - Introductory Biochemistry Laboratory 1

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Plant Science - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of- state students at in-state tuition rates through WICHE-WRGP.

Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

Plant Science - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

## Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of-state students at in-state tuition rates through WICHE-WRGP.

### Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

Residential Landscape Design and Construction - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Students must complete the General Education requirements

LAEP 1030 will fulfill the Creative Arts requirement

BIOL 1010, PSC 1800 or WILD 2200 will fulfill the Life Sciences requirement

CHEM 1110 will fulfill the Physical Sciences requirement

Since three courses which are required for the major have a BLS designation (BIOL 1010, PSC 1800 and WILD 2200), one of these courses will fulfill the BLS

requirement, while another will fulfill the Exploration requirement

Students must also complete the University Studies requirements

ASTE 3050 and PSC 4890 will fulfill the Communications Intensive (CI) requirement

PSC 3420 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS)

### Bachelor of Science Degree

The department offers the Bachelor of Science and Bachelor of Arts Degree in: Environmental Soil/Water Science, which deals with soil and water in relation to plant growth and environmental quality; a Bachelor of Science in three areas: (1) Plant Science with a horticulture and cropping systems emphasis, which deals with tree fruits, berries, vine fruits, vegetables and ornamental plants or field crops such as forages, grains, corn pasture, etc. (2) Plant Science with a research emphasis, which is designed for students who wish to participate in the development of plant-oriented technologies at any level of employment, and for those who intend to pursue a career in private or public research with requiring graduate degrees, and (3) Residential Landscape Design and Construction, which deals with design, construction, and maintenance of residential and small-scale, commercial landscapes. Each of the emphases within this major has been designed to allow students the flexibility to add courses or a minor to meet their own goals. All courses used to fill major requirements must be taken on an A-B-C-D-F basis. A minimum 2.5 GPA is required for courses used for the major. Transfer students are required to take at least 18 credits of major subject courses in residence at USU. A minor may be earned in Agronomy, Crop Biotechnology, Horticulture, Ornamental Horticulture, Climate Change and Energy, and Soil Science. A minimum of 16 approved credits are required (see lists below). All courses must be taken on an A-B-C-D-F basis and passed with a grade of C- or better. For information about receiving a Bachelor of Arts or Bachelor of Science degree, consult the departmental undergraduate advisor.

The Environmental Soil/Water Science Major is intended to provide each student with a fundamental understanding of the basic sciences and mathematics, as well as a strong background in both soil and water sciences. Preparatory requirements include chemistry, physics, mathematics, biology, geology, and statistics. The core courses for Environmental Soil/Water Science emphasize the interactive soil/water processes in the soil's plant-rooting zone—from the microscopic to the landscape perspective. From this base, each student can design his or her own program of specialization in one of the many aspects of soil science, water science, or the integration of both soil and water sciences. Students may choose complementary classes in the Soil Emphasis, Water Emphasis, or Plant Emphasis in preparation for a variety of career opportunities. The Environmental Soil/Water Science Major is complementary to existing undergraduate programs at Utah State University in Geology, Environmental Studies, Watershed and Earth Systems, and Environmental Engineering.

The Plant Science Major with the horticulture and cropping systems emphasis is designed for students interested in learning more about applied aspects of crop production in the field, nursery, orchard or greenhouse. It also applies to management of plants in the golf course, botanical garden, campus, or other amenity landscapes. Some courses emphasize techniques and systems in plant production/management, while others provide students with an understanding of the underlying principles. Course topics include biology, chemistry, and control of insects, diseases and weeds.

The Plant Science Major with the research emphasis primarily prepares students for advanced study in graduate school. The department has an outstanding record of placing students in excellent graduate programs. The research emphasis provides students with a strong scientific base including mathematics, chemistry, physics, soil science, and biology. These are coupled with plant science courses that teach not only the "how" of plant culture, but the underlying "why".

The Residential Landscape Design and Construction (RLDC) Major prepares students for careers in the design, construction, and maintenance of small-scale, residential landscapes. Within these career areas, students will foster sustainable water-conserving landscape development by consumers. The overall curriculum strives to balance both landscape horticulture and landscape design. The core curriculum includes preparatory courses in chemistry, mathematics, biology,

design, and graphics. Required program courses emphasize the plant sciences (i.e., plant materials, landscape management, weed control, and turfgrass management), soil sciences (fundamentals of soil science, soil reclamation, and remote sensing), and design/construction (i.e., residential landscape design, irrigation design, bidding and estimating, landscape construction, computer-based design, and water conservation). The RLDC Major is complementary to the existing undergraduate major in Landscape Architecture.

The Land, Plant and Climate Systems Major offers students an integrative approach to understanding the living skin of the earth. Through foundational courses in plants, soils and climate students gain understanding of the physical, chemical, and biological processes that occur at the earth's surface. Students then choose from among the three emphases, Sustainable Food Production, Environmental Soil Science or Applied Climatology, in order to gain further focus. Students in the Sustainable Food Production emphasis develop an individualized path inclusive of animal and crop production as well as the economic and sociological implications of agricultural systems. Students will gain a firm foundation for a variety of career options such as owning their own farming enterprise or working as a farm manager for a larger conventional or organic operation. Students in the Environmental Soil Science emphasis study geology, soil chemistry, physics and ecology. Students graduating from this program will be well qualified for careers in the improvement of soil and water management to ensure high-quality soil and clean water for current and future generations. Students in the Applied Climatology emphasis study climate, environmental biophysics, earth sciences, atmospheric sciences and mathematics. Graduates are prepared for a careers in the public and private sectors involving climate interactions with land and water resources. Integrative capstone and internship opportunities bring the students together to approach real world problems in the framework of sustainability. Graduates from the LPCS major are prepared to pursue graduate education in a range of environmental, agricultural and physical sciences.

Required Core Courses (80 credits)

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

BIOL 1010 - Biology and the Citizen (BLS) 3

CHEM 1110 - General Chemistry I (BPS) 4

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

LAEP 1200 - Basic Graphics in Landscape Architecture 4

LAEP 3600 - Landscape Materials 2

MATH 1050 - College Algebra (QL) 4

PSC 1050 - Plants, Soils, and Climate Orientation 1-2 (1 credit maximum)

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2200 - Pest Management Principles and Practices 3

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3300 - Residential Landscapes 3

PSC 3400 - Arboriculture 3

PSC 3420 - Landscape Irrigation Design (QI) 2

PSC 3430 - Construction Methods for Residential Landscape Installation 2

PSC 3440 - Landscape Business Practices 3

PSC 3500 - Structure and Function of Plants 3

PSC 3810 - Turfgrass Management 3

PSC 4250 - Internship in Plants, Soils, and/or Climate 1-4

PSC 4301 - Computer Aided Residential Landscape Design 2

PSC 4302 - Advanced Residential Landscape Design 2

PSC 4500 - Soil Reclamation 3

PSC 4890 - Senior Seminar (CI) 1

PSC 5090 - Sustainable Low Water Landscaping 3

PSC 5200 - Site-Specific Agriculture and Landscape/Horticultural Management 3

PSC 5550 - Weed Biology and Control 4

WILD 2200 - Ecology of Our Changing World (BLS) 3

Recommended Courses

ENVS 2340 - Natural Resources and Society (BSS) 3

MGT 3110 - Managing Organizations and People (DSS) 3

PHIL 3530 - Environmental Ethics (DHA) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

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Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Soil Science - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

## Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of- state students at in-state tuition rates through WICHE-WRGP.

### Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

### Soil Science - PhD

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

## Degree Programs and Specializations

The Master of Science and Doctor of Philosophy degrees are offered as follows: (1) Plant Science with specializations in crop physiology, crop production and management, molecular biology, plant breeding and cytology, plant biotechnology and tissue culture, plant nutrition, space biology, and weed science; (2) Soil Science with specializations in molecular biology (interdepartmental program), soil and water chemistry, soil biochemistry and ecology, soil conservation systems, soil fertility and plant nutrition, soil physics, soil-plant-

water relations, soil taxonomy and genesis, and soils and irrigation; (3) Climate Sciences with specializations in climate dynamics, hydroclimate modeling, general and micro-meteorology, and turbulence; and (4) Ecology. A Master of Professional Studies in Horticulture (MPSH) is also offered. This program is available to out-of- state students at in-state tuition rates through WICHE-WRGP.

### Course Requirements

Course requirements leading to MS or PhD degrees are developed jointly by the student and the student's advisory committee. Course selections reflect areas of specialization. There are, however, specific departmental requirements regarding physical sciences, biological sciences, and mathematics courses, which differ depending on the area of specialization.

Return to: Academic Departments and Programs

### Soil Science Minor

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

Department of Plants, Soils and Climate

Soil Science Minor Requirements (16 credits)

The following course is required:

PSC 3000 - Fundamentals of Soil Science 4

Select 12 credits from the following courses:

PSC 4000 - Soil and Water Conservation 4

PSC 4500 - Soil Reclamation 3

PSC 4700 - Irrigated Soils 3

PSC 5050 - Principles of Environmental Soil Chemistry 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

PSC 5310 - Soil Microbiology 3

PSC 5350 - Wildland Soils 3

PSC 5530 - Soils and Plant Nutrient Bioavailability (QI) 3

PSC 5560 - Analytical Techniques for the Soil Environment 3

PSC 5670 - Environmental Soil Physics 4

Return to: Academic Departments and Programs

International Studies - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: Main 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

Degree offered: Bachelor of Arts (BA)

Area Options: World Economy and Development, Peace and Security, Global Environment and Natural Resources, and Peoples and Nations

Admission Requirements for this Major

New freshmen admitted to USU in good standing qualify for admission to this major.

Transfer students from other institutions or from other USU majors need a 2.5 total GPA for admission to this major in good standing.

Overview

Problems of security, development, ethnic conflict, and human rights, as well as problems relating to the environment and natural resources, are increasingly confronted at a global rather than a national level. With its theoretical models and real-world application, the study of international studies is an exciting and highly relevant interdisciplinary major. This program cultivates the development of language and intercultural skills, develops understanding of global problems and circumstances, and expands the student's capacity to make informed judgments regarding complex international and global issues.

Requirements

In addition to completing the necessary core courses listed below, students must also choose one area option from one of the four available options. Through these options, students gain a level of expertise in their chosen area.

Each student must also complete a senior research project (3 credits). This project must fit within the area option chosen by the student. Under the direction of a faculty member, this project may be completed within the context of an existing course, or may be completed independently under the guidance of the chosen faculty member.

In addition to the senior research project and the choice of one area option, students must also complete an international experience component. Students may choose a traditional study abroad experience in an accredited program, which must be approved by the international studies advisor. Students may also choose an internship. The internship must have a clear international focus and must be supervised by the international studies advisor, who must approve proposals for internships. Students may count a total of 3 credits earned during an internship toward completion of the major.

Departmental Honors

Students who would like to experience greater academic depth within their major are encouraged to enroll in departmental honors. Through original, independent work, Honors students enjoy the benefits of close supervision and mentoring, as they work one-on-one with faculty in select upper-division departmental courses. Honors students also complete a senior project, which provides another opportunity to collaborate with faculty on a problem that is significant, both personally and in the student's discipline. Participating in departmental honors enhances students' chances for obtaining fellowships and admission to graduate school. Minimum GPA requirements for participation in departmental honors vary by department, but usually fall within the range of 3.30-3.50. Students may enter the Honors Program at almost any stage in their academic career, including at the junior (and sometimes senior) level. The campus-wide Honors Program, which is open to all qualified students regardless of major, offers a rich array of cultural and social activities, special classes, and the benefit of Honors early registration. Interested students should contact the Honors Program, LLC Bldg. A, Room 112, (435) 797-2715, [honors@usu.edu](mailto:honors@usu.edu).

Additional information can be found online at:  
<http://honors.usu.edu>

### Additional Information

For detailed information about requirements for the International Studies major and minor, see the major requirement sheet, which can be obtained from the Political Science Department.

Students must complete the General Education Requirements.

Students must also complete the University Studies Depth Requirements:

Complete at least 2 credits in approved 3000-level or above courses from two of the following three categories: Humanities and Creative Arts (DHA), Life and Physical Sciences (DSC) and Social Sciences (DSS). Selection of depth areas depends upon the emphasis area of the major. Classes should be selected in consultation with the major advisor. With current area options, the requirement is a DHA and a DSC. Courses taken for the depth categories (DHA) and (DSC) requirement may not also be counted in the major.

#### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### INTERNATIONAL STUDIES PRE-MAJOR REQUIREMENTS

Students who wish to become International Studies majors must apply for admission after completing the Department's pre-major program. New freshmen in good standing are eligible to declare the pre-major. Continuing students and transfer students with a 2.5 GPA are eligible to declare the pre-major. When the pre-major courses are completed with a GPA of 2.5, the student will be able to declare the International Studies major. A student must be declared as an International Studies major in order to apply for graduation.

Complete the Following Core Courses (18 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3 or

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 or

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

GEOG 1300 - World Regional Geography (BSS) 3 or

POLS 2400 - Introduction of Geopolitics 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3 or

HIST 1510 - The Modern World (BHU) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2500 - Introduction to International Studies 3

Complete one area option course (3 credits) chosen with undergraduate advisor

In an effort to support essential learning outcomes, careful selection of major courses will enhance a student's undergraduate experience. As International Studies is an interdisciplinary degree with many options, careful planning will develop experience in the social sciences and foster critical and creative thinking skills of inquiry, analysis, and evaluation.

With the pre-major students may fulfill all but three of their general education breadth courses: BAI (ECN 1500), BSS (ANTH 1010, ANTH 2010, GEOG 1300), and BHU (HIST 1500, HIST 1510). The three remaining are the BLS, BPS and BCA. Two of those three must have a USU prefix.

Note: Advanced Placement credits are not used to fulfill major requirements. Credits taken for International Studies Major or Minor Requirements may not be used to fulfill requirements of other majors and minors without departmental approval.

#### International Studies Major Requirements

International Studies Major (39 credits minimum) (3.0 GPA)

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 3.0, major courses; 2.0, Career

Minimum Grade Accepted: C- in major requirements

##### A. Electives (6 credits)

Students may earn these credits by taking any of the courses listed in the four area options: (1) World Economy and Development, (2) Peace and Security, (3) Global Environment and Natural Resources, and (4) Peoples and Nations.

##### B. Language Requirement

Students must acquire at least a basic knowledge of one foreign language. Students must successfully complete one course at the 3000 level or (if this is not possible) receive a waiver from the international studies advisor.

##### C. Senior Research Project (3 credits)

Each student must complete a senior research project which must fit within the area option chosen by the student.

##### D. International Experience

Students may choose a traditional study abroad experience in an accredited program, which must be approved by the international studies advisor. Students may also choose an internship. The internship must have a clear international focus and must be supervised by the international studies advisor, who must approve proposals for internships. Students may count a total of 3 credits earned during an internship toward completion of the major.

##### E. Area Option Requirement (12 credits)

Students must choose one option from the four listed below. Students must complete course from at least two different departments within their chosen option, for a total of 12 credits.

###### 1. World Economy and Development

ANTH 5650 - Developing Societies (DSS) 3 or

GEOG 5650 - Developing Societies (DSS) 3 or

SOC 5650 - Developing Societies (DSS) 3

ECN 5100 - History of Economic Thought 3

ECN 5150 - Comparative Economic Systems (CI/DSS) 3

ECN 5400 - International Trade Theory 3

FIN 4300 - International Finance 3

HIST 4610 - Themes and Methods in Economic History 3

MGT 3820 - International Management (DSS) 2

MGT 4590 - Marketing Strategy 3

MGT 4890 - Strategic Planning and Execution (CI) 3

MIS 4550 - Principles of International Business Communications (CI) 3

PHIL 3520 - Business Ethics (DHA) 3

POLS 3100 - Global Issues 3

POLS 4890 - Special Topics 1-5 or

POLS 4990 - Senior Research Seminar (CI) 3

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

POLS 5210 - Comparative Political Change/Development 3

POLS 5290 - Development in Europe 3

POLS 5480 - International Trade Policy 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

2. Peace and Security

GEOG 3430 - Political Geography 3 or

GEOG 4140 - Violent Environments: Linking Ecology and Conflict in Sub-Saharan Africa 3 or

POLS 3430 - Political Geography 3

HIST 3230 - Early Modern Europe (DHA) 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3410 - The Modern Middle East 3

HIST 3460 - Comparative Asian History 3

HIST 4290 - Europe and the French Revolution, 1700-1815 3

HIST 4310 - History of Nationalism 3

HIST 4390 - British Imperialism from 1688 to the Present 3

HIST 4810 - American Military History 3

HIST 4820 - World War II in Europe 3

HIST 4821 - World War II in Asia (DHA) 3

PHIL 3700 - Political Philosophy 3

POLS 3100 - Global Issues 3

POLS 3400 - United States Foreign Policy (DSS) 3

POLS 3700 - Terrorism and Counterterrorism 3

POLS 4210 - European Union Politics 3

POLS 4220 - Ethnic Conflict and Cooperation (CI) 3

POLS 4280 - Politics and War 3

POLS 4410 - Global Negotiations 3

POLS 4450 - United States and Latin America (CI) 3

POLS 4460 - National Security Policy (CI) 3

POLS 4462 - Intelligence and Covert Action 3

POLS 4463 - Grand Strategy and International Politics 3

POLS 4464 - International Security 3

POLS 4470 - Foreign Policy in the Pacific 3

POLS 4770 - Strategic Culture 3

POLS 4890 - Special Topics 1-5 or

POLS 4990 - Senior Research Seminar (CI) 3

3. Global Environment and Natural Resources

APEC 5560 - Natural Resource and Environmental Economics 3

BIOL 3100 - Bioethics (CI) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

ENVS 3330 - Environment and Society 3

ENVS 5550 - Sustainability: Concepts and Measurement 3

ENVS 5640 - Conflict Management in Natural Resources (CI) 3 or

SOC 5640 - Managing Community Conflict (CI) 3

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 2130 - Population Geography 3

GEOG 4140 - Violent Environments: Linking Ecology and Conflict in Sub-Saharan Africa 3 or

HIST 3530 - African Environmental History (DHA) 3

HIST 3950 - Environmental History (DHA/CI) 3

PHIL 3530 - Environmental Ethics (DHA) 3

POLS 3100 - Global Issues 3

POLS 4820 - Natural Resources and Environmental Policy: Political Economy of Environmental Quality (DSS) 3

POLS 4890 - Special Topics 1-5 or

POLS 4990 - Senior Research Seminar (CI) 3

POLS 5200 - Global Environment 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

4. Peoples and Nations

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 3200 - Perspectives on Race (DSS/CI) 3

ANTH 4100 - The Study of Language 3 or

LING 4100 - The Study of Language 3

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ENGL 4230 - Language and Society 3

GEOG 1400 - Human Geography (BSS) 3

GEOG 2130 - Population Geography 3

HIST 3240 - Modern Europe from 1789 to the Present 3

HIST 3260 - History of Spain and Portugal 3

HIST 3280 - East Central Europe Since 1520 3

HIST 3330 - The Soviet Union and its Heirs 3

HIST 3410 - The Modern Middle East 3

HIST 3460 - Comparative Asian History 3

HIST 3510 - Africa and the World 3

HIST 3630 - History of Modern Latin America 3

HIST 3640 - History of Social Movements in Latin America 3

HIST 3650 - Caribbean History 3

HIST 3660 - History of Mexico 3

HIST 4310 - History of Nationalism 3

HIST 4330 - Modern Germany with Special Emphasis on the Twentieth Century 3

JCOM 4020 - Mass Media and Society (DSS) 3

LANG 3550 - Culture of East Asia (DHA) 3

LATS 2200 - Introduction to Latin America 3

LING 4900 - Analysis of Cross-Cultural Difference 3

PHIL 3600 - Philosophy of Religion (DHA) 3

PHIL 3710 - Philosophies of East Asia 3

POLS 3210 - Western European Government and Politics (DSS) 3

POLS 3220 - Russian and East European Government and Politics (DSS) 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 3410 - International Human Rights System 3

POLS 4220 - Ethnic Conflict and Cooperation (CI) 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 4890 - Special Topics 1-5 or

POLS 4990 - Senior Research Seminar (CI) 3

POLS 5270 - Latin American Politics and Development 3

PSY 4240 - Multicultural Psychology (DSS) 3

SOC 3200 - Population and Society (DSS) 3

CMST 3330 - Intercultural Communication (DSS) 3

Note:

POLS 4890 and POLS 4990 may only be counted toward the major when the topic is appropriate.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

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Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

International Studies Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

(18 credits) (3.00 minimum overall GPA)

2.5 overall to declare, 2.0 overall to graduate. A Minimum of grade of C- is required.

Notes: Advanced Placement courses are not used to fulfill major or minor requirements. Credits taken for International Studies Major or Minor Requirements may not be used to fulfill requirements of other majors and minors without departmental approval.

Core Courses (18 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3 or

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 or

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

GEOG 1300 - World Regional Geography (BSS) 3 or

POLS 2400 - Introduction of Geopolitics 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3 or

HIST 1510 - The Modern World (BHU) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

Elective Course - Any course listed in any of the four area options is acceptable 3

Return to: Academic Departments and Programs

Law and Constitutional Studies - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

## Overview

The law and constitutional studies is the only major of its kind in the Intermountain West. This is a rigorous program designed for students interested in leadership roles in business, public communications, government, education, or the study or practice of law. The program is intended to introduce students to the study of law and politics, with an emphasis on the American Constitution, and it focuses on how constitutional rules affect political and economic processes. Students study the theory, history, economics, and development of constitutional thought. They also learn about natural and civil rights, a market economy, a self-governing citizenry, voluntary associations, and the rule of law. Through an intensive program of constitutional study, this major equips students with the intellectual tools and understanding of constitutional principles necessary to enter graduate study or law school, as well as a variety of other professions. The program hosts prominent experts on law and the Constitution such as guest speakers such as Justice Antonin Scalia of the U.S. Supreme Court. Students also have ample opportunities for internships in federal and state legislatures, regulatory agencies, lobbying firms, think tanks, corporations and international organizations.

## Departmental Honors

Students who would like to experience greater academic depth within their major are encouraged to enroll in departmental honors. Through original, independent work, Honors students enjoy the benefits of close supervision and mentoring, as they work one-on-one with faculty in select upper-division departmental courses. Honors students also complete a senior project, which provides another opportunity to collaborate with faculty on a problem that is significant, both personally and in the student's discipline. Participating in departmental honors enhances students' chances for obtaining fellowships and admission to graduate school. Minimum GPA requirements for participation in departmental honors vary by department, but usually fall within the range of 3.30-3.50. Students may enter the Honors Program at almost any stage in their academic

career, including at the junior (and sometimes senior) level. The campus-wide Honors Program, which is open to all qualified students regardless of major, offers a rich array of cultural and social activities, special classes, and the benefit of Honors early registration. Interested students should contact the Honors Program, LLC Bldg. A, Room 112, (435) 797-2715, [honors@usu.edu](mailto:honors@usu.edu). Additional information can be found online at: <http://honors.usu.edu>

## Additional Information

For detailed information about requirements for the Law and Constitutional Studies major, see the major requirement sheet, which can be obtained from the Political Science Department.

Students must complete the General Education Requirements:

POLS 1100 (required for POLS and LCS majors) will fulfill the American Institutions requirement

POLS 2200 (required for POLS majors) will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

POLS 4990 (required for POLS majors), plus POLS 4220, POLS 4310 or POLS 4450 (if selected in the Area Requirements), will fulfill the Communication Intensive (CI) requirement

POLS 3000 (required for POLS majors) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

## Bachelor of Arts Degree Language Requirement

## Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Law and Constitutional Studies Pre-Major Requirements

Students who wish to become Law and Constitutional Studies majors must apply for admission after completing the Department's pre-major program. New freshmen in good standing are eligible to declare the pre-major. Continuing students and transfer students with a 3.0 GPA are eligible to declare the pre-major. When the pre-major courses are completed with a GPA of 3.0, the student will be able to declare the Law and Constitutional Studies major. A student must be declared as a Law and Constitutional Studies major in order to apply for graduation.

### PRE-MAJOR REQUIREMENTS

Complete all of the following (12 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2300 - Introduction to Political Theory 3

STAT 1040 - Introduction to Statistics (QL) 3 or

MATH 1050 - College Algebra (QL) 4

Other courses may be applied to the pre-major but only upon approval of the Political Science Department.

Notes: Advanced Placement US Government is not used for the POLS 1100 requirement. Credits taken for Law and Constitutional Studies Major may not be used to fulfill requirements of other majors and minors without departmental approval. You may not double major in Political Science and Law and Constitutional Studies or major in Law and Constitutional Studies and minor Political Science.

Complete Two additional General Education courses (6 credits) chosen with undergraduate advisor

In an effort to support essential learning outcomes, it is recommended that the student follow the general education program contained in the Preparing for Degrees, Careers and Lives: Pathways to General Education pamphlet developed by the College of Humanities and Social Sciences.

Careful selection of general education classes can enhance a student's undergraduate experience. The following are examples of recommendations to help students enhance their experience in the social sciences and foster critical and creative thinking skills of inquiry, analysis, and evaluation.

For example:

Students who wish to emphasize US Government and policy analysis in their curriculum are encouraged to consider:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI)

ECN 2010 - Introduction to Microeconomics (BSS)

Law school candidates:

PHIL 1250 - Practical Logic (BHU)

PHIL 2200 - Deductive Logic (QI)

Interest in environmental policy issues:

WATS 1200 - Biodiversity and Sustainability (BLS)

WILD 2200 - Ecology of Our Changing World (BLS)

Those with an emphasis in political theory:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU)

HIST 1110 - Foundations of Western Civilization: Modern (BHU)

PHIL 1120 - Social Ethics (BHU)

Law and Constitutional Studies Major Requirements

Minimum GPA for Admission: 3.0, USU; 3.0, Career

Minimum GPA for Graduation: 3.0, major courses; 3.0, USU; 3.0, Career

Minimum Grade Accepted: C in major courses

A. Total Credits in Political Science Courses: 36

Please note that none of the courses can be taken Pass/Fail; all Political Science courses must be taken for a letter grade. Also, all courses must be attended in their entirety. Students cannot take these courses during an internship.

B. Career Total and USU Cumulative GPAs: 3.00

C. Average GPA in Political Science Courses: 3.00

D. Required Courses (21 credits)

POLS 1100 - United States Government and Politics (BAI)  
3

POLS 2300 - Introduction to Political Theory 3

POLS 3120 - Law and Politics (DSS) 3

POLS 4120 - American Constitutional Law 3

Please take one of the following:

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

Please take two of the following:

POLS 3320 - The Foundations of American Constitutionalism 3

POLS 4130 - Constitutional Theory 3

POLS 4140 - Political Organizations 3

Note: Advanced Placement US Government is not used for the POLS 1100 requirement, and Advanced Placement Comparative Politics is not used for the POLS 2200 requirement.

E. Course Sequencing

Law and Constitutional Studies majors are required to complete POLS 1100 as a prerequisite to all 3000-and 4000-level Political Science courses. It is advised that Law and Constitutional Studies majors take POLS 3120 prior to POLS 4120, POLS 4130, POLS 5130, or POLS 5140

F. Area Requirements (6 credits minimum)

Students must take a minimum of six upper-division credits in U.S. Government and Policy in addition to courses required for this major.

G. Electives (9 credits)

Any Political Science upper-division courses can be used to complete the major and fulfill this requirement, with two exceptions:

Not more than three credits in Directed Readings courses (POLS 4910) can apply to this requirement.

Not more than three credits in the following courses can apply to this requirement:

POLS 5900 - Government and Policy Internship Seminar  
3

POLS 5910 - Campaign Internship 1-12

POLS 5920 - Washington Internship 1-12

POLS 5930 - State Government Internship 1-12

POLS 5940 - Administrative Internship 1-12

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Law and Constitutional Studies - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

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## Overview

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MATH 1050 - College Algebra (QL) 4

Other courses may be applied to the pre-major but only upon approval of the Political Science Department.

Notes: Advanced Placement US Government is not used for the POLS 1100 requirement. Credits taken for Law and Constitutional Studies Major may not be used to fulfill requirements of other majors and minors without departmental approval. You may not double major in Political Science and Law and Constitutional Studies or major in Law and Constitutional Studies and minor Political Science.

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Law and Constitutional Studies Major Requirements

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Minimum GPA for Graduation: 3.0, major courses; 3.0, USU; 3.0, Career

Minimum Grade Accepted: C in major courses

A. Total Credits in Political Science Courses: 36

Please note that none of the courses can be taken Pass/Fail; all Political Science courses must be taken for a letter grade. Also, all courses must be attended in their entirety. Students cannot take these courses during an internship.

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C. Average GPA in Political Science Courses: 3.00

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Please take one of the following:

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

Please take two of the following:

POLS 3320 - The Foundations of American Constitutionalism 3

POLS 4130 - Constitutional Theory 3

POLS 4140 - Political Organizations 3

Note: Advanced Placement US Government is not used for the POLS 1100 requirement, and Advanced Placement Comparative Politics is not used for the POLS 2200 requirement.

E. Course Sequencing

Law and Constitutional Studies majors are required to complete POLS 1100 as a prerequisite to all 3000-and 4000-level Political Science courses. It is advised that Law and Constitutional Studies majors take POLS 3120 prior to POLS 4120, POLS 4130, POLS 5130, or POLS 5140

F. Area Requirements (6 credits minimum)

Students must take a minimum of six upper-division credits in U.S. Government and Policy in addition to courses required for this major.

G. Electives (9 credits)

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Credits of upper-division courses (#3000 or above)

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Completion of approved major program of study

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Credits in minor (if required)

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Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Political Science - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

Overview

The Political Science Department is dedicated to transmitting the fundamentals of political science to a broad community through innovative teaching, respected research, and committed service to improve the community, the state, the nation and beyond. As a discipline, Political Science is committed to introduce students to the core questions of the liberal arts by encouraging them to reflect on the demands, sometimes contradictory, that inevitably fall on them as citizens and as human beings. Students pursue careers as U.S. Senate and U.S. House staff members, Washington lobbyists, Foreign Service officers, Intelligence analysts, Federal Reserve System managers, campaign consultants, analysts for the Utah State Legislature, and legal professionals. Additionally, recent graduates have chosen careers in fields such as business, education, communications, public relations, social work, law enforcement, and consulting.

### Departmental Honors

Students who would like to experience greater academic depth within their major are encouraged to enroll in departmental honors. Through original, independent work, Honors students enjoy the benefits of close supervision and mentoring, as they work one-on-one with faculty in select upper-division departmental courses. Honors students also complete a senior project, which provides another opportunity to collaborate with faculty on a problem that is significant, both personally and in the student's discipline. Participating in departmental honors enhances students' chances for obtaining fellowships and admission to graduate school. Minimum GPA requirements for participation in departmental honors vary by department, but usually fall within the range of 3.30-3.50. Students may enter the Honors Program at almost any stage in their academic career, including at the junior (and sometimes senior) level. The campus-wide Honors Program, which is open to all qualified students regardless of major, offers a rich array of cultural and social activities, special classes, and the benefit of Honors early registration. Interested students should contact the Honors Program, LLC Bldg. A, Room 112, (435) 797-2715, [honors@usu.edu](mailto:honors@usu.edu). Additional information can be found online at: <http://honors.usu.edu>

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Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

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Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

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Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Political Science Pre-Major Requirements

Students who wish to become Political Science majors must apply for admission after completing the Department's pre-major program. New freshmen in good standing are eligible to declare the pre-major. Continuing students and transfer students with a 2.5 GPA are eligible to declare the pre-major. When the pre-major courses are completed with a GPA of 2.5, the student will be able to declare the Political Science major. A student must be declared as a Political Science Major in order to apply for graduation.

Complete all of the following (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2300 - Introduction to Political Theory 3

STAT 1040 - Introduction to Statistics (QL) 3 or

MATH 1030 - Quantitative Reasoning (QL) 3 or

MATH 1050 - College Algebra (QL) 4

Other courses may be applied to the pre-major but only upon approval of the Political Science Department

Notes: Advanced Placement US Government is not used for the POLS 1100 requirement, and Advanced Placement Comparative Politics is not used for the POLS 2200

requirement. Credits taken for Political Science Major or Minor Requirements may not be used to fulfill requirements of other majors and minors without departmental approval.

Complete Two additional General Education courses (6 credits) chosen with undergraduate advisor:

In an effort to support essential learning outcomes, it is recommended that the student follow the general education program contained in the Preparing for Degrees, Careers and Lives: Pathways to General Education pamphlet developed by the College of Humanities and Social Sciences.

Careful selection of general education classes can enhance a student's undergraduate experience. The following are examples of recommendations to help students enhance their experience in the social sciences and foster critical and creative thinking skills of inquiry, analysis, and evaluation.

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Law school candidates:

PHIL 1250 - Practical Logic (BHU)

PHIL 2200 - Deductive Logic (QI)

Interest in environmental policy issues:

WATS 1200 - Biodiversity and Sustainability (BLS)

WILD 2200 - Ecology of Our Changing World (BLS)

International relations and Foreign Service:

CMST 2110 - Interpersonal Communication (BHU/HR)

Bachelor of Art-foreign language

Those with an emphasis in political theory:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU)

HIST 1110 - Foundations of Western Civilization: Modern (BHU)

PHIL 1120 - Social Ethics (BHU)

Political Science Major Requirements (36 credits)

Completion of Pre-major with a 2.5

Minimum GPA for Admission: 2.5, USU; 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5, USU; 2.5, Career

Minimum Grade Accepted: C- in major courses

A. Total credits in Political Science Courses: 36

B. Overall GPA: 2.5

C. Average GPA in Political Science Courses: 2.50

D. Required Courses (15 credits)

From Pre Major:

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2300 - Introduction to Political Theory 3

For Major:

POLS 3000 - Introduction to Political Research (QI) 3 1

POLS 4990 - Senior Research Seminar (CI) 3 1

Note:

1POLS 3000 must be taken before POLS 4990.

E. Area Requirements (15 credits minimum)

Select two of the following four areas: U.S. Government and Policy, International Relations, Comparative Politics, and Political Theory. Complete nine upper-division credits in one of the selected areas and six upper-division credits in the other. Even though a course may be listed under more than one area, it can be applied to only one area. Prior to taking the upper-division courses in a particular area, students must take the introductory course corresponding to that specific area.

1. U.S. Government and Policy

Note: POLS 1100 must be taken prior to taking any of the upper-division coursework listed below

POLS 3110 - Parties and Elections (DSS) 3

POLS 3115 - Electoral Behavior 3

POLS 3120 - Law and Politics (DSS) 3

POLS 3130 - United States Legislative Politics (DSS) 3

POLS 3140 - The Presidency (DSS) 3

POLS 3150 - State and Local Government 3

POLS 3170 - Law and Economics 3

POLS 3180 - Introduction to Public Administration 3

POLS 3810 - Introduction to Public Policy (DSS) 3

POLS 4000 - Political Analysis 3

POLS 4120 - American Constitutional Law 3

POLS 4140 - Political Organizations 3

POLS 4150 - The Supreme Court and the Shaping of America 3

POLS 4160 - The First Amendment 3

POLS 4350 - Public Policy and Democratic Theory 3

POLS 4800 - The Supreme Court and American Constitutional History 3

POLS 4820 - Natural Resources and Environmental Policy: Political Economy of Environmental Quality (DSS) 3

POLS 4840 - Regulatory Politics 3

POLS 4890 - Special Topics 1-5 2 (3 credit maximum)

POLS 5100 - Politics and Public Policy 3

POLS 5110 - Social Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5420 - The Mass Media and Politics 3 or

JCOM 5420 - The Mass Media and Politics 3

## 2. International Relations

Note: POLS 2100 or POLS 2200 must be taken prior to taking any of the upper-division coursework listed below

POLS 3100 - Global Issues 3

POLS 3400 - United States Foreign Policy (DSS) 3

POLS 3410 - International Human Rights System 3

POLS 3430 - Political Geography 3

POLS 3700 - Terrorism and Counterterrorism 3

POLS 4210 - European Union Politics 3

POLS 4280 - Politics and War 3

POLS 4410 - Global Negotiations 3

POLS 4450 - United States and Latin America (CI) 3

POLS 4460 - National Security Policy (CI) 3

POLS 4462 - Intelligence and Covert Action 3

POLS 4463 - Grand Strategy and International Politics 3

POLS 4464 - International Security 3

POLS 4470 - Foreign Policy in the Pacific 3

POLS 4770 - Strategic Culture 3

POLS 4890 - Special Topics 1-5 (3 credit maximum) 2

POLS 5200 - Global Environment 3

POLS 5210 - Comparative Political Change/Development 3

POLS 5270 - Latin American Politics and Development 3

POLS 5290 - Development in Europe 3

POLS 5300 - Cyber Warfare and International Politics 3

POLS 5400 - National Security Strategy and Strategic Uncertainty 3

POLS 5480 - International Trade Policy 3

## 3. Comparative Politics

Note: POLS 2100 or POLS 2200 must be taken prior to taking any of the upper-division coursework listed below

POLS 3210 - Western European Government and Politics (DSS) 3

POLS 3220 - Russian and East European Government and Politics (DSS) 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 4210 - European Union Politics 3

POLS 4220 - Ethnic Conflict and Cooperation (CI) 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 4410 - Global Negotiations 3

POLS 4450 - United States and Latin America (CI) 3

POLS 4890 - Special Topics 1-5 2 (3 credit maximum)

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

POLS 5140 - Law, Politics, and War 3

POLS 5210 - Comparative Political Change/Development 3

POLS 5270 - Latin American Politics and Development 3

POLS 5290 - Development in Europe 3

POLS 5350 - Evolution, Conflict, and Cooperation (DSS) 3

#### 4. Political Theory

Note: POLS 1100 and POLS 2300 must be taken prior to taking any of the upper-division coursework listed below

POLS 3310 - American Political Thought (DSS) 3

POLS 3320 - The Foundations of American Constitutionalism 3

POLS 4130 - Constitutional Theory 3

POLS 4310 - History of Political Thought I (CI) 3

POLS 4320 - History of Political Thought II (DSS) 3

POLS 4330 - Political Theory and Literature 3

POLS 4890 - Special Topics 1-5 (3 credit maximum) 2

Note:

2 The subject matter of POLS 4890 determines the area to which it applies.

F. Electives (6 credits)

In addition to the 15 credits of required prerequisite courses and the 15 credits of area courses, students must complete six upper-division elective credits. Any upper-division Political Science courses may be used to fulfill this requirement, with two exceptions:

Not more than three credits in Directed Readings courses (POLS 4910) can apply to this requirement.

Not more than three credits in the following courses can apply to this requirement:

POLS 5900 - Government and Policy Internship Seminar 3

POLS 5910 - Campaign Internship 1-12

POLS 5920 - Washington Internship 1-12

POLS 5930 - State Government Internship 1-12

POLS 5940 - Administrative Internship 1-12

POLS 5950 - International Internship 1-12

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Political Science - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

## Overview

The Political Science Department is dedicated to transmitting the fundamentals of political science to a broad community through innovative teaching, respected research, and committed service to improve the community, the state, the nation and beyond. As a discipline, Political Science is committed to introduce students to the core questions of the liberal arts by encouraging them to reflect on the demands, sometimes contradictory, that inevitably fall on them as citizens and as human beings. Students pursue careers as U.S. Senate and U.S. House staff members, Washington lobbyists, Foreign Service officers, Intelligence analysts, Federal Reserve System managers, campaign consultants, analysts for the Utah State Legislature, and legal professionals. Additionally, recent graduates have chosen careers in fields such as business, education,

communications, public relations, social work, law enforcement, and consulting.

## Departmental Honors

Students who would like to experience greater academic depth within their major are encouraged to enroll in departmental honors. Through original, independent work, Honors students enjoy the benefits of close supervision and mentoring, as they work one-on-one with faculty in select upper-division departmental courses. Honors students also complete a senior project, which provides another opportunity to collaborate with faculty on a problem that is significant, both personally and in the student's discipline. Participating in departmental honors enhances students' chances for obtaining fellowships and admission to graduate school. Minimum GPA requirements for participation in departmental honors vary by department, but usually fall within the range of 3.30-3.50. Students may enter the Honors Program at almost any stage in their academic career, including at the junior (and sometimes senior) level. The campus-wide Honors Program, which is open to all qualified students regardless of major, offers a rich array of cultural and social activities, special classes, and the benefit of Honors early registration. Interested students should contact the Honors Program, LLC Bldg. A, Room 112, (435) 797-2715, [honors@usu.edu](mailto:honors@usu.edu). Additional information can be found online at: <http://honors.usu.edu>

## Additional Information

For detailed information about requirements for the Political Science major, see the major requirement sheet, which can be obtained from the Political Science Department.

Students must complete the General Education Requirements:

POLS 1100 (required for POLS and LCS majors) will fulfill the American Institutions requirement

POLS 2200 (optional for POLS majors) will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

POLS 4990 (required for POLS majors), plus POLS 4220, POLS 4310 or POLS 4450 (if selected in the Area

Requirements), will fulfill the Communication Intensive (CI) requirement

POLS 3000 (required for POLS majors) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

#### Political Science Pre-Major Requirements

Students who wish to become Political Science majors must apply for admission after completing the Department's pre-major program. New freshmen in good standing are eligible to declare the pre-major. Continuing students and transfer students with a 2.5 GPA are eligible to declare the pre-major. When the pre-major courses are completed with a GPA of 2.5, the student will be able to declare the Political Science major. A student must be declared as a Political Science Major in order to apply for graduation.

Complete all of the following (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2300 - Introduction to Political Theory 3

STAT 1040 - Introduction to Statistics (QL) 3 or

MATH 1030 - Quantitative Reasoning (QL) 3 or

MATH 1050 - College Algebra (QL) 4

Other courses may be applied to the pre-major but only upon approval of the Political Science Department

Notes: Advanced Placement US Government is not used for the POLS 1100 requirement, and Advanced Placement Comparative Politics is not used for the POLS 2200 requirement. Credits taken for Political Science Major or Minor Requirements may not be used to fulfill requirements of other majors and minors without departmental approval.

Complete Two additional General Education courses (6 credits) chosen with undergraduate advisor:

In an effort to support essential learning outcomes, it is recommended that the student follow the general education program contained in the Preparing for Degrees, Careers and Lives: Pathways to General Education pamphlet developed by the College of Humanities and Social Sciences.

Careful selection of general education classes can enhance a student's undergraduate experience. The following are examples of recommendations to help students enhance their experience in the social sciences and foster critical and creative thinking skills of inquiry, analysis, and evaluation.

For example:

Students who wish to emphasize US Government and policy analysis in their curriculum are encouraged to consider:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI)

ECN 2010 - Introduction to Microeconomics (BSS)

Law school candidates:

PHIL 1250 - Practical Logic (BHU)

PHIL 2200 - Deductive Logic (QI)

Interest in environmental policy issues:

WATS 1200 - Biodiversity and Sustainability (BLS)

WILD 2200 - Ecology of Our Changing World (BLS)

International relations and Foreign Service:

CMST 2110 - Interpersonal Communication (BHU/HR)

Bachelor of Art-foreign language

Those with an emphasis in political theory:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU)

HIST 1110 - Foundations of Western Civilization: Modern (BHU)

PHIL 1120 - Social Ethics (BHU)

Political Science Major Requirements (36 credits)

Completion of Pre-major with a 2.5

Minimum GPA for Admission: 2.5, USU; 2.5, Career

Minimum GPA for Graduation: 2.5, major courses; 2.5, USU; 2.5, Career

Minimum Grade Accepted: C- in major courses

A. Total credits in Political Science Courses: 36

B. Overall GPA: 2.5

C. Average GPA in Political Science Courses: 2.50

D. Required Courses (15 credits)

From Pre Major:

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2300 - Introduction to Political Theory 3

For Major:

POLS 3000 - Introduction to Political Research (QI) 3 1

POLS 4990 - Senior Research Seminar (CI) 3 1

Note:

1POLS 3000 must be taken before POLS 4990.

E. Area Requirements (15 credits minimum)

Select two of the following four areas: U.S. Government and Policy, International Relations, Comparative Politics, and Political Theory. Complete nine upper-division credits in one of the selected areas and six upper-division credits in the other. Even though a course may be listed under more than one area, it can be applied to only one area. Prior to taking the upper-division courses in a particular area, students must take the introductory course corresponding to that specific area.

1. U.S. Government and Policy

Note: POLS 1100 must be taken prior to taking any of the upper-division coursework listed below

POLS 3110 - Parties and Elections (DSS) 3

POLS 3115 - Electoral Behavior 3

POLS 3120 - Law and Politics (DSS) 3

POLS 3130 - United States Legislative Politics (DSS) 3

POLS 3140 - The Presidency (DSS) 3

POLS 3150 - State and Local Government 3

POLS 3170 - Law and Economics 3

POLS 3180 - Introduction to Public Administration 3

POLS 3810 - Introduction to Public Policy (DSS) 3

POLS 4000 - Political Analysis 3

POLS 4120 - American Constitutional Law 3

POLS 4140 - Political Organizations 3

POLS 4150 - The Supreme Court and the Shaping of America 3

POLS 4160 - The First Amendment 3

POLS 4350 - Public Policy and Democratic Theory 3

POLS 4800 - The Supreme Court and American Constitutional History 3

POLS 4820 - Natural Resources and Environmental Policy: Political Economy of Environmental Quality (DSS) 3

POLS 4840 - Regulatory Politics 3

POLS 4890 - Special Topics 1-5 2 (3 credit maximum)

POLS 5100 - Politics and Public Policy 3

POLS 5110 - Social Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5420 - The Mass Media and Politics 3 or

JCOM 5420 - The Mass Media and Politics 3

2. International Relations

Note: POLS 2100 or POLS 2200 must be taken prior to taking any of the upper-division coursework listed below

POLS 3100 - Global Issues 3

POLS 3400 - United States Foreign Policy (DSS) 3

POLS 3410 - International Human Rights System 3

POLS 3430 - Political Geography 3

POLS 3700 - Terrorism and Counterterrorism 3

POLS 4210 - European Union Politics 3

POLS 4280 - Politics and War 3

POLS 4410 - Global Negotiations 3

POLS 4450 - United States and Latin America (CI) 3

POLS 4460 - National Security Policy (CI) 3

POLS 4462 - Intelligence and Covert Action 3

POLS 4463 - Grand Strategy and International Politics 3

POLS 4464 - International Security 3

POLS 4470 - Foreign Policy in the Pacific 3

POLS 4770 - Strategic Culture 3

POLS 4890 - Special Topics 1-5 (3 credit maximum) 2

POLS 5200 - Global Environment 3

POLS 5210 - Comparative Political Change/Development 3

POLS 5270 - Latin American Politics and Development 3

POLS 5290 - Development in Europe 3

POLS 5300 - Cyber Warfare and International Politics 3

POLS 5400 - National Security Strategy and Strategic Uncertainty 3

POLS 5480 - International Trade Policy 3

### 3. Comparative Politics

Note: POLS 2100 or POLS 2200 must be taken prior to taking any of the upper-division coursework listed below

POLS 3210 - Western European Government and Politics (DSS) 3

POLS 3220 - Russian and East European Government and Politics (DSS) 3

POLS 3230 - Middle Eastern Government and Politics 3

POLS 3250 - Chinese Government and Politics (DSS) 3

POLS 3270 - Latin American Government and Politics (DSS) 3

POLS 4210 - European Union Politics 3

POLS 4220 - Ethnic Conflict and Cooperation (CI) 3

POLS 4230 - Issues in Middle East Politics 3

POLS 4260 - Southeast Asian Government and Politics 3

POLS 4410 - Global Negotiations 3

POLS 4450 - United States and Latin America (CI) 3

POLS 4890 - Special Topics 1-5 2 (3 credit maximum)

POLS 5120 - Economics of Russia and Eastern Europe, 9th Century to 21st Century 3

POLS 5140 - Law, Politics, and War 3

POLS 5210 - Comparative Political Change/Development 3

POLS 5270 - Latin American Politics and Development 3

POLS 5290 - Development in Europe 3

POLS 5350 - Evolution, Conflict, and Cooperation (DSS) 3

### 4. Political Theory

Note: POLS 1100 and POLS 2300 must be taken prior to taking any of the upper-division coursework listed below

POLS 3310 - American Political Thought (DSS) 3

POLS 3320 - The Foundations of American Constitutionalism 3

POLS 4130 - Constitutional Theory 3

POLS 4310 - History of Political Thought I (CI) 3

POLS 4320 - History of Political Thought II (DSS) 3

POLS 4330 - Political Theory and Literature 3

POLS 4890 - Special Topics 1-5 (3 credit maximum) 2

Note:

2 The subject matter of POLS 4890 determines the area to which it applies.

F. Electives (6 credits)

In addition to the 15 credits of required prerequisite courses and the 15 credits of area courses, students must complete six upper-division elective credits. Any upper-division Political Science courses may be used to fulfill this requirement, with two exceptions:

Not more than three credits in Directed Readings courses (POLS 4910) can apply to this requirement.

Not more than three credits in the following courses can apply to this requirement:

POLS 5900 - Government and Policy Internship Seminar 3

POLS 5910 - Campaign Internship 1-12

POLS 5920 - Washington Internship 1-12

POLS 5930 - State Government Internship 1-12

POLS 5940 - Administrative Internship 1-12

POLS 5950 - International Internship 1-12

Political Science Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

University Breadth courses (General Education Requirement) 6

Second Semester (15 credits)

POLS 2300 - Introduction to Political Theory 3

University QL course (General Education Requirement) 3

University Breadth courses (General Education Requirement) 6

Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

POLS Upper Division course 3

University Breadth course (General Education Requirement) 3

Elective courses 6

Second Semester (15 credits)

POLS Upper Division courses 6

University CI course (Graduation Requirement) 3

University Breadth course (General Education Requirement) 3

Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

POLS 3000 - Introduction to Political Research (QI) 3

POLS Upper Division course 3

University DHA course (Graduation Requirement) 3

Elective courses 6

Second Semester (15 credits)

POLS 4990 - Senior Research Seminar (CI) 3

POLS Upper Division course 3

University DSC course (Graduation Requirement) 3

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

POLS Upper Division course 3

Upper Division Elective courses 6

Elective courses 6

Second Semester (15 credits)

POLS Upper Division course 3

Elective courses 12

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Political Science - MA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

This program requires completion of 30 graduate credits (all courses are three credits unless otherwise designated). The Master of Arts degree requires language proficiency in a second language as determined by the Languages and Philosophy Department. The Master of Science degree requires quantitative competency. The Graduate Program consists of two area tracks with each student choosing one of the two. Completion of the degree requires a Plan A thesis or a Plan B paper. The department expectation is the completion of a Plan A thesis.

Course Requirements

American Politics and Political Theory Track

Required Courses (18 credits)

POLS 6010 - Research Design 3

Two of the following three classes: POLS 6020; POLS 6030; POLS 6280 (6 credits)

One of the following three classes from the International Security Track: POLS 6210; POLS 6220; POLS 6230 (3 credits)

POLS 6970 - Thesis Research 1-9 (at least 6 credits)

Elective Courses (12 credits)

Students must complete additional 12 credits, chosen from the following list:

POLS 5100 - Politics and Public Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5200 - Global Environment 3

POLS 5480 - International Trade Policy 3

POLS 6020 - Public Policy Analysis 3

POLS 6030 - Political Theory, Political Economy, and Capitalism 3

POLS 6050 - Qualitative Methods 3

POLS 6210 - International Security 3

POLS 6220 - International/Comparative Theory 3

POLS 6230 - Terrorism and Counter-Terrorism 3

Note:

Students in the American Politics and Political Theory Track may also select courses from the International Security Track.

International Security Track

Required Courses (21 credits)

POLS 6010 - Research Design 3

Two of the following three classes: POLS 6210; POLS 6220; POLS 6230 (6 credits)

One of the following three classes from the American Politics and Political Theory Track: POLS 6020; POLS 6030; POLS 6280 (3 credits)

Any 5000/6000 methods course taught inside or outside Political Science, with the approval of the Director of Graduate Studies (3 credits)

POLS 6970 - Thesis Research (at least 6 credits)

Elective Courses (9 credits)

Students must complete additional 9 credits, chosen from the following list:

POLS 5100 - Politics and Public Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5200 - Global Environment 3

POLS 5480 - International Trade Policy 3

POLS 6020 - Public Policy Analysis 3

POLS 6030 - Political Theory, Political Economy, and Capitalism 3

POLS 6050 - Qualitative Methods 3

POLS 6210 - International Security 3

POLS 6220 - International/Comparative Theory 3

POLS 6230 - Terrorism and Counter-Terrorism 3

Note:

Students in the International Security Track may also select courses from the American Politics and Political Theory Track.

Other Requirements (12 credits)

The remaining 12 credits needed for the degree may be chosen from the following, with the approval of the Graduate Director:

POLS 6910 - Graduate Tutorial 1-3 (may count up to 6 credits toward the degree, subject to approval)

POLS 6920 - Internship 1-15 (may count up to 3 credits toward the degree, subject to approval)

POLS 6970 - Thesis Research 1-9 (may count up to 3 credits toward the degree)

Approved graduate courses taught outside of Political Science 1-3

Return to: Academic Departments and Programs

Political Science - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

This program requires completion of 30 graduate credits (all courses are three credits unless otherwise

designated). The Master of Arts degree requires language proficiency in a second language as determined by the Languages and Philosophy Department. The Master of Science degree requires quantitative competency. The Graduate Program consists of two area tracks with each student choosing one of the two. Completion of the degree requires a Plan A thesis or a Plan B paper. The department expectation is the completion of a Plan A thesis.

#### Course Requirements

##### American Politics and Political Theory Track

###### Required Courses (18 credits)

POLS 6010 - Research Design 3

Two of the following three classes: POLS 6020; POLS 6030; POLS 6280 (6 credits)

One of the following three classes from the International Security Track: POLS 6210; POLS 6220; POLS 6230 (3 credits)

POLS 6970 - Thesis Research 1-9 (at least 6 credits)

###### Elective Courses (12 credits)

Students must complete additional 12 credits, chosen from the following list:

POLS 5100 - Politics and Public Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5200 - Global Environment 3

POLS 5480 - International Trade Policy 3

POLS 6020 - Public Policy Analysis 3

POLS 6030 - Political Theory, Political Economy, and Capitalism 3

POLS 6050 - Qualitative Methods 3

POLS 6210 - International Security 3

POLS 6220 - International/Comparative Theory 3

POLS 6230 - Terrorism and Counter-Terrorism 3

Note:

Students in the American Politics and Political Theory Track may also select courses from the International Security Track.

##### International Security Track

###### Required Courses (21 credits)

POLS 6010 - Research Design 3

Two of the following three classes: POLS 6210; POLS 6220; POLS 6230 (6 credits)

One of the following three classes from the American Politics and Political Theory Track: POLS 6020; POLS 6030; POLS 6280 (3 credits)

Any 5000/6000 methods course taught inside or outside Political Science, with the approval of the Director of Graduate Studies (3 credits)

POLS 6970 - Thesis Research (at least 6 credits)

###### Elective Courses (9 credits)

Students must complete additional 9 credits, chosen from the following list:

POLS 5100 - Politics and Public Policy 3

POLS 5130 - Law and Policy 3

POLS 5140 - Law, Politics, and War 3

POLS 5200 - Global Environment 3

POLS 5480 - International Trade Policy 3

POLS 6020 - Public Policy Analysis 3

POLS 6030 - Political Theory, Political Economy, and Capitalism 3

POLS 6050 - Qualitative Methods 3

POLS 6210 - International Security 3

POLS 6220 - International/Comparative Theory 3

POLS 6230 - Terrorism and Counter-Terrorism 3

Note:

Students in the International Security Track may also select courses from the American Politics and Political Theory Track.

###### Other Requirements (12 credits)

The remaining 12 credits needed for the degree may be chosen from the following, with the approval of the Graduate Director:

POLS 6910 - Graduate Tutorial 1-3 (may count up to 6 credits toward the degree, subject to approval)

POLS 6920 - Internship 1-15 (may count up to 3 credits toward the degree, subject to approval)

POLS 6970 - Thesis Research 1-9 (may count up to 3 credits toward the degree)

Approved graduate courses taught outside of Political Science 1-3

Return to: Academic Departments and Programs

Political Science Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

Students can obtain a minor in political science by completing a total of 18 credits in the field.

Minimum GPA for Admission: 2.5, minor; 2.5, Career

Minimum GPA for Graduation: 2.5, minor courses; 2.5, USU

Minimum Grade Accepted: C- in minor courses

Credits taken for Political Science Major or Minor Requirements may not be used to fulfill requirements of other majors and minors without departmental approval.

Required Courses (9 credits)

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2100 - Introduction to International Politics 3 or

POLS 2200 - Comparative Politics (BSS) 3

POLS 2300 - Introduction to Political Theory 3

Electives (9 credits)

Any upper-division Political Science courses can be used to complete the minor and fulfill this requirement with two exceptions:

Not more than three credits in Directed Readings courses (POLS 4910) can apply to this requirement

Not more than three credits in Political Science Internship courses (POLS 5900, POLS 5910, POLS 5920, POLS 5930 and POLS 5940) can apply to this requirement

Return to: Academic Departments and Programs

Political Science Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Political Science

Location: MAIN 320

Phone: (435) 797-1306

Fax: (435) 797-3751

E-mail: [politicalscience@usu.edu](mailto:politicalscience@usu.edu)

WWW: <http://politicalscience.usu.edu/>

This minor is designed specifically for students seeking careers in secondary education. Students must have at least 18 credits and a 2.75 GPA in Political Science courses and complete the STEP program. A minimum grade of C is required.

Required Courses (12 credits)

POLS 1100 - United States Government and Politics (BAI) 3

POLS 2300 - Introduction to Political Theory 3

POLS 3120 - Law and Politics (DSS) 3 or

POLS 4120 - American Constitutional Law 3

POLS 3150 - State and Local Government 3

Select at least 6 credits from the following courses:

POLS 3110 - Parties and Elections (DSS) 3

POLS 3115 - Electoral Behavior 3

POLS 3130 - United States Legislative Politics (DSS) 3

POLS 3140 - The Presidency (DSS) 3

POLS 3310 - American Political Thought (DSS) 3

POLS 3400 - United States Foreign Policy (DSS) 3

POLS 4130 - Constitutional Theory 3

POLS 4150 - The Supreme Court and the Shaping of America 3

POLS 4160 - The First Amendment 3

POLS 4350 - Public Policy and Democratic Theory 3

POLS 5420 - The Mass Media and Politics 3 or

JCOM 5420 - The Mass Media and Politics 3

Additional requirements for STEP:

SCED 3500 - Teaching Social Studies 3

Return to: Academic Departments and Programs

Psychology - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Graduate School Preparation

The psychology major has been designed so that students take classes that will help them compete in applying for graduate school. Students planning to apply to graduate school need to become actively involved with faculty research, form an association with Psi Chi, and enroll in independent research and readings courses.

Students are encouraged to become involved with the faculty in independent research or applied experiences. Involvement in these experiences is associated with greater chances of successful graduate school admission and/or competitive post-baccalaureate employment, especially for students who pursue this involvement early in their undergraduate careers.

Psychology students have achieved remarkable success in procuring funding to support student-initiated research projects via Utah State University's competitive University Research Cooperative Opportunity (URCO) mechanism and the national honor society of psychology (Psi Chi).

Students have been first authors or co-authors on numerous scholarly presentations at regional, national, and international conferences in psychology (e.g., Association of Behavior Analysis, American Psychological Association, European Conference of Developmental Psychology, International Society for the Study of Behavioral Development, Society for Personality and Social Psychology, Society for Research in Adolescence, and Society for Research in Human Development). Students have competed successfully each year for awards that recognize their achievements. Together with the faculty, the students have published in premier research journals in psychology (e.g., Developmental Psychology, Journal of Applied Psychology, Journal of Clinical Psychology, Journal of Experimental Psychology, and Sex Roles) and books in psychology.

The Department of Psychology and Utah State University actively support students' efforts by awarding matching funding to support the attendance of conferences at which they can present their accepted conference presentations.

#### Psychology Courses Fulfilling University Studies Requirements

The following Psychology courses may be used to fulfill General Education Requirements and the University Studies Depth Requirements in the areas indicated:

##### Breadth Social Sciences (BSS):

PSY 1010 - General Psychology (BSS) 3

##### Depth Social Sciences (DSS):

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3

PSY 3210 - Abnormal Psychology (DSS) 3

PSY 3400 - Analysis of Behavior: Advanced (DSS) 4

PSY 3500 - Research Methods in Psychology 3

PSY 3510 - Social Psychology (DSS) 3

PSY 4210 - Personality Theory (DSS) 3

PSY 4230 - Psychology of Gender (DSS) 3

PSY 4240 - Multicultural Psychology (DSS) 3

PSY 4420 - Cognitive Psychology (DSS) 3

##### Communications Intensive (CI):

PSY 3500 - Research Methods in Psychology 3

PSY 4950 - Undergraduate Apprenticeship (CI) 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

##### Quantitative Intensive (QI):

PSY 3010 - Psychological Statistics (QI) 4

##### Note:

Although these courses may be applied toward fulfilling the University Studies breadth, depth, communications intensive, and quantitative intensive requirements, students must be prepared to complete additional writing or library assignments, as required for University Studies.

#### General Undergraduate Psychology Major:

Required Courses (25 credits), plus

Core Domains(13 credits),

Specialization (6 credits), and

Apprenticeship (3 credits)

Requirements for a psychology major consist of a broad preparation of 25 credits of specified coursework, plus a minimum of 19 credits of approved Psychology elective courses, and 3 credits of an apprenticeship, which allows for integration of coursework knowledge (theory) through application, for a total of 47 credits. At least 20 Psychology credits must be upper-division, 12 of which must be taken at USU.

##### A. Required Courses (25 credits)

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

PSY 3010 - Psychological Statistics (QI) 4

PSY 2010 - Orientation to Psychology as a Career and Profession 2

PSY 3210 - Abnormal Psychology (DSS) 3

PSY 3500 - Research Methods in Psychology 3

PSY 5330 - Principles of Psychological Measurement and Test Theory 3

**B. Core Domain (13 credits)**

Biological Basis of Behavior: Select 3 credits from the following:

PSY 3460 - Neuroscience I 3

PSY 4460 - Neuroscience II 4

Learning and Cognition: Select 4 credits from the following:

PSY 3400 - Analysis of Behavior: Advanced (DSS) 4

PSY 4420 - Cognitive Psychology (DSS) 3 and

PSY 4430 - Cognitive Psychology Laboratory 1

Socioculture Influences: Select 3 credits from the following:

PSY 4230 - Psychology of Gender (DSS) 3

PSY 4240 - Multicultural Psychology (DSS) 3

Persons and Society: Select 3 credits from the following:

PSY 3510 - Social Psychology (DSS) 3

PSY 4210 - Personality Theory (DSS) 3

**C. Specialization Courses (6 credits minimum)**

Select at least 6 credits from the following. (A course from the Core Domain list may count as fulfilling the Specialization requirement if and only if it has not been counted as a Core Domain requirement.)

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3110 - Health Psychology 3

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3 (online only)

PSY 3660 - Educational Psychology for Teachers 2

PSY 3720 - Behavior Assessment and Intervention I 3

PSY 5100 - History and Systems of Psychology 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

PSY 4000 - Mental Aspects of Sports Performance 3 or

PEP 4000 - Mental Aspects of Sports Performance 3

Or

PSY 5050 - Psychological Aspects of Sports Performance 3 or

PEP 5050 - Psychological Aspects of Sports Performance 3

**D. Required Apprenticeship Course (3 credits)**

PSY 4950 - Undergraduate Apprenticeship (CI) 3

Note:

A minor in another area is required. A minimum overall USU GPA of 2.75 is required for graduation, with a minimum GPA of 3.0 in Psychology. Students must receive a grade of C- or better in all psychology courses (USU and transfer) in order to have them counted toward major requirements. (Students desiring licensure for teaching in secondary schools must also meet the requirements of the Secondary Education Program of the School of Teacher Education and Leadership.)

Meeting these minimum requirements alone is insufficient to prepare for competitive employment opportunities or to secure admission to graduate school. Students who are planning to secure optimal employment or graduate admissions need to first affiliate with a faculty mentor, as well as become involved in research or applied experiences with the faculty member, as soon as they know they will pursue a major in psychology. These students should enroll in one of PSY 5900, PSY 5910, or PSY 5930 as soon as they have identified a mentor and have met Utah State University's admission requirements for the Department of Psychology Pre-psychology Major designation. They should pursue their own creative research opportunity experience with the faculty member and enroll in PSY 4910 during the second semester of their junior year and absolutely no later than the first semester of their senior year. They should plan to enroll in an additional section of PSY 5900, PSY 5910, or PSY 5930 during their senior year.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Psychology - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

Graduate School Preparation

The psychology major has been designed so that students take classes that will help them compete in applying for graduate school. Students planning to apply to graduate school need to become actively involved with faculty research, form an association with Psi Chi, and enroll in independent research and readings courses.

Students are encouraged to become involved with the faculty in independent research or applied experiences. Involvement in these experiences is associated with

greater chances of successful graduate school admission and/or competitive post-baccalaureate employment, especially for students who pursue this involvement early in their undergraduate careers.

Psychology students have achieved remarkable success in procuring funding to support student-initiated research projects via Utah State University's competitive University Research Cooperative Opportunity (URCO) mechanism and the national honor society of psychology (Psi Chi).

Students have been first authors or co-authors on numerous scholarly presentations at regional, national, and international conferences in psychology (e.g., Association of Behavior Analysis, American Psychological Association, European Conference of Developmental Psychology, International Society for the Study of Behavioral Development, Society for Personality and Social Psychology, Society for Research in Adolescence, and Society for Research in Human Development). Students have competed successfully each year for awards that recognize their achievements. Together with the faculty, the students have published in premier research journals in psychology (e.g., Developmental Psychology, Journal of Applied Psychology, Journal of Clinical Psychology, Journal of Experimental Psychology, and Sex Roles) and books in psychology.

The Department of Psychology and Utah State University actively support students' efforts by awarding matching funding to support the attendance of conferences at which they can present their accepted conference presentations.

Psychology Courses Fulfilling University Studies Requirements

The following Psychology courses may be used to fulfill General Education Requirements and the University Studies Depth Requirements in the areas indicated:

Breadth Social Sciences (BSS):

PSY 1010 - General Psychology (BSS) 3

Depth Social Sciences (DSS):

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3

PSY 3210 - Abnormal Psychology (DSS) 3

PSY 3400 - Analysis of Behavior: Advanced (DSS) 4

PSY 3500 - Research Methods in Psychology 3

PSY 3510 - Social Psychology (DSS) 3

PSY 4210 - Personality Theory (DSS) 3

PSY 4230 - Psychology of Gender (DSS) 3

PSY 4240 - Multicultural Psychology (DSS) 3

PSY 4420 - Cognitive Psychology (DSS) 3

Communications Intensive (CI):

PSY 3500 - Research Methods in Psychology 3

PSY 4950 - Undergraduate Apprenticeship (CI) 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

Quantitative Intensive (QI):

PSY 3010 - Psychological Statistics (QI) 4

Note:

Although these courses may be applied toward fulfilling the University Studies breadth, depth, communications intensive, and quantitative intensive requirements, students must be prepared to complete additional writing or library assignments, as required for University Studies.

General Undergraduate Psychology Major:

Required Courses (25 credits), plus

Core Domains(13 credits),

Specialization (6 credits), and

Apprenticeship (3 credits)

Requirements for a psychology major consist of a broad preparation of 25 credits of specified coursework, plus a minimum of 19 credits of approved Psychology elective courses, and 3 credits of an apprenticeship, which allows for integration of coursework knowledge (theory) through application, for a total of 47 credits. At least 20 Psychology credits must be upper-division, 12 of which must be taken at USU.

A. Required Courses (25 credits)

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

PSY 3010 - Psychological Statistics (QI) 4

PSY 2010 - Orientation to Psychology as a Career and Profession 2

PSY 3210 - Abnormal Psychology (DSS) 3

PSY 3500 - Research Methods in Psychology 3

PSY 5330 - Principles of Psychological Measurement and Test Theory 3

B. Core Domain (13 credits)

Biological Basis of Behavior: Select 3 credits from the following:

PSY 3460 - Neuroscience I 3

PSY 4460 - Neuroscience II 4

Learning and Cognition: Select 4 credits from the following:

PSY 3400 - Analysis of Behavior: Advanced (DSS) 4

PSY 4420 - Cognitive Psychology (DSS) 3 and

PSY 4430 - Cognitive Psychology Laboratory 1

Socioculture Influences: Select 3 credits from the following:

PSY 4230 - Psychology of Gender (DSS) 3

PSY 4240 - Multicultural Psychology (DSS) 3

Persons and Society: Select 3 credits from the following:

PSY 3510 - Social Psychology (DSS) 3

PSY 4210 - Personality Theory (DSS) 3

C. Specialization Courses (6 credits minimum)

Select at least 6 credits from the following. (A course from the Core Domain list may count as fulfilling the Specialization requirement if and only if it has not been counted as a Core Domain requirement.)

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3110 - Health Psychology 3

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3 (online only)

PSY 3660 - Educational Psychology for Teachers 2

PSY 3720 - Behavior Assessment and Intervention I 3

PSY 5100 - History and Systems of Psychology 3

PSY 5200 - Introduction to Interviewing and Counseling (CI) 3

PSY 4000 - Mental Aspects of Sports Performance 3 or

PEP 4000 - Mental Aspects of Sports Performance 3

Or

PSY 5050 - Psychological Aspects of Sports Performance 3 or

PEP 5050 - Psychological Aspects of Sports Performance 3

D. Required Apprenticeship Course (3 credits)

PSY 4950 - Undergraduate Apprenticeship (CI) 3

Note:

A minor in another area is required. A minimum overall USU GPA of 2.75 is required for graduation, with a minimum GPA of 3.0 in Psychology. Students must receive a grade of C- or better in all psychology courses (USU and transfer) in order to have them counted toward major requirements. (Students desiring licensure for teaching in secondary schools must also meet the requirements of the Secondary Education Program of the School of Teacher Education and Leadership.)

Meeting these minimum requirements alone is insufficient to prepare for competitive employment opportunities or to secure admission to graduate school. Students who are planning to secure optimal employment or graduate admissions need to first affiliate with a faculty mentor, as well as become involved in research or applied experiences with the faculty member, as soon as they know they will pursue a major in psychology. These students should enroll in one of PSY 5900, PSY 5910, or PSY 5930 as soon as they have identified a mentor and have met Utah State University's admission requirements for the Department of Psychology Pre-psychology Major designation. They should pursue their own creative research opportunity experience with the faculty member and enroll in PSY

4910 during the second semester of their junior year and absolutely no later than the first semester of their senior year. They should plan to enroll in an additional section of PSY 5900, PSY 5910, or PSY 5930 during their senior year.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Psychology - EdS

Return to: Academic Departments and Programs

School Psychology, NASP-approved

USU's nationally approved program in school psychology emphasizes child development issues, assessment and treatment of emotional and behavioral disorders, and consultation activities appropriate to school settings. The program is approved by the Utah State Office of Education for licensure of school psychologists. Students are required to complete a research thesis (Graduate School Plan A option).

Absolute undergraduate course prerequisites for admission to the EdS specialization in School Psychology are as follows: (1) Abnormal Psychology, (2) Statistics, (3) Behavior Analysis or Modification, and (4) Multicultural course.

The following courses are required:

PSY 6150 - Evidence-Based Practice I: Children and Adolescents 2

PSY 6230 - Effective Interventions with Parents 1

PSY 6290 - Diversity Issues in Treatment and Assessment 1-3

PSY 6310 - Intellectual Assessment 3

PSY 6320 - Objective Assessment of Personality and Affect 3

PSY 6350 - Introduction to Theories of Intervention in Psychology 3

PSY 6360 - Introduction to the Practice of Professional Psychology 3

PSY 6380 - Practicum in School Psychology 3 (Students must earn 3 credits during each of two semesters.) (6 credits required)

PSY 6410 - Psychoeducational Assessment 3

PSY 6450 - Introduction to School Psychology 1

PSY 6570 - Introduction to Educational and Psychological Research 3

PSY 6600 - Research Design and Analysis I 3

PSY 6620 - Instructional Interventions and Consultation 3

PSY 6630 - Supervision and Consultation in Psychological and Educational Settings 3

PSY 6660 - Cognition and Instruction 3

PSY 6810 - Seminar 1-3 School-based Interventions (2 credits required)

PSY 6810 - Seminar 1-3 Legal Practices in School Psychology (2 credits maximum)

PSY 6810 - Seminar 1-3 Preventative and Responsive Crisis Services (1 credit)

PSY 6950 - Internship in School Psychology 1-3 (Students must earn 3 credits during each of two consecutive semesters, 6 total credits are required.)

PSY 6970 - Thesis 1-6 (Course is repeatable, 8 total credits are required.)

PSY 7250 - Professional Ethics and Standards 1-3 (3 credits required)

PSY 7270 - Lifespan Psychopathology 3

PSY 7380 - Practicum in Psychology 1-6 (1 credit required)

Return to: Academic Departments and Programs

Psychology - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

School Counselor Education

(TEAC - Accredited)

Completion of this program qualifies graduates for professional licensure in School Counseling. Coursework is formulated to train students in a broad range of skills, including K-16 college and career readiness, individual and group counseling for diverse populations; behavior and educational assessment and intervention; research and methodological foundations; and ethical, legal, and professional standards. Experiential learning in the form of practicum and internship placements is a critical component of the program. The program is approved by the Utah State Office of Education and licensure reciprocity is in place broadly across the U.S. The program originates on the campus of USU and is broadcast live via Interactive Video Conferencing to 16 sites within Utah's boundaries or through face-to-face

instructorship in Kaysville, Utah. The program is fully accredited by the Teacher Education Accreditation Council (TEAC).

Absolute undergraduate course prerequisites for admission to the MEd in Psychology with a Specialization in School Counseling are as follows: (1) Analysis of Behavior, (2) Abnormal Psychology, and (3) Psychological Statistics (or equivalent) with a B or better.

The MEd in Psychology with Specialization in School Counseling requires a minimum of 46 semester credits.

The following courses are required:

PSY 6130 - Evidence-Based Practice: School Intervention 3

PSY 6240 - Comprehensive School Counseling Programs 3

PSY 6250 - Internship in School Counseling and Guidance 1-10 (6 credits required)

PSY 6260 - Career Development for School Counselors 2

PSY 6290 - Diversity Issues in Treatment and Assessment 1-3

PSY 6330 - Principles of Psychological Measurement and Test Theory 3

PSY 6340 - Consultation in the Schools 3

PSY 6350 - Introduction to Theories of Intervention in Psychology 3

PSY 6370 - Practicum in School Counseling 3

PSY 6390 - Program Evaluation in the Schools: Models and Guidelines 3

PSY 6420 - Group Counseling in the Schools 3

PSY 6460 - Ethical, Legal and Professional Issues in School Counseling 3

PSY 6530 - Developmental Psychology 3

PSY 6610 - College and Career Readiness for School Counselors 3

PSY 6700 - Grant Writing for School Counselors 2

Return to: Academic Departments and Programs

Psychology - PhD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

Combined and Integrated (C-I)

Clinical/Counseling/School Psychology, (APA-accredited)

This program integrates the theory and practice of psychology common to the disciplines traditionally denoted as clinical, counseling, and school psychology. It subscribes to the scientist-practitioner model, and students completing the program will enter professional practice in a variety of settings, including VA hospitals, mental health centers, hospitals, clinics, schools, and academic settings. The program provides an excellent balance of research and practitioner skill training. A research thesis and dissertation are required of all students. The combined program provides generalized training, along with three areas of emphasis. The emphasis areas are designed for students to begin systematically developing a specialty area in line with their future career goals. The three areas of concentration mirror faculty interest and expertise and include: adult psychology focused on health psychology/neuropsychology and/or contextual behavior science, child and adolescent psychology with an Ed.S in school psychology possible, and multicultural psychology. The program is also affiliated with the American Indian Support Project, one of the nation's most successful programs for training and mentoring American Indian psychologists.

Complete information on accreditation guidelines and principles is available through the Commission on Accreditation (CoA) at Education Directorate, American Psychological Association, 750 First Street NE, Washington DC 20002-4242, (202) 336-5979, or on the web at: <http://www.apa.org/ed/accreditation/>

Absolute undergraduate prerequisites for admission to the PhD program in Combined Clinical/Counseling/School are as follows: (1) Elementary Statistics; (2) Theories/Research in Learning; (3) Abnormal Psychology; and (4) Theories/Research in Personality.

The Combined Clinical/Counseling/School Psychology PhD requires 105-107 total semester credits, including the following:

#### A. MS Courses

PSY 6150 - Evidence-Based Practice I: Children and Adolescents 2

PSY 6290 - Diversity Issues in Treatment and Assessment 1-3 (3 credits required)

PSY 6310 - Intellectual Assessment 3

PSY 6320 - Objective Assessment of Personality and Affect 3

PSY 6350 - Introduction to Theories of Intervention in Psychology 3

PSY 6360 - Introduction to the Practice of Professional Psychology 3

PSY 6570 - Introduction to Educational and Psychological Research 3

PSY 6600 - Research Design and Analysis I 3

PSY 6750 - Evidence-Based Practice II: Adults 2

PSY 6850 - Introduction to the Combined Doctoral Program 1

PSY 6970 - Thesis 1-6

PSY 7270 - Lifespan Psychopathology 3

PSY 7350 - Integrated Practicum with Adults, Adolescents, and Children 3 (6 credits required)

#### B. PhD Program Courses

PSY 6100 - History and Systems of Psychology 3

PSY 6510 - Social Psychology 3

PSY 6530 - Developmental Psychology 3

PSY 6630 - Supervision and Consultation in Psychological and Educational Settings 3 or

PSY 7630 - Supervision and Consultation in Applied Psychology 1

PSY 6650 - Theories of Learning: The Behavioral Perspective 3 or

PSY 6660 - Cognition and Instruction 3

PSY 6750 - Evidence-Based Practice II: Adults 2

PSY 6290 - Diversity Issues in Treatment and Assessment 1-3 (3 credits required)

PSY 7100 - Biological Basis of Behavior 3

PSY 7230 - Theory and Research in Personality 3

PSY 7250 - Professional Ethics and Standards 1-3 (3 credits required)

PSY 7360 - Practicum in Clinical Child/School Psychology 3 (6 credits required)

PSY 7370 - Practicum in Counseling/Clinical Psychology 3 (6 credits required)

PSY 7610 - Measurement, Design, and Analysis II 3

PSY 7670 - Literature Reviews in Education and Psychology 2 or

Other approved research course (2-3 cr) 2-3

PSY 7850 - Internship and Professional Development Seminar 1

PSY 7950 - Internship in Professional Psychology 1 (3 credits required)

PSY 7970 - Dissertation 1-18 (12 credits minimum)

Electives 9

Note:

The MS counseling psychology degree is available only to students matriculated into the PhD Clinical/Counseling/School program.

Experimental and Applied Psychological Science (EAPS)

The department offers a PhD program in Experimental and Applied Psychological Science. The program is designed to prepare students for careers in research and/or teaching in academic, public, or private settings. While satisfying the department's general requirements, students may design their programs to become specialists in a variety of areas, such as behavior analysis, sociobehavior, epidemiology, and cognition brain and behavior. A research thesis and/or dissertation are required of all students.

A. PhD Degree Curriculum

The Experimental and Applied Psychological Science PhD requires a minimum of 70 credits as follows:

Program Seminar (10 credits total)

PSY 7090 - Experimental and Applied Psychological Science Program Seminar 1 (1 credit to be taken each semester)

Methodology Courses (9 credits)

PSY 6570 - Introduction to Educational and Psychological Research 3

PSY 6600 - Research Design and Analysis I 3

PSY 7610 - Measurement, Design, and Analysis II 3

Ethics (2 credits)

PSY 7250 - Professional Ethics and Standards 1-3

Emphasis Areas Specific Electives (30 credits total)

Students must complete an additional 30 credits of course work related to their Emphasis Area and approved by their supervisory committee as part of the Plan of Study. These credits may include additional Independent Study/Reading credits.

Independent Study/Reading (7 credits total)

PSY 6900 - Independent Study 1-3 and/or

PSY 6910 - Independent Research 1-3

Dissertation (12 credits total)

PSY 7970 - Dissertation 1-18

Specialty Area Electives

Students should consult with their supervisory committee to determine which Specialty Area Electives they should complete.

Additional Requirements for Psychology PhD Programs

All PhD candidates must meet the following general core requirements, regardless of specialty emphasis: (1) submission of a first authored manuscript for publication in a recognized journal; (2) presentation of research findings (first author) at a regional or national convention or professional meeting; (3) completion of the doctoral dissertation; (4) completion of a clinical comprehensive exam; (5) completion of the all required coursework; and (6) completion of an one year

internship. Students in the combined PhD program must also complete a formal case presentation, and compete nationally for admission to an APA approved, 2,000-hour predoctoral internship. The Experimental and Applied Psychological Science program has an additional requirement of a grant proposal.

Return to: Academic Departments and Programs

Psychology Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

Required Courses (10 credits), plus

Elective Courses (8 credits minimum)

A. Required Courses (10 credits)

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

B. Electives (8 credits minimum)

Choose course(s) from required or core domain courses listed for the Psychology Major to total 18 credits. PSY 2010 will not count toward the minor.

The student's grade point average for all psychology courses, USU or transfer, must average 3.0 or above to qualify for credit toward the minor. At least 12 credits of the 18 required credits must be completed at USU. Students must receive a grade of C- or higher in all psychology courses (USU and transfer) in order to have them counted toward minor requirements.

Return to: Academic Departments and Programs

Psychology Teaching Minor

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Psychology

Required Psychology Courses (15 credits), plus

Elective Psychology Courses (3 credits)

At least 12 credits of the 18 required credits must be completed at USU. In addition, they must select at least one 3-credit class from the list of courses required for or serving as primary electives for the psychology major. Required GPA for psychology courses is 3.0. Students must receive a grade of C- or better in all psychology courses (USU and transfer) in order to have them counted toward minor requirements. Finally, they need to fulfill the 35-credit requirement for the Secondary Teacher Education Program (STEP) in the Secondary Education Program of the School of Teacher Education and Leadership.

A. Required Courses (15 credits)

PSY 1010 - General Psychology (BSS) 3

PSY 1100 - Lifespan Development 3

PSY 1400 - Analysis of Behavior: Basic Principles 3

PSY 1410 - Analysis of Behavior: Basic Principles Lab 1

PSY 2100 - Developmental Psychology: Adolescence 3

PSY 3660 - Educational Psychology for Teachers 2

B. Electives (3 credits minimum)

Choose course(s) from required or core domain courses listed for the Psychology Major to total 18 credits. PSY 2010 will not count toward the minor.

Note:

The Psychology Teaching Minor also requires the completion of the Secondary Teacher Education Program (STEP) (35 credits).

Return to: Academic Departments and Programs

Accounting - BA

Return to: Academic Departments and Programs

Jon M. Hunstman School of Business

School of Accountancy

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Accounting Major Requirements

For a bachelor's degree in accounting, students must complete at least 120 credits, including at least 30 credits in accounting and at least 90 credits in nonaccounting courses. At least 12 credits of upper-division accounting courses must be completed through the USU School of Accountancy. To qualify for graduation as an accounting major, a student must have an accounting and an overall

GPA of at least 2.5. All accounting majors are required to complete the General Education requirements and the University Studies Depth Education requirements, the Huntsman School of Business Acumen, and the Required Accounting Courses.

ECN 1500 will fulfill the American Institutions Breadth requirement

ECN 2010 will fulfill the Social Sciences Breadth requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement. MATH 1100 will fulfill the Exploration requirement for Accounting majors.

MIS 3200 will cover one of the two courses required for the Communications Intensive (CI) requirement

For Huntsman School of Business students, course taken for their major will meet the Quantitative Intensive (QI) requirement

Students must complete at least 2 credits in approved 3000-level or above courses from each of the following two categories for the Depth Course requirements: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Required Accounting Courses (27 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3310 - Strategic Cost Management 3

ACCT 3410 - Income Taxation I 3

ACCT 6400 - Income Taxation II 3

ACCT 4500 - Accounting Information Systems 3

ACCT 4510 - Auditing Principles and Techniques 3

MATH 1100 - Calculus Techniques (QL) 3

Accounting Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade is required)

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (this course starts the week prior to fall semester and is completed after the first 3 weeks of fall semester)

Breadth Life Science (BLS) course 3

Electives 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Creative Arts (BCA) course 3

Sophomore Year (31 credits)

First Semester (16 credits)

ACCT 2010 - Financial Accounting Principles 3 (B grade is required)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade is required)

STAT 2300 - Business Statistics (QL) 4 (C grade is required)

Breadth Humanities (BHU) course 3

Electives 3

Second Semester (15 credits)

Take and pass intermediate accounting entrance exam, during this semester

ACCT 2020 - Managerial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 3200 - Business Communication (CI) 3

Breadth Physical Science (BPS) course 3

Junior Year (30 credits)

First Semester (15 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3310 - Strategic Cost Management 3

MGT 3700 - Operations Management 3

Depth Life and Physical Science (DSC) course 3

Communication Intensive (CI) course 3

Second Semester (15 credits)

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3410 - Income Taxation I 3

FIN 3400 - Corporate Finance (QI) 3

MGT 3500 - Fundamentals of Marketing 3

Electives 3

Senior Year (29 credits)

First Semester (16-17 credits)

ACCT 4510 - Auditing Principles and Techniques 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT Elective or MAcc Option 3

Depth Humanities and Creative Arts (DHA) course 2-3

Electives 4

Second Semester (12-13 credits)

ACCT 4500 - Accounting Information Systems 3

Business Elective or MAcc Option 3

Electives 6-7

Notes:

Students must have 120 credits to graduate with a BA, Bachelor of Arts, or BS, Bachelor of Science, degree

Elective credits needed will be determined on an individual basis (a student with continuing education, AP credits, and Language credits may not require additional elective credits)

Completing a minor is recommended to fulfill elective credits

Individual and professional development opportunities are encouraged, see [huntsman.usu.edu/programs/](http://huntsman.usu.edu/programs/) for specific information

An advanced internship is recommended during Senior year

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Accounting - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

School of Accountancy

Accounting Major Requirements

For a bachelor's degree in accounting, students must complete at least 120 credits, including at least 30 credits in accounting and at least 90 credits in nonaccounting courses. At least 12 credits of upper-division accounting courses must be completed through the USU School of Accountancy. To qualify for graduation as an accounting major, a student must have an accounting and an overall GPA of at least 2.5. All accounting majors are required to complete the General Education requirements and the University Studies Depth Education requirements, the Huntsman School of Business Acumen, and the Required Accounting Courses.

ECN 1500 will fulfill the American Institutions Breadth requirement

ECN 2010 will fulfill the Social Sciences Breadth requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement. MATH 1100 will fulfill the Exploration requirement for Accounting majors.

MIS 3200 will cover one of the two courses required for the Communications Intensive (CI) requirement

For Huntsman School of Business students, course taken for their major will meet the Quantitative Intensive (QI) requirement

Students must complete at least 2 credits in approved 3000-level or above courses from each of the following two categories for the Depth Course requirements: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Required Accounting Courses (27 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3310 - Strategic Cost Management 3

ACCT 3410 - Income Taxation I 3

ACCT 6400 - Income Taxation II 3

ACCT 4500 - Accounting Information Systems 3

ACCT 4510 - Auditing Principles and Techniques 3

MATH 1100 - Calculus Techniques (QL) 3

Accounting Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3 (C grade is required)

MATH 1050 - College Algebra (QL) 4

USU 1010 - University Connections 1-3 (2 credits required) (this course starts the week prior to fall semester and is completed after the first 3 weeks of fall semester)

Breadth Life Science (BLS) course 3

Electives 3

Second Semester (15 credits)

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1100 - Calculus Techniques (QL) 3

MIS 2100 - Principles of Management Information Systems 3

Breadth Creative Arts (BCA) course 3

Sophomore Year (31 credits)

First Semester (16 credits)

ACCT 2010 - Financial Accounting Principles 3 (B grade is required)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3 (C grade is required)

STAT 2300 - Business Statistics (QL) 4 (C grade is required)

Breadth Humanities (BHU) course 3

Electives 3

Second Semester (15 credits)

Take and pass intermediate accounting entrance exam, during this semester

ACCT 2020 - Managerial Accounting Principles 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MIS 3200 - Business Communication (CI) 3

Breadth Physical Science (BPS) course 3

Junior Year (30 credits)

First Semester (15 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3310 - Strategic Cost Management 3

MGT 3700 - Operations Management 3

Depth Life and Physical Science (DSC) course 3

Communication Intensive (CI) course 3

Second Semester (15 credits)

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3410 - Income Taxation I 3

FIN 3400 - Corporate Finance (QI) 3

MGT 3500 - Fundamentals of Marketing 3

Electives 3

Senior Year (29 credits)

First Semester (16-17 credits)

ACCT 4510 - Auditing Principles and Techniques 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT Elective or MAcc Option 3

Depth Humanities and Creative Arts (DHA) course 2-3

Electives 4

Second Semester (12-13 credits)

ACCT 4500 - Accounting Information Systems 3

Business Elective or MAcc Option 3

Electives 6-7

Notes:

Students must have 120 credits to graduate with a BA, Bachelor of Arts, or BS, Bachelor of Science, degree

Elective credits needed will be determined on an individual basis (a student with continuing education, AP credits, and Language credits may not require additional elective credits)

Completing a minor is recommended to fulfill elective credits

Individual and professional development opportunities are encouraged, see [huntsman.usu.edu/programs/](http://huntsman.usu.edu/programs/) for specific information

An advanced internship is recommended during Senior year

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Accounting - MAcc

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

School of Accountancy

MAcc requirements for students who have completed all of the preparatory work for graduate study.

Students matriculated in the Master of Accounting degree must complete an approved program of study consisting of at least 30 credits. This program must include completion of the MAcc Core Requirements and one of the Areas of Specialization Requirements. Details for each requirement type are provided in the following paragraphs.

MAcc Requirements

The core courses required for this degree include:

ACCT 6200 - Accounting for Complex and Multinational Businesses 3

ACCT 6410 - Tax Research and Procedures 3

ACCT 6510 - Financial Auditing 3

ACCT 6560 - Business Law and Professional Responsibilities 3

Master of Accounting Specializations

In addition to meeting the MAcc Core Requirements, students must complete requirements for one of the following specializations:

#### Professional Accountancy Specialization

Required courses for this specialization are:

ACCT 6250 - Accounting Concepts, Research, and Cases 3

ACCT 6310 - Cost Management Systems to Support World-Class Operations 3

ACCT 6620 - Financial Statement Analysis and Valuation 3

Two additional approved elective courses 6

#### Taxation Specialization

Required courses for this specialization are:

ACCT 6420 - Taxation of Corporations and Shareholders 3

ACCT 6440 - Taxation of Flow-Through Entities 3

ACCT 6460 - Advanced Tax Topics 3

One additional approved elective course 3

One course chosen from:

PFP 6060 - Personal Financial Planning and Advising 3

PFP 6070 - Retirement Planning 3

PFP 6080 - Estate Planning 3

#### Personal Financial Planning Specialization

Students must complete:

PFP 6060 - Personal Financial Planning and Advising 3

PFP 6070 - Retirement Planning 3

PFP 6080 - Estate Planning 3

One course chosen from:

ACCT 6420 - Taxation of Corporations and Shareholders 3

ACCT 6440 - Taxation of Flow-Through Entities 3

ACCT 6460 - Advanced Tax Topics 3

Additional Requirements:

In addition, students must complete, or have previously completed, the equivalent of PFP 3460 or FIN 4460 (neither of these courses count as part of the 30-credit MAcc degree requirement). This specialization satisfies the requirements to sit for the national Certified Financial Planner (CFP) examination.

#### MAcc Application by Non-Accounting/ Non-Business Degree Holders

Prerequisites for the Master of Accounting include the Huntsman School of Business Acumen Requirements (40 credits) and the Undergraduate Accounting Major Requirements (27 credits). Therefore, applicants who have not already completed a bachelor's degree in accounting or business are advised to first complete a second bachelor's degree in accounting and subsequently apply to the Master of Accounting program. Before applying, it is recommended that applicants consult with the School of Accountancy undergraduate advisor.

#### Accelerated Admission to the MAcc for Outstanding Non-Accounting/Non-Business Degree Holders

Non-Accounting/Non-Business students who demonstrate outstanding achievement in their prior academic work, as well as on the GMAT examination, will be considered for immediate admission to the Master of Accounting program and will be allowed to substitute the Accelerated Business Core (ABC) of 13.5 credits in place of the Huntsman School of Business Acumen requirements. (Note: The ABC is taught during summer semester only.) These students must still complete the undergraduate accounting major requirements as part of their total MAcc program of study. These accelerated admissions are considered on a case-by-case basis.

Return to: Academic Departments and Programs

#### Accounting and Economics Dual Major - BA

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

School of Accountancy

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA

requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Requirements for Accounting and Economics Dual Major, BA/BS

Select 12 credits in economics in addition to the courses required for an accounting major from the following:

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5000 - Advanced Macroeconomic Topics 3

Upper-division Economics electives 6

Accounting Major Requirements

For a bachelor's degree in accounting, students must complete at least 120 credits, including at least 30 credits in accounting and at least 90 credits in nonaccounting courses. At least 12 credits of upper-division accounting courses must be completed through the USU School of Accountancy. To qualify for graduation as an accounting major, a student must have an accounting and an overall GPA of at least 2.5. All accounting majors are required to complete the General Education requirements and the University Studies Depth Education requirements, the Huntsman School of Business Acumen, and the Required Accounting Courses.

ECN 1500 will fulfill the American Institutions Breadth requirement

ECN 2010 will fulfill the Social Sciences Breadth requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement. MATH 1100 will fulfill the Exploration requirement for Accounting majors.

MIS 3200 will cover one of the two courses required for the Communications Intensive (CI) requirement

For Huntsman School of Business students, course taken for their major will meet the Quantitative Intensive (QI) requirement

Students must complete at least 2 credits in approved 3000-level or above courses from each of the following two categories for the Depth Course requirements: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Required Accounting Courses (27 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3310 - Strategic Cost Management 3

ACCT 3410 - Income Taxation I 3

ACCT 6400 - Income Taxation II 3

ACCT 4500 - Accounting Information Systems 3

ACCT 4510 - Auditing Principles and Techniques 3

MATH 1100 - Calculus Techniques (QL) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Accounting and Economics Dual Major - BS

Return to: Academic Departments and Programs

Jon M. Huntsman School of Business

School of Accountancy

Requirements for Accounting and Economics Dual Major, BA/BS

Select 12 credits in economics in addition to the courses required for an accounting major from the following:

ECN 3010 - Managerial Economics (DSS) 3 or

ECN 4010 - Intermediate Microeconomics 3

ECN 4020 - Intermediate Macroeconomics 3 or

ECN 5000 - Advanced Macroeconomic Topics 3

Upper-division Economics electives 6

Accounting Major Requirements

For a bachelor's degree in accounting, students must complete at least 120 credits, including at least 30 credits in accounting and at least 90 credits in nonaccounting courses. At least 12 credits of upper-division accounting courses must be completed through the USU School of Accountancy. To qualify for graduation as an accounting major, a student must have an accounting and an overall GPA of at least 2.5. All accounting majors are required to complete the General Education requirements and the University Studies Depth Education requirements, the Huntsman School of Business Acumen, and the Required Accounting Courses.

ECN 1500 will fulfill the American Institutions Breadth requirement

ECN 2010 will fulfill the Social Sciences Breadth requirement

For Huntsman School of Business students, courses taken for their major will meet the Exploration requirement. MATH 1100 will fulfill the Exploration requirement for Accounting majors.

MIS 3200 will cover one of the two courses required for the Communications Intensive (CI) requirement

For Huntsman School of Business students, course taken for their major will meet the Quantitative Intensive (QI) requirement

Students must complete at least 2 credits in approved 3000-level or above courses from each of the following two categories for the Depth Course requirements: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Huntsman School of Business Acumen (40 credits)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3400 - Introduction to Global Economic Institutions and Business Environment (DSS) 3

FIN 3400 - Corporate Finance (QI) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3700 - Operations Management 3

MIS 2100 - Principles of Management Information Systems 3

MIS 3200 - Business Communication (CI) 3

STAT 2300 - Business Statistics (QL) 4

Required Accounting Courses (27 credits)

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3310 - Strategic Cost Management 3

ACCT 3410 - Income Taxation I 3

ACCT 6400 - Income Taxation II 3

ACCT 4500 - Accounting Information Systems 3

ACCT 4510 - Auditing Principles and Techniques 3

MATH 1100 - Calculus Techniques (QL) 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

### Accounting Minor

Return to: Academic Departments and Programs

Jon M. Hunstman School of Business

School of Accountancy

Students seeking a minor must be approved by the School of Accountancy and must achieve a 2.5 grade point average for accounting courses taken. Courses required for this minor may not be taken Pass/Fail.

Students with a major in an area other than accounting may qualify for an accounting minor by completing 18 semester credits as follows:

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

ACCT 3110 - Intermediate Financial Accounting and Reporting I 3

ACCT 3120 - Intermediate Financial Accounting and Reporting II 3

ACCT 3310 - Strategic Cost Management 3

ACCT 3410 - Income Taxation I 3 or

ACCT 4500 - Accounting Information Systems 3

Return to: Academic Departments and Programs

### Personal Financial Planning Minor

Return to: Academic Departments and Programs

Jon M. Hunstman School of Business

School of Accountancy

Students seeking a minor in personal financial planning must be approved by the School of Accountancy and must achieve at least a 2.5 grade point average in the required courses. Courses required for this minor may not be taken pass/fail.

The required courses consist of 15 semester credits as follows:

ACCT 3410 - Income Taxation I 3

PFP 3460 - Fundamentals of Personal Investing 3 or

FIN 4460 - Investments 3

PFP 5060 - Personal Financial Planning and Advising 3

PFP 5070 - Retirement Planning 3

PFP 5080 - Estate Planning 3

Note:

The courses above are registered with the Certified Financial Planner (CFP)® Board of Standards. Students completing these courses will qualify to sit for the comprehensive CFP® Examination.

Return to: Academic Departments and Programs

Accounting/Management Information Systems - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Accounting/Management Information Systems:

BCIS 2930 - Office Procedures and Human Relations (HR) 3 or

BUSN 2320 - Small Business Management - CTE (HR) 3 or

BUSN 2390 - Organizational Behavior (HR) 3 or

CMST 2110 - Interpersonal Communication (BHU/HR) 3 or

CMST 2120 - Small Group Communication (HR) 3

BUSN 1050 - Business Mathematics (MA) 3 or

MATH 1050 - College Algebra (QL) 4

BUSN 1091 - Business Presentations 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Accounting Courses

Computer Courses

BCIS 1405 - Word Processing 3

BCIS 2010 - Business Computer Applications 3 or

BCIS 1410 - Spreadsheet I (Excel) 2 and

BCIS 2420 - Database I (Access) 2

Business Electives

Choose three credits from the following:

Business Law, Economics, Business English, Business Statistics, Calculus Techniques, etc.

Return to: Academic Departments and Programs

Agricultural Communication and Journalism - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

To develop a well-rounded agricultural communication professional, the BS degree in Agricultural Communication and Journalism combines courses in agriculture with courses in journalism. Students take coursework in a variety of technical agricultural disciplines, including animal science, nutrition, agricultural economics and textile science. This education provides students with the basic knowledge to draw from as they communicate the importance of the food and fiber industry. This program is designed so that students complete a dual major in Agricultural Communication and Journalism. To find out more about Agricultural Communication and Journalism, contact the academic advisor, Taylor Adams ([taylor.adams@usu.edu](mailto:taylor.adams@usu.edu)) or call 435-797-2282 to

schedule an appointment. More information can be found at [aste.usu.edu/agcomm](http://aste.usu.edu/agcomm).

University Studies—Competency

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

(Note: Alternatively, the CL1 and CL2 requirements may be fulfilled through testing. See General Education Requirements for further information.)

STAT 1040 - Introduction to Statistics (QL) 3

University Studies—Breadth

Students must complete a minimum of 18 credits in breadth courses, including one course from each of the six categories (BAI, BCA, BHU, BLS, BPS, and BSS). The following courses are suggested for students in the Agricultural Communication and Journalism major.

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

USU 1320 - Civilization: Humanities (BHU) 3

USU 1360 - Integrated Physical Science (BPS) 3

University Studies—Depth

Two Communications Intensive (CI) courses and one Quantitative Intensive (QI) course are required. Students in the Agricultural Communication and Journalism major must also take one Depth Humanities and Creative Arts (DHA) course and one Depth Social Sciences (DSS) course. The CI requirement may be fulfilled with ASTE 3050 and ASTE 5260 (required for the major). JCOM 4030 (taken as part of the major) will fulfill the DSS requirement.

Technical Agriculture Courses (21 credits)

ADVS 1110 - Introduction to Animal Science 4

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

FCSE 3030 - Textile Science (DSC/QI) 4

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 4000 - Soil and Water Conservation 4

Agricultural Communication Courses (21 credits)

ASTE 1710 - Introduction to Agricultural Communication 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

ASTE 3090 - Graphic Communication in Agriculture 3

ASTE 3100 - Personal Leadership in Agriculture 3

ASTE 4900 - Senior Project Research and Creative Opportunity 1-6 (3 credits required)

Journalism and Communication (18 credits)

JCOM 1130 - Beginning Newswriting for the Mass Media 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

JCOM 2010 - Media Smarts: Making Sense of the Information Age (BSS) 3

JCOM 2020 - Communication Research Methods (QI) 3

JCOM 2030 - Multimedia Boot Camp 3

JCOM 4030 - Mass Media Law (DSS) 3

Note:

Agricultural Communication and Journalism students may elect to concentrate their coursework within one of the three Journalism major emphases (broadcast/electronic media, print journalism, or public relations/corporate communication), or they may

construct an individually designed concentration with the approval of the Journalism and Communication Department faculty.

Public Relations and Corporate Communication Emphasis (15-18 credits)

JCOM 2300 - Introduction to Public Relations 3

JCOM 3310 - Writing for Public Relations (CI) 3

JCOM 3320 - Strategic Research Methods in Public Relations (DSS) 3

JCOM 5300 - Case Studies in Public Relations (CI) 3 or

JCOM 5320 - Public Relations Agency 3

JCOM elective/s, including an upper-division skills course 3-6

Print Emphasis (12-18 credits)

JCOM 3100 - Reporting Public Affairs (CI) 3

JCOM 3110 - Beyond the Inverted Pyramid (CI) 3

JCOM 3120 - Copy Editing and Publication Design (CI) 3

JCOM elective/s 3-9

Broadcast Emphasis (14-20 credits)

JCOM 2220 - Introduction to Video Media 3

JCOM 3200 - Writing for Electronic Media 3

JCOM 4210 - Newscast I (CI) 4

JCOM 4220 - Newscast II (CI) 4

JCOM elective/s 0-6

Directed Electives

Additional elective courses from the list below must be taken to complete the remainder of the minimum 120 credits required for graduation.

ADVS 2080 - Beef and Dairy Herd Health and Production Practices 3

ADVS 2090 - Sheep Production Practices 2

ADVS 2120 - Swine Production Practices 2

ADVS 2190 - Horse Production Practices 3

ADVS 2200 - Anatomy and Physiology of Animals 4

ADVS 3200 - Ethical Issues in Genetic Engineering and Biotechnology (DSC) 3

ADVS 3500 - Animal Nutrition 4

ADVS 3650 - Live Animal and Carcass Evaluation 3

ADVS 4560 - Principles of Animal Genetics and Breeding (QI) 3

ADVS 5030 - Sustainable Agricultural Production Systems with Animals 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

ART 1050 - Introduction to Photography 3

ART 2810 - Photography I 3

ART 3810 - Photography II 3

ART 4810 - Digital Imaging 3

ART 4825 - Color Photography 3

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 1120 - Forage and Harvest Equipment 3

ASTE 1130 - Planting and Tillage Equipment 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 2250 - Occupational Experience in Agriculture 1-6

ASTE 3900 - Special Problems in Agricultural Systems Technology and Education 1-6

ASTE 4100 - Agricultural Structures and Environment (QI) 3

ASTE 4250 - Occupational Experiences in Agriculture 1-6

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3

CMST 1020 - Public Speaking (BHU) 3

CMST 3400 - Persuasion (CI) 3

CMST 3600 - Communication and Conflict 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 3600 - Living with Wildlife (DSC) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

ITLS 5215 - Digital Video Capture and Production I 3

ITLS 5225 - Digital Audio 3

ITLS 5230 - Instructional Graphic Production I 3

ITLS 5265 - Internet Development 3

MGT 3500 - Fundamentals of Marketing 3

MGT 4050 - International Marketing 2

MGT 4510 - Buyer Behavior 2

MGT 4530 - Marketing Research 3

MGT 4540 - Social and New Media 2

MGT 4550 - Brand Management 2

MGT 4560 - Strategic Sales 2

PSC 1800 - Introduction to Horticulture (BLS) 3

PSC 2200 - Pest Management Principles and Practices 3

PSC 2600 - Herbaceous Plant Materials 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3

PSC 3800 - Fundamentals of Organic Agriculture 3

PSC 3000 - Fundamentals of Soil Science 4

PSC 3300 - Residential Landscapes 3

PSC 3400 - Arboriculture 3

PSC 3420 - Landscape Irrigation Design (QI) 2

PSC 3500 - Structure and Function of Plants 3

PSC 3700 - Plant Propagation 4

PSC 3810 - Turfgrass Management 3

PSC 4000 - Soil and Water Conservation 4

PSC 4050 - Greenhouse Management and Crop Production 4

PSC 4200 - Temperate Zone Fruit Production 3

PSC 4280 - Field Crops 3

PSC 4310 - World Food Crops and Cropping Systems: The Plants That Feed Us 3

PSC 4320 - Forage Production and Pasture Ecology 3

PSC 4400 - Modern Vegetable Production 3

PSC 4600 - Cereal Science (DSC/QI) 3

PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

WILD 4000 - Principles of Rangeland Management 3

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Agricultural Education - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

The agricultural education major prepares students to become teachers and FFA advisors in high schools and technical education centers. Ag teachers can teach a wide variety of subjects, including animal science, horticulture, welding and metals, woodshop, leadership courses, and other elective classes. They receive high-quality training at USU and job placement for agriculture teachers is extremely high across the state and the nation.

In addition to courses in agricultural education, the curriculum includes courses in technical agriculture areas, including agricultural economics; agricultural mechanization; animal, dairy, and veterinary sciences; plant and soil science; and natural resources.

In order to obtain a secondary teaching license for grades 6-12, students must complete the 35-credit Secondary Teacher Education Program (STEP), which includes one semester of student teaching in a public school. This program is administered by USU's School of Teacher Education and Leadership (TEAL) within the Emma Eccles Jones College of Education and Human Services. Student must apply to the School of TEAL the semester before taking STEP courses. This is usually the fall of their junior year. Students learn subject content through the School of Applied Sciences, Technology, and Education and spend the last year or two studying education techniques through the STEP program.

For more information, visit [aste.usu.edu/TeachAg](http://aste.usu.edu/TeachAg) or contact the Agricultural Education Academic Advisor, Taylor Adams: [taylor.adams@usu.edu](mailto:taylor.adams@usu.edu) or 435-797-7091.

University Studies-Competency

ENGL 1010

ENGL 2010

MATH 1050 (must have a C- or better for the STEP program)

Note: alternatively, competency requirements may be fulfilled though testing. See General Education Requirements for further information).

#### University Studies-Breadth

Students must complete a minimum of 18 credits in breadth courses, including one course from each of the six categories (BAI, BCA, BHU, BLS, BPS, and BSS). The following courses are suggested for students in the Agricultural Education major:

PSC 1800, WILD 2200 or USU 1350 or will fulfill the Life Sciences requirement (C minimum for STEP admission)

CHEM 1110 will fulfill the Physical Sciences requirement (C minimum for STEP admission)

ECN 1500 will fulfill the American Institutions requirement

LAEP 1030 or USU 1330 will fulfill the BCA requirement

USU 1320 will fulfill the BHU requirement

ASTE 2900 will fulfill the BSS requirement (C minimum for STEP admission)

ASTE 2900, ENVS 2340, PSC 1800, PSY 1010 or WILD 2200 will fulfill the Exploration Requirement

#### University Studies-Depth

Two Communications Intensive (CI) courses and one Quantitative Intensive (QI) course are required.

ASTE 3240 and ASTE 4150 will fulfill the Communications Intensive (CI) requirement

ADVS 4560 will fulfill the Quantitative Intensive (QI) requirement

Students in the Agricultural Education major must also take one Depth Humanities and Creative Arts (DHA) course and one Depth Social Sciences (DSS) course.

Choose one DHA course from the University Studies Depth Requirements

APEC 3010, APEC 3012, APEC 3020 or SCED 3210 will fulfill the DSS requirement

For admission into the Secondary Teacher Education Program, students will need to meet minimum grade requirements, found at [teal.usu.edu/htm/undergraduate-programs/seced/adstep](http://teal.usu.edu/htm/undergraduate-programs/seced/adstep).

In addition, students must complete the following courses in preparation for teacher licensure:

Teacher Preparation Courses (40 credits)

Professional Education (14 credits)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

Agricultural Education (26 credits)

ASTE 2710 - Orientation to Agriculture Education 2

ASTE 3100 - Personal Leadership in Agriculture 3

ASTE 3240 - Teaching in Laboratory Settings (CI) 3

ASTE 3300 - Clinical Experience I in Agricultural Education 1

ASTE 3620 - Managing the FFA and SAE Programs 2

ASTE 4150 - Methods of Teaching Agriculture (CI) 3

ASTE 4300 - Clinical Experience II in Agricultural Education 1

ASTE 5500 - Agricultural Education Secondary Curriculum Seminar 2

ASTE 5630 - Agricultural Education Student Teaching in Secondary Schools 10

Technical Agriculture Courses (41 credits)

General Science Courses (8 credits)

BIOL 1610 - Biology I 4

CHEM 1110 - General Chemistry I (BPS) 4

Animal Science Courses (7 credits)

ADVS 1110 - Introduction to Animal Science 4

ADVS 4560 - Principles of Animal Genetics and Breeding (QI) 3

Agricultural Systems Courses (9 credits)

ASTE 3030 - Metal Welding Processes and Technology in Agriculture 3

ASTE 3080 - Compact Power Units for Agricultural and Turfgrass Applications 3

ASTE 4100 - Agricultural Structures and Environment (QI) 3

Plant and Soil Science Courses (8 credits)

PSC 4050 - Greenhouse Management and Crop Production 4

PSC 3000 - Fundamentals of Soil Science 4 or

PSC 4000 - Soil and Water Conservation 4

Agricultural Business and Economics Courses (6 credits)

ASTE 2830 - Agribusiness Sales and Marketing 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3 or

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

Natural Resources Courses (3 credits)

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ENVS 2340 - Natural Resources and Society (BSS) 3 or

WILD 2200 - Ecology of Our Changing World (BLS) 3 or

WILD 4000 - Principles of Rangeland Management 3

Technical Agriculture Concentration/Elective Courses

Select a minimum of 11 credits from the following courses:

Any course listed as an option above that was not taken to meet the core requirements:

ADVS 2080 - Beef and Dairy Herd Health and Production Practices 3

ADVS 2090 - Sheep Production Practices 2

ADVS 2120 - Swine Production Practices 2

ADVS 2190 - Horse Production Practices 3

ADVS 2200 - Anatomy and Physiology of Animals 4

ADVS 3200 - Ethical Issues in Genetic Engineering and Biotechnology (DSC) 3

ADVS 3500 - Animal Nutrition 4

ADVS 3650 - Live Animal and Carcass Evaluation 3

ADVS 5030 - Sustainable Agricultural Production Systems with Animals 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 1120 - Forage and Harvest Equipment 3

ASTE 1130 - Planting and Tillage Equipment 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

BIOL 1620 - Biology II (BLS) 4

BIOL 2220 - General Ecology 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3330 - Environment and Society 3

ENVS 3600 - Living with Wildlife (DSC) 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

LAEP 1030 - Introduction to Landscape Architecture (BCA) 3	100
NDFS 5020 - Meat Technology and Processing 4	Credits of upper-division courses (#3000 or above)
PSC 1800 - Introduction to Horticulture (BLS) 3	40
PSC 2200 - Pest Management Principles and Practices 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
PSC 2600 - Herbaceous Plant Materials 3	30 USU credits
PSC 2620 - Woody Plant Materials: Trees and Shrubs for the Landscape 3	Completion of approved major program of study
PSC 3800 - Fundamentals of Organic Agriculture 3	See college advisor
PSC 3300 - Residential Landscapes 3	Credits in minor (if required)
PSC 3400 - Arboriculture 3	12
PSC 3420 - Landscape Irrigation Design (QI) 2	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
PSC 3500 - Structure and Function of Plants 3	3
PSC 3700 - Plant Propagation 4	General Education Requirements and University Studies Depth Requirements
PSC 3810 - Turfgrass Management 3	Return to: Academic Departments and Programs
PSC 4200 - Temperate Zone Fruit Production 3	Agricultural Machinery Technology - AAS
PSC 4280 - Field Crops 3	Return to: Academic Departments and Programs
PSC 4310 - World Food Crops and Cropping Systems: The Plants That Feed Us 3	College of Agriculture and Applied Sciences
PSC 4320 - Forage Production and Pasture Ecology 3	School of Applied Sciences, Technology and Education
PSC 4400 - Modern Vegetable Production 3	USU offers both a one-year technology certificate and an associate's degree in agricultural machinery technology. In addition to coursework training, machinery dealerships and companies hold in-service training at USU where students can receive training and certification for repairs and operations of the latest agricultural equipment. Upon completion of these programs, employers are always seeking after students from USU's program, resulting in extremely high job placement.
PSC 4600 - Cereal Science (DSC/QI) 3	The one-year certificate program is designed to familiarize students with the agricultural equipment industry. Certificate requirements include technical hands-on training on engines, power trains, hydraulics,
PSC 5500 - Environmental Physics of Land Ecosystems and Climate 3	
WATS 1200 - Biodiversity and Sustainability (BLS) 3	
WATS 3700 - Fundamentals of Watershed Science (CI) 3	
Minimum University Requirements	
Total Credits	
120	
Grade Point Average (most majors require higher GPA)	
2.00 GPA	
Credits of C- or better	

DC electrical, and specialized forage, harvesting, tillage, planting, and spraying equipment.

The associate's degree is a second-year continuation of the certificate program. Core curriculum includes equipment testing, diagnosis, and retailing of parts and equipment. Because it is an associate's degree program, a minimum of six credits of general education courses are required. The associate's degree also transitions very easily into a bachelor's program in agricultural systems technology or agricultural education.

The Associate of Applied Science Degree in Agricultural Machinery Technology consists of a minimum of 15 credits of University Studies courses, 30 credits in the major, and 15 credits in business or related elective coursework, for a total of not less than 60 credits. Students in the Ag Machinery major will complete 63 credits total. The suggested breakdown of coursework is listed below.

For more information, visit [aste.usu.edu/agmachinery](http://aste.usu.edu/agmachinery) or contact the Agricultural Machinery Technology Academic Advisor, Taylor Adams: [taylor.adams@usu.edu](mailto:taylor.adams@usu.edu) or 435-797-7091.

#### University Studies (15 credits)

Classes will be selected from a minimum of five areas for a total of 15 credits. ENGL 1010, (or an equivalent writing or communications class) must be completed as one of these classes. In conjunction with these classes, there are two additional courses in University Studies, totaling 15 credits that are required.

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

USU 1350 - Integrated Life Science (BLS) 3

Note:

In addition to these courses, 2 additional courses in University Studies must be completed for a total of 15 credits. The following are suggested: USU 1350; USU 1320; or ASTE 2900 or NR 1010.

In addition, students must complete the following courses:

#### Core Classes (30 credits)

The following 30 credits are required:

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 1120 - Forage and Harvest Equipment 3

ASTE 1130 - Planting and Tillage Equipment 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1615 - Agricultural Machinery Engine Laboratory 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 1625 - Agricultural Machinery Power Trains Laboratory 3

ASTE 3670 - Agricultural Equipment Business Management, Marketing, and Communications 3

ASTE 3710 - Agricultural Machinery Hydraulic Systems and Diagnosis 3

ASTE 3720 - Agricultural DC Electrical Systems and Diagnosis 3

Business or Related Elective Classes (select 18 credits)

ADVS 1110 - Introduction to Animal Science 4

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 2250 - Occupational Experience in Agriculture 1-6 (5 credits required)

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ASTE 2930 - Individualized Projects in Agriculture Mechanics 1-3

ASTE 3030 - Metal Welding Processes and Technology in Agriculture 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

ASTE 3080 - Compact Power Units for Agricultural and Turfgrass Applications 3

ASTE 3100 - Personal Leadership in Agriculture 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

ASTE 3900 - Special Problems in Agricultural Systems  
Technology and Education 1-6

ASTE 4100 - Agricultural Structures and Environment  
(QI) 3

ASTE 5260 - Environmental Impacts of Agricultural  
Systems (CI) 3

BIOL 1610 - Biology I 4

CHEM 1110 - General Chemistry I (BPS) 4

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

MATH 1050 - College Algebra (QL) 4

NR 1010 - Humans and the Changing Global Environment  
(BSS) 3

PHYS 1200 - Introduction to Physics by Hands-on  
Exploration (BPS) 4

PSC 2200 - Pest Management Principles and Practices 3

PSC 2620 - Woody Plant Materials: Trees and Shrubs for  
the Landscape 3

PSC 3300 - Residential Landscapes 3

PSC 3400 - Arboriculture 3

PSC 3810 - Turfgrass Management 3

PSC 4050 - Greenhouse Management and Crop  
Production 4

PSC 5550 - Weed Biology and Control 4

USU 1330 - Civilization: Creative Arts (BCA) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 4000 - Principles of Rangeland Management 3

Return to: Academic Departments and Programs

Agricultural Machinery Technology Certificate

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

This one-year agricultural program meets the needs of persons interested in employment opportunities with agricultural dealerships and companies in the areas of parts and service, as well as with farm suppliers, feed and fertilizer agencies, corporate farms and ranches, and other related industries. The vocationally oriented agricultural technology program includes a cooperative occupational experience placement at the end of the first year of instruction.

Requirements for the one-year program include a minimum of 31 credits, with the following breakdown of suggested coursework:

Fall Semester

ASTE 1010 - Introduction to Agricultural Systems  
Technology 3

ASTE 1120 - Forage and Harvest Equipment 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1615 - Agricultural Machinery Engine Laboratory 3

ASTE 3090 - Computer Applications in Agriculture (not  
currently offered) 3

ASTE 3710 - Agricultural Machinery Hydraulic Systems  
and Diagnosis 3

Spring Semester

ASTE 1130 - Planting and Tillage Equipment 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 1625 - Agricultural Machinery Power Trains  
Laboratory 3

ASTE 2250 - Occupational Experience in Agriculture 1-6

ASTE 3080 - Compact Power Units for Agricultural and  
Turfgrass Applications 3

Note:

See major requirement sheet, available from the  
department, for more information.

Return to: Academic Departments and Programs

Agricultural Systems Technology - BS

Return to: Academic Departments and Programs

## College of Agriculture and Applied Sciences

### School of Applied Sciences, Technology and Education

A degree in Agricultural Systems Technology prepares individuals to manage agricultural systems and agribusinesses with the application of sound technical, economical, and environmental practices. The focal point of the program is on the management, use, and troubleshooting of agricultural technology.

Students' coursework typically involves a broad foundation through real-world instruction in power and machine systems, natural resources conservation, electricity and electronics, precision agriculture technologies, and agricultural structural systems-.

Students have the option to take electives to focus their studies in one of two emphases: Agribusiness or Agricultural Mechanization.

An Agribusiness emphasis provides in-depth, technical education in agricultural economics and business management. It is designed to provide basic knowledge of business concepts and approaches, as well as an understanding of current agricultural changes. This emphasis is for students who wish to become managers in the ag industry. Students take courses in agricultural economics, agricultural business, and agricultural mechanics.

An Agricultural Mechanization emphasis provides a broad understanding of the production processes in agriculture, with a depth of understanding related to using machinery. Students take courses in agricultural mechanics, animal science, natural resources, plant science, and soil science. For more information, visit [aste.usu.edu/AgSystems](http://aste.usu.edu/AgSystems) or contact the academic advisor, Taylor Adams, [taylor.adams@usu.edu](mailto:taylor.adams@usu.edu) or 435-797-7091.

### University Studies-Competency

ENGL 1010

ENGL 2010

MATH 1050

Note: alternatively, competency requirements may be fulfilled through testing. See General Education Requirements for further information.

### University Studies-Breadth

Students must complete a minimum of 18 credits in breadth courses, including one course from each of the six categories (BAI, BCA, BHU, BLS, BPS, and BSS).

ECN 1500 (fulfills Breadth American Institutions) (BAI)

USU 1350 (fulfills Breadth Life Sciences) (BLS)

CHEM 1110 (fulfills Breadth Physical Sciences) (BPS)

USU 1320 (fulfills Breadth Humanities) (BHU)

APEC 2010 (fulfills Breadth Social Sciences) (BSS)

### University Studies-Depth

Two Communications Intensive (CI) courses and one Quantitative Intensive (QI) course are required.

ASTE 3050 and ASTE 5260 (required for the Agricultural Systems Technology major) will fulfill the Communication Intensive (CI)

One course having QI designation (such as ASTE 3040 or ASTE 3600) fulfills the Quantitative Intensive (QI)

Students in the major must also take one Depth Humanities and Creative Arts (DHA) course and one Depth Social Sciences (DSS) course.

Choose one DHA course from the University Studies Depth requirements

APEC 3010 or APEC 3020 fulfills the Social Sciences (DSS)

The Bachelor of Science in Agricultural Systems Technology includes the following courses:

Technical Requirements (27 credits)

ACCT 2010 - Financial Accounting Principles 3

APEC 2010 - Introduction to Microeconomics (BSS) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

CHEM 1110 - General Chemistry I (BPS) 4

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

MATH 1050 - College Algebra (QL) 4

PSC 3000 - Fundamentals of Soil Science 4

## Agricultural Systems Courses (30 credits)

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 2830 - Agribusiness Sales and Marketing 3

ASTE 3030 - Metal Welding Processes and Technology in Agriculture 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

ASTE 3080 - Compact Power Units for Agricultural and Turfgrass Applications 3

ASTE 4100 - Agricultural Structures and Environment (QI) 3

ASTE 4900 - Senior Project Research and Creative Opportunity 1-6 (6 credits required)

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3

### Note:

Agricultural Systems Technology students may elect to concentrate their coursework within one of the two major emphases: Agribusiness or Agricultural Mechanization.

### Agricultural Mechanization Emphasis

Select 24 credits from the following courses. Twelve of these credits must be selected from upper-division (3000-level and above) courses.

ADVS 3200 - Ethical Issues in Genetic Engineering and Biotechnology (DSC) 3

ASTE 1120 - Forage and Harvest Equipment 3

ASTE 1130 - Planting and Tillage Equipment 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1615 - Agricultural Machinery Engine Laboratory 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 1625 - Agricultural Machinery Power Trains Laboratory 3

ASTE 2250 - Occupational Experience in Agriculture 1-6

ASTE 3100 - Personal Leadership in Agriculture 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

ASTE 3710 - Agricultural Machinery Hydraulic Systems and Diagnosis 3

ASTE 3720 - Agricultural DC Electrical Systems and Diagnosis 3

ASTE 3900 - Special Problems in Agricultural Systems Technology and Education 1-6

ASTE 4250 - Occupational Experiences in Agriculture 1-6

NDFS 5020 - Meat Technology and Processing 4

PSC 4280 - Field Crops 3

PSC 4550 - Weed Management 3

### Agribusiness Emphasis

Select 24 credits from the following courses. Twelve of these credits must be selected from upper-division (3000-level and above) courses.

ACCT 2020 - Managerial Accounting Principles 3

ACCT 3310 - Strategic Cost Management 3

APEC 5000 - Macroeconomics and Trade 3

ASTE 3100 - Personal Leadership in Agriculture 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

ASTE 3900 - Special Problems in Agricultural Systems Technology and Education 1-6

ASTE 4250 - Occupational Experiences in Agriculture 1-6

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 2350 - Small Business Management 3

MGT 3110 - Managing Organizations and People (DSS) 3

MGT 3200 - Business Career Management 2

MGT 3250 - Introduction to Human Resource Management 3

MGT 3500 - Fundamentals of Marketing 3

MGT 3510 - New Venture Fundamentals 2

MGT 3520 - New Venture Management 2

MGT 3560 - New Venture Planning 2

MGT 3670 - Employee Relations and Contract Negotiations 3

MGT 3710 - Team Management 2

MGT 3810 - Employment Law and Policy Development (DSS) 3

MGT 3820 - International Management (DSS) 2

MGT 4070 - Retail Management (CI) 3

MGT 4240 - Merchandise Planning and Control 3

MGT 4535 - Promotional Strategy 2

MGT 4560 - Strategic Sales 2

MGT 4600 - Negotiations 2

Additional General Electives:

Students must complete additional elective courses within the College of Agriculture and Applied Sciences and/or Wildland Resources in order to complete a total of 120 credits required for graduation. Students should consult with their advisor to see which classes will be accepted as electives for these purposes.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Agricultural Systems Technology - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Contact: Debra Spielmaker

Email: [debra.spielmaker@usu.edu](mailto:debra.spielmaker@usu.edu)

Phone: (435) 213-5562

Website: <http://aste.usu.edu/htm/graduate/grad-agricultural-systems-technology>

The MS program requires the completion of a minimum of 30 credits beyond the bachelor's degree. These credits must be approved by a supervisory committee. However, to optimize a student's academic experiences, 36 credits are recommended. A 12-credit core curriculum is required and includes courses in research/statistics and completion of a Plan A thesis for 6 credits. Students are also expected to select and complete an area of specialization.

The following three specializations are available for the MS in Agricultural Education:

The Agricultural Extension Education specialization provides a program for individuals interested in cooperative extension work. The curriculum for the program includes coursework related to managing people; planning, implementing, and evaluating programs to promote technology transfer (adult education); understanding research techniques relevant

to agricultural education; and the managing of fiscal affairs.

Electives are selected from each of the following departments: Agricultural Systems Technology and Education; Applied Economics; Animal, Dairy and Veterinary Sciences; Economics and Finance; Biology; Plants, Soils, and Climate; Wildland Resources; and Instructional Technology and Learning Sciences.

The Secondary and Postsecondary Agricultural Education specialization is designed for persons desiring to improve their competencies as educators. This specialization provides teachers with opportunities to acquire additional knowledge in professional education and in their teaching specialties. The master's degree does not result in a teaching license for public schools.

The purpose of the Family and Consumer Sciences Education and Extension specialization is to expand academic preparation in an area of study such as family studies, housing, textiles and clothing, nutrition and food sciences, and management of personal resources. This specialization places emphasis on teaching and curriculum/program development and/or Extension. Students are prepared for community professions, including secondary teaching (since students earn a teaching license), urban and rural extension, social science, and business. Study may lead to supervisory and administrative positions in business, technical schools, and applied technology colleges, or to consulting positions in mass media and industry. The master's degree does not result in a teaching license for public schools.

#### Admission Requirements:

All students must be admitted into USU's School of Graduate Studies, following standard procedures and policies. To apply visit the School of Graduate Studies (SGS) application website.

Return to: Academic Departments and Programs

Agricultural Systems Technology and Agribusiness (Composite) - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Students must complete the General Education requirements

ECN 1500 : fulfills Breadth American Institutions (BAI)

USU 1350 : fulfills Breadth Life Sciences (BLS)

CHEM 1010 :fulfills Breadth Physical Sciences (BPS)

Since MATH 1050 (QL), MATH 1100 (QL) and STAT 2300 (QL) are required for the Agricultural Systems Technology and Agribusiness Composite Major, one of these courses will fulfill the Quantitative Literacy requirement, and another will fulfill the Exploration requirement.

Students must complete the University Studies Depth requirements

ASTE 3050 and ASTE 5260 fulfill the Communication Intensive (CI)

One course having QI designation (ASTE 3600) fulfills the Quantitative Intensive (QI)

Complete at last 2 credits in approved 3000-level or above courses from both Humanities and Creative Arts (DHA) and Social Sciences (DSS)

APEC 3010 or APEC 3020 fulfills the Social Sciences (DSS)

Applied Economics and Economics Courses (24 credits)

APEC 2010 - Introduction to Microeconomics (BSS) 3 or

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

APEC 3010 - Introduction to Agricultural Economics and Agribusiness (DSS) 3

APEC 3020 - Firm Finance and Records Analysis (DSS) 3

APEC 3310 - Analytical Methods in Applied Economics (QI) 3

ECN 3010 - Managerial Economics (DSS) 3 or

APEC 4010 - Intermediate Microeconomics 3

APEC 5010 - Firm Marketing and Price Analysis (QI) 3

APEC 5015 - Firm Management, Planning, and Optimization (QI) 3

## Agricultural Systems Courses (27 credits)

ASTE 1010 - Introduction to Agricultural Systems Technology 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 3030 - Metal Welding Processes and Technology in Agriculture 3

ASTE 3050 - Technical and Professional Communication Principles (CI) 3

ASTE 3080 - Compact Power Units for Agricultural and Turfgrass Applications 3

ASTE 3600 - Management of Agriculture Machinery Systems (QI) 3

ASTE 3670 - Agricultural Equipment Business Management, Marketing, and Communications 3

ASTE 4100 - Agricultural Structures and Environment (QI) 3

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3

## Technical Requirements (31 credits)

ACCT 2010 - Financial Accounting Principles 3

ACCT 2020 - Managerial Accounting Principles 3

CHEM 1010 - Introduction to Chemistry (BPS) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

MGT 2050 - Legal and Ethical Environment of Business 3

PSC 4000 - Soil and Water Conservation 4

STAT 2300 - Business Statistics (QL) 4

## University Studies Requirements

(not met as part of above requirements) (18 credits)

Communications Literacy (CL1 and CL2) courses 6

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Breadth Life Sciences (BLS) course 3

Depth Humanities and Creative Arts (DHA) course 3

## General Electives (21 credits)

Total Credits for Graduation 120

## Minimum University Requirements

### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Aircraft Maintenance Technician- Airframe & Powerplant A&P Certificate

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

This two-year technical program emphasizes aircraft repair and maintenance.

Required courses are:

AV 1130 - Flight Principles 2

AV 1140 - Aircraft Components and Principles 2

AV 1170 - Aircraft Structures 3

AV 1240 - Aircraft Maintenance 3

AV 2100 - Aircraft Reciprocating Powerplants and Accessories 3

AV 2110 - Aircraft Reciprocating Powerplants and Accessories Lab 3

AV 2140 - Aircraft Turbine Powerplants and Maintenance Operations 3

AV 2150 - Aircraft Turbine Powerplant Maintenance Operations Lab 3

AV 2170 - Aircraft Systems 2

AV 2180 - Aircraft Hydraulic and Pneumatic Systems 2

AV 2190 - Aircraft Systems Lab 1

AV 2200 - Aircraft Hydraulics and Pneumatics Systems Lab 1

AV 2420 - FAA Regulations, Records, and Certification 2

AV 2430 - Aircraft Electrical Systems and Components 2

AV 2440 - Aircraft Electrical Systems Laboratory 2

AV 4200 - Composite Manufacturing Processes and Repair 3

TEE 1030 - Material Processing Systems 3

TEE 1200 - Computer-Aided Drafting and Design 3

TEE 2300 - Electronic Fundamentals (QI) 4

MATH 1050 - College Algebra (QL) 4

MATH 1060 - Trigonometry 2

PHYS 1800 - Physics of Technology (BPS) 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Note:

FAA regulations require students to earn a 70 percent or higher score to pass each course.

Return to: Academic Departments and Programs

Associate of Arts

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

The Associate Degrees are designed to meet the qualifications of the first two years of a Baccalaureate Degree. A student who transfers from USU-Eastern to a public four year institution of higher education in the State of Utah will be automatically cleared of all general education requirements if he or she has received an Associate Degree (students receiving the Associate of Pre-Engineering may have to take additional general education credits). Most accredited four year institutions of higher education in the United States will accept the Associate degree. Students are advised to examine the catalog of the institution to which they plan to transfer.

Credit for courses numbered 1000 or above earned at USU-Eastern are transferable within the Utah State System of Higher Education and will be carried on the student's transcript by the receiving institution. Acceptance of credit should not be confused with its application toward a specific set of requirements or major. Credit other than that intended wholly to meet the General Education requirements of the receiving institution will be applied on the basis of the appropriateness of credit to a particular institution's specific degree program requirements, as determined by the receiving institution.

Students whose native language is not English may use English to meet the Associate of Arts language requirement by completing all of the requirements for an Associate of Science and one of the following:

Provide proof of a 500 or higher score on the Test of English as a Foreign Language (TOEFL)

Successfully complete a minimum of 10 semester hours of ESOL 1000 or above numbered coursework

Return to: Academic Departments and Programs

Automotive Technology - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Auto Technology:

AUTO 1000 - Introduction to Transportation Technology I 4

AUTO 1100 - Engine Repair Theory 3

AUTO 1105 - Engine Repair Lab 3

AUTO 1200 - Automatic Transmission/Transaxle Theory 3

AUTO 1205 - Automatic Transmission/Transaxle Lab 2

AUTO 1300 - Manual Drive Train and Axle Theory 3

AUTO 1305 - Manual Drive Train and Axle Lab 2

AUTO 1400 - Suspension and Steering Theory 3

AUTO 1405 - Suspension and Steering Lab 3

AUTO 1500 - Brakes - Theory 3

AUTO 1505 - Brakes - Lab 2

AUTO 1600 - Electrical and Electronics I Theory 3

AUTO 1605 - Electrical and Electronics I Lab 3

AUTO 1800 - Engine Performance I Theory 3

AUTO 1805 - Engine Performance I Lab 3

AUTO 2600 - Electrical and Electronics II Theory 3

AUTO 2605 - Electrical and Electronics II Lab 2

AUTO 2700 - Heating and Air Conditioning Theory 3

AUTO 2705 - Heating and Air Conditioning Lab 2

AUTO 2800 - Engine Performance II Theory 3

AUTO 2805 - Engine Performance II Lab 2

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 (or higher MATH course)

PHYS 1010 - Elementary Physics (BPS) 3 or

PHYS 1050 - Technical Physics 3

Additional General Education courses 2-6

Computer Literacy 0-3 (if the student does not take the test, 3)

Human Relations course 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

Return to: Academic Departments and Programs

Automotive Technology - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

### Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Automotive Technology:

AUTO 1000 - Introduction to Transportation Technology I 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 (or higher Math course)

AUTO courses 22

Human Relations course 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

Return to: Academic Departments and Programs

Aviation Technology - Maintenance Management - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

This major prepares students for entry-level positions in management and maintenance programs within the airline industry, corporate aviation, and general aviation. Students in the Aviation Technology – Maintenance Management major will complete the courses required for the FAA Airframe and Powerplant (A&P) licenses. Management and communications courses are incorporated into the program to provide essential business skills. Industry internships are available and encouraged in the junior and senior years. Employment opportunities include positions with major airlines as maintenance personnel, maintenance supervisors, fixed-base operators, maintenance directors, repair station managers, FAA inspectors, aircraft/powerplant, and component manufacturers, as well as aerospace manufacturers. These industries are expanding at a rapid rate with excellent employment opportunities. This is forecasted to continue well into the twenty-first century.

### Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.
2. Transfer students from other institutions need a 2.5 total GPA for admission to this major in good standing.
3. Students transferring from other USU majors need a total GPA of 2.4 in major courses for admission to this major in good standing. A cumulative GPA of 2.5 must be maintained.

### Transfer Credit

A transfer student and a college academic advisor initiate a petition for acceptance of transfer credits to meet degree requirements (department head and dean must approve). If transfer credit is not from a Utah school, it is the student's responsibility to provide a catalog or copies of catalog materials (usually available online) to show the content of courses taken. D grades are not accepted as transfer credit, except from Utah schools where USU is required to do so for general education coursework. The repeat policy applies to transfer courses as well as courses taken at USU. Transfer credit from foreign and non-accredited institutions may be used for meeting degree requirements only if posted on the USU record of the student.

## Graduation Requirements for Aviation Technology Major (Maintenance Management)

For all aviation technology majors, the following academic regulations apply in addition to University regulations:

1. A minimum GPA of 2.4 must be maintained in technology/math/ science/business courses required for, or used as technical electives in, the chosen major. University Studies courses are not included in this GPA calculation.
2. No more than 6 credits of D or D+ credit may be applied toward meeting graduation requirements in technology/math/science/business classes.
3. The P-D-F grading option may not be used in required or elective courses. (The P-D-F grading option is approved for University Studies courses.)
4. The academic regulations listed above (1-3) apply to required coursework and any technology/math/science/business course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.
5. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree will have a registration hold placed on their record.
  - a. Students will be placed on probation (registration hold) if they
    - i. have more than 6 credits of D credit (see item 2 above); or
    - ii. have a GPA of less than 2.4 (see item 1 above)
  - b. The hold remains until they improve their standing by repeating classes to reduce the number of D credits to 6 or less, and/or by raising their GPA above 2.4. Students must meet with their advisor to have the hold removed.

Students must complete the General Education Requirements and the University Studies Depth Requirements.

The student must meet with a college academic advisor at least once each semester to work out a schedule having the primary goal of correcting the existing academic problems.

Although transfer credit accepted by the department and the college may be applied toward graduation requirements, the grade received will not be used in the USU GPA calculation.

Note:

### Special Requirements

Students are required to furnish their own basic set of tools and toolbox. With special discounts available through USU, prices range from \$900 to \$1,400. Contact Randy Chesley, [randy.chesley@usu.edu](mailto:randy.chesley@usu.edu) or (435) 797-2748, for required tool list. Additional federal aid may be available for this purchase. See advisor for details. Special tools will be furnished by the department.

### Internship Opportunities

Junior and seniors in the major have the opportunity to complete an internship for credit. Internships must be approved by the appropriate faculty member.

### Career Opportunities

Aviation Technology – Maintenance Management graduates are qualified to enter the work force in many rewarding career fields in aviation. Employment opportunities exist in target industries such as major airline carrier maintenance management, commuter airline maintenance management, fixed-base operator (FBO) maintenance, and Federal Aviation Administration (FAA) aircraft inspection after some field experience. This major has a great deal of depth in general maintenance, which applies to most industrial maintenance operations. Although the major's focus is aviation, the knowledge and skills gained can be used in other fields.

### Required Courses

#### Flight Courses (66 credits)

AV 1100 - The Aviation Profession 1 1

AV 1130 - Flight Principles 2

AV 1140 - Aircraft Components and Principles 2

AV 1170 - Aircraft Structures 3

AV 1240 - Aircraft Maintenance 3

AV 2100 - Aircraft Reciprocating Powerplants and Accessories 3

AV 2110 - Aircraft Reciprocating Powerplants and Accessories Lab 3

AV 2140 - Aircraft Turbine Powerplants and Maintenance Operations 3

AV 2150 - Aircraft Turbine Powerplant Maintenance Operations Lab 3

AV 2170 - Aircraft Systems 2

AV 2180 - Aircraft Hydraulic and Pneumatic Systems 2

AV 2190 - Aircraft Systems Lab 1

AV 2200 - Aircraft Hydraulics and Pneumatics Systems Lab 1

AV 2420 - FAA Regulations, Records, and Certification 2

AV 2430 - Aircraft Electrical Systems and Components 2

AV 2440 - Aircraft Electrical Systems Laboratory 2

AV 3120 - Aviation Law 3

AV 3280 - Advanced Aircraft Maintenance 2

AV 3610 - AeroTechnology Design I 1

AV 4200 - Composite Manufacturing Processes and Repair 3

AV 4280 - Airline Management 3 1

AV 4490 - Human Factors in Aviation Safety 3

AV 4610 - AeroTechnology Design II (CI) 3

AV 4620 - AeroTechnology Design III (CI) 3

TEE 1030 - Material Processing Systems 3 1

TEE 1200 - Computer-Aided Drafting and Design 3 1

TEE 2300 - Electronic Fundamentals (QI) 4

Math, Science and Business (22 credits)

MATH 1050 - College Algebra (QL) 4

MATH 1060 - Trigonometry 2

MATH 1100 - Calculus Techniques (QL) 3 1,2

MGT 3110 - Managing Organizations and People (DSS) 3 1,2,4

MGT 3710 - Team Management 2 1,2,4

PHYS 1800 - Physics of Technology (BPS) 4

STAT 2300 - Business Statistics (QL) 4 2

Note:

Students should meet with their academic advisor to establish a plan of study.

Students must complete a total of 40 credits of stipulated upper-division coursework.

1 Due to teaching load constraints, these courses may be offered during semesters other than those listed here. Check with the department regularly for possible changes. Most of these classes are offered only once each year.

2 These courses may be taken during summer semester to allow for more reasonable course loads during the academic year.

3 Students must take 11 credits of related technical electives which must be upper-division courses (3000-level and above) chosen from the following list: AV 3010, AV 4250, AV 4300, AV 5400; MGT 32504, MGT 35104, MGT 35204, MGT 3700, MGT 38104, MGT 38204, MGT 4720; PHIL 3520; SOC 3320; SOC 3500. For information about which ROTC classes apply, students should contact their academic advisor.

4 These courses can be applied toward a Management Minor

Note:

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.

For information contact

School of Applied Sciences, Technology and Education; Industrial Science 112; Utah State University; 6000 Old Main Hill; Logan UT 84322-6000; tel. (435) 797-1795; kaylee.roholt@usu.edu; www.aviation.usu.edu

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Aviation Technology - Professional Pilot - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

The Aviation Technology – Professional Pilot major prepares students to become professional pilots in the fixed wing and rotorcraft industries. Students must choose one of the emphasis options offered: fixed wing or rotorcraft. Upon graduation from this program, student will have acquired approximately 250-300 hours of flight time. During the freshman and sophomore years, students will complete courses that provide general technological background and skills. The junior and senior years are reserved for concentrated study in flight technology. Students also choose from a specific list of required upper-division directed elective courses. These

courses can be used to broaden educational backgrounds and enhance career opportunities. Aviation Technology – Professional Pilot graduates are trained to be commercial pilots. The degree requirements include completion of the following FAA licenses: private, instrument, commercial, CFI, and CFII.

Students should work closely with their advisor when choosing electives and filling out the necessary matriculation forms. The advisor can be a useful source of information and assistance, but it is the student's responsibility to seek an advisor's aid and meet the necessary graduation requirements.

Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.
2. Transfer students from other institutions need a 2.5 total GPA for admission to this major in good standing.
3. Students transferring from other USU majors need a total GPA of 2.4 in major courses for admission to this major in good standing. A cumulative GPA of 2.5 must be maintained.

Transfer Credit

Transfer credit from accredited U.S. institutions is automatically posted. Posting of credit from U.S. institutions does not imply acceptance as credits toward a degree.

A transfer student and a college academic advisor initiate a petition for acceptance of transfer credits to meet degree requirements (department head and dean must approve). If transfer credit is not from a Utah school, it is the student's responsibility to provide a catalog or copies of catalog materials (usually available online) to show the content of courses taken.

D grades are not accepted as transfer credit, except from Utah schools where USU is required to do so for general education coursework.

Transfer credit from foreign and non-accredited institutions may be used for meeting degree requirements only if posted on the USU record of the student. Courses from accredited institutions having similar content can be transferred and substituted for USU courses shown in the curriculum. Upper-division

coursework cannot be transferred from a two-year institution. Flight courses taken in a program other than for college credit cannot automatically be transferred for university credit. If students feel that they already have an understanding of the material taught in the flight classes, they may challenge the courses. See advisor for details.

U.S. FAR 141.77 Limitations C1 and C2 govern the transfer of previous pilot experience to the USU flight program. This regulation applies when a student wishes to transfer flight training to USU during training for the same certificate or rating received elsewhere. A student participating in a part 141-approved training course may be given 50 percent of the minimum flight hours required in the current USU syllabus for the same certificate or rating. A student who is enrolled in a part 61-approved training course may only be given credit up to 25 percent of the minimum flight hours required in the current USU syllabus for the same certificate or rating. The actual amount of training experience transferred is based upon an evaluation exam and flight check with the Chief Flight Instructor at USU.

#### Fees

In addition to regular tuition and fees, a special fee will be assessed all flight certification classes listed below. When a student enrolls in each flight certification, the fee is due with tuition payment. Course costs are based on average costs of ratings, and include stage check and FAA check ride fees. All fees are subject to change. For current fee structure, see website at: Flight Certification Fee Outline

#### Fixed Wing Flight Fees

AV 2350 - Private Pilot Certification 10,535

AV 2410: Commercial Stage I Flight 5,395

AV 2415: Commercial Stage II Flight 10,463

AV 2540: Instrument Pilot Certification 9,935

AV 2670: Commercial Multi-Engine Certification 13,355

AV 2740 - CFI Certification 7,655

AV 2860 - CFII Certification 2,220

AV 2870: Commercial Single-Engine Add-On 2,535

Total \$62,093

#### Elective Certification

AV 3860 - Multiple Engine Instructor Certification  
4485.00

#### Rotorcraft Flight Fees

AV 2355 - Private Pilot Helicopter Certification 25,705

AV 2515 - Intermediate Flight Helicopter 14,305

AV 2545 - Instrument Pilot Helicopter Certification I  
12,802.50

AV 2555 - Instrument Pilot Helicopter Certification II  
8,522.50

AV 2665 - Commercial Pilot Helicopter Certification  
23,755

AV 2745 - Certified Flight Instructor Certification  
Helicopter 9,605

AV 2865 - Certified Flight Instructor Instrument  
Certification Helicopter 8,152.50

Total \$102,847.50\*

\*This cost is for flight training completed in the R22 aircraft. If students exceed the 230 lb weight limit, they will be required to fly the R44 instead. Please contact the academic advisor for details.

#### Medical Certificates

In accordance with the Code of Federal Regulations, Title 14, Part 61.3, all professional pilot students are required to obtain an FAA Medical Certificate. There are three classes of medical certificates which students may obtain: First Class, Second Class, and Third Class. Although only a Third Class Medical Certificate is required for student pilot operations at Utah State University, it is highly recommended that students obtain a First Class Certificate, in order to ensure that no medical conditions exist which would disqualify him or her from obtaining one at a later date. Many pilot jobs require a First Class Medical Certificate. Students using VA education benefits must maintain at least a second class medical.

A medical certificate may be obtained from a certified Aviation Medical Examiner (AME). Although the cost varies according to the examiner and the type of physical sought (First, Second, or Third), the cost is approximately \$70 to \$100. Detailed requirements for each medical class and durations are explained in CFR Title 14, part 67,

and part 61.23. For further information, contact Flight Operations at (435) 797-7897.

### Graduation Requirements for Aviation Technology (Professional Pilot)

For all aviation technology majors, the following academic regulations apply in addition to University regulations:

1. A minimum GPA of 2.4 must be maintained in technology/math/ science/business courses required for, or used as technical electives in, the chosen major. University Studies courses are not included in this GPA calculation.
2. No more than 6 credits of D or D+ credit may be applied toward meeting graduation requirements in technology/math/science/business classes.
3. The P-D-F grading option may not be used in required or elective courses. (The P-D-F grading option is approved for University Studies courses.)
4. The academic regulations listed above (1-3) apply to required coursework and any technology/math/science/business course which could be used to satisfy graduation requirements for the chosen degree. That is, once a student completes a particular technical elective, it becomes a required course for that student.
5. Students in violation of departmental or college academic regulations, no longer eligible for graduation, or not making satisfactory progress toward a degree will have a registration hold placed on their record.
  - a. Students will be placed on probation (registration hold) if they
    - i. have more than 6 credits of D credit (see item 2 above); or
    - ii. have a GPA of less than 2.4 (see item 1 above)
  - b. The hold remains until they improve their standing by repeating classes to reduce the number of D credits to 6 or less, and/or by raising their GPA above 2.4. Students must meet with their advisor to have the hold removed.

Students must complete the General Education Requirements and the University Studies Depth Requirements.

The student must meet with a college academic advisor at least once each semester to work out a schedule having the primary goal of correcting the existing academic problems.

Although transfer credit accepted by the department and the college may be applied toward graduation requirements, the grade received will not be used in the USU GPA calculation.

Note:

### Internships

Juniors and seniors in the major have the opportunity to complete an internship for credit. Internships must be approved by the appropriate faculty member.

### Career Opportunities

Depending upon the national economy, the airline industry experiences surges and lulls in the demand for properly trained personnel. Job opportunities are presently limited with major airlines; however, regional airlines have been hiring on a regular basis. This is an excellent time to begin aviation training in anticipation of the increased demand for pilots as the economy improves.

### Departmental Honors in Aviation Technology—Professional Pilot (15 credits required)

To receive departmental honors in Aviation Technology—Professional Pilot, students must complete 3 credits of AV 4660. Also, students must select 12 credits of AV Honors coursework, numbered 3000 or above. A cumulative GPA of 3.30, as well as a GPA of 3.50 in upper-division major requirements and Honors coursework, are required for departmental honors. Students must also complete and present in a public forum an Honors thesis/project (e.g., a senior project presentation or student showcase). For more information about departmental honors, contact the Honors Program, (435) 797-2715.

### Required Courses

#### Aviation Core Courses (18 credits)

AV 1100 - The Aviation Profession 1

AV 1130 - Flight Principles 2

AV 3010 - National Airspace, Air Traffic Control, and Airport Administration 3

AV 3120 - Aviation Law 3

AV 3140 - Advanced Avionics Systems and Flight Simulation 3

AV 4490 - Human Factors in Aviation Safety 3

AV 4660 - Flight Senior Project (CI) 3

Math, Science and Business (24 credits)

MATH 1050 - College Algebra (QL) 4

MATH 1060 - Trigonometry 2

MATH 1100 - Calculus Techniques (QL) 3

MGT 3110 - Managing Organizations and People (DSS) 3

PHYS 1800 - Physics of Technology (BPS) 4

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 3250 - Aviation Weather 3

Fixed Wing Emphasis Courses (41 credits)

AV 2170 - Aircraft Systems 2

AV 2330 - Private Pilot Ground School 4

AV 2350 - Private Pilot Certification 1

AV 2400 - Commercial Multi-Engine Ground School 2

AV 2410 - Commercial Stage I Flight 1

AV 2415 - Commercial Stage II Flight 1

AV 2520 - Instrument Pilot Ground School 4

AV 2540 - Instrument Pilot Certification 1

AV 2670 - Commercial Multi-Engine Certification 1

AV 2740 - CFI Certification 1

AV 2860 - CFII Certification 1

AV 2870 - Commercial Single-Engine Add-On 1

AV 3140 - Advanced Avionics Systems and Flight Simulation 3

AV 3300 - Air Transport Pilot Ground School (QI) 4

AV 4280 - Airline Management 3

AV 5400 - Regional Jet Ground School I 4

AV 5410 - Regional Jet Ground School II 4

AV 5420 - Advanced Regional Jet Simulation 3

Rotorcraft Emphasis Courses (42 credits)

AV 2175 - Robinson Helicopter Systems 2

AV 2180 - Aircraft Hydraulic and Pneumatic Systems 2

AV 2335 - Private Pilot Ground School Helicopter 4

AV 2355 - Private Pilot Helicopter Certification 1

AV 2430 - Aircraft Electrical Systems and Components 2

AV 2515 - Intermediate Flight Helicopter 1

AV 2525 - Instrument Pilot Ground School Helicopter 3

AV 2545 - Instrument Pilot Helicopter Certification I 1

AV 2555 - Instrument Pilot Helicopter Certification II 1

AV 2625 - Commercial Pilot Ground School Helicopter 2

AV 2665 - Commercial Pilot Helicopter Certification 1

AV 2745 - Certified Flight Instructor Certification Helicopter 1

AV 2865 - Certified Flight Instructor Instrument Certification Helicopter 1

AV 3145 - Helicopter Flight Training Device 3

AV 3725 - Certified Flight Instructor Ground School Helicopter 2

AV 3825 - Certified Flight Instructor-Instrument Ground School Helicopter 1

AV 4505 - Advanced Robinson Helicopter Systems 3

AV 4605 - Helicopter History and Industry Applications 3

AV 4705 - Crew Resource Management, Safety Management Systems, Aeronautical Decision Making 3

MGT 3710 - Team Management 2

TEE 2300 - Electronic Fundamentals (QI) 4

Note:

Students should meet with their academic advisor to establish a plan of study.

Students must complete a total of 40 credits of stipulated upper-division coursework.	See college advisor
Students must take 6 credits of an upper-division directed electives and must be chosen from the following list: AV 4250, AV 4280, AV 4300; FIN 3400; MGT 3250, MGT 3500, MGT 3510, MGT 3520, MGT 3700; MGT 3710, MGT 3820; MIS 4350, MIS 4550; PHIL 3520; PSY 4240; SOC 3320, SOC 3500. For information about ROTC classes which may apply, students should contact their advisor.	Credits in minor (if required)
1 Depending on weather and other factors, flying courses may be taken during semesters other than those indicated. It is imperative that students work with their advisors and flight instructor to determine the best arrangement for these courses.	12
Note:	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
Requirement Changes	3
Graduation requirements shown on this sheet are subject to change. Students should check with their assigned advisor concerning possible changes.	General Education Requirements and University Studies Depth Requirements
For information contact	Return to: Academic Departments and Programs
School of Applied Sciences, Technology and Education; Industrial Science 112; Utah State University; 6000 Old Main Hill; Logan UT 84322-6000; tel. (435) 797-1795; kaylee.roholt@usu.edu; www.aviation.usu.edu	Building Construction and Construction Management - CC
Minimum University Requirements	Return to: Academic Departments and Programs
Total Credits	Utah State University-Eastern
120	College of Agriculture and Applied Sciences
Grade Point Average (most majors require higher GPA)	School of Applied Sciences, Technology and Education
2.00 GPA	Certificate of Completion
Credits of C- or better	The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:
100	The following courses are required for the Certificate of Completion in Building Construction and Construction Management:
Credits of upper-division courses (#3000 or above)	BCCM 1010 - Building Construction Safety 1
40	BCCM 2010 - Framing I 2
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	BCCM 2030 - Framing II 2
30 USU credits	BCCM 2080 - Concrete I 2
Completion of approved major program of study	BCCM 2090 - Concrete II 2
	BCCM 2100 - Interior Finish I 2
	BCCM 2110 - Interior Finish II 2

BCCM 2170 - Exterior Finish I 2

BCCM 2180 - Exterior Finish II 2

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 ( or higher Math course)

Human Relations course 3

Electives

BCCM 1150 - Basic Print Reading 2 or

EDDT 2650 - Mechanical Blueprint Reading 2

CEE 2240 - Engineering Surveying 3 or

EDDT 1040 - CAD Level I: Intro to CAD 3 or

EDDT 1100 - Residential Architectural Drafting 3

BCCM 2240 - Construction Estimating 3 or

BCCM 2270 - Building Codes and Inspections 2

May use above or any other approved course 2

Return to: Academic Departments and Programs

Business - AB

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

The Associate Degrees are designed to meet the qualifications of the first two years of a Baccalaureate Degree. A student who transfers from USU-Eastern to a public four year institution of higher education in the State of Utah will be automatically cleared of all general education requirements if he or she has received an Associate Degree (students receiving the Associate of Pre-Engineering may have to take additional general education credits). Most accredited four year institutions of higher education in the United States will accept the Associate degree. Students are advised to examine the catalog of the institution to which they plan to transfer.

Credit for courses numbered 1000 or above earned at USU-Eastern are transferable within the Utah State System of Higher Education and will be carried on the student's transcript by the receiving institution. Acceptance of credit should not be confused with its application toward a specific set of requirements or major. Credit other than that intended wholly to meet the General Education requirements of the receiving institution will be applied on the basis of the appropriateness of credit to a particular institution's specific degree program requirements, as determined by the receiving institution.

The following courses are required for the Associate of Science in Business:

BCIS 1410 - Spreadsheet I (Excel) 2

BCIS 2420 - Database I (Access) 2

BUSN 1091 - Business Presentations 3

BUSN 2050 - Business Law 4

BUSN 2200 - Business Communications 3

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

PSY 1010 - General Psychology (BSS) 3 or

SOC 1010 - Introductory Sociology (BSS) 3

STAT 2000 - Statistical Methods (QI) 4

American Institutions course 3

Earth Science course 3

Humanities or Fine Arts course 3

Life Science course 3

Physical Science course 3

Return to: Academic Departments and Programs

Business Administration - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Business Administration:

BCIS 2010 - Business Computer Applications 3 or

BCIS 1410 - Spreadsheet I (Excel) 2 and

BCIS 2420 - Database I (Access) 2

BUSN 1050 - Business Mathematics (MA) 3 or

MATH 1050 - College Algebra (QL) 4

BCIS 2930 - Office Procedures and Human Relations (HR) 3 or

BUSN 2320 - Small Business Management - CTE (HR) 3 or

BUSN 2390 - Organizational Behavior (HR) 3

BUSN 1091 - Business Presentations 3

BUSN 1310 - Introduction to Business Management 2

BUSN 2050 - Business Law 4

BUSN 2200 - Business Communications 3

BUSN 2201 - Marketing Concepts 3

BUSN 2700 - Business Forum 1

ECN 2010 - Introduction to Microeconomics (BSS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Electives (24 credits)

Choose any ACTG, BUSN, BCIS or General Education course.

Return to: Academic Departments and Programs

Career and Technical Education - MEd

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Contact: Debra Spielmaker

Email: [debra.spielmaker@usu.edu](mailto:debra.spielmaker@usu.edu)

Phone: (435) 213-5562

Website: <http://aste.usu.edu/htm/graduate/cte-med>

The Master of Education in Career and Technical Education is an online degree program designed to meet the needs of practicing educators and engage prospective educators in the Career and Technical Education (CTE) profession.

Emphasis options for the degree include educational leadership, non-formal and adult education, and Science, Technology, Engineering and Mathematics (STEM).

Degree Requirements:

Students will determine their interest areas and design a focused program of study that includes core courses in adult education, advanced teaching strategies, assessment and evaluation, reading and applying research, and program design.

For a complete list of requirements, [click here](#).

Admission Requirements:

All students must be admitted into USU's School of Graduate Studies, following standard procedures and policies. To apply visit the School of Graduate Studies (SGS) application website.

## Program Advising:

Students must select a graduate committee chair and two additional committee members, one of whom must be outside of the CTE M.Ed. faculty. A supervisory approval form must be completed and submitted before the end of the first semester.

Under the direction of the graduate supervisory committee, students select a specialization and an emphasis or focus area. A Program of Study must be completed and submitted prior to the end of the second semester.

No thesis is required for this program. If approved by the supervisory committee, students may take up to six credits of independent study, supervised by the student's graduate committee chair.

Return to: Academic Departments and Programs

Cosmetology - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Cosmetology:

COST 1100 - Cosmetology Theory 5

COST 1110 - Cosmetology Lab 10

COST 1200 - Cosmetology Theory 5

COST 1210 - Cosmetology Lab 10

COST 2300 - Intermediate Cosmetology Theory 5

COST 2310 - Intermediate Cosmetology Lab 10

COST 2400 - Intermediate Cosmetology Theory 5

COST 2410 - Intermediate Cosmetology Lab 10

COST 2500 - Advanced Cosmetology Theory 5 (May be necessary to complete clock hour requirement.)

COST 2510 - Advanced Cosmetology Lab 5-10 (May be necessary to complete clock hour requirement.)

COST 2988 - Special Problems 1-3 (May be necessary to complete clock hour requirement.)

BUSN 1050 - Business Mathematics (MA) 3

Choose one of the following Human Relations courses:

BUSN 2320 - Small Business Management - CTE (HR) 3  
OR BUSN 2390 - Organizational Behavior (HR) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Choose one of the following Computer Literacy courses:

BCIS 1010 - Computer Literacy 3 OR BCIS 1410 - Spreadsheet I (Excel) 2 OR ACTG 2800 - Computerized Accounting 2

Return to: Academic Departments and Programs

Diesel and Heavy Equipment Mechanics - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the

Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in Diesel and Heavy Equipment Mechanics:

DSME 1000 - Introduction to Transportation Technology I 4

DSME 1110 - Diesel Engine Overhaul Theory 4

DSME 1130 - Diesel Engine Overhaul Lab 4

DSME 1310 - Fluid Power Theory 4

DSME 1330 - Fluid Power Lab 4

DSME 1340 - Mobile Electrical and Electronics Theory 5

DSME 1360 - Mobile Electrical and Electronics Lab 3

DSME 2210 - Advanced Diesel Engine Theory 5

DSME 2230 - Advanced Diesel Engine Lab 5

DSME 2410 - Heavy Duty Chassis and Power Train Theory 5

DSME 2430 - Heavy Duty Chassis and Power Train Lab 5

DSME 2440 - Mobile Air Conditioning Theory 2

DSME 2460 - Mobile Air Conditioning Lab 1

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MACH 1140 - Engine Machining Theory 2

MACH 1160 - Engine Machining Lab 2

MATH 1020 - Trade Mathematics (MA) 3 (or higher Math course)

WELD 1010 - Beginning Shielded Metal Arc Welding (SMAW) 3

Computer Literacy 0-3 (If the student does not take the test, 3)

Human Relations course 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

Return to: Academic Departments and Programs

Engineering Drafting and Design Technology - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Engineering Drafting and Design Technology:

EDDT 1010 - Technical Drafting 5

EDDT 1040 - CAD Level I: Intro to CAD 3

EDDT 1070 - CAD Level II: Intro to 3-D 3

EDDT 1100 - Residential Architectural Drafting 3

EDDT 2620 - 3-D Modeling Advanced 3

EDDT 2650 - Mechanical Blueprint Reading 2

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 (or a higher Math course)

Human Relations course 3

Electives

Choose one of the following courses:

EDDT 1500 - Introduction to Geographic Information Systems 3

EDDT 2100 - Commercial Architectural Drafting 3

EDDT 2650 - Mechanical Blueprint Reading 2

MACH 1010 - Machine Tool Technology I 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

Return to: Academic Departments and Programs

Family and Consumer Sciences Education (FCSE) - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

The program trains students to become family and consumer science teachers in middle and high schools through a well-rounded curriculum in teaching content areas.

The major includes study in nutrition, dietetics and food sciences; family and human development; interior design; apparel and textiles; and consumer sciences. Many states, including Utah, require a master's degree to work for extension.

In order to obtain a secondary teaching license for grades 6-12, students must complete the 35-credit Secondary Teacher Education Program (STEP), which includes one semester of student teaching in a public school. This program is administered by USU's School of Teacher Education and Leadership (TEAL) within the Emma Eccles Jones College of Education and Human Services. Student must apply to the School of TEAL the semester before taking STEP courses. This is usually the fall of their junior year. Students learn subject content through the School of Applied Sciences, Technology, and Education and spend the last year or two studying education techniques through the STEP program.

For more information, visit [aste.usu.edu/TeachFACS](http://aste.usu.edu/TeachFACS) or contact the Family and Consumer Sciences Education Academic Advisor, Taylor Adams: [taylor.adams@usu.edu](mailto:taylor.adams@usu.edu) or 435-797-7091.

University Studies-Competency

ENGL 1010

ENGL 2010

MATH 1050 (must have C- or better for STEP program)

Note: General Education requirements for further information.

University Studies-Breadth

Students must complete a minimum of 18 credits in breadth courses, including one course from each of the six categories (BAI, BCA, BHU, BLS, BPS, and BSS).

ID 1750, NDFS 1020, FCHD 1500, FCHD 2400, CHEM 1110 and CHEM 1120 are breadth courses that are required for the major

University Studies-Depth

Two Communications Intensive (CI) courses and one Quantitative Intensive (QI) course are required

SCED 3210 and SCED 4200 will fulfill the Communications Intensive (CI) requirement

FCSE 3030 will fulfill the Quantitative Intensive (QI) requirement

Students in the Family and Consumer Sciences Education major must also take one Depth Humanities and Creative Arts (DHA) course and one Depth Life and Physical Sciences (DSC) course.

FCSE 3080 will fulfill the DHA requirement

FCSE 3030 will fulfill the DSC requirement

The following courses are required for the Family and Consumer Sciences Major. For admission into the Secondary Teacher Education Program, students will need to meet minimum grade requirements, found at [teal.usu.edu/htm/undergraduate-programs/seced/adstep](http://teal.usu.edu/htm/undergraduate-programs/seced/adstep).

#### Required Support Courses

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

MATH 1050 - College Algebra (QL) 4

Major Required Courses (92 credits)

A grade of C or better must be earned in these courses

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

FCHD 2100 - Family Resource Management 3 or

FCHD 4350 - Advanced Family Finance 3

FCHD 2400 - Marriage and Family Relationships (BSS) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

FCHD 3350 - Family Finance (DSS) 3

FCHD 4550 - Preschool Methods and Curriculum 3

FCSE 1140 - Introductory Sewing 2

FCSE 2040 - Intermediate Clothing Construction Skills, Principles and Alterations 3

FCSE 2510 - Orientation to Family and Consumer Sciences Education 3

FCSE 3030 - Textile Science (DSC/QI) 4

FCSE 3040 - Advanced Clothing Studies: Patternmaking 3 or

FCSE 4040 - Advanced Clothing Studies: Couture and Tailoring Skills, Principles and Techniques 3

FCSE 3080 - Dress and Humanity (DHA) 3

FCSE 3300 - Family and Consumer Sciences Education Clinical Experience I 1

FCSE 3400 - Family and Consumer Sciences Education Methods I 3

FCSE 3790 - Housing and Interior Design Teaching Methods 3

FCSE 4250 - Internship in Family and Consumer Sciences Education 1-12 (2 credits maximum)

FCSE 4300 - Family and Consumer Sciences Education Clinical Experience II 1

FCSE 4400 - Family and Consumer Sciences Education Methods II 3

FCSE 5500 - Student Teaching Seminar 2 (2 weeks)

FCSE 5630 - Student Teaching in Secondary Schools 10 (13 weeks, full-time)

ID 1750 - Design in Everyday Living (BCA) 3

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

NDFS 1260 - Food Literacy 3

NDFS 2020 - Nutrition Throughout the Life Cycle 3

NDFS 3070 - Science of Food Preparation 3

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2 (May be taken anytime)

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

General Technology - AAS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Utah State University, through its Regional Campuses and Distance Education system and the Utah College of Applied Technology (UCAT) have combined to offer the Associate of Applied Science degree (AAS) in general technology. This degree is ordinarily a terminal degree, but if students desire, they may continue on to a higher degree such as a bachelor's degree.

Admission Information

Students are admitted into this program through the university's regular admission process.

1. New freshman admitted to USU in good standing qualify for admission to this major.

2. Transfer students from other institutions and from other USU majors need a 2.0 total GPA for admission to this major in good standing.

For additional information, or to complete an online application, visit: [usu.edu/admissions/applyonline/](http://usu.edu/admissions/applyonline/)

Students must begin at USU after no more than one year after completing the 900-hour program at a UCAT institution.

### Degree Requirements

Students who have completed a 900-hour program at a UCAT institution may apply to USU for admission to this program. There are four emphases options for students. These options include: Business, Design and Creative Arts, Technology Systems and Allied Health Systems.

A student will complete 15-16 credits of general education, including one course in English composition, a math course, and nine credits of breadth area courses (humanities, physical science and economics). In addition, the student will complete an emphasis area (usually 18-24 credits). The remainder of the student's credits will be made up of transfer credits from a UCAT institution (30 credits). The minimum number of credits needed for the AAS degree is 63. A student must have an accumulated GPA of at least 2.0 in order to graduate.

### Course Requirements

Students should work closely with an advisor to select courses to complete the requirements for this degree. The basic requirements are listed below.

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 or

MATH 1030 - Quantitative Reasoning (QL) 3 or

MATH 1050 - College Algebra (QL) 4 or

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Requirements (9 credits)

American Institution course

Humanities or Social Science course

Physical Science course

Technical Specialty and Institution

30 credits

Emphasis Area Requirements

18-24 credits

Return to: Academic Departments and Programs

Heavy Equipment and Trucking - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Heavy Equipment and Trucking:

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

HETR 1610 - General Maintenance 4

HETR 1620 - Front End Loader Operation 2

HETR 1630 - Tractor Loader Backhoe Operation 2

HETR 1650 - Motor Grader Operation 2

HETR 1660 - Dozer Operation 2

HETR 2760 - Dump and Trailering 2

HETR 2770 - Laws and Regulations 4

HETR 2780 - Maintenance 3

HETR 2790 - Behind the Wheel 6

MATH 1020 - Trade Mathematics (MA) 3 (or higher Math course)

Human Relations course 3

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

Return to: Academic Departments and Programs

IT Support and Web Development - AAS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science Degree is designed for students who wish to complete their education in one or two years. The Associate of Applied Science degree is offered through the Professional and Applied Technology Education Division. A minimum of 15 hours of general education, which shall include courses in composition, math, human relations, and six hours outside the major are required in addition to the major courses for the Associate of Applied Science degree. Courses that fill these requirements follow:

The following courses are required for the Associate of Applied Science in IT Support and Web Development (65-67 credits)

BCIS 1200 - Introduction to Operating Systems 2

BCIS 2210 - Linux and Web Server Administration 3

Multimedia and Web Design

BCIS 1300 - Website Design 3

BCIS 1340 - Digital Video Production 3

BCIS 1350 - Flash Basics and Interactive Web Design 3

BCIS 2300 - Web Programming 3

BCIS 2441 - Graphics for the Web 3

BCIS 2500 - Web Business 3

Application and Software

BCIS 1405 - Word Processing 3

BCIS 1410 - Spreadsheet I (Excel) 2

BCIS 1411 - Spreadsheet II (Excel) 2

BCIS 2420 - Database I (Access) 2

Common Core

BUSN 1050 - Business Mathematics (MA) 3 or

MATH 1050 - College Algebra (QL) 4

BUSN 1091 - Business Presentations 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3 or

BUSN 2200 - Business Communications 3

BUSN 2201 - Marketing Concepts 3

BUSN 2320 - Small Business Management - CTE (HR) 3  
or

BUSN 2390 - Organizational Behavior (HR) 3

OSS 1550 - Business Correspondence 3

Electives (7 credits)

BCIS 2988 - Special Problems 1-3 or

TEE 1010 - Communications Technology 3

BCIS 2300 - Web Programming 3

BUSN 2988 - Special Problems 1-3

Choose any ACTG, ACCT, BCIS, BUSN, ECN, MIS, MNGT or  
OSS course

Return to: Academic Departments and Programs

Machine Tool Technology - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Machine Tool Technology:

BUSN 2200 - Business Communications 3 or

Technical Writing 3

EDDT 1040 - CAD Level I: Intro to CAD 3

EDDT 2620 - 3-D Modeling Advanced 3

EDDT 2650 - Mechanical Blueprint Reading 2

MACH 1010 - Machine Tool Technology I 3

MACH 1020 - Machine Tool Technology II 3

MACH 1030 - Machine Tool Technology III 3

MACH 1040 - Machine Tool Technology IV 3

MATH 1020 - Trade Mathematics (MA) 3

WELD 1010 - Beginning Shielded Metal Arc Welding (SMAW) 3

WELD 2600 - Metallurgy 3

Human Relations Course

Choose one of the following:

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

Elective

MACH 1050 - Machine Tool Technology V 3 or

General Education 3

Return to: Academic Departments and Programs

Office Computer Systems - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion is designed for students who wish to complete their education in one or two years. The Certificate of Completion is offered through the Professional and Applied Technology Education Division. A Certificate of Completion includes a minimum of one course in composition, math and human relations, in addition to the major courses. Courses that fill these requirements follow:

The following courses are required for the Certificate of Completion in Office Computer Systems:

BCIS 1405 - Word Processing 3

BCIS 1406 - Word Processing II (Microsoft Word) 2

BCIS 1410 - Spreadsheet I (Excel) 2

BCIS 2420 - Database I (Access) 2

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 1050 - Business Mathematics (MA) 3

BUSN 2200 - Business Communications 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

Secretarial Emphasis

BCIS 1901 - Intermediate Keyboarding 2

BCIS 1910 - Speedwriting for Notetaking 4

Electives 4

Office Information Systems Emphasis

BCIS 1411 - Spreadsheet II (Excel) 2

BCIS 2421 - Database II (Access) 2

Electives 6

Electives

(Suggested for either emphasis)

BCIS 1200 - Introduction to Operating Systems 2

BCIS 1300 - Website Design 3

BCIS 1411 - Spreadsheet II (Excel) 2

BCIS 1900 - Elementary Typewriting and Keyboarding 1

BCIS 1901 - Intermediate Keyboarding 2

BCIS 1910 - Speedwriting for Notetaking 4

BCIS 2421 - Database II (Access) 2

BCIS 2430 - Desktop Publishing 2

BCIS 2920 - Legal/Medical Practicum 2

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 1500 - Business Leadership Club 1

MATH 1010 - Intermediate Algebra 4

Return to: Academic Departments and Programs

Technology and Engineering Education - BS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

A degree in technology and engineering education prepares students to become qualified instructors who can teach the necessary skills required in our changing world. The ever-increasing rate of technological

development and the impacts of globalization have created a demand for individuals who are technologically literate, innovative and capable of working in teams. The world is looking toward specialized educators to meet this demand.

Students have the option to emphasize their studies in Technology and Engineering Education or Trade and Technical Education.

A Technology and Engineering Education emphasis is designed to prepare students for careers in teaching at the middle school and high school levels. The courses in this major consist of communication, manufacturing, energy, power and transportation classes.

A Trade and Technical Education emphasis is designed to prepare students for teaching Career and Technical Education (CTE) courses at the high school and post-high school levels. The courses in this major consist of classes within a declared expertise of building trades, automotive technology, electricity and electronics, computer-aided drafting, nursing or culinary arts.

Students are exposed to extensive practical classroom experience through role-playing, video-laboratory activities, clinical experiences and student teaching.

Students choosing this major must also be admitted to the Secondary Teacher Education Program (STEP) administered by the Emma Eccles Jones College of Education and Human Services.

For more information, visit [aste.usu.edu/tee](http://aste.usu.edu/tee) or contact the Technology and Engineering Education Academic Advisor, Taylor Adams: [taylor.adams@usu.edu](mailto:taylor.adams@usu.edu) or 435-797-7091.

#### University Studies-Competency

ENGL 1010

ENGL 2010

MATH 1210 (must have a C- or better in a QL course for admission to the STEP program)

Note: alternatively, competency requirements may be fulfilled through testing. See General Education Requirements for further information.

#### University Studies-Breadth

Students must complete a minimum of 18 credits in breadth courses, including one course from each of the six categories (BAI, BCA, BHU, BLS, BPS, and BSS). The following courses are suggested for students in the TEE major:

CHEM 1110 (will satisfy the BPS requirement)

LAEP 1030 (will satisfy the BCA requirement)

PHYS 1800 (will satisfy the Exploration requirement)

WATS 1200 or WILD 2200 (will satisfy the BLS requirement)

Meet with the academic advisor to determine which course to take for the remaining breadth requirements

#### University Studies-Depth

Two Communications Intensive (CI) courses and one Quantitative Intensive (QI) course are required.

SCED 3210 and SCED 4200 (will satisfy the CI requirement)

TEE 2300 (will satisfy the QI requirement)

Students in the Technology and Engineering Education major must also take one Depth Humanities and Creative Arts (DHA) course and one Depth Social Sciences (DSS) Course.

Choose one DHA course from the University Studies Depth requirements

SCED 3210 (will satisfy the DSS requirement)

For Admission into the Secondary Teacher Education Program, students will need to meet minimum grade requirements, found at [teal.usu.edu/htm/undergraduate-programs/seced/adstep](http://teal.usu.edu/htm/undergraduate-programs/seced/adstep).

In addition, students must complete the following courses in preparation for teacher licensure:

#### Communication Courses

ART 2810 - Photography I 3 or

ITLS 5215 - Digital Video Capture and Production I 3 or

ITLS 5245 - Interactive Multi-Media Production 3 or

ITLS 5265 - Internet Development 3

TEE 1200 - Computer-Aided Drafting and Design 3  
(required)

TEE 3050 - Computer Systems and Networking 3  
(required)

#### Construction Courses

TEE 1040 - Construction and Estimating 3

TEE 2220 - Civil Engineering and Architecture 3

#### Energy, Power and Transportation Courses

ENGR 2210 - Fundamental Electronics for Engineers 3 or

TEE 2300 - Electronic Fundamentals (QI) 4

TEE 1020 - Energy, Power, Transportation Systems  
Control Technology 3 (required)

#### Manufacturing Courses

ASTE 3030 - Metal Welding Processes and Technology in  
Agriculture 3 or

AV 4200 - Composite Manufacturing Processes and  
Repair 3

TEE 1030 - Material Processing Systems 3 (required)

TEE 2020 - Computer-Integrated Manufacturing Systems  
3 (required)

TEE 2030 - Wood-Based Manufacturing Systems 3  
(required)

#### Professional Education Courses:

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations  
(DSS/CI) 3

SCED 4200 - Language, Literacy and Learning in the  
Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SPED 4000 - Education of Exceptional Individuals 2

#### Technology and Engineering Education Courses

TEE 3200 - Methods of Teaching Engineering and  
Technology Education I 3

TEE 3300 - Clinical Experience I 1

TEE 4300 - Clinical Experience II 1

TEE 4400 - Methods of Teaching Engineering and  
Technology Education II 3

TEE 5500 - Student Teaching Seminar 2

TEE 5630 - Student Teaching in Secondary Schools 10

#### Related Professional Courses

TEE 1000 - Orientation to Technology and Engineering  
Education 1

TEE 3440 - Science, Technology, and Modern Society  
(DSC) 3

#### Related Technical Courses

BIOL 1610 - Biology I 4 or

CHEM 1110 - General Chemistry I (BPS) 4 and

CHEM 1115 - General Chemistry I Laboratory 1

MATH 1210 - Calculus I (QL) 4 (required)

PHYS 1800 - Physics of Technology (BPS) 4 (required)

#### Elective Courses

Select a minimum of 9 credits from the following  
courses, not taken above to meet core requirements:

ART 1050 - Introduction to Photography 3

ART 1120 - Two-Dimensional Design 3

ART 1130 - Three-Dimensional Design 3

ART 2810 - Photography I 3

ASTE 1610 - Agricultural Machinery Engines 3

ASTE 1615 - Agricultural Machinery Engine Laboratory 3

ASTE 1620 - Agricultural Machinery Power Trains 3

ASTE 1625 - Agricultural Machinery Power Trains  
Laboratory 3

ASTE 2200 - Electricity in Agricultural Systems 3

ASTE 3710 - Agricultural Machinery Hydraulic Systems  
and Diagnosis 3

ASTE 3720 - Agricultural DC Electrical Systems and  
Diagnosis 3

ASTE 4100 - Agricultural Structures and Environment (QI) 3

ENGR 2010 - Engineering Mechanics Statics 3

ENGR 2030 - Engineering Mechanics Dynamics 3

ITLS 5205 - Computer Applications for Instruction and Training 3

ITLS 5215 - Digital Video Capture and Production I 3

ITLS 5230 - Instructional Graphic Production I 3

ITLS 5245 - Interactive Multi-Media Production 3

ITLS 5265 - Internet Development 3

ITLS 5275 - Multimedia Special Topic Studio I 3

ITLS 5285 - Multimedia Special Topic Studio II 3

ITLS 5290 - Multimedia Production for Instruction and Training 3

MATH 1220 - Calculus II (QL) 4

MIS 3450 - Designing Graphical User Interfaces for Electronic Commerce 3

MIS 5700 - Internet Management and Electronic Commerce (DSS) 3

To schedule an appointment with the TEE academic advisor, contact (435)797-2282.

Please visit [aste.usu.edu/tee](http://aste.usu.edu/tee) for more information.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Technology and Engineering Education - MS

Return to: Academic Departments and Programs

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

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Website: <http://aste.usu.edu/htm/graduate/grad-technology-and-engineering-education>

The degree is designed for technology and engineering education and career and technical education (CTE) instructors who want to strengthen their background in current educational theory and practice. Students are required to complete a professional core of courses relating to education theory and practice in the areas of curriculum and program design, evaluation and assessment, issues and trends, administration and organization, and electives to design the program to meet your individual goals. The program offers an innovative one-month summer program designed for practicing teachers. Plan A requires a minimum of 30 semester credits, including a thesis. Plan B is a non-thesis option that requires 33 semester credits, including a creative project.

Admission Requirements:

All students must be admitted into USU's School of Graduate Studies, following standard procedures and policies. To apply visit the School of Graduate Studies (SGS) application website.

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## Welding - AAS

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Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Associate of Applied Science Degree

The Associate of Applied Science (AAS) degree is offered through the Professional and Applied Technology Education Division and is intended for students who wish to finish their education in two years and then pursue employment in the welding industry. Alternatively, about 1/3 of the welding AAS program completers transfer into a 4-year welding engineering technology type of program. Students obtaining the AAS degree in welding must complete 46 credits of welding courses plus a minimum of 18 hours of general education for a total of 64 credit hours. General education requirements shall include specific courses in communication, math, human relations, machine shop, computer aided drafting, and an elective of the student's choosing.

## Admission Requirements

1. New freshman admitted to USU-Eastern in good standing qualify for admission to this program
2. Transfer students from other institutions need a 2.5 GPA for admission to this major
3. Students transferring from other USU-Eastern majors need a total GPA of 2.5 for admission to this major
4. No welding courses below a C- may be applied toward meeting graduation requirements
5. Visual acuity requirements: 20/40 vision and Jaeger J-2 at 12 inches, with or without corrective lenses. If corrective lenses are required to attain this level of visual

acuity, the corrective lenses must be worn during class periods.

The following courses illustrate a typical path for obtaining the Associate of Applied Science in Welding:

EDDT 1040 - CAD Level I: Intro to CAD 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MACH 1010 - Machine Tool Technology I 3

MATH 1020 - Trade Mathematics (MA) 3 ( or higher Math course)

WELD 1100 - Shielded Metal Arc Welding (SMAW) 7

WELD 1110 - Advanced Shielded Metal Arc Welding (SMAW) 3

WELD 1120 - Beginning Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW) 7

WELD 1130 - Advanced Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW) 3

WELD 1140 - Related Welding Processes 7

WELD 1150 - Beginning Gas Tungsten Arc Welding (GTAW) 7

WELD 2400 - Print Reading for Welders 3

WELD 2410 - Practical Fabrication and Layout 3

WELD 2500 - Weld Inspection 3

WELD 2600 - Metallurgy 3

## Electives

Students may choose an elective course of 3 credit hours or more. Some suggested options include:

CHEM 1010 - Introduction to Chemistry (BPS) 3

PHYS 1010 - Elementary Physics (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PHYS 1050 - Technical Physics 3

## Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

BUSN 2320 - Small Business Management - CTE (HR) 3

BUSN 2390 - Organizational Behavior (HR) 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

CMST 2110 - Interpersonal Communication (BHU/HR) 3

CMST 2120 - Small Group Communication (HR) 3

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Welding - CC

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Agriculture and Applied Sciences

School of Applied Sciences, Technology and Education

Certificate of Completion

The Certificate of Completion in welding is offered through the Professional and Applied Technology Education Division and is designed for students who wish to pursue employment in the welding industry after completing a one year sequence of courses. To obtain a Certificate of Completion in welding, students must complete 23 credit hours in welding plus 9 credit hours general education classes including specific communication, math, and human relations courses. An example of courses that fill these requirements follow:

Admission Requirements

1. New freshman admitted to USU-Eastern in good standing qualify for admission to this program
2. Transfer students from other institutions need a 2.5 GPA for admission to this major
3. Students transferring from other USU-Eastern majors need a total GPA of 2.5 for admission to this major
4. No welding courses below a C- may be applied toward meeting graduation requirements
5. Visual acuity requirements: 20/40 vision and Jaeger J-2 at 12 inches, with or without corrective lenses. If corrective lenses are required to attain this level of visual

acuity, the corrective lenses must be worn during class periods.

The following courses would be a typical way of meeting the credit hour requirements for a Certificate of Completion in Welding:

A certificate of completion in welding requires successful completion of 23 credit hours of WELD courses. Any of the courses beginning with the WELD prefix can be used to satisfy this requirement. Listed below is one of many possible combinations of courses that could be used to satisfy the requirements for a one year certificate. Consult with your advisor for other options.

WELD 1100 - Shielded Metal Arc Welding (SMAW) 7

WELD 1110 - Advanced Shielded Metal Arc Welding (SMAW) 3

WELD 1150 - Beginning Gas Tungsten Arc Welding (GTAW) 7

WELD 2400 - Print Reading for Welders 3

WELD 2600 - Metallurgy 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1020 - Trade Mathematics (MA) 3 (or higher Math course)

Human Relations

Students may choose one of the following courses recognized by USU-Eastern as a Human Relations course:

BCIS 2930 - Office Procedures and Human Relations (HR) 3

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BUSN 2390 - Organizational Behavior (HR) 3

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Administrative/Supervisory Concentration Program

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Administrative/Supervisory Concentration Program

Completion of the A/SC program qualifies a person for the license required of administrators and/or supervisors at any level in the public school systems of Utah.

Instructional Leadership Core Courses (30 credits)

EDUC 6540 - Data-Based Decision Making for School Leaders 3

TEAL 6050 - Theories of Instructional Supervision 3

TEAL 6060 - Instructional Leadership: Assessment for Curricular Accountability 3

TEAL 6080 - Leadership and the School Principal 3

TEAL 6090 - Theories of Organizational Leadership in Education 3

TEAL 6280 - Instructional Leadership: Instructional Practices for Diverse Learners 3

TEAL 6500 - School Finance and Resource Management 3

TEAL 6740 - School Law 3

TEAL 6930 - Supervision and Administrative Internship Seminar 2

TEAL 6940 - Supervision and Administrative Internship 1-4

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Curriculum and Instruction - EdS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

The EdS is a 36-42 credit post-masters degree designed to enable experienced educators to specialize and improve their professional competence in specific areas

or fields. The EdS degree meets the advanced study needs of persons seeking leadership roles in public education, junior colleges, and small private and state colleges. The course work requirements extend competencies for individuals serving in such positions as program developers, trainers, curriculum specialists, supervisors, instructional leaders, and college instructors. The EdS is also related to certification needs of some educational leaders. Areas of emphasis in the Department of Elementary Education are: Early Childhood; Instructional Leadership; Supervision and Leadership; Schooling, Culture, and Society; and Reading and Writing. The EdS is especially appropriate for those individuals who wish preparation beyond the master's degree level, but who are not interested in doctoral work with its greater emphasis on developing proficiencies in conducting independent research.

Successful admission into and completion of the 42-credit emphasis program in Supervision and Leadership also earns the EdS recipient an Administrative/Supervisory Certificate. For more information on the ASC see: <http://www.cehs.usu.edu/asc/index.php>

Admission Requirements:

To be evaluated against established criteria, students must submit to the School of Graduate Studies at Utah State University an electronic application for admission (<http://www.usu.edu/graduateschool/>) Requirements for admission include:

Official copies of both undergraduate and graduate credits from all colleges or universities attended. An average grade of B (3.0) or better is required during the last 60 semester credits.

Three letters of recommendation (required). At least two of these letters should come from individuals who can evaluate the student's academic abilities. All letters should address the student's potential for successful graduate study.

Documentation of a master's degree related to the area of specialization.

An official report of the Graduate Record Examination (GRE) including both the Verbal and Quantitative subtests. Scores at or above the 40th percentile are required on both of these subtests.

Evidence of writing ability as requested by the department of specialization.

A statement of specific reasons for wanting to enroll in the Educational Specialist degree.

An up-to-date vita (resume) documenting at least two years of successful teaching experience or equivalent.

#### Admission Deadline

On-campus EdS applications are reviewed March 15 for Summer Semester, June 15 for Fall Semester, October 15 for Spring Semester.

#### Program of Study and Comprehensive Examinations

A committee chair and two committee members approve a student's Ed.S. program of study and provide advice and counsel to the student as needed. They are also responsible for the construction, administration, and evaluation of the comprehensive examination that is taken by the student during the last semester of course work. A student must register for this written examination at the beginning of the semester in which it is to be taken. The comprehensive examination includes questions that require the student to integrate and synthesize information from the required core, research, and emphasis courses in the Ed.S. program. Successful completion of the examination is required in order for a committee to recommend a student for graduation.

#### EdS and EdD/PhD Relationship

For USU students who wish to transfer from the Ed.S. program to a related doctoral program, or vice versa, credits earned from one program do not automatically transfer to the other. The student interested in a transfer from one post-masters degree program to another must make a request for program transfer through his or her major advisor. Upon the advisor's recommendation, the appropriate program admission's committee will then make a determination regarding the acceptance of such a transfer. Transfer between programs will require adherence to the new program's requirements. It is important to note that the comprehensive examination completed for the EdS will not substitute for the doctoral comprehensive examination, given that the doctorate requires more extensive course work.

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Early Childhood Education and Special Education (Composite) - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Provisional Admission Process and Requirements

## Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.)

Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

## University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Early Childhood Education and Special Education—Early Childhood Major

Early Childhood Education Major (68 credits)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a C will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II ( courses taken concurrently during fall or spring semester) (16 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 3005 - Beginning Classroom Management 1

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5 (2 credits required)

PSY 3660 - Educational Psychology for Teachers 2

SPED 4000 - Education of Exceptional Individuals 2

SPED 5530 - Technology for Teaching Exceptional Learners 3

Transition (9 credits)

ELED 3100 - Classroom Reading Instruction 3

FCHD 4550 - Preschool Methods and Curriculum 3 1

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 1

Level III (courses taken concurrently during fall or spring semester) (16 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (courses taken during two semesters, fall and spring) (21 credits)

ELED 5250 - Advanced Classroom Management and Student Teaching Seminar 3 2

ELED 5050 - Student Teaching - Kindergarten 3-6 2 (3 credits maximum)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6 2

SPED 5210 - Student Teaching in Special Education: Dual Majors (CI) 3-15 2 (6 credits maximum)

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 3 (3 credits required)

Note:

1 Level II must be completed prior to taking this course.

2 Level III, Special Education major, and ELED 4480 must be completed prior to taking this course.

3 FCHD 4550 must be completed prior to taking this course.

Special Education—Early Childhood Major (33 credits)

Students must be admitted to the Special Education program prior to taking these courses.

Fall:

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5730 - Intervention Strategies for Young Children with Disabilities 3

SPED 5820 - Preschool Practicum with Young Children with Disabilities in Community Environments 5

Spring:

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5710 - Young Children with Disabilities: Characteristics and Services 3

SPED 5810 - Seminar and Field Experiences with Infants and Families 3-4 (4 credits required)

SPED 5840 - Practicum: Working with Young Children with Autism 1

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

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Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

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General Education Requirements and University Studies Depth Requirements

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Early Childhood Education and Special Education (Composite) - BS

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Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Provisional Admission Process and Requirements

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(Additional factors to be weighted may be gender and/or minority status consistent with applicable law.)

Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

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Choose one course from the following to meet the BHU requirement:

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PSC 2000 - The Atmosphere and Weather (BPS) 3

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USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

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Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

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ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

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Note:

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Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

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Note:

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2 Level III, Special Education major, and ELED 4480 must be completed prior to taking this course.

3 FCHD 4550 must be completed prior to taking this course.

Special Education—Early Childhood Major (33 credits)

Students must be admitted to the Special Education program prior to taking these courses.

Fall:

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5730 - Intervention Strategies for Young Children with Disabilities 3

SPED 5820 - Preschool Practicum with Young Children with Disabilities in Community Environments 5

Spring:

SPED 5050 - Applied Behavioral Analysis 2: Applications  
3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5710 - Young Children with Disabilities:  
Characteristics and Services 3

SPED 5810 - Seminar and Field Experiences with Infants  
and Families 3-4 (4 credits required)

SPED 5840 - Practicum: Working with Young Children  
with Autism 1

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

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General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Early Childhood Education or Elementary Education K-6  
- BA (School of Teacher Education and Leadership)

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

School of Teacher Education and Leadership

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in  
one or more foreign languages. Specifically, the BA  
requirement may be completed in one of the following  
ways:

Demonstration of proficiency in one foreign language by  
successful completion of one course at the 2020-level or  
higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language  
by successful completion of COMD 4920 and COMD 4780,  
and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by  
successful completion of the 1020 course level in one  
language and the 2010 course level in the second  
language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher)  
foreign language grammar or literature course requiring  
the 2020 course level (or its equivalent) as a  
prerequisite. Conversation courses cannot be considered  
for satisfying this requirement.

For nonnative English-speaking students only, the  
following options are available:

Successful completion of the Intensive English Language  
Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough  
to meet the University admission criteria.

## Provisional Admission Process and Requirements

### Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

### Elementary/Early Childhood Areas of Emphasis

Students majoring in Elementary Education or Early Childhood Education are required to complete an area of Emphasis. All students majoring in Elementary Education or Early Childhood Education must complete an area of Emphasis consisting of 9-12 credits. (For the K-6 Licensure Program 9 credits are required, while 12 credits are required for all other programs.) The area of Emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education,

Health/Wellness/Nutrition, School Library Media, a Foreign Language, or Dual Language Immersion (DLI).

### University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

#### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

#### MATH 1050 - College Algebra (QL) 4

#### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Early Childhood Education Major (80 credits) or Elementary Education K-6 Major (79 credits)

(includes Teaching Support Courses and Emphasis)

Note:

Grades lower than a C will not be accepted toward major requirements.

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (14 credits) (courses taken concurrently)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6 (4 credit required)

ELED 3005 - Beginning Classroom Management 1

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

PSY 3660 - Educational Psychology for Teachers 2

ELED 3100 - Classroom Reading Instruction 3 (ELED 3100 may be taken during transition semester, if desired.)

Transition (11 credits)

ELED 4150 - Assessment and Differentiation Across the Curriculum 2

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 1

FCHD 4550 - Preschool Methods and Curriculum 3 1

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SPED 4000 - Education of Exceptional Individuals 2

Level III (16 credits; must follow Level II) (courses taken concurrently during fall or spring semester)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (21 credits for Early Child. Educ. or 23 credits for K-6) (taken during two semesters)

ELED 5050 - Student Teaching - Kindergarten 3-6 2 (6 credits minimum)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6 2 (for Early Childhood Education majors) or

ELED 5150 - Student Teaching - Elementary (Grades 4-6) 6 2

ELED 5250 - Advanced Classroom Management and Student Teaching Seminar 3 2

FCHD 4960 - Practice Teaching in Child Development Laboratories 3 or 6 3 3 (for K-6) or 6 (for Early Child. Educ.)

MUSC 3260 - Elementary School Music 2 (required for K-6 program only)

PEP 3050 - Physical Education in the Elementary School 3 (required for K-6 program only)

Emphasis (9 credits for Elementary Education K-6 Major, 12 credits for Early Childhood Education Major) (C- or better required)

A listing of available Emphasis areas is shown below. For a listing of required and recommended courses, students should contact their advisor.

Electives (to complete 120 credits)

The following courses are recommended to be taken as electives.

ART 3700 - Elementary Art Methods 3

MUSC 3260 - Elementary School Music 2

PEP 3050 - Physical Education in the Elementary School 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

Note:

1 Level II must be completed prior to taking this course.

2 Level III and ELED 4480 must be completed prior to taking this course.

3 FCHD 4550 must be completed prior to taking this course.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Early Childhood Education or Elementary Education K-6  
- BS (School of Teacher Education and Leadership)

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Provisional Admission Process and Requirements

Provisional Admission Process and Requirements

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Choose one course from the following to meet the BHU requirement:

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SOC 1010 - Introductory Sociology (BSS) 3

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USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

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## Depth Education Requirements

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Grade Point Average (most majors require higher GPA)

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Credits of C- or better

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Credits of upper-division courses (#3000 or above)

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USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

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Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Education - EdD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Education, Interdepartmental Doctoral Program in Curriculum and Instruction, and EdD

Faculty: Faculty are listed with participating programs and departments (e.g., School of Teacher Education and Leadership, Technology and Engineering Education Department, and Agricultural Systems Technology and Education Department)

Degrees offered: Doctorate of Education (EdD)

Graduate specialization: Curriculum and Instruction

Admission Requirements

For admission information, contact: Dean, School of Graduate Studies, Utah State University, 0900 Old Main Hill, Logan UT 84322-0900; telephone (435) 797-1189; FAX (435) 797-1192; or visit: <http://www.usu.edu/graduateschool/>

To be evaluated against established criteria, students must submit to the School of Graduate Studies at Utah State University an Application for Admission along with the following:

1. A copy of transcripts of both undergraduate and graduate credits from all colleges or universities attended. An average grade of B (3.0) or better is required during the last two years of undergraduate work and for all graduate work.
2. Three letters of recommendation (required). At least two of these letters should come from individuals who can evaluate the student's academic abilities. All letters should address the student's potential for successful graduate study.
3. Documentation of a master's degree in education or a closely related field.
4. An official report of the Graduate Record Examination (GRE).
5. 700-900 word essay and resume/vita.

Applicants to the Curriculum and Instruction PhD and EdD degrees must have two years of teaching experience.

#### General Information About Doctorate in Curriculum and Instruction (C & I)

The Doctorate of Education (EdD) program is not currently accepting students.

#### Planned Program

To complete a doctorate degree, a minimum of 60 total credits is required for students with a master's degree, and a minimum of 90 total credits is required for students without a master's degree. A student must:

1. Complete a Unifying Curriculum and Instruction Program of Studies Core (12-15 semester credits) and a Research and Statistics Core (12 semester credits).
2. Complete a planned program of supporting electives, as approved by the student's supervisory committee.
3. Pass a written comprehensive examination. This exam must be satisfactorily completed before the student advances to candidacy. Advancement to candidacy also requires an approved dissertation proposal.

4. Complete and satisfactorily defend a doctoral research study directed and judged by a supervisory committee of faculty.

5. Complete all final requirements, as specified by the Curriculum and Instruction specialization, the Emma Eccles Jones College of Education and Human Services, and the School of Graduate Studies.

#### Financial Assistance

Students should contact department heads for all inquiries regarding assistantships and tuition waivers. Applications for University assistantships, fellowships, and all financial aid are processed through department offices. For a listing of fellowships and scholarships, see the Graduate Financial Assistance section of this catalog.

#### Career Opportunities

The doctoral specialization prepares education leaders for positions as college and university researchers and teachers in education and education-related fields. Recipients of the doctorate degree are also prepared to conduct and direct research and development activities in public or private educational agencies or in the corporate sector; teach in community colleges, four-year colleges, and universities; serve as supervisors and curriculum specialists in public or private educational institutions and settings; and serve in a variety of other careers.

#### Return to: Academic Departments and Programs

#### Education - PhD

#### Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Education, Interdepartmental Doctoral Program in Curriculum and Instruction

Faculty: Faculty are listed with participating programs and departments (e.g., School of Teacher Education and Leadership, Technology and Engineering Education Department, and Agricultural Systems Technology and Education Department)

Degrees offered: Doctorate of Philosophy (PhD)

## Graduate specialization: Curriculum and Instruction

### Admission Requirements

For admission information, contact: Dean, School of Graduate Studies, Utah State University, 0900 Old Main Hill, Logan UT 84322-0900; telephone (435) 797-1189; FAX (435) 797-1192; or visit: <http://www.usu.edu/graduateschool/>

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2. Three letters of recommendation (required). At least two of these letters should come from individuals who can evaluate the student's academic abilities. All letters should address the student's potential for successful graduate study.
3. Documentation of a master's degree in education or a closely related field.
4. An official report of the Graduate Record Examination (GRE).
5. 700-900 word essay and resume/vita.

Applicants to the Curriculum and Instruction doctoral degree program must have two years of teaching experience.

### General Information About Doctorate in Curriculum and Instruction (C & I)

The Curriculum and Instructional doctoral degree is offered through the School of Teacher Education and Leadership (TEAL) in the Emma Eccles Jones College of Education and Human Services (CEHS). The C & I specialization prepares graduates for leadership, teaching, and research positions in curriculum and instruction.

### Planned Program

To complete a doctorate degree, a minimum of 60 total credits is required for students with a master's degree,

and a minimum of 90 total credits is required for students without a master's degree. A student must:

1. Complete a Unifying Curriculum and Instruction Program of Studies Core (12-15 semester credits) and a Research and Statistics Core (12 semester credits).
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4. Complete and satisfactorily defend a doctoral research study directed and judged by a supervisory committee of faculty.
5. Complete all final requirements, as specified by the Curriculum and Instruction specialization, the Emma Eccles Jones College of Education and Human Services, and the School of Graduate Studies.

### USU Doctoral Residency Requirement

The PhD prepares candidates for careers in university settings, school districts, or research institutes. It is designed for graduates who will have significant leadership, research and/or higher education teaching responsibilities.

All PhD students must:

Present once at a state, regional, or national professional conference

Publish or be actively engaged in the process of publishing your scholarship in a peer-reviewed professional journal

PhD students participate with faculty to extend their immersion in academia in a number of ways:

Research and creative endeavors: (e.g., participate in a research project; participate in a grant funded project; apply for graduate student funding; write/co-write a grant to fund a research project; publish an article in professional organization's newsletter; publish a book review)

Immersion in the culture of graduate education: (e.g., participate in scholarly discussion of writing groups; participate in graduate student organizations and events; serve on committees within the department, college, or

university; complete coursework or immersion in literature beyond program requirements)

Engagement in professional activities: (e.g., teach a college course; work as a research or teaching assistant at the college level; conduct a guest lecture or workshop; attend local, regional, or national scholarly professional meetings; hold office in local, regional, or national scholarly professional meetings; organize informal seminars, consortia, or orientation programs; serve as a reviewer for a professional conference or journal)

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#### Return to: Academic Departments and Programs

#### Elementary Education - BA

#### Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

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overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.)

Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

#### Elementary/Early Childhood Areas of Emphasis

Students majoring in Elementary Education or Early Childhood Education are required to complete an area of Emphasis. All students majoring in Elementary Education or Early Childhood Education must complete an area of Emphasis consisting of 9-12 credits. (For the K-6 Licensure Program 9 credits are required, while 12 credits are required for all other programs.) The area of Emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education, Health/Wellness/Nutrition, School Library Media, a Foreign Language, or Dual Language Immersion (DLI).

#### University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

##### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

MATH 1050 - College Algebra (QL) 4

##### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Elementary Education Major (78-80 credits)

(includes Teaching Support Courses and Emphasis)

Students majoring in Elementary Education should complete all the following courses as indicated.

Note:

Teaching License requires 2.75 cumulative Grade Point Average (GPA). (Grades lower than a C will not be accepted in the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (17 credits) (courses taken concurrently)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 3005 - Beginning Classroom Management 1

ELED 3100 - Classroom Reading Instruction 3 1

ELED 4150 - Assessment and Differentiation Across the Curriculum 2

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

PSY 3660 - Educational Psychology for Teachers 2

SPED 4000 - Education of Exceptional Individuals 2

Level III (16 credits; must follow Level II) (courses taken concurrently)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (15 credits; must follow Level III)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6

ELED 5150 - Student Teaching - Elementary (Grades 4-6) 6

ELED 5250 - Advanced Classroom Management and Student Teaching Seminar 3

Teaching Support Courses (Elementary Education Major, 11-15 credits; Early Childhood and Elementary Education Dual Major, 10-11 credits) (Grade of C- or better is required.)

Choose 1 of the following courses:

ELED 3200 - Literacy Clinic Practicum 3

PEP 3050 - Physical Education in the Elementary School 3

THEA 3320 - Movement Exploration for Elementary Education Majors 3

Choose 1 of the following courses:

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 4100 - The Study of Language 3 or

LING 4100 - The Study of Language 3

ENGL 3520 - Multicultural American Literature 3

ENGL 3620 - Native American Studies 3

ENGL 4200 - Linguistic Structures 3

ENGL 4220 - Teaching Literacy in Diverse Classrooms 3

HIST 4730 - History of Black America (CI) 3 or

RELS 4730 - History of Black America (CI) 3

SPAN 3560 - Introduction to U.S. Latino/a Culture 3

TEAL 4710 - Language and Cultural Diversity in Education 3

TEAL 4745 - Second Language/Literacy Acquisition and Development 3

Choose 1 of the following courses:

ART 3700 - Elementary Art Methods 3

MUSC 3260 - Elementary School Music 2

TEAL 5560 - Special Topics 0.5-4

THEA 3380 - Drama Across the Curriculum, Grades K-12 3

THEA 4330 - Methods of Teaching Drama, Grades K-6 3

Choose 1 of the following courses:

HEP 2000 - First Aid and Emergency Care 2

HEP 2500 - Health and Wellness 2

HEP 3000 - Drugs and Human Behavior 3

Choose 1 of the following courses:

ART 1020 - Drawing I 3

ART 1050 - Introduction to Photography 3

ART 1120 - Two-Dimensional Design 3

ART 1130 - Three-Dimensional Design 3

ART 2650 - Introduction to Ceramics 3

ART 3700 - Elementary Art Methods 3

ARTH 2710 - Survey of Western Art: Prehistoric to Medieval (BHU) 3 or

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

CMST 1020 - Public Speaking (BHU) 3

CMST 2270 - Argumentation and Debate 3

COMD 2500 - Language, Speech, and Hearing Development 3

ELED 3800 - Practicum: USU ArtsBridge 1-2 (see advisor)

ELED 4410 - Gifted Education in the Regular Classroom 3

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 (must be admitted to Teacher Education Program)

ENGL 3530 - Children's Literature 3

FCHD 2660 - Parenting and Child Guidance (HR) 3

HIST 3850 - History of Utah (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

MUSC 1010 - Introduction to Music (BCA) 3

MUSC 3010 - Masterpieces of Music (DHA) 3

MUSC 3020 - History of Jazz (DHA) 3

MUSC 3660 - Opera by Children 3

PHIL 2400 - Ethics (BHU) 3

POLS 3150 - State and Local Government 3

PSC 3820 - Climate and Climate Change (DSC/QI) 3

PUBH 3120 - Family and Community Health 3

THEA 3330 - Drama for Classroom Teachers 3

Emphasis (12 credits) (C- or better required)

Available Emphasis areas are shown below. For a listing of required and recommended courses, students should contact their advisor.

Note:

1ELED 3100 may be taken after Level II, but is required before Level III.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500;HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Elementary Education - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Provisional Admission Process and Requirements

Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview. (Additional factors to be weighted may be gender and/or minority status consistent with applicable law.) Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

#### Elementary/Early Childhood Areas of Emphasis

Students majoring in Elementary Education or Early Childhood Education are required to complete an area of Emphasis. All students majoring in Elementary Education or Early Childhood Education must complete an area of Emphasis consisting of 9-12 credits. (For the K-6 Licensure Program 9 credits are required, while 12 credits are required for all other programs.) The area of Emphasis must be chosen from the following fields: Language Arts, Social Studies, Mathematics, Mathematics/General Science, General Science, Fine Arts, Art, Music, Physical Education, Health/Wellness/Nutrition, School Library Media, a Foreign Language, or Dual Language Immersion (DLI).

#### Elementary Education Major (78-80 credits)

(includes Teaching Support Courses and Emphasis)

Students majoring in Elementary Education should complete all the following courses as indicated.

Note:

Teaching License requires 2.75 cumulative Grade Point Average (GPA). (Grades lower than a C will not be accepted in the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

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Level II (17 credits) (courses taken concurrently)

Students must be admitted to the Teacher Education Program prior to taking these classes.

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ELED 3100 - Classroom Reading Instruction 3 1

ELED 4150 - Assessment and Differentiation Across the Curriculum 2

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PSY 3660 - Educational Psychology for Teachers 2

SPED 4000 - Education of Exceptional Individuals 2

Level III (16 credits; must follow Level II) (courses taken concurrently)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (15 credits; must follow Level III)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6

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Choose 1 of the following courses:

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PEP 3050 - Physical Education in the Elementary School 3

THEA 3320 - Movement Exploration for Elementary Education Majors 3

Choose 1 of the following courses:

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ANTH 4100 - The Study of Language 3 or

LING 4100 - The Study of Language 3

ENGL 3520 - Multicultural American Literature 3

ENGL 3620 - Native American Studies 3

ENGL 4200 - Linguistic Structures 3

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SPAN 3560 - Introduction to U.S. Latino/a Culture 3

TEAL 4710 - Language and Cultural Diversity in Education 3

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Choose 1 of the following courses:

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HEP 3000 - Drugs and Human Behavior 3

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ART 1130 - Three-Dimensional Design 3

ART 2650 - Introduction to Ceramics 3

ART 3700 - Elementary Art Methods 3

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ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

CMST 1020 - Public Speaking (BHU) 3

CMST 2270 - Argumentation and Debate 3

COMD 2500 - Language, Speech, and Hearing Development 3

ELED 3800 - Practicum: USU ArtsBridge 1-2 (see advisor)

ELED 4410 - Gifted Education in the Regular Classroom 3

ELED 4480 - Early Childhood Education Kindergarten Through Grade 3 3 (must be admitted to Teacher Education Program)

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MUSC 1010 - Introduction to Music (BCA) 3

MUSC 3010 - Masterpieces of Music (DHA) 3

MUSC 3020 - History of Jazz (DHA) 3

MUSC 3660 - Opera by Children 3

PHIL 2400 - Ethics (BHU) 3

POLS 3150 - State and Local Government 3

PSC 3820 - Climate and Climate Change (DSC/QI) 3

PUBH 3120 - Family and Community Health 3

THEA 3330 - Drama for Classroom Teachers 3

Emphasis (12 credits) (C- or better required)

Available Emphasis areas are shown below. For a listing of required and recommended courses, students should contact their advisor.

Note:

1ELED 3100 may be taken after Level II, but is required before Level III.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

Elementary Education - MA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

School of Teacher Education and Leadership

Degree Programs—On Campus

Two avenues exist for on-campus students wishing to pursue a master's degree in the School of TEAL at Utah State University. They are as follows:

Master of Education—Plan B

Students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education (Plan B) program. Three credits will be given for TEAL 6960, Master's Creative Project. All MEd students will complete EDUC 6550 (Research for Classroom Teachers, 3 credits) and other courses listed on the current Program of Study form. A committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project.

Master of Education—Plan C

In order to provide another option for prospective elementary education master's degree students, the School of TEAL conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40 credits of prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the degree must be filed with the School of Graduate Studies at the beginning of the last semester of coursework. A letter of completion should be filed by the School of TEAL chairperson upon successful completion of all requirements.

#### Degree Programs—Off Campus

Two avenues exist for students wishing to pursue a master's degree in the School of TEAL at Utah State University primarily through offerings at USU Distance Education centers. They are as follows.

##### Master of Education—Plan B

Off-campus students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education Program. Three credits will be given for TEAL 6960 (Master's Creative Project). All MEd students will complete the required core and other courses listed on the current Program of Study form. A committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project (oral exam).

##### Master of Education—Plan C

In order to provide another option for prospective off-campus elementary education master's degree students, the Elementary Education Program conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40 credits or prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the program should be filed by the student with the School of TEAL and the School of Graduate Studies at the beginning of the semester the candidate is to finish the degree. A letter of completion should be filed by the committee chairperson upon successful completion of all requirements.

Return to: Academic Departments and Programs

#### Elementary Education - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

#### Degree Programs—On Campus

Three avenues exist for on-campus students wishing to pursue a master's degree in the School of TEAL at Utah State University. They are as follows:

##### Master of Science—Plan A

Students planning to pursue a future doctoral degree or wishing to follow a traditional master's degree should complete a Master of Science (Plan A) degree. This is a 36-credit program, including 6 credits for the thesis. EDUC 6570 is required as a research course (rather than TEAL 6550). A copy of the Program of Study form listing other required core and professional option courses is available from the School of TEAL office. A committee chair and two committee members will work with students pursuing the Plan A master's degree. Plan A students should submit an Appointment for Examination form to their major professor, committee, and the Graduate School at least five working days before the final examination is to be held.

##### Master of Education—Plan B

Students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education (Plan B) program. Three credits will be given for TEAL 6960, Master's Creative Project. All MEd students will complete TEAL 6550 (Research for Classroom Teachers, 3 credits) and other courses listed on the current Program of Study form. A committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project.

##### Master of Education—Plan C

In order to provide another option for prospective elementary education master's degree students, the School of TEAL conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40 credits of prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the degree must be filed with the School of Graduate Studies at the beginning of the last semester of coursework. A letter of completion should be filed by the School of TEAL chairperson upon successful completion of all requirements.

#### Degree Programs—Off Campus

Two avenues exist for students wishing to pursue a master's degree in the School of TEAL at Utah State University primarily through offerings at USU Distance Education centers. They are as follows.

#### Master of Education—Plan B

Off-campus students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education Program. Three credits will be given for TEAL 6960 (Master's Creative Project). All MEd students will complete the required core and other courses listed on the current Program of Study form. A committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project (oral exam).

#### Master of Education—Plan C

In order to provide another option for prospective off-campus elementary education master's degree students, the Elementary Education Program conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40

credits or prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the program should be filed by the student with the School of TEAL and the School of Graduate Studies at the beginning of the semester the candidate is to finish the degree. A letter of completion should be filed by the committee chairperson upon successful completion of all requirements.

Return to: Academic Departments and Programs

#### Elementary Education - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

#### Degree Programs—On Campus

Three avenues exist for on-campus students wishing to pursue a master's degree in the School of TEAL at Utah State University. They are as follows:

#### Master of Science—Plan A

Students planning to pursue a future doctoral degree or wishing to follow a traditional master's degree should complete a Master of Science (Plan A) degree. This is a 36-credit program, including 6 credits for the thesis. EDUC 6570 is required as a research course (rather than TEAL 6550). A copy of the Program of Study form listing other required core and professional option courses is available from the School of TEAL office. A committee chair and two committee members will work with students pursuing the Plan A master's degree. Plan A students should submit an Appointment for Examination form to their major professor, committee, and the Graduate School at least five working days before the final examination is to be held.

#### Master of Education—Plan B

Students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education (Plan B) program. Three credits will be given for TEAL 6960, Master's Creative Project. All MEd students will complete TEAL 6550 (Research for Classroom Teachers, 3 credits) and other courses listed on the current Program of Study form. A committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project.

#### Master of Education—Plan C

In order to provide another option for prospective elementary education master's degree students, the School of TEAL conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40 credits of prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the degree must be filed with the School of Graduate Studies at the beginning of the last semester of coursework. A letter of completion should be filed by the School of TEAL chairperson upon successful completion of all requirements.

#### Degree Programs—Off Campus

Two avenues exist for students wishing to pursue a master's degree in the School of TEAL at Utah State University primarily through offerings at USU Distance Education centers. They are as follows.

#### Master of Education—Plan B

Off-campus students wishing to include a creative project as part of their master's degree program should enroll in the Master of Education Program. Three credits will be given for TEAL 6960 (Master's Creative Project). All MEd students will complete the required core and other courses listed on the current Program of Study form. A

committee chair and two committee members will work with students completing the creative project; however, the chairperson will have major responsibility in approving the proposal and primarily work as the program advisor, with the committee members being involved more directly in the presentation of the creative project (oral exam).

#### Master of Education—Plan C

In order to provide another option for prospective off-campus elementary education master's degree students, the Elementary Education Program conducts a Plan C option within its Master of Education Degree. The basic elements of a Plan C option include completion of 40 credits or prior approved graduate courses, completion of an exit paper, and an oral review.

The exit paper should be a pre-planned scholarly activity. It could be a paper discussing coursework applicability to the student's teaching assignment, or a written plan for changing curriculum and/or instruction drawing on coursework and the student's role, etc. The intent is that the exit paper be an integral part of the planned course of study.

A notice of intent to complete the program should be filed by the student with the School of TEAL and the School of Graduate Studies at the beginning of the semester the candidate is to finish the degree. A letter of completion should be filed by the committee chairperson upon successful completion of all requirements.

#### Return to: Academic Departments and Programs

#### Elementary Education and Special Education (Composite) - BA

#### Return to: Academic Departments and Programs

#### Emma Eccles Jones College of Education and Human Services

#### School of Teacher Education and Leadership

#### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Provisional Admission Process and Requirements

#### Provisional Admission Process and Requirements

More students major in Elementary Education at USU than in any other major. Therefore, competition for admission into the program is very keen. Due to increased demands for admission, coupled with limited resources, a ceiling of 180 students has been placed on admissions each year. Thus, admission to USU does not necessarily guarantee admission into the Elementary Education Program.

Provisional admission to the Elementary and Early Childhood Teacher Education Program is determined by overall GPA 3.0 minimum to apply (1) the student's overall GPA in a set of core courses, (2) ACT scores, (3) the number of credits a student has taken, and (4) successful completion of a group assessment interview.

(Additional factors to be weighted may be gender and/or minority status consistent with applicable law.)

Additional requirements for application to the program are a speech and hearing test, a Teacher Education Writing Exam, and a background check through the Utah State Office of Education. Students must also pass and provide written evidence of the Praxis II Elementary Education: Multiple Subjects Exam prior to admission. Applications are accepted each semester. Because there are typically more applicants than there is space available, the number accepted is limited. Students who are not accepted may reapply.

Admission to the Teacher Education Program is a prerequisite for enrollment in the major, starting with Level II. A student desiring admission to the Teacher Education Program should file an application in the Elementary Education Office, located in room 373 of the Emma Eccles Jones Education Building.

#### University Studies Requirements

Elementary Education Majors and Early Childhood Education Majors are required to take certain classes to fulfill the University Studies requirements. The following sections list the specific courses to choose from:

#### Quantitative Literacy (QL) (3 credits)

(A grade lower than a C- will not be accepted in this course.)

#### MATH 1050 - College Algebra (QL) 4

#### Breadth Requirements (18-19 credits)

Choose one course from the following to meet the BAI requirement:

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

HIST 2700 - United States to 1877 (BAI) 3

POLS 1100 - United States Government and Politics (BAI) 3

USU 1300 - U.S. Institutions (BAI) 3

Choose one course from the following to meet the BCA requirement:

MUSC 1010 - Introduction to Music (BCA) 3

USU 1330 - Civilization: Creative Arts (BCA) 3

Choose one course from the following to meet the BHU requirement:

ANTH 2210 - Introduction to Folklore (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

PHIL 1000 - Introduction to Philosophy (BHU) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 1250 - Practical Logic (BHU) 3

PHIL 2400 - Ethics (BHU) 3

USU 1320 - Civilization: Humanities (BHU) 3

Choose one course from the following to meet the BSS requirement:

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ASTE 2900 - Food Matters: Ethics, Economics, and the Environment (BSS) 3

ENVS 2340 - Natural Resources and Society (BSS) 3

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1400 - Human Geography (BSS) 3

JCOM 1500 - Introduction to Mass Communication (BSS) 3

NR 1010 - Humans and the Changing Global Environment (BSS) 3

POLS 2200 - Comparative Politics (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

USU 1340 - Social Systems and Issues (BSS) 3

Choose one course from the following to meet the BLS requirement:

BIOL 1010 - Biology and the Citizen (BLS) 3

NDFS 1020 - Science and Application of Human Nutrition (BLS) 3

PSC 1800 - Introduction to Horticulture (BLS) 3

USU 1350 - Integrated Life Science (BLS) 3

WATS 1200 - Biodiversity and Sustainability (BLS) 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Choose one course from the following to meet the BPS requirement:

CHEM 1010 - Introduction to Chemistry (BPS) 3

GEO 1010 - Introduction to Geology (BPS) 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1000 - Physical Geography (BPS) 3

PHYS 1040 - Introductory Astronomy (BPS) 3

PSC 2000 - The Atmosphere and Weather (BPS) 3

PSC 2010 - Soils, Waters, and the Environment (BPS) 3

USU 1360 - Integrated Physical Science (BPS) 3

Exploration Requirement (3-4 credits)

Students in the Elementary and Early Childhood Education majors should fulfill this requirement by completing PHYS 1200 (BPS).

Depth Education Requirements

Communications Intensive (CI) (2 courses) (included in major)

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

Quantitative Intensive (QI) (1 course)

(A grade lower than a C- will not be accepted in this course.)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3

Depth Course Requirements (4 credits minimum)

Complete at least 4 credits in approved University Studies depth courses designated DSC, DHA, or DSS (outside of area of emphasis).

Composite Elementary Education and Special Education Major

Elementary Education Major (65 credits) (includes Teaching Support Courses)

Students should complete all of the following courses as indicated.

Note:

Teaching licensure requires a 2.75 cumulative grade point average (GPA). (Grades lower than a B- will not be accepted toward the major.)

Level I (6 credits) (2.75 GPA required in Level I courses)

ELED 1010 - Orientation to Elementary Education 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

Level II (courses taken concurrently during spring semester) (17 credits)

Students must be admitted to the Teacher Education Program prior to taking these classes.

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

ELED 3005 - Beginning Classroom Management 1

SPED 4000 - Education of Exceptional Individuals 2

PSY 3660 - Educational Psychology for Teachers 2

SPED 5530 - Technology for Teaching Exceptional Learners 3

ELED 3100 - Classroom Reading Instruction 3

Level III (courses taken concurrently during fall or spring semester) (16 credits)

ELED 4000 - Teaching Science and Practicum Level III 3

ELED 4005 - Intermediate Classroom Management 1

ELED 4030 - Teaching Language Arts and Practicum Level III (CI) 3

ELED 4040 - Assessment and Instruction for Struggling Readers (CI) 3

ELED 4050 - Teaching Social Studies and Practicum Level III 3

ELED 4060 - Teaching Mathematics and Practicum Level III 3

Level IV (15 credits) (taken during fall or spring semester)

ELED 5100 - Student Teaching - Primary (Grades 1-3) 6 or

ELED 5150 - Student Teaching - Elementary (Grades 4-6) 6

SPED 5210 - Student Teaching in Special Education: Dual Majors (CI) 3-15 1 (6 credits required)

ELED 5250 - Advanced Classroom Management and Student Teaching Seminar 3

Teaching Support Courses

MUSC 3260 - Elementary School Music 2

PEP 3050 - Physical Education in the Elementary School 3

COMD 3010 - American Sign Language I (CI) 4 2

HEP 2000 - First Aid and Emergency Care 2 2

Note:

1 Students must complete Special Education major coursework prior to student teaching.

2 Required for Special Education—Severe specialization only.

Special Education Major (33 or 29 credits)

Students should choose either the Mild/Moderate specialization or the Severe specialization.

Students must be admitted to the Special Education program prior to taking these courses.

Mild/Moderate Specialization (33 credits)

Fall:

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5310 - Teaching Reading and Language Arts to Students with Mild/Moderate Disabilities 2-4 (4 credits required)

SPED 5330 - Eligibility Assessment for Students with Mild/Moderate Disabilities 1

SPED 5410 - Practicum: Direct Instruction Reading and Language Arts for Students with Mild/Moderate Disabilities 1-3 (3 credits required)

Spring:

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5320 - Teaching Content Areas and Transition to Students with Mild/Moderate Disabilities 3

SPED 5340 - Teaching Math to Students with Mild/Moderate Disabilities 3

SPED 5420 - Practicum: Teaching Mathematics to Students with Mild/Moderate Disabilities 4

Severe Specialization (29 credits)

Fall:

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5510 - Curriculum for Students with Severe Disabilities 3-4 (4 credits required)

SPED 5600 - Practicum: Instruction in Academic Skills 3

Spring:

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5520 - Curriculum for Secondary-Level Students with Severe Disabilities 3

SPED 5540 - Assessment of Persons with Severe Disabilities 1

SPED 5610 - Practicum: Instruction in Daily Living Skills 4

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Elementary Education and Special Education (Composite) - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Provisional Admission Process and Requirements

## Provisional Admission Process and Requirements

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SPED 5210 - Student Teaching in Special Education: Dual Majors (CI) 3-15 1 (6 credits required)

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Note:

1 Students must complete Special Education major coursework prior to student teaching.

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SPED 5340 - Teaching Math to Students with Mild/Moderate Disabilities 3

SPED 5420 - Practicum: Teaching Mathematics to Students with Mild/Moderate Disabilities 4

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SPED 5070 - Policies and Procedures in Special Education  
1-3 (3 credits required)

SPED 5510 - Curriculum for Students with Severe  
Disabilities 3-4 (4 credits required)

SPED 5600 - Practicum: Instruction in Academic Skills 3

Spring:

SPED 5050 - Applied Behavioral Analysis 2: Applications  
3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5520 - Curriculum for Secondary-Level Students  
with Severe Disabilities 3

SPED 5540 - Assessment of Persons with Severe  
Disabilities 1

SPED 5610 - Practicum: Instruction in Daily Living Skills  
4

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-  
division courses, 10 of which must be courses required  
for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700,  
HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or  
USU 1300)

3

General Education Requirements and University Studies  
Depth Requirements

Return to: Academic Departments and Programs

ESL Teaching Endorsement

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

School of Teacher Education and Leadership

ESL Teaching Endorsement or Minor

The School of Teacher Education and Leadership offers a  
K-12 English as a Second Language (ESL) endorsement  
and minor. Elementary education majors and those  
already in possession of a teaching certificate complete  
18 credits to obtain the ESL Endorsement (TEAL 4730 or  
LING 4100; TEAL 4710, TEAL 4745, TEAL 4760, TEAL  
4770, and TEAL 4780). Those already possessing a  
teaching certificate take the 6000-level versions of these  
courses.

The ESL Minor for secondary education students is the  
above 18 credits, plus an additional clinical course (SCED  
3300 or SCED 4300; and a student teaching experience.

Return to: Academic Departments and Programs

Instructional Leadership - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human  
Services

School of Teacher Education and Leadership

College Core Courses (12 credits)

TEAL 6150 - Foundations of Curriculum 3

TEAL 6190 - Theories of Learning and Models of  
Teaching 3

TEAL 6410 - Social Foundations of Education 3

TEAL 6710 - Diversity in Education 3

Instructional Leadership Core Courses (30 credits)

EDUC 6540 - Data-Based Decision Making for School Leaders 3

TEAL 6050 - Theories of Instructional Supervision 3

TEAL 6060 - Instructional Leadership: Assessment for Curricular Accountability 3

TEAL 6080 - Leadership and the School Principal 3

TEAL 6090 - Theories of Organizational Leadership in Education 3

TEAL 6280 - Instructional Leadership: Instructional Practices for Diverse Learners 3

TEAL 6500 - School Finance and Resource Management 3

TEAL 6740 - School Law 3

TEAL 6930 - Supervision and Administrative Internship Seminar 2

TEAL 6940 - Supervision and Administrative Internship 1-4

Return to: Academic Departments and Programs

Secondary Education - 2nd BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

University policy requires that students seeking a second BS or BA degree must obtain a minimum of 30 semester credits from USU. Only those students seeking a second BS or BA leading to licensure in a teaching major and teaching minor or a composite major will be admitted to a secondary education program within the School of TEAL. This major is only for students who's first degree is in a licensable teaching area. Students who have already completed requirements for a bachelor's degree and who are seeking a second bachelor's degree and /or teacher licensure must have a GPA of at least 3.00 in the last 60 credits of academic work.

For more information on this degree, please contact the Emma Eccles Jones College of Education and Human Services.

Return to: Academic Departments and Programs

Secondary Education - 2nd BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

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For more information on this degree, please contact the Emma Eccles Jones College of Education and Human Services.

Return to: Academic Departments and Programs

Secondary Education - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Master's Degree Programs

Secondary Education master's degree programs provide coursework and professional experiences for those preparing to become master teachers, teacher-leaders, supervisors, or curriculum specialists. Each program provides coursework in education, with associated work in a specialized subject matter, which is the teacher's area of concentration. Typically, the area of

concentration derives from the teacher's ongoing work with middle school or high school students.

Areas of concentration in Secondary Education include the following: Gifted and Talented; English as a Second Language (MEd only); Second Language Teaching; English/Language Arts; Instructional Leadership; Mathematics; Reading; Science; and Social Studies. Three University departments—Art, Management Information Systems, and Music—also participate in master's degree programs sponsored by Secondary Education. Admission to these fields of study requires approval of the cooperating department. In planning areas of concentration, students work with a faculty advisor and select graduate courses from the University-wide curriculum.

#### MEd Degree Plan B (36 credits)

The MEd Plan B offers a Portfolio Project Option or Creative Project Option which culminates in the presentation of the project in a final exam setting. Students take a common core of courses from college and department curricula, then courses in areas of concentration in relation to their teaching specialities. The research course for the MEd focuses on issues of application as well as action research. Creative projects are diverse and range from action research to curriculum development. The professional portfolio project provides the context for a personal knowledge base. Although portfolios share certain structural features, each student's portfolio is unique.

#### MEd Degree Plan C (40 credits)

The MEd Plan C is a coursework-only program. Students take a common core of courses from college and department curricula, then courses in areas of concentration in relation to their teaching specialities; additional coursework is taken in the area of concentration. At the conclusion of the program, a culminating experience to meet the needs of the student is developed. Options for the experience can be an interview with the advisor, oral comprehensive examination under the supervision of the advisor, written comprehensive examination under the supervision of the advisor, or other culminating experience developed by the student and advisor and approved by the department head.

Return to: Academic Departments and Programs

## Secondary Teacher Education Program (STEP)-School of Teacher Education and Leadership

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

### Three-Level Program (35 credits)

Secondary Education coordinates a state-approved program to complement the teaching majors and minors in 21 departments. The framework is organized into three sequential levels, each taken during a different semester. Students must apply to complete the STEP Program during their junior - senior years after most of the major and minor coursework has been completed. All three levels of the STEP are offered during fall and spring semesters, but not during summers. Levels of the STEP are taken as a package. All courses in the STEP Program must be completed with a minimum grade of C (beginning January 2015).

As outlined below, Level 1 and Level 2 courses are offered by the School of TEAL and other cooperating departments. Teaching Methods courses are offered by many departments across campus. Students should refer to the requirement sheets of their composite teaching major, or their teaching major and minor, to determine which methods courses they are required to complete on Levels 1 and 2 to prepare for student teaching at Level 3. Student teaching in a composite teaching major, or in at least one teaching major and one teaching minor, is required.

#### A. Level 1 (15-week courses)

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit maximum)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1 (30 hours minimum in field) (or department specific clinical)

Special Methods I1 (major or minor) 3

#### B. Level 2 (15-week courses)

SPED 4000 - Education of Exceptional Individuals 2 (may be taken anytime)

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1 (30 hours minimum in field) (or department specific clinical)

Special Methods II 2 (major or minor)

C. Level 3 (includes a minimum of 13 weeks of student teaching and a minimum of 10 weeks of Student Teaching Seminar)

Student Teaching Seminar 3 2

Student Teaching 4 (full-time) 10

Clinical Experience

Students must enroll for either Clinical Experience I or Clinical Experience II concurrent with their methods courses. The instructor of record, in concert with the Office of Field Experiences, sets up these field activities in middle and high school settings. The clinical experiences provide a classroom context for understanding STEP and methods courses. A clinical experience fee is assessed at each of the two levels. This fee provides a stipend to classroom teachers who work with clinical experience students in the public schools. Students should refer to the requirement sheet for their composite teaching major or their teaching major and minor to determine which methods courses they should take.

Student Teaching

Students must attend the Secondary Education Information Session (SEIS) two semesters in advance of their student teaching semester. Students must attend a Student Teaching Application Session (STAS) one semester prior to their student teaching. Applications for student teaching and each semester's deadlines will be discussed at the STAS. Information concerning all Praxis exams, which must be passed (major area) and attempted(minor area, if no child left behind subject) before student teaching, will also be discussed. Students must complete 80 percent of their teaching major/minor (or composite major) requirements prior to student teaching.

Students should be financially prepared to live off campus, if necessary, during student teaching. Because

student teaching requires a major commitment of time and energy, it should be planned with care. Students are urged to forego outside employment, if possible, during the student teaching experience.

Only the courses approved for the semester may be taken during student teaching.

Note:

1 The Special Methods I course is taught by various departments under various course numbers. Course title varies among departments.

2 The Special Methods II course is taught by various departments under various course numbers. Course title varies among departments.

3 The Student Teaching Seminar course is taught under course number 5500 in various departments. Course title varies among departments.

4 The Student Teaching course is taught under course number 5630 in various departments. Course title varies among departments.

Return to: Academic Departments and Programs

Secondary Teaching License (grades 6-12)

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

To obtain a teaching license, undergraduate students must complete (1) 30 credits of University Studies requirements, including written communications, (2) an approved composite teaching major or approved teaching major and teaching minor, and (3) the Secondary Teacher Education Program (STEP). The Secondary Education advisor will assist returning students who already have an undergraduate degree with program planning for licensure. These students occupy "Second BS" or "Second BA" status while pursuing licensure. They also may apply for a second bachelor's degree in conjunction with teacher licensure. Consult the Admissions Office for details.

All students should note that secondary teacher licensure is not automatic upon completion of the program. In

order to receive Utah licensure, students must apply for the Basic Teaching License. Applications are available in the Office of Teacher Education, Graduation, and Educator Licensing, Emma Eccles Jones Education Building, Room 103.

### Special Education Dual Licensure

Students can be licensed in both special education and in a secondary subject area through a dual licensure program offered jointly by two departments. Early in their programs, students should consult with undergraduate advisors in the Secondary Education Program and the Department of Special Education and Rehabilitation.

Return to: Academic Departments and Programs

### Social Studies (Composite Teaching) - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Bachelor's Degree in Social Studies Composite Teaching Major

Students who are accepted in good standing by the University and who have a minimum total GPA of 3.00 may be admitted to the Social Studies Composite Teaching Major. In order to graduate with the Social Studies Composite Teaching degree, students must (1) maintain a minimum 2.75 total GPA, (2) earn a grade of C or better in all courses in the major, (3) complete the

Secondary Teacher Education Program (STEP)-School of Teacher Education and Leadership and (4) meet all requirements for the Secondary Teaching License (grades 6-12).

For the bachelor's degree, students must complete: (1) University Studies Depth Requirements and General Education Requirements, (2) courses required for the Social Studies Composite Teaching Major (see list below), (3) The Secondary Teacher Education Program (STEP). Students must complete each course in the Social Studies Composite Teaching Major with a minimum grade of C. Upon completing all requirements for graduation, students are eligible for a secondary teaching license from the Utah State Office of Education (grades 6-12). Students with the Social Studies Composite Teaching Major graduate from the School of TEAL. Courses in the Social Studies Composite Teaching Major are provided by various departments. Students should check regularly with these departments and the Secondary Education advisor for changes and substitutions.

Students must complete a total of 60 credits selected from various social science courses listed below. The number of credits and course choices are listed after the area in which they must be completed.

## A. History (36 credits)

The History requirement is met by completing the History Teaching Minor, plus additional courses approved by the student's advisor.

Choose one of the following courses:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

And each of the following courses:

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Choose one of the following courses:

HIST 3850 - History of Utah (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

Choose one of the following courses:

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ARTH 3110 - Ancient Near East (CI/DHA) 3

ARTH 3510 - Islamic Visual Cultures (CI/DHA) 3

ARTH 3610 - Classical Art History: Greece and Rome (CI) 3

ARTH 3630 - Medieval Art (CI/DHA) 3

ARTH 3720 - Renaissance Art (CI) 3

ARTH 4520 - Discourses of Empire and Nation (CI) 3

Choose one of the following courses:

HIST 4860 - Teaching History 3

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3

Elective courses:

9 credits of upper division history

## B. Geography (12 credits)

GEOG 1000 - Physical Geography (BPS) 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

GEOG 4210 - Geography of Utah 3

GEOG 4220 - International Regional Geography 3

## C. Economics (6 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

Choose one of the following courses:

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3170 - Law and Economics 3

ECN 4020 - Intermediate Macroeconomics 3

## D. Political Science (12 credits)

POLS 1100 - United States Government and Politics (BAI) 3

Choose three POLS courses at the 3000-level or above

## E. Psychology/Sociology/Family Finance (6 credits)

PSY 1010 - General Psychology (BSS) 3

Choose one of the following courses:

FCHD 3350 - Family Finance (DSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

## F. Required Courses for the Secondary Teacher Education Program (STEP) (35 credits)

To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring.

Level 1:

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3500 - Teaching Social Studies 3 4

Level 2:

HIST 4860 - Teaching History 3 4 or

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3 4

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SPED 4000 - Education of Exceptional Individuals 2

Level 3:

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Social Studies (Composite Teaching) - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

School of Teacher Education and Leadership

Bachelor's Degree in Social Studies Composite Teaching Major

Students who are accepted in good standing by the University and who have a minimum total GPA of 3.00 may be admitted to the Social Studies Composite Teaching Major. In order to graduate with the Social Studies Composite Teaching degree, students must (1) maintain a minimum 2.75 total GPA, (2) earn a grade of C or better in all courses in the major, (3) complete the

Secondary Teacher Education Program (STEP)-School of Teacher Education and Leadership and (4) meet all requirements for the Secondary Teaching License (grades 6-12).

For the bachelor's degree, students must complete: (1) University Studies Depth Requirements and General Education Requirements, (2) courses required for the Social Studies Composite Teaching Major (see list below), (3) The Secondary Teacher Education Program (STEP). Students must complete each course in the Social Studies Composite Teaching Major with a minimum grade of C. Upon completing all requirements for graduation, students are eligible for a secondary teaching license from the Utah State Office of Education (grades 6-12). Students with the Social Studies Composite Teaching Major graduate from the School of TEAL. Courses in the Social Studies Composite Teaching Major are provided by various departments. Students should check regularly

with these departments and the Secondary Education advisor for changes and substitutions.

Students must complete a total of 60 credits selected from various social science courses listed below. The number of credits and course choices are listed after the area in which they must be completed.

#### A. History (36 credits)

The History requirement is met by completing the History Teaching Minor, plus additional courses approved by the student's advisor.

Choose one of the following courses:

HIST 1100 - Foundations of Western Civilization: Ancient and Medieval (BHU) 3

HIST 1500 - Cultural and Economic Exchange in the Pre-Nineteenth Century World (BHU) 3

And each of the following courses:

HIST 1060 - Introduction to Islamic Civilization (BHU) 3

HIST 1110 - Foundations of Western Civilization: Modern (BHU) 3

HIST 1510 - The Modern World (BHU) 3

HIST 2700 - United States to 1877 (BAI) 3

HIST 2710 - United States 1877-Present (BAI) 3

Choose one of the following courses:

HIST 3850 - History of Utah (DHA/CI) 3

HIST 4600 - The History of the American West (DHA/CI) 3

Choose one of the following courses:

ARTH 2720 - Survey of Western Art: Renaissance to Post-Modern (BHU) 3

ARTH 3110 - Ancient Near East (CI/DHA) 3

ARTH 3510 - Islamic Visual Cultures (CI/DHA) 3

ARTH 3610 - Classical Art History: Greece and Rome (CI) 3

ARTH 3630 - Medieval Art (CI/DHA) 3

ARTH 3720 - Renaissance Art (CI) 3

ARTH 4520 - Discourses of Empire and Nation (CI) 3

Choose one of the following courses:

HIST 4860 - Teaching History 3

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3

Elective courses:

9 credits of upper division history

#### B. Geography (12 credits)

GEOG 1000 - Physical Geography (BPS) 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

GEOG 4210 - Geography of Utah 3

GEOG 4220 - International Regional Geography 3

#### C. Economics (6 credits)

ECN 1500 - Introduction to Economic Institutions, History, and Principles (BAI) 3

Choose one of the following courses:

ECN 2010 - Introduction to Microeconomics (BSS) 3

ECN 3170 - Law and Economics 3

ECN 4020 - Intermediate Macroeconomics 3

#### D. Political Science (12 credits)

POLS 1100 - United States Government and Politics (BAI) 3

Choose three POLS courses at the 3000-level or above

#### E. Psychology/Sociology/Family Finance (6 credits)

PSY 1010 - General Psychology (BSS) 3

Choose one of the following courses:

FCHD 3350 - Family Finance (DSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

F. Required Courses for the Secondary Teacher Education Program (STEP) (35 credits)

To begin the admission process to the STEP, students should see their advisor at least two semesters before

they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring.

Level 1:

ITLS 4015 - Technology Tools and Integration for Teachers 1-3 (1 credit required)

SCED 3100 - Motivation and Classroom Management 3

SCED 3210 - Educational and Multicultural Foundations (DSS/CI) 3

SCED 3300 - Clinical Experience I 1

SCED 3500 - Teaching Social Studies 3 4

Level 2:

HIST 4860 - Teaching History 3 4 or

HIST 4870 - Teaching World History: Themes, Approaches, and Materials 3 4

SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) 3

SCED 4210 - Assessment and Curriculum Design 3

SCED 4300 - Clinical Experience II 1

SPED 4000 - Education of Exceptional Individuals 2

Level 3:

SCED 5500 - Student Teaching Seminar 2

SCED 5630 - Student Teaching in Secondary Schools 10

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Anthropology - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

ANTH 1010, ANTH 1030 or ANTH 2010 will fulfill the Social Sciences requirement and ANTH 1020 will fulfill the Life Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as ANTH 3130, ANTH 3200 and ANTH 3310 will fulfill the Communications Intensive (CI) requirement

Completion of a course having a QI designation (such as ANTH 5250) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

### Major Requirements

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major requirements, including BS and BA required courses; 2.0, Career

Minimum Grade Accepted: C in major requirements, including BS and BA required courses

A minimum of 40 anthropology credits are required for the anthropology major. All students must take five required anthropology courses, including an introduction to program resources, a three-semester sequence in the basic areas of anthropology, and an upper-division level course in the history of anthropology. The anthropology major also requires exposure across the breadth of the discipline. In addition to the five required courses, specific graduation requirements include:

### Anthropology Tracks

Each student must select a track from among the three subspecialties in anthropology listed below and complete a minimum of four upper-division courses (these may include ANTH 2010 and ANTH 2330) and the capstone course in that specialization, for a total of five track courses. Capstone courses are offered every other year, so students should schedule their coursework accordingly. Students also take two courses from each of the non-track suites of courses, to ensure exposure to breadth across the discipline.

#### Cultural/Applied Anthropology

#### Biological Anthropology

#### Archaeology/Cultural Resource Management

#### Methods Component

Majors must complete one "Methods" course (3 credits) in anthropology. The course chosen to meet this requirement may also count toward other anthropology major requirements.

A minimum of 16 credits of the anthropology course credits counting toward the major must be Utah State University courses. Credits from distance and residence center courses are subject to departmental approval for

application toward the anthropology major, with the exception of those listed below.

Students majoring in anthropology must maintain a minimum 2.5 overall GPA in anthropology courses. A grade of C or better must be attained in all courses counted for the major, including foreign language and statistics courses. In addition, majors must complete the general requirements of the University in consultation with the student's HaSS advisor, and complete the following major courses:

### Required Courses (13 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3

ANTH 1099 - Resources in Anthropology at USU 1

ANTH 4980 - History and Theories of Anthropology 3

### Anthropology Tracks

1. Cultural/Applied Anthropology (6 credits minimum/12 plus capstone for Cultural/Applied Track)

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3090 - Introduction to Shamanism: Shamanic Healing for Personal and Planetary Transformation 3

ANTH 3110 - North American Indian Cultures 3

ANTH 3120 - African Healing Systems 3

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3150 - Applied Anthropology Survey: History, Uses, Methods, and Careers 3 (Methods)

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 4110 - Southwest Indian Cultures, Past and Present (DSS) 3 (Distance)

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ANTH 4140 - Anthropology of Global Health 3

ANTH 4170 - Ethnographic Methods in Anthropology 3

ANTH 5115 - Applied Anthropology/Ethnographic Research Lab 1-3

ANTH 5130 - Ethnographic Field School 3-6 (Methods)

ANTH 5190 - Applied Anthropology Practicum 1-5

ANTH 5650 - Developing Societies (DSS) 3

Cultural/Applied Capstone:

ANTH 4990 - Contemporary Issues in Anthropology (CI)  
3

2. Biological Anthropology (6 credits minimum/12 plus  
capstone for Biological Track)

ANTH 3200 - Perspectives on Race (DSS/CI) 3

ANTH 3250 - Osteology 3 (Methods)

ANTH 4800 - Topics in Anthropology 1-3 (3 credits  
required) (specified for Biological Anth, e.g.  
Anthropology of War, Anthropology of Disease,  
Primatology, Forensic Anthropology)

ANTH 5210 - Physical Anthropology Lab 1-3 (Methods)

BIOL 2320 - Human Anatomy 4

Biological Anthropology Capstone:

ANTH 5250 - Problems in Bioarchaeology (QI) 3  
(Methods)

3. Archaeology/Cultural Resource Management (6 credits  
minimum/12 plus capstone for Archaeology/CRM Track)

ANTH 2330 - Principles of Archaeology (BSS) 3 (required  
for Archaeology Track)

ANTH 3300 - Archaeology in North America (DSS) 3

ANTH 3350 - Archaeology of Ancient Civilizations (DSS)  
3

ANTH 3360 - Utah Archaeology (DSS) 3

ANTH 5320 - Zooarchaeology 3 (Methods)

ANTH 5330 - Geoarchaeology 3 (Methods)

ANTH 5380 - Peopling of the New World 3

ANTH 5420 - Lithic Analysis 1-3 (3 credits required)

Archaeology/CRM Capstone:

ANTH 5340 - Archaeology of the Desert West 3

Departmental Electives

(These do not count toward minor requirements.)

ANTH 2210 - Introduction to Folklore (BHU) 3

ANTH 2720 - Survey of American Folklore 3

ANTH 3310 - Introduction to Museum Studies (CI) 3  
(Methods)

ANTH 3380 - Archaeology Field Trip 1-3

ANTH 3550 - Culture of East Asia (DHA) 3 (online)

ANTH 4100 - The Study of Language 3

ANTH 4800 - Topics in Anthropology 1-3 (individual  
courses may count as a track course)

ANTH 5300 - Archaeology Field School 3-5

ANTH 5310 - Archaeology Laboratory 1-3 (Methods)

ANTH 5700 - Folk Narrative 3

ANTH 5800 - Museum Development 1-3 (Methods)

ANTH 5900 - Independent Studies 1-3

ANTH 5980 - Senior Project 1

Note:

Students planning to receive a BA degree must demonstrate proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent) or must demonstrate proficiency in American Sign Language by successful completion COMD 4920 and COMD 4780, and by passing an exit Interview or must demonstrate proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent) or must complete an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

Students planning to receive a BS degree must complete STAT 1040, and two courses selected from a list of courses approved by the Anthropology Program.

Anthropology majors are encouraged to complete both the foreign language and statistics requirements.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Anthropology - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

ANTH 1010, ANTH 1030 or ANTH 2010 will fulfill the Social Sciences requirement and ANTH 1020 will fulfill the Life Sciences requirement

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as ANTH 3130, ANTH 3200 and ANTH 3310 will fulfill the Communications Intensive (CI) requirement

Completion of a course having a QI designation (such as ANTH 5250) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Major Requirements

Minimum GPA for Admission: 2.5, Career

Minimum GPA for Graduation: 2.5, major requirements, including BS and BA required courses; 2.0, Career

Minimum Grade Accepted: C in major requirements, including BS and BA required courses

A minimum of 40 anthropology credits are required for the anthropology major. All students must take five required anthropology courses, including an introduction to program resources, a three-semester sequence in the basic areas of anthropology, and an upper-division level course in the history of anthropology. The anthropology major also requires exposure across the breadth of the discipline. In addition to the five required courses, specific graduation requirements include:

Anthropology Tracks

Each student must select a track from among the three subspecialties in anthropology listed below and complete a minimum of four upper-division courses (these may include ANTH 2010 and ANTH 2330) and the capstone course in that specialization, for a total of five track courses. Capstone courses are offered every other year, so students should schedule their coursework accordingly. Students also take two courses from each of the non-track suites of courses, to ensure exposure to breadth across the discipline.

Cultural/Applied Anthropology

## Biological Anthropology

### Archaeology/Cultural Resource Management

#### Methods Component

Majors must complete one "Methods" course (3 credits) in anthropology. The course chosen to meet this requirement may also count toward other anthropology major requirements.

A minimum of 16 credits of the anthropology course credits counting toward the major must be Utah State University courses. Credits from distance and residence center courses are subject to departmental approval for application toward the anthropology major, with the exception of those listed below.

Students majoring in anthropology must maintain a minimum 2.5 overall GPA in anthropology courses. A grade of C or better must be attained in all courses counted for the major, including foreign language and statistics courses. In addition, majors must complete the general requirements of the University in consultation with the student's HaSS advisor, and complete the following major courses:

#### Required Courses (13 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3

ANTH 1099 - Resources in Anthropology at USU 1

ANTH 4980 - History and Theories of Anthropology 3

#### Anthropology Tracks

1. Cultural/Applied Anthropology (6 credits minimum/12 plus capstone for Cultural/Applied Track)

ANTH 2010 - Peoples of the Contemporary World (BSS) 3

ANTH 3090 - Introduction to Shamanism: Shamanic Healing for Personal and Planetary Transformation 3

ANTH 3110 - North American Indian Cultures 3

ANTH 3120 - African Healing Systems 3

ANTH 3130 - Peoples of Latin America (CI) 3

ANTH 3150 - Applied Anthropology Survey: History, Uses, Methods, and Careers 3 (Methods)

ANTH 3160 - Anthropology of Religion (DSS) 3

ANTH 4110 - Southwest Indian Cultures, Past and Present (DSS) 3 (Distance)

ANTH 4130 - Introduction to Medical Anthropology (DSS) 3

ANTH 4140 - Anthropology of Global Health 3

ANTH 4170 - Ethnographic Methods in Anthropology 3

ANTH 5115 - Applied Anthropology/Ethnographic Research Lab 1-3

ANTH 5130 - Ethnographic Field School 3-6 (Methods)

ANTH 5190 - Applied Anthropology Practicum 1-5

ANTH 5650 - Developing Societies (DSS) 3

#### Cultural/Applied Capstone:

ANTH 4990 - Contemporary Issues in Anthropology (CI) 3

2. Biological Anthropology (6 credits minimum/12 plus capstone for Biological Track)

ANTH 3200 - Perspectives on Race (DSS/CI) 3

ANTH 3250 - Osteology 3 (Methods)

ANTH 4800 - Topics in Anthropology 1-3 (3 credits required) (specified for Biological Anth, e.g. Anthropology of War, Anthropology of Disease, Primatology, Forensic Anthropology)

ANTH 5210 - Physical Anthropology Lab 1-3 (Methods)

BIOL 2320 - Human Anatomy 4

#### Biological Anthropology Capstone:

ANTH 5250 - Problems in Bioarchaeology (QI) 3 (Methods)

3. Archaeology/Cultural Resource Management (6 credits minimum/12 plus capstone for Archaeology/CRM Track)

ANTH 2330 - Principles of Archaeology (BSS) 3 (required for Archaeology Track)

ANTH 3300 - Archaeology in North America (DSS) 3

ANTH 3350 - Archaeology of Ancient Civilizations (DSS) 3

ANTH 3360 - Utah Archaeology (DSS) 3  
 ANTH 5320 - Zooarchaeology 3 (Methods)  
 ANTH 5330 - Geoarchaeology 3 (Methods)  
 ANTH 5380 - Peopling of the New World 3  
 ANTH 5420 - Lithic Analysis 1-3 (3 credits required)  
 Archaeology/CRM Capstone:  
 ANTH 5340 - Archaeology of the Desert West 3  
 Departmental Electives  
 (These do not count toward minor requirements.)  
 ANTH 2210 - Introduction to Folklore (BHU) 3  
 ANTH 2720 - Survey of American Folklore 3  
 ANTH 3310 - Introduction to Museum Studies (CI) 3 (Methods)  
 ANTH 3380 - Archaeology Field Trip 1-3  
 ANTH 3550 - Culture of East Asia (DHA) 3 (online)  
 ANTH 4100 - The Study of Language 3  
 ANTH 4800 - Topics in Anthropology 1-3 (individual courses may count as a track course)  
 ANTH 5300 - Archaeology Field School 3-5  
 ANTH 5310 - Archaeology Laboratory 1-3 (Methods)  
 ANTH 5700 - Folk Narrative 3  
 ANTH 5800 - Museum Development 1-3 (Methods)  
 ANTH 5900 - Independent Studies 1-3  
 ANTH 5980 - Senior Project 1  
 Note:  
 Students planning to receive a BA degree must demonstrate proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent) or must demonstrate proficiency in American Sign Language by successful completion COMD 4920 and COMD 4780, and by passing an exit Interview or must demonstrate proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent) or must complete

an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

Students planning to receive a BS degree must complete STAT 1040, and two courses selected from a list of courses approved by the Anthropology Program.

Anthropology majors are encouraged to complete both the foreign language and statistics requirements.

## Minimum University Requirements

### Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Anthropology - MS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

### Degree Requirements

A minimum of 33 credits is required for the MS degree. Six credits for the Plan A Thesis or Plan B Professional Paper/CRM Report are included in the 33 minimum credits. A minimum overall GPA of 3.0 is required.

### Core Courses (21 credits minimum)

The core courses for the MS degree in Anthropology with a Specialization in Archaeology and Cultural Resource Management include:

ANTH 6340 - Archaeology of the Desert West 3

ANTH 6350 - Archaeological Theory 3

ANTH 6360 - Research Design and Quantitative Methods in Archaeology 3

ANTH 6370 - GIS in Archaeology 3 (online)

ANTH 6390 - Cultural Resources Management Policy 3

ANTH 6410 - Writing for Archaeologists 3

ANTH 6700 - Archaeology Internship 2

Method and Area (Select 3)

ANTH 6250 - Problems in Bioarchaeology 3

ANTH 6310 - Archaeology Lab 1-3

ANTH 6320 - Zooarchaeology 3

ANTH 6330 - Geoarchaeology 3

ANTH 6380 - Peopling of the New World 3

ANTH 6400 - Collections Management 1-3

ANTH 6420 - Lithic Analysis 1-3 (3 credits required)

ANTH 6900 - Independent Studies 1-3

GEO 6120 - Advanced Geomorphology 3

GEO 6680 - Paleoclimatology 3

Thesis Preparation

ANTH 6300 - Archaeology Field School 3-5 (An approved field school or equivalent experience is required for admission as a matriculated student. Field school credits do not count toward the MS degree)

ANTH 6970 - Thesis Research 1-12 (minimum of 6 for Plan A, 3 for Plan B)

Return to: Academic Departments and Programs

## Anthropology Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

A minimum of 18 credits is required for the anthropology minor. A minimum of 12 anthropology credits counting toward the minor must be Utah State University courses. Credits from distance and residence center courses are subject to departmental approval for application toward the anthropology minor. Students must maintain a minimum 2.5 overall GPA in anthropology courses. A grade of C or better must be attained in all courses counting toward the minor.

### Required Courses (9 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

ANTH 1020 - Biological Anthropology (BLS) 3

ANTH 1030 - World Archaeology (BSS) 3 or

ANTH 2330 - Principles of Archaeology (BSS) 3

Breadth-in-Anthropology Structured Track Electives (Groups 1, 2, or 3) (9 credits minimum)

In addition to the required courses, students must complete a minimum of 9 credits (ANTH 2010, 3000-5000 level courses) in anthropology from the Structured Track Courses in: (1) Cultural/Applied Anthropology; (2) Biological Anthropology; and/or (3) Archaeology/Cultural Resource Management. Departmental electives do not count toward minor requirements.

Return to: Academic Departments and Programs

Criminal Justice - AS

Return to: Academic Departments and Programs

Utah State University-Eastern

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

The Associate Degrees are designed to meet the qualifications of the first two years of a Baccalaureate Degree. A student who transfers from USU-Eastern to a public four year institution of higher education in the State of Utah will be automatically cleared of all general education requirements if he or she has received an Associate Degree (students receiving the Associate of Pre-Engineering may have to take additional general education credits). Most accredited four year institutions of higher education in the United States will accept the Associate degree. Students are advised to examine the catalog of the institution to which they plan to transfer.

Credit for courses numbered 1000 or above earned at USU-Eastern are transferable within the Utah State System of Higher Education and will be carried on the student's transcript by the receiving institution. Acceptance of credit should not be confused with its application toward a specific set of requirements or major. Credit other than that intended wholly to meet the General Education requirements of the receiving institution will be applied on the basis of the appropriateness of credit to a particular institution's specific degree program requirements, as determined by the receiving institution.

The following courses are required for the Associate of Science in Criminal Justice:

CJ 1010 - Introduction to Criminal Justice (BSS) 3

CJ 1330 - Criminal Law 3

CJ 1340 - Criminal Investigations 3

CJ 2350 - Laws of Evidence 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

HIST 1700 - American Civilization (BAI) 3 or

USU 1300 - U.S. Institutions (BAI) 3

MATH 1030 - Quantitative Reasoning (QL) 3 (or higher)

Computer Literacy course 0-3 (CL course or CL test)

Elective courses 12

Fine Arts course 3

Humanities course 3

Exploration course in BFA, BSS, BLS or BHU 3

Life Science course 3

Physical Science course 3

Criminal Justice Electives (9 credits)

Choose any three of the following courses:

CJ 1070 - Law Enforcement/Corrections Academy I 3

CJ 1080 - Law Enforcement/Corrections Academy II 3

CJ 1090 - Introduction to Law Enforcement 3

CJ 1300 - Introduction to Corrections 3

CJ 1350 - Introduction to Forensic Science 3

CJ 1355 - Crime Scene Processing 3

CJ 1360 - Crime Scene Academy 3

CJ 2110 - Security 3

CJ 2330 - Juvenile Justice 3

CJ 2340 - Survey of Criminal Procedure 3

CJ 2360 - Juvenile Law and Procedures 3

CJ 2370 - Child Abuse and Neglect 3

CJ 2860 - Criminal Justice Field Experience 3

CJ 2977 - Cooperative Education 1-3

CJ 2988 - Special Problems 1-3

Return to: Academic Departments and Programs

Criminal Justice Minor

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[College of Humanities and Social Sciences](#)

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Required Courses (6 credits)

CJ 1010 - Introduction to Criminal Justice (BSS) 3

SOC 3420 - Criminology 3

Select one of the following courses (3 credits):

CJ 1300 - Introduction to Corrections 3

CJ 1330 - Criminal Law 3

CJ 1390 - Introduction to Policing 3

Select one of the following courses (3 credits):

CJ 1300 - Introduction to Corrections 3

CJ 1330 - Criminal Law 3

CJ 1340 - Criminal Investigations 3

CJ 1350 - Introduction to Forensic Science 3

CJ 1355 - Crime Scene Processing 3

CJ 1390 - Introduction to Policing 3

CJ 2110 - Security 3

CJ 2330 - Juvenile Justice 3

CJ 2340 - Survey of Criminal Procedure 3

CJ 2350 - Laws of Evidence 3

CJ 2360 - Juvenile Law and Procedures 3

CJ 2370 - Child Abuse and Neglect 3

Select one of the following courses (3 credits)

SOC 3410 - Juvenile Delinquency 3

SOC 3430 - Social Deviance 3

SOC 4420 - Criminal Law and Justice (CI) 3

[Return to: Academic Departments and Programs](#)

[Law and Society Area Studies Certificate](#)

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[College of Humanities and Social Sciences](#)

[Department of Sociology, Social Work and Anthropology](#)

The Department of Sociology, Social Work and Anthropology sponsors an interdisciplinary program emphasizing the study of the relationship between law and society.

Area Studies Application

The Law and Society Area Studies Certificate is an opportunity for students interested in law school, public administration, counseling or law enforcement-related careers, to emphasize the study of the relationship between law and society from an interdisciplinary perspective. Students must complete at least 24 credits from the courses listed below. The courses must be chosen from at least three different disciplines; no more than 12 credits may be chosen from a single discipline; and at least 15 of the 24 credits must be at the 3000 level or above. A student must maintain a 3.0 grade point average for the 24 credits. The Law and Society Area Studies Certificate is pursued in conjunction with a major, as it is not itself a degree program. Courses taken for the Law and Societies Area Studies requirements may also count toward fulfilling requirements for a major. A student's final transcript will reflect the Law and Society Area Studies Certificate upon completion of the requirements for a degree.

Choose a minimum of 24 credits from the following courses:

CJ 1010 - Introduction to Criminal Justice (BSS) 3

CJ 1300 - Introduction to Corrections 3

CJ 1330 - Criminal Law 3

CJ 2330 - Juvenile Justice 3

CJ 2360 - Juvenile Law and Procedures 3

CJ 2370 - Child Abuse and Neglect 3

ECN 5500 - Public Finance (CI) 3

FCHD 3100 - Abuse and Neglect in Family Context 3 or

PSY 3120 - Abuse, Neglect, and the Psychological Dimensions of Intimate Violence (DSS) 3

JCOM 4030 - Mass Media Law (DSS) 3

MGT 2050 - Legal and Ethical Environment of Business 3

MGT 3810 - Employment Law and Policy Development (DSS) 3

PHIL 1120 - Social Ethics (BHU) 3

PHIL 3520 - Business Ethics (DHA) 3

POLS 3120 - Law and Politics (DSS) 3

POLS 3130 - United States Legislative Politics (DSS) 3

POLS 3170 - Law and Economics 3 or

ECN 3170 - Law and Economics 3

POLS 3320 - The Foundations of American Constitutionalism 3

POLS 3810 - Introduction to Public Policy (DSS) 3

POLS 4120 - American Constitutional Law 3

POLS 4130 - Constitutional Theory 3

POLS 5100 - Politics and Public Policy 3

POLS 5130 - Law and Policy 3

SOC 1020 - Social Problems (BSS) 3

SOC 3410 - Juvenile Delinquency 3

SOC 3420 - Criminology 3

SOC 3430 - Social Deviance 3

SOC 4350 - Political Sociology 3

SOC 4420 - Criminal Law and Justice (CI) 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SW 2100 - Human Behavior in the Social Environment 3

SW 5350 - Social Welfare Policy (CI) 3

SW 6800 - Law and Ethics for Social Workers 3

Note:

In addition to the courses listed above, a student may petition to substitute certain relevant courses to fulfill the area studies requirement to transfer credits from another institution.

For further information, contact Dr. Jason Leiker, (435) 797-7123, jason.leiker@usu.edu, in the Sociology, Social Work and Anthropology Department.

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Museum Certificate Program

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

The Museum of Anthropology is a teaching unit under the program's umbrella that offers a certificate in Museum Studies. The certificate program is unique among offerings at Utah's public and private institutions, in that a certificate can be earned as a complement to a bachelor's, master's, or PhD degree in any field. The 24-credit certification program, which features supporting coursework from nearly two dozen departments and programs across the USU campus, educates students in museum administration, collections management and care, and interpretation and exhibition skills. Interested students should consult the USU Museum of Anthropology curator or Anthropology staff assistant for more information on the certificate and a list of course and internship requirements.

Return to: Academic Departments and Programs

Social Work - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work, and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

SOC 1010, PSY 1010, FCHD 1500 or ANTH 1010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

SW 5350 (required), plus another course having CI designation, will fulfill the Communications Intensive (CI) requirement; SW 4100 fulfills this requirement as well (6 CI credits are required).

SOC 3120 (required) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

Social Work Major

Minimum GPA for Admission: 2.75, major; 2.5, USU;

Career Additional Matriculation Requirements: Students must apply for Advanced Standing in the Social Work major at the end of their sophomore year. Application requirements include: a C or better (C+ in SW 1010) in all prerequisite Social Work courses and specific University Studies courses, an essay, and a passing score (70 percent or higher) on the Advanced Placement Test (APT). At the end of the junior year, social work majors apply for the practicum, which requires a passing score (70 percent or higher) on the Generalist Practice Test (GPT) and a B- or better in all practice classes.

Minimum GPA for Graduation: 2.75, major; 2.0, USU; 2.0, Career

Minimum Grade Accepted: C+ in SW 1010; B- in SW 3050, SW 4150, and SW 4160; C in remaining major courses

Students may declare Social Work as their major at any time. All course offerings in social work are open to all Social Work majors, with the exception of the practice courses (SW 3050, SW 4150 and SW 4160 ) and the field practicum courses (SW 4870 and SW 5870 ), which require admission to advanced standing. Social work students are expected to take courses in sequence, in order to have the professional foundation knowledge required for each class. Maintenance of a high grade point average is important as students progress through the major and continue on to graduate school. Requirements for the Social Work major are as follows:

First year:

SW 1010 - Introduction to Social Welfare 3

ANTH 1010 - Cultural Anthropology (BSS) 3

BIOL 1010 - Biology and the Citizen (BLS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PSY 1010 - General Psychology (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Second year:

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

SW 2100 - Human Behavior in the Social Environment 3

SW 2400 - Social Work with Diverse Populations 3

One elective enrichment course 3

Note:

Students should apply for advanced standing by March 1 of their second year if they have completed the required prerequisite classes.

Third year:

SW 3050 - Practice I 3

SW 4100 - Social Work Research (CI) 3

SW 4150 - Practice II 3

SW 4160 - Practice III 3

SOC 3120 - Social Statistics I (QI) 3

Two elective enrichment courses 6

Note:

Students should apply for the practicum during their third year.

Required Elective Enrichment Courses

Nine credits of electives are to be chosen during the second and third years, prior to the practicum year. At least two electives are to be taken in Social Work, and one upper-division elective can be taken outside of Social Work.

SW 3350 - Child Welfare 3

SW 3360 - Adolescents: Theories, Problems, and Issues 3

SW 3450 - School Social Work 3

SW 3550 - Social Gerontology 3

SW 3650 - Mental Health 3

SW 3750 - Medical Social Services 3

SW 3850 - Spirituality and Social Work 3

SW 4900 - Topical Issue Seminar 3-6

Optional Elective (does not fulfill elective requirement)

SW 4950 - Directed Readings 1-5 1

Fourth year:

SW 4870 - Beginning Field Practicum 6 2

SW 5350 - Social Welfare Policy (CI) 3

SW 5870 - Advanced Field Practicum 6

Note:

1 SW 4950 requires a plan of study, approved by a social work faculty member, at least one semester prior to registration. This course is not considered to be a required elective.

2 Prior to enrolling in Beginning Field Practicum, students must apply for admission to the Field Practicum, take the GPT exam, and must have advanced standing status.

Social Work Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

SW 1010 - Introduction to Social Welfare 3

USU 1350 - Integrated Life Science (BLS) 3

Elective 3

Second Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PSY 1010 - General Psychology (BSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Creative Arts (BCA) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

USU 1300 - U.S. Institutions (BAI) 3

Breadth Humanities (BHU) course 3

Elective 3

Upper Division Social Work elective 3

Second Semester (15 credits)

SW 2100 - Human Behavior in the Social Environment 3

SW 2400 - Social Work with Diverse Populations 3

Breadth Physical Sciences (BPS) course 3

Depth Humanities/Creative Arts (DHA) course 3

Elective 3

Junior Year (30 credits)

First Semester (15 credits)

SOC 3120 - Social Statistics I (QI) 3

SW 3050 - Practice I 3

SW 4100 - Social Work Research (CI) 3

Upper Division Social Work Elective 3

Upper Division Elective 3

Second Semester (15 credits)

SW 4150 - Practice II 3

SW 4160 - Practice III 3

Upper Division Social Work Elective 3

Depth Life/Physical Sciences (DSC) course 3

Communications Intensive (CI) course 3

Senior Year (30 credits)

First Semester (15 credits)

SW 4870 - Beginning Field Practicum 6

SW 5350 - Social Welfare Policy (CI) 3

Electives 6

Second Semester (15 credits)

SW 5870 - Advanced Field Practicum 6

Electives 9

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Social Work - BS

Return to: Academic Departments and Programs

## College of Humanities and Social Sciences

### Department of Sociology, Social Work, and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

SOC 1010, PSY 1010, FCHD 1500 or ANTH 1010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

SW 5350 (required), plus another course having CI designation, will fulfill the Communications Intensive (CI) requirement; SW 4100 fulfills this requirement as well (6 CI credits are required).

SOC 3120 (required) will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

### Social Work Major

Minimum GPA for Admission: 2.75, major; 2.5, USU;

Career Additional Matriculation Requirements: Students must apply for Advanced Standing in the Social Work major at the end of their sophomore year. Application requirements include: a C or better (C+ in SW 1010) in all prerequisite Social Work courses and specific University Studies courses, an essay, and a passing score (70 percent or higher) on the Advanced Placement Test (APT). At the end of the junior year, social work majors apply for the practicum, which requires a passing score (70 percent or higher) on the Generalist Practice Test (GPT) and a B- or better in all practice classes.

Minimum GPA for Graduation: 2.75, major; 2.0, USU; 2.0, Career

Minimum Grade Accepted: C+ in SW 1010; B- in SW 3050, SW 4150, and SW 4160; C in remaining major courses

Students may declare Social Work as their major at any time. All course offerings in social work are open to all Social Work majors, with the exception of the practice

courses (SW 3050, SW 4150 and SW 4160 ) and the field practicum courses (SW 4870 and SW 5870 ), which require admission to advanced standing. Social work students are expected to take courses in sequence, in order to have the professional foundation knowledge required for each class. Maintenance of a high grade point average is important as students progress through the major and continue on to graduate school.

Requirements for the Social Work major are as follows:

### First year:

SW 1010 - Introduction to Social Welfare 3

ANTH 1010 - Cultural Anthropology (BSS) 3

BIOL 1010 - Biology and the Citizen (BLS) 3

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PSY 1010 - General Psychology (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

### Second year:

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

SW 2100 - Human Behavior in the Social Environment 3

SW 2400 - Social Work with Diverse Populations 3

One elective enrichment course 3

### Note:

Students should apply for advanced standing by March 1 of their second year if they have completed the required prerequisite classes.

### Third year:

SW 3050 - Practice I 3

SW 4100 - Social Work Research (CI) 3

SW 4150 - Practice II 3

SW 4160 - Practice III 3

SOC 3120 - Social Statistics I (QI) 3

Two elective enrichment courses 6

Note:

Students should apply for the practicum during their third year.

#### Required Elective Enrichment Courses

Nine credits of electives are to be chosen during the second and third years, prior to the practicum year. At least two electives are to be taken in Social Work, and one upper-division elective can be taken outside of Social Work.

SW 3350 - Child Welfare 3

SW 3360 - Adolescents: Theories, Problems, and Issues 3

SW 3450 - School Social Work 3

SW 3550 - Social Gerontology 3

SW 3650 - Mental Health 3

SW 3750 - Medical Social Services 3

SW 3850 - Spirituality and Social Work 3

SW 4900 - Topical Issue Seminar 3-6

Optional Elective (does not fulfill elective requirement)

SW 4950 - Directed Readings 1-5 1

Fourth year:

SW 4870 - Beginning Field Practicum 6 2

SW 5350 - Social Welfare Policy (CI) 3

SW 5870 - Advanced Field Practicum 6

Note:

1 SW 4950 requires a plan of study, approved by a social work faculty member, at least one semester prior to registration. This course is not considered to be a required elective.

2 Prior to enrolling in Beginning Field Practicum, students must apply for admission to the Field Practicum, take the GPT exam, and must have advanced standing status.

#### Social Work Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ANTH 1010 - Cultural Anthropology (BSS) 3

SOC 1010 - Introductory Sociology (BSS) 3

SW 1010 - Introduction to Social Welfare 3

USU 1350 - Integrated Life Science (BLS) 3

Elective 3

Second Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

FCHD 1500 - Human Development Across the Lifespan (BSS) 3

PSY 1010 - General Psychology (BSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Creative Arts (BCA) course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

USU 1300 - U.S. Institutions (BAI) 3

Breadth Humanities (BHU) course 3

Elective 3

Upper Division Social Work elective 3

Second Semester (15 credits)

SW 2100 - Human Behavior in the Social Environment 3

SW 2400 - Social Work with Diverse Populations 3

Breadth Physical Sciences (BPS) course 3

Depth Humanities/Creative Arts (DHA) course 3

Elective 3

Junior Year (30 credits)

First Semester (15 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SOC 3120 - Social Statistics I (QI) 3	
SW 3050 - Practice I 3	30 USU credits
SW 4100 - Social Work Research (CI) 3	Completion of approved major program of study
Upper Division Social Work Elective 3	See college advisor
Upper Division Elective 3	Credits in minor (if required)
Second Semester (15 credits)	12
SW 4150 - Practice II 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
SW 4160 - Practice III 3	3
Upper Division Social Work Elective 3	General Education Requirements and University Studies Depth Requirements
Depth Life/Physical Sciences (DSC) course 3	
Communications Intensive (CI) course 3	
Senior Year (30 credits)	Return to: Academic Departments and Programs
First Semester (15 credits)	
SW 4870 - Beginning Field Practicum 6	Social Work - MSW
SW 5350 - Social Welfare Policy (CI) 3	Return to: Academic Departments and Programs
Electives 6	College of Humanities and Social Sciences
Second Semester (15 credits)	Department of Sociology, Social Work, and Anthropology
SW 5870 - Advanced Field Practicum 6	Degree Requirements (60 credits)
Electives 9	Foundation Courses
Minimum University Requirements	The foundation courses for the MSW degree include the following:
Total Credits	SW 6000 - Principles and Philosophy of Social Work 3
120	SW 6050 - HBSE I: Individuals and Families in Their Environment 3
Grade Point Average (most majors require higher GPA)	SW 6100 - Generalist Practice I: SW Practice with Individuals, Families, and Groups 3
2.00 GPA	SW 6150 - Generalist Practice II: SW Practice with Groups, Organizations, and Communities 3
Credits of C- or better	SW 6200 - Social Work Research Methods 3
100	SW 6250 - HBSE II: Groups, Organizations, and Communities 3
Credits of upper-division courses (#3000 or above)	
40	

SW 6300 - Social Policy Analysis 3

SW 6400 - Field Practicum I 4 and

SW 6450 - Field Practicum II 5

Or

SW 6475 - Foundation Block Field Practicum 9

#### Advanced Courses

The advanced courses for the MSW degree include the following:

SW 6600 - Policy and Administration 3

SW 6650 - Advanced Research Methods 3

SW 6700 - Advanced Generalist Practice I: Individuals and Families 3

SW 6750 - Advanced Generalist Practice II: Groups 3

SW 6800 - Law and Ethics for Social Workers 3

SW 6900 - Field Practicum III 6 and

SW 6950 - Field Practicum IV 6

Or

SW 6975 - Advanced Block Field Practicum 12

#### Elective Courses

Students with an undergraduate degree in social work from a CSWE-accredited program may be permitted to substitute elective courses for select foundation courses, provided they received a grade of A- or better in the class. Elective courses include the following (check with the Social Work program coordinator for information about availability):

SW 6500 - Advanced Child Welfare Practice in Rural Settings 3

SW 6525 - Social Work Practice with Mature and Aging Adults 3

SW 6550 - Advanced Practice with Victims and Perpetrators of Family Violence 3

SW 6575 - Social Work Practice with Substance Abusing Clients 3

SW 6775 - Forensic Social Work Practice 3

SW 6850 - Advanced Clinical Practice with Individuals and Families 3

SW 6875 - Clinical Practice with Women 3

SW 6990 - Independent Study 1-3

SW 6993 - Research Project 1-3

SW 6995 - Special Topics on Social Work Practice 1-3

Advanced Standing Master of Social Work Program (36 credits)

#### Summer Semester

SW 6995 - Special Topics on Social Work Practice 1-3 (6 credits required)

SW 6590 - Advanced Standing Seminar I (Theory and Practice)

SW 6595 - Advanced Standing Seminar II ( Research and Policy)

#### Fall Semester

SW 6650 - Advanced Research Methods 3

SW 6700 - Advanced Generalist Practice I: Individuals and Families 3

SW 6750 - Advanced Generalist Practice II: Groups 3

SW 6900 - Field Practicum III 6

#### Spring Semester

SW 6600 - Policy and Administration 3

SW 6800 - Law and Ethics for Social Workers 3

SW 6950 - Field Practicum IV 6

Advanced Practice Elective 3

Return to: Academic Departments and Programs

Sociology - BA

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

SOC 1010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

SOC 3110, plus another course having CI designation, (such as SOC 4420), will fulfill the Communications Intensive (CI) requirement for students in the Sociology major. SOC 3110, along with either SCED 3210 or SCED 4200, will fulfill the Communications Intensive (CI) requirement for students in the Sociology Teaching emphasis

SOC 3120 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

#### Bachelor of Arts Degree Language Requirement

#### Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

#### Departmental Graduation Requirements

Minimum GPA for Admission: 2.5, Overall; 2.5, USU

Additional Matriculation Requirement: Complete SOC 1010 with grade of C or better

Minimum GPA for Graduation: 2.5, major; 2.0, USU; 2.0, Overall

Minimum Grade Accepted: C in SOC 1010; C- in major courses

Sociology majors must meet the following course requirements:

1. Complete the general requirements of the University.

Majors are expected to take one of the following courses with a C- or better: MATH 1030, MATH 1050, MATH 1060; STAT 1040, STAT 1045, STAT 2000 or STAT 2300 STAT 1040 to fulfill the quantitative literacy requirement for University Studies.

2. Complete a minimum of 33 credits of sociology coursework.

At least fifty percent of the sociology coursework must be completed in the USU Sociology program. Sociology majors must maintain a minimum GPA of 2.5 in sociology courses and earn a grade of C or better in SOC 1010 (BSS) Introductory Sociology (effective Fall Semester 2005) and a C- or better in all other courses to be counted toward the major. Sociology courses over 10 years old, do not count toward the major requirement.

3. A minor outside the program is encouraged but not required.

4. Complete the following required courses (18 credits):

Understanding Society:

SOC 1010 - Introductory Sociology (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 4010 - Contemporary Sociological Theory 3

Tools Classes:

SOC 3110 - Methods of Social Research (CI) 3

SOC 3120 - Social Statistics I (QI) 3

5. Choose a minimum of 18 credits from the following sociology elective courses:

Of the 18 elective credits, at least 3 credits must come from each of the three specialty areas listed below.

a. Social Problems

SOC 1020 - Social Problems (BSS) 3

SOC 3410 - Juvenile Delinquency 3

SOC 3420 - Criminology 3

SOC 3430 - Social Deviance 3

SOC 3750 - Sociology of Aging 3

SOC 4420 - Criminal Law and Justice (CI) 3

b. Groups and Institutions

FCHD 2400 - Marriage and Family Relationships (BSS) 3

SOC 3320 - Sociology of Work and Inequality 3

SOC 3330 - Medical Sociology (DSS) 3

SOC 3500 - Social Psychology 3

SOC 4350 - Political Sociology 3

c. Population, Environment, and Development

SOC 3200 - Population and Society (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

SOC 4720 - Applied Community Development 3 or

SOC 6720 - Applied Community Development 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 5650 - Developing Societies (DSS) 3 or

SOC 6650 - Developing Societies 3

Sociology Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

SOC 1010 - Introductory Sociology (BSS) 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Elective course 3

Second Semester (15 credits)

SOC 1020 - Social Problems (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Physical Sciences (BPS) course 3

Group 1 Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

SOC 3110 - Methods of Social Research (CI) 3

Breadth American Institutions (BAI) course 3

Breadth course 3

Group 2 Elective course 3

Second Semester (15 credits)

SOC 3120 - Social Statistics I (QI) 3

Group 3 Elective course 3	PSY 3510 - Social Psychology (DSS) 3
Elective courses 9	SOC 3320 - Sociology of Work and Inequality 3
Junior Year (30 credits)	SOC 3330 - Medical Sociology (DSS) 3
First Semester (15 credits)	SOC 3500 - Social Psychology 3
SOC 4010 - Contemporary Sociological Theory 3	SOC 4350 - Political Sociology 3
Depth Humanities/Creative Arts (DHA) course 3	Group 3
Upper Division Sociology course 3	SOC 3200 - Population and Society (DSS) 3
Upper Division Elective course 6	SOC 3600 - Sociology of Urban Places (DSS) 3
Second Semester (15 credits)	SOC 3610 - Rural Sociology (DSS) 3
Depth Life/Physical Sciences (DSC) course 3	SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3
Upper Division Sociology Elective course 6	SOC 4720 - Applied Community Development 3
Upper Division Elective course 4	SOC 5460 - Sociology of Health 3
Elective course 2	SOC 5650 - Developing Societies (DSS) 3
Senior Year (30 credits)	Minimum University Requirements
First Semester (15 credits)	Total Credits
Communications Intensive (CI) course 3	120
Elective courses 12	Grade Point Average (most majors require higher GPA)
Second Semester (15 credits)	2.00 GPA
Elective courses 12	Credits of C- or better
Capstone course 3	100
Sociology Elective Courses	Credits of upper-division courses (#3000 or above)
Group 1	40
SOC 1020 - Social Problems (BSS) 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SOC 3410 - Juvenile Delinquency 3	30 USU credits
SOC 3420 - Criminology 3	Completion of approved major program of study
SOC 3430 - Social Deviance 3	See college advisor
SOC 3750 - Sociology of Aging 3	Credits in minor (if required)
SOC 4420 - Criminal Law and Justice (CI) 3	12
Group 2	
FCHD 2400 - Marriage and Family Relationships (BSS) 3	

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Sociology - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Students must complete the General Education Requirements:

STAT 1040 will fulfill the Quantitative Literacy (QL) requirement

SOC 1010 will fulfill the Social Sciences requirement

Students must also complete the University Studies Depth Requirements:

SOC 3110, plus another course having CI designation, (such as SOC 4420), will fulfill the Communications Intensive (CI) requirement for students in the Sociology major. SOC 3110, along with either SCED 3210 or SCED 4200, will fulfill the Communications Intensive (CI) requirement for students in the Sociology Teaching emphasis

SOC 3120 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Life and Physical Sciences (DSC)

Departmental Graduation Requirements

Minimum GPA for Admission: 2.5, Overall; 2.5, USU

Additional Matriculation Requirement: Complete SOC 1010 with grade of C or better

Minimum GPA for Graduation: 2.5, major; 2.0, USU; 2.0, Overall

Minimum Grade Accepted: C in SOC 1010; C- in major courses

Sociology majors must meet the following course requirements:

1. Complete the general requirements of the University.

Majors are expected to take one of the following courses with a C- or better: MATH 1030, MATH 1050, MATH 1060; STAT 1040, STAT 1045, STAT 2000 or STAT 2300 STAT 1040 to fulfill the quantitative literacy requirement for University Studies.

2. Complete a minimum of 33 credits of sociology coursework.

At least fifty percent of the sociology coursework must be completed in the USU Sociology program. Sociology majors must maintain a minimum GPA of 2.5 in sociology courses and earn a grade of C or better in SOC 1010 (BSS) Introductory Sociology (effective Fall Semester 2005) and a C- or better in all other courses to be counted toward the major. Sociology courses over 10 years old, do not count toward the major requirement.

3. A minor outside the program is encouraged but not required.

4. Complete the following required courses (18 credits):

Understanding Society:

SOC 1010 - Introductory Sociology (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 4010 - Contemporary Sociological Theory 3

Tools Classes:

SOC 3110 - Methods of Social Research (CI) 3

SOC 3120 - Social Statistics I (QI) 3

5. Choose a minimum of 18 credits from the following sociology elective courses:

Of the 18 elective credits, at least 3 credits must come from each of the three specialty areas listed below.

a. Social Problems

SOC 1020 - Social Problems (BSS) 3

SOC 3410 - Juvenile Delinquency 3

SOC 3420 - Criminology 3

SOC 3430 - Social Deviance 3

SOC 3750 - Sociology of Aging 3

SOC 4420 - Criminal Law and Justice (CI) 3

b. Groups and Institutions

FCHD 2400 - Marriage and Family Relationships (BSS) 3

SOC 3320 - Sociology of Work and Inequality 3

SOC 3330 - Medical Sociology (DSS) 3

SOC 3500 - Social Psychology 3

SOC 4350 - Political Sociology 3

c. Population, Environment, and Development

SOC 3200 - Population and Society (DSS) 3

SOC 3600 - Sociology of Urban Places (DSS) 3

SOC 3610 - Rural Sociology (DSS) 3

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3

SOC 4720 - Applied Community Development 3 or

SOC 6720 - Applied Community Development 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 5650 - Developing Societies (DSS) 3 or

SOC 6650 - Developing Societies 3

Sociology Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

SOC 1010 - Introductory Sociology (BSS) 3

Breadth Creative Arts (BCA) course 3

Breadth Humanities (BHU) course 3

Elective course 3

Second Semester (15 credits)

SOC 1020 - Social Problems (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

STAT 1040 - Introduction to Statistics (QL) 3

Breadth Physical Sciences (BPS) course 3

Group 1 Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

SOC 3110 - Methods of Social Research (CI) 3

Breadth American Institutions (BAI) course 3

Breadth course 3

Group 2 Elective course 3

Second Semester (15 credits)

SOC 3120 - Social Statistics I (QI) 3

Group 3 Elective course 3

Elective courses 9

Junior Year (30 credits)

First Semester (15 credits)

SOC 4010 - Contemporary Sociological Theory 3

Depth Humanities/Creative Arts (DHA) course 3

Upper Division Sociology course 3

Upper Division Elective course 6

Second Semester (15 credits)

Depth Life/Physical Sciences (DSC) course 3

Upper Division Sociology Elective course 6

Upper Division Elective course 4

Elective course 2

Senior Year (30 credits)

First Semester (15 credits)	Total Credits
Communications Intensive (CI) course 3	120
Elective courses 12	Grade Point Average (most majors require higher GPA)
Second Semester (15 credits)	2.00 GPA
Elective courses 12	Credits of C- or better
Capstone course 3	100
Sociology Elective Courses	Credits of upper-division courses (#3000 or above)
Group 1	40
SOC 1020 - Social Problems (BSS) 3	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
SOC 3410 - Juvenile Delinquency 3	
SOC 3420 - Criminology 3	30 USU credits
SOC 3430 - Social Deviance 3	Completion of approved major program of study
SOC 3750 - Sociology of Aging 3	See college advisor
SOC 4420 - Criminal Law and Justice (CI) 3	Credits in minor (if required)
Group 2	12
FCHD 2400 - Marriage and Family Relationships (BSS) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
PSY 3510 - Social Psychology (DSS) 3	
SOC 3320 - Sociology of Work and Inequality 3	3
SOC 3330 - Medical Sociology (DSS) 3	General Education Requirements and University Studies Depth Requirements
SOC 3500 - Social Psychology 3	
SOC 4350 - Political Sociology 3	Return to: Academic Departments and Programs
Group 3	
SOC 3200 - Population and Society (DSS) 3	Sociology - MS
SOC 3600 - Sociology of Urban Places (DSS) 3	Return to: Academic Departments and Programs
SOC 3610 - Rural Sociology (DSS) 3	College of Humanities and Social Sciences
SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3	Department of Sociology, Social Work and Anthropology
SOC 4720 - Applied Community Development 3	The graduate program in sociology provides a unique combination of demographic, organizational, political-economic, and social-psychological aspects to the study of major domestic and global issues. The main objective of this degree program is to provide a firm foundation in sociological theory and methods and to prepare students to pursue doctoral-level training in sociology. Graduate
SOC 5460 - Sociology of Health 3	
SOC 5650 - Developing Societies (DSS) 3	
Minimum University Requirements	

students have the opportunity to merge basic foundation coursework in social theory and research methods with more specialized training in selected specialty areas, which are environment and community, demography, and states and markets. Students also have the opportunity to take electives in any of the departmental specialty areas or outside the department.

All MS students write a Plan A thesis under the guidance of their advisor and supervisory committee. One theory course, two methods courses, and a minimum of 30 total credits (including 6-9 credits for writing a research thesis) are required for the degree.

Applicants for the MS program preferably have a bachelor's degree in sociology or related social science discipline. If students have a different major, but have taken core sociology classes in methods, theory, and statistics, and have adequate exposure to the discipline, they may still be considered for admission.

#### Core Courses

The core courses for the MS degree in Sociology include the following:

SOC 6010 - Development of Sociological Theory 3

SOC 6100 - Advanced Methods of Social Research 3

SOC 6150 - Social Statistics II 3

[Return to: Academic Departments and Programs](#)

#### Sociology - PhD

[Return to: Academic Departments and Programs](#)

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

In addition to coursework in sociological theory and methods, doctoral students are expected to concentrate in and pass a written comprehensive examination in one major specialty area, with additional depth coursework in a second area. Specialty areas are distinct, but are also highly integrative. One line of integration involves the department's continuing emphasis on Rural Sociology, which links elements of all three specialty areas. The program is sufficiently flexible to permit students with a strong interest in an area other than the established specialty areas to elect that area as their second

specialization, with approval of the supervisory committee and the department head or his or her delegated representative.

#### Demography

This specialization explores issues of population change, migration, and health outcomes. Graduate coursework is provided in social demography, techniques of demographic analysis, population health, migration, and various special topic seminars. The orientation is twofold: (1) basic and policy oriented research on sociological aspects of demographic structure and processes including migration, marriage and fertility, morbidity and mortality, and technical demographic topics such as population estimates and projections; and, (2) the provision of demographic training to domestic and international students relevant to their respective settings. Demographic topics tend to overlap with issues of central concern among the department's faculty, including issues pertaining to social change and inequality. Active faculty research endeavors encompass a broad range of local, regional, national, and international projects in the areas of migration and population redistribution, population health and mortality, the life course and aging, and relationships between population and environment.

#### Environment and Community

This specialization focuses on the sociology of natural resources, environmental sociology, community theory, and applied community development. The faculty in the Environment and Community Sociology area maintain active research in areas such as natural resource development and social change, resource dependency patterns, land use planning, public participation in environmental planning, social responses to hazardous technologies and events, energy resource development, water resource development and water use, environmental equity and environmental justice concerns, public land management policies, linkages of environmental conditions with population change, and a variety of other natural resource policy and management issues. Faculty members are engaged in numerous cooperative research ventures with colleagues in natural resource sciences, water engineering, and other physical and social sciences.

#### States and Markets

This field of specialization is supported by new developments in economic sociology that focus on the

social and political bases of market processes and in political sociology on the impact of state-level institutions and political processes on social and economic outcomes. Taken together these developments suggest that states and markets are embedded in each other and co-construct one another in important ways. Many important topics studied by faculty within our department – migration behavior, health outcomes, environmental problems, labor market outcomes, community development, etc. – are shaped by this interaction of politics and markets. Developments in the discipline at large to engage this intersection inspire new trajectories of inquiry that motivate the research agendas of a critical core of faculty in the department. Thus neither political sociology nor economic sociology sufficiently captures the existing strengths of faculty research and teaching.

Requirements

A minimum of 48 credits beyond the master's degree are required for the doctoral degree for students who receive the MS degree in Sociology at USU. A minimum of 51 credits beyond the master's degree are required for those who receive the master's degree from another institution, or whose master's degree is in a field other than Sociology. Specific minimum requirements for a PhD in Sociology include completion of 6 credit hours of theory (SOC 6750 and SOC 6760), 9 credit hours of methods (SOC 7100, SOC 7110 and SOC 7150), and at least 21 credits of electives. In addition, doctoral students must take a minimum of 12 and no more than 24 credits of dissertation research (SOC 7970). Doctoral candidates must pass a written comprehensive examination in their major area of specialization, and successfully write and defend a dissertation proposal and dissertation before their supervisory committee.

Core Courses

The core courses for the PhD degree in Sociology include the following:

- SOC 6750 - Theory and Research in Social Change 3
- SOC 6760 - Theory and Research in Social Inequality 3
- SOC 7100 - Advanced Survey Techniques 3
- SOC 7110 - Advanced Sociological Analysis 3
- SOC 7150 - Advanced Qualitative Methods in Sociology 3

Return to: Academic Departments and Programs

Sociology and Social Work Dual Major - BA	
Return to: Academic Departments and Programs	
College of Humanities and Social Sciences	
Department of Sociology, Social Work and Anthropology	
Sociology majors desiring additional preparation for employment in the social services may complete a dual major in sociology and social work. With the help of advisors, students who will seek positions in other special areas could include appropriately related courses.	
Minimum University Requirements	
Total Credits	120
Grade Point Average (most majors require higher GPA)	2.00 GPA
Credits of C- or better	100
Credits of upper-division courses (#3000 or above)	40
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	30 USU credits
Completion of approved major program of study	See college advisor
Credits in minor (if required)	12
Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)	3
General Education Requirements and University Studies Depth Requirements	
Return to: Academic Departments and Programs	

## Sociology and Social Work Dual Major - BS

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Sociology majors desiring additional preparation for employment in the social services may complete a dual major in sociology and social work. With the help of advisors, students who will seek positions in other special areas could include appropriately related courses.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

## Sociology Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Students minoring in sociology must complete a minimum of 12 credits in sociology courses. Sociology minors must maintain a minimum GPA of 2.5 in sociology courses. They must also earn a grade of C or better in SOC 1010 or SOC 1020, and a C- or better in all courses to be counted toward the minor. At least 50 percent of coursework for the minor must be completed at USU. None of the credits counted toward the minor may be taken pass-fail. Sociology courses over 10 years old, do not count toward the major credit requirement.

Requirements:

SOC 1010 - Introductory Sociology (BSS) 3 or

SOC 1020 - Social Problems (BSS) 3

9 Additional credits with a SOC prefix

Only sociology classes are accepted for the minor in sociology. Although other classes may be accepted for the sociology major, they are not accepted for the sociology minor.

Return to: Academic Departments and Programs

## Sociology Teaching Minor

Return to: Academic Departments and Programs

College of Humanities and Social Sciences

Department of Sociology, Social Work and Anthropology

Sociology teaching minors must maintain a minimum GPA of 2.75 in sociology courses. They must also earn a grade of C or better in SOC 1010 and a grade of C or better in all courses to be counted toward the teaching minor. At least 50 percent of coursework for the minor must be completed at USU. A teaching minor requires completion of a teaching license in the Emma Eccles Jones College of Education and Human Services. Sociology courses over 10 years old, do not count toward the major credit requirement.

#### A. Required Courses (12 credits)

SOC 1010 - Introductory Sociology (BSS) 3

SOC 3010 - Social Inequality (DSS) 3

SOC 3110 - Methods of Social Research (CI) 3

SOC 4010 - Contemporary Sociological Theory 3

#### B. Electives (6 credits)

Students must also complete an additional 6 credits of coursework in sociology. Recommended courses include:

SOC 3200 - Population and Society (DSS) 3

SOC 3320 - Sociology of Work and Inequality 3

SOC 3420 - Criminology 3

SOC 3500 - Social Psychology 3

#### C. STEP Program (35 credits)

Finally, students need to fulfill the 35-credit requirement for the Secondary Teacher Education Program (STEP) in the Secondary Education Program of the School of Teacher Education and Leadership.

Return to: Academic Departments and Programs

#### Disability Disciplines - PhD

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

The department's PhD program in Disability Disciplines prepares graduates for university faculty positions in research and personnel preparation in the areas of special education, rehabilitation, applied behavior analysis, disabilities studies, speech-language pathology and audiology. The PhD program is designed to develop students' competence in (1) mastery of the theoretical and applied content underlying provision of appropriate and effective services for persons with disabilities; (2) ability to conduct independent research; and (3) ability to conduct effective personnel preparation, including college teaching and supervising students who are learning to deliver services.

Return to: Academic Departments and Programs

Rehabilitation Counseling - CERG

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

Rehabilitation Counseling Category R Certificate Program

Program Director: Jared Schultz

Location: EDUC 303

Phone: 435-797-3478

FAX: 435-797-3572

E-mail: [jared.schultz@usu.edu](mailto:jared.schultz@usu.edu)

Program Advisor: Kris Wengreen

Location: EDUC 313

Phone: 435-797-3246

FAX: 435-797-3572

E-mail: [kris.wengreen@usu.edu](mailto:kris.wengreen@usu.edu)

#### Program Description

USU provides the post-graduate advanced certificate for the Commission on Rehabilitation Counselor Certification (CRCC) Category R.

The program includes eight (8) courses, for a minimum of 22 semester hours.

All courses are offered via distance education.

Tuition: \$376/credit hour (\$8,272 total to earn certificate)

Employment Requirement: Thirty-six (36) months of acceptable employment experience, including a minimum of twenty-four (24) months under the supervision of a CRC.

For additional information on CRCC Category R, see the CRCC website: [www.crc certification.com/](http://www.crc certification.com/)

## CRCC Category R Description

Certificate can be completed in as few as three semesters. Courses are offered spring, summer, and fall semesters via distance education. Students have the flexibility to register for as many courses each semester as they desire. However, all coursework must be completed within 4 calendar years.

### Eligibility

To be eligible for certification in this Category you must have a master's, specialist, or doctoral degree in one of the following majors:

Behavioral Health, Behavioral Science, Disability Studies, Human Relations, Human Services, Marriage and Family Therapy, Occupational Therapy, Psychology, Psychometrics, Rehabilitation, Social Work, Special Education, Vocational Assessment/Evaluation.

Note: CRCC will not consider degrees outside of the specified list of majors.

### Admission Requirements

In order to gain admittance to the program, students must submit an application, application fee, and official transcripts. To apply, contact the program advisor, Kris Wengreen (kris.wengreen@usu.edu).

### Coursework

#### Fall Semester (8 credits)

REH 6100 - Introduction to the Profession of Rehabilitation Counseling 2

REH 6110 - Medical Aspects of Disability 3

REH 6160 - Job Analysis, Development, and Placement for Persons with Disabilities 3

#### Spring Semester (11 credits)

REH 6120 - Psychosocial Aspects of Disability 3

REH 6150 - Rehabilitation Services and Resources 3

REH 6190 - Introduction to Assessment in Rehabilitation 2

REH 6200 - Theories of Counseling Applied to Persons with Disabilities 3

#### Summer Semester (3 credits)

## REH 6220 - Culturally Valid Rehabilitation Practices 3

Return to: Academic Departments and Programs

### Rehabilitation Counseling - MRC

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

The Master of Rehabilitation Counseling prepares persons with the basic competencies to provide rehabilitation counseling to individuals with a broad range of disabilities in a variety of settings, such as state rehabilitation agencies, independent living centers, rehabilitation hospitals, private rehabilitation facilities and agencies, employment assistance programs, and private industry. Rehabilitation Counseling has a dual identity, that of an allied health profession and that of a specialized area of general counseling, assisting people with disabilities, while also helping their families respond to a disability. The degree is a 52-credit program consistent with the requirements of the Council on Rehabilitation Education (CORE). The Rehabilitation Counseling Program has a limited number of scholarships funded through the U.S. Department of Education, Rehabilitation Services Administration. These scholarships require a postgraduate commitment to work for a not-for-profit agency serving the needs of individuals with disabilities for two years for every year of scholarship received.

### Mission

The mission of the Master of Rehabilitation Counseling program is to promote quality rehabilitation services for individuals with disabilities through the education of rehabilitation professionals, provision of rehabilitation continuing education, and through research related to rehabilitation.

### Objectives

Program objectives include:

Preparation of master's level counselors,

Promotion of the code of Professional Ethics, and

Advancement of the basic philosophical tenets of rehabilitation, including the value and worth of all individuals, a belief in human dignity, and the right of all persons to fully participate in society.

Return to: Academic Departments and Programs

### Special Education - BA

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

Bachelor of Arts Degree Language Requirement

Bachelor of Arts Degree

A Bachelor of Arts (BA) degree signifies proficiency in one or more foreign languages. Specifically, the BA requirement may be completed in one of the following ways:

Demonstration of proficiency in one foreign language by successful completion of one course at the 2020-level or higher (or its equivalent).

Or

Demonstration of proficiency in American Sign Language by successful completion of COMD 4920 and COMD 4780, and by passing an exit interview.

Or

Demonstration of proficiency in two foreign languages by successful completion of the 1020 course level in one language and the 2010 course level in the second language (or its equivalent).

Or

Completion of an upper-division (3000-level or higher) foreign language grammar or literature course requiring the 2020 course level (or its equivalent) as a prerequisite. Conversation courses cannot be considered for satisfying this requirement.

For nonnative English-speaking students only, the following options are available:

Successful completion of the Intensive English Language Institute (IELI) program for international students.

Or

TOEFL, Michigan, or IELI placement scores high enough to meet the University admission criteria.

### Bachelor's Degree in Special Education

Undergraduate study leads to the Bachelor of Science or Bachelor of Arts degree in Special Education with licensure to teach students with mild/moderate disabilities, severe disabilities, or early childhood (birth to age 5) special education. The degree requires a total of 120 credits. The requirements are as follows:

#### A. University Studies Requirements

Competency Requirements (9-13 credits), Breadth Requirements (21 credits), and Depth Education Requirements (5 courses). For more information, see General Education Requirements and University Studies Depth Requirements.

FCHD 1500 fulfills the Social Sciences (BSS) requirement for students in the Special Education major

SPED 5200 or SPED 5210 will fulfill the Communications Intensive (CI) requirement

SPED 5010 fulfills the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from two of the following three categories: Humanities Creative Arts (DHA), Life and Physical Sciences (DSC) and Social Sciences (DSS)

#### B. Special Education Admission to Major Requirements

(admission is competitive and requires a separate application. Students are highly advised to contact a SPED advisor at least a year before applying to the SPED major)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3 (grade of C+ or higher) or ENGL ACT of 29 or higher or AP English

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 (grade of C or higher) or PSY 1100 - Lifespan Development 3 (grade of C or higher)

MATH 1050 - College Algebra (QL) 4 (grade of C or higher)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3 (grade of C or higher). Note: Mild/Moderate emphasis requires the Middle School Math Praxis Exam (5169) and the Severe emphasis requires the Elementary Education Multiple Subjects Praxis Exam (5031) to apply to the major.

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4 (grade of C or higher)

Breadth American Institutions class with a grade of C or higher

Breadth Life Science class with a grade of C or higher

40 attempted (includes fall classes) credit hours with a 3.00 GPA or higher. The application process is competitive. GPA of accepted students averages 3.50

Passing score on the Emma Eccles College of Education and Human Services Writing Exam

Passing score on the Special Education Math test

Take a speech and hearing exam

Successful completion of the BCI and FBA background check required by the Utah State Office of Education

Minimum ACT Scores within the past five years of 21 for Composite, 20 for English, 19 for Math, 18 for Reading and 18 for Science

Take the Middle School Math Praxis Exam (5169) for mild/moderate emphasis

Take the Elementary Education Multiple Subjects Praxis Exam (5031) for the severe emphasis

#### C. Professional Education Requirements (13-15 credits)

SPED 4000 - Education of Exceptional Individuals 2

SPED 5530 - Technology for Teaching Exceptional Learners 3

PSY 3660 - Educational Psychology for Teachers 2

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

(ELED 3000, FCHD 2600 and FCHD 2630 are required only for students completing the Birth to Age 5 Certificate)

#### D. Special Education Major (42-60 credits)

Coursework includes: applied behavior analysis; introduction to systematic instruction (task analysis, curriculum-based measurement, behavioral objectives, contingent reinforcement); designing curriculum; Individualized Educational Programs (IEP); educational assessment, analysis, and adaptation of instructional materials; intervention strategies for academic and social behaviors; and parent involvement. Additionally, each endorsement area includes practicum work with exceptional children or youth. Finally, all students must complete student teaching with students with disabilities. Most of the Special Education courses are presented in a hybrid format. Hybrid is a combination of live (face-to-face) classes and online classes. Courses vary in terms of how much content is online. For example, students may attend class every other week, and during the in between weeks complete work using an online tool (e.g., Canvas).

#### E. Teaching Support (15 credits)

The support area is designed to enhance the Special Education major's background. Areas recommended include communicative disorders, psychology, sociology, family and human development. Students are encouraged to take courses which will prepare them for the appropriate PRAXIS exam.

#### F. Electives (7-20 credits)

##### Endorsement Areas

Students are required to complete the Mild/Moderate Disabilities Endorsement, the Severe Disabilities Endorsement, or the Birth to Age 5 Certificate.

The following courses are required for the special education training programs. A minimum grade point average of 3.00 is required for admission to the endorsement courses. Most of the courses should be taken during the junior year. Students enrolled in the endorsement programs are required to maintain a GPA of at least 2.75. Students are required to earn a grade of B- or better in all teacher licensure courses. Students must retake any licensure course for which a grade of less than a B- was received. Each student will be allowed

to repeat a maximum of only one didactic, practica, or student teaching course.

Mild/Moderate Disabilities Endorsement (48 credits)

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5310 - Teaching Reading and Language Arts to Students with Mild/Moderate Disabilities 2-4 (4 credits required)

SPED 5320 - Teaching Content Areas and Transition to Students with Mild/Moderate Disabilities 3

SPED 5330 - Eligibility Assessment for Students with Mild/Moderate Disabilities 1

SPED 5340 - Teaching Math to Students with Mild/Moderate Disabilities 3

SPED 5410 - Practicum: Direct Instruction Reading and Language Arts for Students with Mild/Moderate Disabilities 1-3 (3 credits required)

SPED 5420 - Practicum: Teaching Mathematics to Students with Mild/Moderate Disabilities 4

Severe Disabilities Endorsement (45 credits)

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5510 - Curriculum for Students with Severe Disabilities 3-4 (4 credits required)

SPED 5520 - Curriculum for Secondary-Level Students with Severe Disabilities 3

SPED 5540 - Assessment of Persons with Severe Disabilities 1

SPED 5600 - Practicum: Instruction in Academic Skills 3

SPED 5610 - Practicum: Instruction in Daily Living Skills 4

Birth to Age 5 Certificate (46 credits)

Students who are completing this certificate in addition to the Mild/Moderate Disabilities Endorsement or the Severe Disabilities Endorsement will need to complete only those courses which they have not already taken under their endorsement.

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5710 - Young Children with Disabilities: Characteristics and Services 3

SPED 5730 - Intervention Strategies for Young Children with Disabilities 3

SPED 5810 - Seminar and Field Experiences with Infants and Families 3-4 (4 credits required)

SPED 5820 - Preschool Practicum with Young Children with Disabilities in Community Environments 5

SPED 5840 - Practicum: Working with Young Children with Autism 1

Note:

Students working toward the Birth to Age 5 Certificate are encouraged to complete either the mild/moderate disabilities endorsement or the severe disabilities endorsement, as well as courses included in the Birth to Age 5 Certificate. For additional information, see the special education advisor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Special Education - BS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

Bachelor's Degree in Special Education

Undergraduate study leads to the Bachelor of Science or Bachelor of Arts degree in Special Education with licensure to teach students with mild/moderate disabilities, severe disabilities, or early childhood (birth to age 5) special education. The degree requires a total of 120 credits. The requirements are as follows:

A. University Studies Requirements

Competency Requirements (9-13 credits), Breadth Requirements (21 credits), and Depth Education Requirements (5 courses). For more information, see General Education Requirements and University Studies Depth Requirements.

FCHD 1500 fulfills the Social Sciences (BSS) requirement for students in the Special Education major

SPED 5200 or SPED 5210 will fulfill the Communications Intensive (CI) requirement

SPED 5010 fulfills the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from two of the following three categories: Humanities Creative Arts (DHA), Life and Physical Sciences (DSC) and Social Sciences (DSS)

B. Special Education Admission to Major Requirements

(admission is competitive and requires a separate application. Students are highly advised to contact a SPED advisor at least a year before applying to the SPED major)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3 (grade of C+ or higher) or ENGL ACT of 29 or higher or AP English

FCHD 1500 - Human Development Across the Lifespan (BSS) 3 (grade of C or higher) or PSY 1100 - Lifespan Development 3 (grade of C or higher)

MATH 1050 - College Algebra (QL) 4 (grade of C or higher)

MATH 2020 - Mathematics for Elementary School Teachers (QI) 3 (grade of C or higher). Note: Mild/Moderate emphasis requires the Middle School Math Praxis Exam (5169) and the Severe emphasis requires the Elementary Education Multiple Subjects Praxis Exam (5031) to apply to the major.

PHYS 1200 - Introduction to Physics by Hands-on Exploration (BPS) 4 (grade of C or higher)

Breadth American Institutions class with a grade of C or higher

Breadth Life Science class with a grade of C or higher

40 attempted (includes fall classes) credit hours with a 3.00 GPA or higher. The application process is competitive. GPA of accepted students averages 3.50

Passing score on the Emma Eccles College of Education and Human Services Writing Exam

Passing score on the Special Education Math test

Take a speech and hearing exam

Successful completion of the BCI and FBA background check required by the Utah State Office of Education

Minimum ACT Scores within the past five years of 21 for Composite, 20 for English, 19 for Math, 18 for Reading and 18 for Science

Take the Middle School Math Praxis Exam (5169) for mild/moderate emphasis

Take the Elementary Education Multiple Subjects Praxis Exam (5031) for the severe emphasis

#### C. Professional Education Requirements (13-15 credits)

SPED 4000 - Education of Exceptional Individuals 2

SPED 5530 - Technology for Teaching Exceptional Learners 3

PSY 3660 - Educational Psychology for Teachers 2

ELED 3000 - Historical, Social, and Cultural Foundations of Education and School Practicum (CI) 4-6

FCHD 2600 - Seminar in Early Childhood Education 2

FCHD 2630 - Practicum in Early Childhood Education 2-5

(ELED 3000, FCHD 2600 and FCHD 2630 are required only for students completing the Birth to Age 5 Certificate)

#### D. Special Education Major (42-60 credits)

Coursework includes: applied behavior analysis; introduction to systematic instruction (task analysis, curriculum-based measurement, behavioral objectives, contingent reinforcement); designing curriculum; Individualized Educational Programs (IEP); educational assessment, analysis, and adaptation of instructional materials; intervention strategies for academic and social behaviors; and parent involvement. Additionally, each endorsement area includes practicum work with exceptional children or youth. Finally, all students must complete student teaching with students with disabilities. Most of the Special Education courses are presented in a hybrid format. Hybrid is a combination of live (face-to-face) classes and online classes. Courses vary in terms of how much content is online. For example, students may attend class every other week, and during the in between weeks complete work using an online tool (e.g., Canvas).

#### E. Teaching Support (15 credits)

The support area is designed to enhance the Special Education major's background. Areas recommended include communicative disorders, psychology, sociology, family and human development. Students are encouraged to take courses which will prepare them for the appropriate PRAXIS exam.

#### F. Electives (7-20 credits)

##### Endorsement Areas

Students are required to complete the Mild/Moderate Disabilities Endorsement, the Severe Disabilities Endorsement, or the Birth to Age 5 Certificate.

The following courses are required for the special education training programs. A minimum grade point average of 3.00 is required for admission to the endorsement courses. Most of the courses should be taken during the junior year. Students enrolled in the endorsement programs are required to maintain a GPA of at least 2.75. Students are required to earn a grade of B- or better in all teacher licensure courses. Students must retake any licensure course for which a grade of less than a B- was received. Each student will be allowed

to repeat a maximum of only one didactic, practica, or student teaching course.

Mild/Moderate Disabilities Endorsement (48 credits)

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5310 - Teaching Reading and Language Arts to Students with Mild/Moderate Disabilities 2-4 (4 credits required)

SPED 5320 - Teaching Content Areas and Transition to Students with Mild/Moderate Disabilities 3

SPED 5330 - Eligibility Assessment for Students with Mild/Moderate Disabilities 1

SPED 5340 - Teaching Math to Students with Mild/Moderate Disabilities 3

SPED 5410 - Practicum: Direct Instruction Reading and Language Arts for Students with Mild/Moderate Disabilities 1-3 (3 credits required)

SPED 5420 - Practicum: Teaching Mathematics to Students with Mild/Moderate Disabilities 4

Severe Disabilities Endorsement (45 credits)

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5510 - Curriculum for Students with Severe Disabilities 3-4 (4 credits required)

SPED 5520 - Curriculum for Secondary-Level Students with Severe Disabilities 3

SPED 5540 - Assessment of Persons with Severe Disabilities 1

SPED 5600 - Practicum: Instruction in Academic Skills 3

SPED 5610 - Practicum: Instruction in Daily Living Skills 4

Birth to Age 5 Certificate (46 credits)

Students who are completing this certificate in addition to the Mild/Moderate Disabilities Endorsement or the Severe Disabilities Endorsement will need to complete only those courses which they have not already taken under their endorsement.

SPED 5010 - Applied Behavioral Analysis 1: Principles, Assessment, and Analysis (QI) 3

SPED 5040 - Foundations of Effective Assessment and Instructional Practices 3

SPED 5050 - Applied Behavioral Analysis 2: Applications 3

SPED 5060 - Consulting with Parents and Teachers 3

SPED 5070 - Policies and Procedures in Special Education 1-3 (3 credits required)

SPED 5200 - Student Teaching in Special Education (CI) 3-15 (15 credits required)(SPED 5200 should be taken during the senior year)

SPED 5710 - Young Children with Disabilities: Characteristics and Services 3

SPED 5730 - Intervention Strategies for Young Children with Disabilities 3

SPED 5810 - Seminar and Field Experiences with Infants and Families 3-4 (4 credits required)

SPED 5820 - Preschool Practicum with Young Children with Disabilities in Community Environments 5

SPED 5840 - Practicum: Working with Young Children with Autism 1

Note:

Students working toward the Birth to Age 5 Certificate are encouraged to complete either the mild/moderate disabilities endorsement or the severe disabilities endorsement, as well as courses included in the Birth to Age 5 Certificate. For additional information, see the special education advisor.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Special Education - EdS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

The educational specialist degree is designed for advanced graduate students seeking instruction beyond a master's degree. Programs are individually planned to address specific student needs. Completion of the EdS program is based on completion of required coursework, submission of a research proposal to a supervisory committee, and satisfactory defense of the research project.

Return to: Academic Departments and Programs

Special Education - MEd

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

The Master of Education degree program is designed for persons who desire a graduate program that will help them improve their competencies as educators. This includes school personnel, as well as individuals who are involved in education-related activities across a variety of community, work, and clinical settings. The MEd degree focuses on improving instruction and management practices, implementing legal requirements, professional collaboration, and addressing cultural and linguistic diversity. All candidates must complete a creative project. A minimum of 36 credits, including a creative project, is required for the MEd degree. Students interested in an Administrative/Supervisory concentration should indicate that interest on their initial master's application.

Return to: Academic Departments and Programs

Special Education - MS

Return to: Academic Departments and Programs

Emma Eccles Jones College of Education and Human Services

Department of Special Education and Rehabilitation

The Master of Science degree program is designed for persons who desire to improve their teaching or behavior analysis skills. In the Applied Behavior Analysis MS concentration, students complete coursework that will allow them to sit for the national Board Certified Behavior Analyst exam. An MS degree is appropriate for students who are contemplating enrolling in a doctoral program later on. Generally, MS theses differ from MEd creative projects in that they require experimental research that contribute knowledge to the field of special education. A minimum of 36 credits, including a thesis, is required for the MS degree.

Return to: Academic Departments and Programs

Ecology (Watershed Sciences) - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers

considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

Ecology Course Requirements

Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

## Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

### Functional (Core) Blocks

#### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

#### 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

#### 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

#### 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

## 5. Human Ecology

### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

### Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

### Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

### Translational Ecology

ENVS 6410 - Translational Ecology 3

## Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Ecology (Watershed Sciences) - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

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Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

## Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

## Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

## Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

## Ecology Course Requirements

### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

## Functional (Core) Blocks

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GEO 6680 - Paleoclimatology 3 or

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GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

## 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

## 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

## 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

## 5. Human Ecology

### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

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### Recreation

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ENVS 6580 - Sustainable Nature-Based Tourism 3

## Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

## Translational Ecology

ENVS 6410 - Translational Ecology 3

## Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

## Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

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ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

## Return to: Academic Departments and Programs

Fisheries and Aquatic Sciences - BS

## Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Students must complete the General Education Requirements:

CHEM 1220 and BIOL 1620 may be used toward the Breadth requirements.

MATH 1050 and MATH 1100 will fulfill the Quantitative Literacy and Exploration requirement

Students must also complete the University Studies Depth Requirements:

WATS 3100 and WATS 3700 will fulfill the Communication Intensive requirement

STAT 3000 will fulfill the Quantitative Intensive requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 may be used toward the depth course requirement.

## Graduation Requirements

All courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WATS courses used to meet the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

For information about changes in requirements, course sequence, and scheduling, students should confer with a departmental advisor. The undergraduate program can be readily tailored to individual student needs with the help of a faculty advisor.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Watershed Sciences must complete the Common Departmental Core, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in parentheses following the course numbers.

## Common Departmental Core (20 credits)

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

WATS 4980 - Watershed Sciences Departmental Seminar 1

Bachelor of Science in Fisheries and Aquatic Sciences

Students in the Fisheries and Aquatic Sciences major must meet the course requirements for University Studies, as well as complete the Common Departmental Core listed above. They must also complete the requirements listed below in sections A through E.

A. Scientific Foundation (35 credits)

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

NR 2220 - General Ecology 3

PHYS 2110 - General Physics - Life Sciences I 4

STAT 3000 - Statistics for Scientists (QI) 3

B. Fisheries Courses (15 credits)

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3

WATS 3110 - Fish Diversity Laboratory 1

WATS 4310 - Wetland Ecology and Management 3

WATS 4650 - Principles in Fishery Management 3

WATS 5200 - Fish Habitats 2

WATS 5550 - Freshwater Invertebrates 3 or

BIOL 5550 - Freshwater Invertebrates 3

C. Capstone Experience (3 credits minimum)

WATS 4510 - Aquatic Ecology Practicum 3

Approved Natural Resources Capstone Experience 3

D. Directed Elective Courses (21 credits)

Students must choose a minimum of 21 elective credits to complete the Fisheries and Aquatic Sciences degree requirements. The majority of these elective credits must come from courses directly related to the degree program. All elective courses must be approved by the student's faculty advisor before enrollment. The following is a list of recommended courses that could be used to satisfy this requirement. Courses listed in Section C that were not used to meet the Capstone Course requirement may be taken as part of the suggested electives.

ENVS 6320 - Water Law and Policy in the United States 3

HIST 3950 - Environmental History (DHA/CI) 3

PHIL 3530 - Environmental Ethics (DHA) 3

POLS 4820 - Natural Resources and Environmental Policy: Political Economy of Environmental Quality (DSS) 3

WATS 3000 - Oceanography (DSC) 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

WATS 4530 - Water Quality and Pollution 3

WATS 5150 - Fluvial Geomorphology 3

WATS 5640 - Riparian Ecology and Management 3

WILD 3810 - Plant and Animal Populations 3

WILD 4880 - Genetics in Conservation and Management 3

Note:

Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:  
<http://www.opm.gov/qualifications/standards/IORs/gs0400/0482.htm>

E. General Electives

Students may take the remainder of the 120 credits from any department. The guidelines described under General Education Requirements and University Studies Depth Education Requirements should be consulted to ensure meeting University Studies Requirements.

#### Fisheries and Aquatic Sciences Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

##### Freshman Year (29 credits)

##### First Semester (15 credits)

BIOL 1610 - Biology I 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

MATH 1050 - College Algebra (QL) 4

approved Breadth American Institutions (BAI) course 3

WATS 2000 - Natural Resources Professional Orientation 1

##### Second Semester (14 credits)

BIOL 1620 - Biology II (BLS) 4

MATH 1100 - Calculus Techniques (QL) 3

approved Breadth Humanities (BHU) course 3

approved Breadth Creative Arts (BCA) course 3

WATS 4980 - Watershed Sciences Departmental Seminar 1

##### Sophomore Year (32 credits)

##### First Semester (15 credits)

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

STAT 3000 - Statistics for Scientists (QI) 3

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3

WATS 3110 - Fish Diversity Laboratory 1

##### Second Semester (17 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1225 - Chemical Principles Laboratory II 1

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

ENVS 2340 - Natural Resources and Society (BSS) 3 or other approved Breadth Social Sciences (BSS) course 3

NR 2220 - General Ecology 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

##### Junior Year (29 credits)

##### First Semester (13 credits)

PHYS 2110 - General Physics - Life Sciences I 4

WATS 4930 - Advanced GIS and Spatial Analysis 3

Directed or General Elective courses 6

##### Second Semester (16 credits)

WATS 4310 - Wetland Ecology and Management 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 5550 - Freshwater Invertebrates 3 or

BIOL 5550 - Freshwater Invertebrates 3

Approved Depth Humanities and Creative Arts (DHA) course 3

##### Senior Year (31 credits)

##### First Semester (15 credits)

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

WATS 4510 - Aquatic Ecology Practicum 3 or

Other Approved Capstone Experience course 3

WATS 5200 - Fish Habitats 2

Directed or General Elective courses 7

##### Second Semester (16 credits)

WATS 4650 - Principles in Fishery Management 3

Directed or General Elective courses 13

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Fisheries Biology - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Degree Programs

A Master of Science degree in Fisheries Biology is offered for students interested in pursuing either research or

management careers in fisheries biology. The Plan A degree is designed for students who desire research experience and requires production of a thesis based on original research conducted by the student. The Plan B option is designed for individuals with previous fisheries administrative experience who do not desire research training.

The Plan A option for a master's degree requires preparation of a thesis and 30 credits of course work, including at least 24 credits in residency and 6-15 semester credits of thesis research. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper and 2-3 credits of thesis research. No more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from other colleges and universities with accredited graduate programs, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Specializations

Specializations are available in Conservation Biology and Fisheries Management.

Return to: Academic Departments and Programs

Fisheries Biology - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Degree Programs

A Doctor of Philosophy degree in Fisheries Biology is available for students interested in pursuing a research or academic career.

The PhD requires completion of original research and 60 approved graduate credits beyond an MS degree, or 90 approved graduate credits with no MS degree. Written comprehensive examinations are required of all students

pursuing the PhD degree. At the discretion of the student's graduate supervisory committee, an additional oral examination may be required.

At least one year of full-time registration must be in residence at USU including a minimum of two consecutive semesters. The purpose of the residency requirement is to ensure that the doctoral student experience includes at least one period of concentrated attention to study, research, and interaction with faculty. This period of immersion in the department is an important part of preparation for future work in academic and other research communities. The residency requirement for PhD students requires at least 33 USU semester credits from an approved Program of Study. The balance of credits may be from USU or from other institutions, subject to transfer credit limits and the approval of the student's supervisory committee.

With committee approval, graduate credit may be transferred from other accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

#### Specializations

Specializations are available in Conservation Biology and Fisheries Management.

Return to: Academic Departments and Programs

#### Fisheries Science Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

(17-18 credits)

All courses required for the Fisheries Science minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WATS courses used to meet requirements for this minor.

#### A. Fisheries Science Core Courses (9 credits)

NR 2220 - General Ecology 3

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

#### B. Electives (8-9 credits)

Select three courses from the following:

WATS 4310 - Wetland Ecology and Management 3

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 4650 - Principles in Fishery Management 3

WATS 5200 - Fish Habitats 2

WATS 5550 - Freshwater Invertebrates 3 or

BIOL 5550 - Freshwater Invertebrates 3

WILD 3810 - Plant and Animal Populations 3

Return to: Academic Departments and Programs

#### Geographic Information Science Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Requirements (17-19 credits)

All courses required for the Geographic Information Science minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WATS courses used to meet requirements for this minor.

#### A. Watershed and Earth Resources Core Courses (9 credits)

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

WATS 4931 - GIS Research Projects 2

WILD 6900 - Graduate Special Topics 1-6 (1 credit required)

#### B. Electives (8-10 credits)

Select three courses from the following:

BIOL 4750 - Topics in Biology 1-3 (3 credits required)

CEE 2240 - Engineering Surveying 3

CEE 6440 - Geographic Information Systems in Water Resources 3 (3 credits required)

ECE 5930 - Special Topics in Electrical and Computer Engineering 1-4 (3 credits required)

WATS 5003 - Remote Sensing of Land Surfaces 4

WATS 6900 - Graduate Special Topics 1-6 (2 credits required)

WILD 5750 - Applied Remote Sensing 3

WILD 6900 - Graduate Special Topics 1-6 (1 credit required)

Return to: Academic Departments and Programs

Geography (Watershed Science) - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Physical Geography Emphasis, Geography Major

In addition to the BS degrees in Watershed and Earth Systems and Fisheries and Aquatic Sciences, the Department of Watershed Sciences administers the BS in Geography for students choosing an emphasis in Physical Geography. The complete degree requirements for the BS in Geography are listed here. Degree requirements for the Physical Geography emphasis in the Geography BS degree are listed below.

Overview of Geography Major

The Geography major consists of a minimum of 74 credits. Students choose one of three areas of emphasis: Human-Environment Geography, Geographical Analysis and Bioregional Planning, and Physical Geography. All students complete a common core of 15-16 credits, and also complete two courses from each of the other two emphasis cores, ensuring a broad and meaningful geography education.

Students must complete the General Education Requirements:

GEOG 1000 and GEOG 1300 may be used toward the Breadth requirements.

An additional BPS course (such as GEO 1110 or PHYS 2220) or an additional BSS course (such as an ANTH 2010 or ENVS 2340) if chosen as an elective, will fulfill the Exploration requirement

Students must also complete the University Studies Depth Requirements:

Two courses having a CI designation (such as ENVS 4500, HIST 3950, SOC 3110, SCED 3210, SCED 4200 and WATS 3700) will fulfill the Communication Intensive requirement

One course having a QI designation (such as ENVS 3500, PHYS 2210, PHYS 2220, SOC 3120, STAT 2000, STAT 3000 or WATS 3820) will fulfill the Quantitative Intensive requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 may be used toward the depth course requirement.

A. Geography Core (15-16 credits)

ENVS 3330 - Environment and Society 3

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1300 - World Regional Geography (BSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

GEOG 1990 - Professional Orientation for Geography 1

B. Physical Geography Emphasis (60-61 credits)

Students majoring in Geography are required to select an emphasis from one of the following three areas to complement the disciplinary core: Human-Environment Geography, Geographical Analysis and Bioregional Planning, or Physical Geography. Requirements for the Physical Geography emphasis are shown below. For information about requirements for the other two emphases (which are administered by the Environment and Society Department) see Geography, BS. Students must file an approved emphasis plan prior to applying for graduation, but it is recommended that they meet

with their faculty advisor to develop and gain approval for the emphasis no later than midway through the first semester of the junior year. Courses requiring prerequisites are marked with \*\*. For specific information about prerequisites, see the Course Descriptions section.

## 1. Physical Geography Core (36-37 credits)

MATH 1100 - Calculus Techniques (QL) 3 \*\* or

MATH 1210 - Calculus I (QL) 4 \*\*

PSC 3000 - Fundamentals of Soil Science 4

STAT 3000 - Statistics for Scientists (QI) 3 \*\*

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3 \*\*

WATS 4490 - Small Watershed Hydrology (QI) 4 \*\*

WATS 4930 - Advanced GIS and Spatial Analysis 3

Two courses chosen from the Human-Environment Geography core (see the Geography, BS for list of courses) 6

Two courses chosen from the Geographical Analysis and Bioregional Planning core (see the Geography, BS for list of courses) 6

## 2. Elective Courses (24 credits)

Complete 24 credits chosen from the following list:

BIOL 5010 - Biogeography 3 \*\*

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 6320 - Water Law and Policy in the United States 3

GEO 1110 - Physical Geology (BPS) 3

MATH 1220 - Calculus II (QL) 4 \*\*

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4 \*\*

PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) 4

STAT 5410 - Applied Spatial Statistics 3 \*\*

WATS 3600 - Geomorphology 4 \*\*

WATS 5150 - Fluvial Geomorphology 3

WATS 5170 - Fluvial Geomorphology Lab 2

WILD 5750 - Applied Remote Sensing 3

## C. General Electives (12 credits)

After meeting the University Studies, USU upper-division, and Geography Major requirements, students may take the remainder of their 120 required credits in any discipline and from any department.

Geography Major with Geographical Analysis and Bioregional Planning Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

## Freshman Year (30 credits)

### First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 1990 - Professional Orientation for Environment and Society 1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

Exploration or Elective course 3

### Second Semester (16 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Exploration or Elective course 3

## Sophomore Year (30-31 credits)

First Semester (15-16 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

GEOG 1300 - World Regional Geography (BSS) 3

HIST 3950 - Environmental History (DHA/CI) 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

USU 1330 - Civilization: Creative Arts (BCA) 3 or

Other Approved Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

LAEP 3700 - City and Regional Planning (CI) 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

Degree Emphasis Elective courses 6

Junior Year (30 credits)

First Semester (15 credits)

Degree Emphasis Elective courses 12

Elective course 3

Second Semester (15 credits)

ENVS 5550 - Sustainability: Concepts and Measurement 3

Degree Emphasis Elective courses 6

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

WILD 5750 - Applied Remote Sensing 3

Elective courses 12

Second Semester (15 credits)

WATS 4930 - Advanced GIS and Spatial Analysis 3

Elective courses 12

Geography Major with Human-Environment Geography Emphasis Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 1990 - Professional Orientation for Environment and Society 1

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

Elective course 3

Second Semester (16 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

WILD 2200 - Ecology of Our Changing World (BLS) 3

Exploration or Elective course 3

Sophomore Year (30 credits)

First Semester (15 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

GEOG 1300 - World Regional Geography (BSS) 3

HIST 3950 - Environmental History (DHA/CI) 3

STAT 1040 - Introduction to Statistics (QL) 3

USU 1330 - Civilization: Creative Arts (BCA) 3 or

Other Approved Breadth Creative Arts (BCA) course 3

Second Semester (15 credits)

ENVS 3330 - Environment and Society 3

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

WATS 3820 - Climate and Climate Change (DSC/QI) 3

Degree Emphasis Elective course 3

Exploration or Elective course 3

Junior Year (30 credits)

First Semester (15 credits)

GEOG 4120 - Environment and Development in Latin America (CI) 3

Degree Emphasis Elective (DSS) course 3

Degree Emphasis Elective courses 6

Elective course 3

Second Semester (15 credits)

GEOG 4210 - Geography of Utah 3

Degree Emphasis Elective courses 6

Elective courses 6

Senior Year (30 credits)

First Semester (15 credits)

GEOG 5600 - Theory and Practice of Development 3

Degree Emphasis Elective course 3

Elective courses 9

Second Semester (15 credits)

Degree Emphasis Elective course 3

Elective courses 12

Geography Major with Physical Geography Emphasis  
Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (29 credits)

First Semester (14 credits)

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

GEOG 1000 - Physical Geography (BPS) 3

GEOG 1005 - Physical Geography Lab 1

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 2000 - Natural Resources Professional Orientation 1

Elective course 3

Second Semester (15 credits)

MATH 1050 - College Algebra (QL) 4

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

USU 1330 - Civilization: Creative Arts (BCA) 3 or

Other Approved Breadth Creative Arts (BCA) course 3

Elective course 2

Sophomore Year (31-32 credits)

First Semester (16-17 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

GEOG 1300 - World Regional Geography (BSS) 3

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

Elective course 3

Second Semester (15 credits)

GEOG 4100 - Geographic Approaches to the Human-Environmental Relationship 3

LAEP 3700 - City and Regional Planning (CI) 3

Approved Breadth Life Science (BLS) course 3

Degree Emphasis Elective (DHA) course 3

Degree Emphasis Elective course 3	Credits of upper-division courses (#3000 or above)
Junior Year (31 credits)	40
First Semester (16 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
WATS 3600 - Geomorphology 4	
Degree Emphasis Elective (CI) course 3	30 USU credits
Degree Emphasis Elective (DSS) course 3	Completion of approved major program of study
Degree Emphasis Elective course 3	See college advisor
Elective course 3	Credits in minor (if required)
Second Semester (15 credits)	12
WATS 3700 - Fundamentals of Watershed Science (CI) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)
WATS 3820 - Climate and Climate Change (DSC/QI) 3	
Degree Emphasis Elective courses 6	3
Elective course 3	General Education Requirements and University Studies Depth Requirements
Senior Year (31 credits)	
First Semester (15 credits)	Return to: Academic Departments and Programs
Additional 3000-level or higher DHA or DSC course 3	
Degree Emphasis Elective course 3	Watershed and Earth Systems - BS
Elective courses 9	Return to: Academic Departments and Programs
Second Semester (16 credits)	S.J. and Jessie E. Quinney College of Natural Resources
WATS 4490 - Small Watershed Hydrology (QI) 4	Department of Watershed Sciences
WATS 4930 - Advanced GIS and Spatial Analysis 3	Students must complete the General Education Requirements:
Additional 3000-level or higher DHA or DSC course 3	GEO 1110 may be used toward the Breadth requirement
Elective courses 6	CHEM 1220, MATH 1220 or PHYS 2220 (if chosen as a Directed Elective course) will fulfill the Exploration requirement
Minimum University Requirements	Students must also complete the University Studies Depth Requirements:
Total Credits	WATS 3700, plus another course having a CI designation, will fulfill the Communication Intensive requirement
120	STAT 3000 will fulfill the Quantitative Intensive requirement
Grade Point Average (most majors require higher GPA)	
2.00 GPA	
Credits of C- or better	
100	

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 may be used toward the depth course requirement.

### Graduation Requirements

All courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WATS courses used to meet the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

For information about changes in requirements, course sequence, and scheduling, students should confer with a departmental advisor. The undergraduate program can be readily tailored to individual student needs with the help of a faculty advisor.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Watershed Sciences must complete the Common Departmental Core, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in parentheses following the course numbers.

### Common Departmental Core (20 credits)

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 4930 - Advanced GIS and Spatial Analysis 3

WATS 4980 - Watershed Sciences Departmental Seminar 1

### Bachelor of Science in Watershed and Earth Systems

Students in the Watershed and Earth Systems major must meet the course requirements for University Studies, as well as complete the Common Departmental

Core listed above. They must also complete the requirements listed below in sections A through E.

### A. Science Foundation (18 credits)

CHEM 1210 - Principles of Chemistry I 4

GEO 1110 - Physical Geology (BPS) 3

MATH 1210 - Calculus I (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

PHYS 2210 - Physics for Scientists and Engineers I (QI) 4

### B. Watershed and Earth Systems Courses (15 credits)

PSC 3000 - Fundamentals of Soil Science 4

WATS 3820 - Climate and Climate Change (DSC/QI) 3 or

PSC 3820 - Climate and Climate Change (DSC/QI) 3

WATS 5150 - Fluvial Geomorphology 3 or

GEO 5150 - Fluvial Geomorphology 3

WATS 5170 - Fluvial Geomorphology Lab 2 or

GEO 5170 - Fluvial Geomorphology Lab 2

WILD 5750 - Applied Remote Sensing 3

### C. Capstone Experience (2 credits minimum)

WATS 4510 - Aquatic Ecology Practicum 3

WATS 4530 - Water Quality and Pollution 3

WATS 4931 - GIS Research Projects 2

Approved Natural Resources Capstone Experience 3

### D. Directed Elective Courses (30 credits)

Students must choose a minimum of 30 elective credits to complete the Watershed and Earth Systems degree requirements. The majority of these elective credits must come from courses directly related to the degree program. All elective courses must be approved by the student's faculty advisor before enrollment. The following is a list of recommended courses that could be used to satisfy this requirement. Courses listed in Section C that were not used to meet the Capstone Course requirement may be taken as part of the suggested electives.

CHEM 1220 - Principles of Chemistry II (BPS) 4

ENVS 6320 - Water Law and Policy in the United States 3

MATH 1220 - Calculus II (QL) 4

PHYS 2220 - Physics for Scientists and Engineers II  
(BPS/QI) 4

STAT 6810 - Topics in Statistics (Topic) 3

WATS 4310 - Wetland Ecology and Management 3

WATS 5003 - Remote Sensing of Land Surfaces 4

WATS 5200 - Fish Habitats 2

WATS 5640 - Riparian Ecology and Management 3

WILD 5350 - Wildland Soils 3

#### E. General Electives

Students may take the remainder of the 120 credits from any department. The guidelines described under General Education Requirements and University Studies Depth Education Requirements should be consulted to ensure meeting University Studies Requirements.

#### Note:

Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:  
<http://www.opm.gov/qualifications/standards/IORs/gs1300/1315.htm>

#### Watershed and Earth Systems Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

#### Freshman Year (31 credits)

##### First Semester (15 credits)

ENGL 1010 - Introduction to Writing: Academic Prose  
(CL1) 3

ENVS 2340 - Natural Resources and Society (BSS) 3 or  
other approved Breadth Social Sciences (BSS) course 3

GEO 1110 - Physical Geology (BPS) 3

GEOG 1800 - Introduction to Geographic Information  
Sciences 3

MATH 1060 - Trigonometry 2

WATS 2000 - Natural Resources Professional Orientation  
1

#### Second Semester (16 credits)

MATH 1210 - Calculus I (QL) 4

approved Breadth American Institutions (BAI) course 3

approved Breadth Humanities (BHU) course 3

approved Breadth Creative Arts (BCA) course 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

#### Sophomore Year (30-31 credits)

##### First Semester (16-17 credits)

CHEM 1210 - Principles of Chemistry I 4

MATH 1220 - Calculus II (QL) 4

STAT 3000 - Statistics for Scientists (QI) 3

approved Breadth Life Science (BLS) course 3

Other Approved Elective courses 2-3

#### Second Semester (14 credits)

CHEM 1220 - Principles of Chemistry II (BPS) 4

ENGL 2010 - Intermediate Writing: Research Writing in a  
Persuasive Mode (CL2) 3

PHYS 2110 - General Physics - Life Sciences I 4

PSC 3820 - Climate and Climate Change (DSC/QI) 3 or

WATS 3820 - Climate and Climate Change (DSC/QI) 3

#### Junior Year (29-30 credits)

##### First Semester (14 credits)

ENVS 4000 - Human Dimensions of Natural Resource  
Management (DSS) 3

PSC 3000 - Fundamentals of Soil Science 4

WATS 4930 - Advanced GIS and Spatial Analysis 3

Directed or General Elective courses 4

#### Second Semester (15-16 credits)

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4500 - Limnology: Ecology of Inland Waters 3

Approved Depth Humanities and Creative Arts (DHA) course 2-3

Approved Communications Intensive (CI) course 3

Directed or General Elective course 3

Senior Year (28-30 credits)

First Semester (14-15 credits)

WATS 4980 - Watershed Sciences Departmental Seminar 1

GEO 5150 - Fluvial Geomorphology 3 or

WATS 5150 - Fluvial Geomorphology 3

GEO 5170 - Fluvial Geomorphology Lab 2 or

WATS 5170 - Fluvial Geomorphology Lab 2

WILD 5750 - Applied Remote Sensing 3

Capstone course 2-3

Directed or General Elective course 3

Second Semester (14-15 credits)

Directed or General Elective courses 14-15

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in minor (if required)

12

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Watershed Science - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

Degree Programs

A Master of Science degree in Watershed Sciences is offered for students interested in pursuing either research or management careers in watershed sciences. The Plan A is designed for students who desire research experience and requires production of a thesis based on original research conducted by the student. The Plan B option is designed for individuals with previous water resources administrative experience who do not desire research training.

The Plan A option for a master's degree requires preparation of a thesis and 30 credits of course work, including at least 24 credits in residency and 6-15 semester credits of thesis research. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option requires the production of a paper and 2-3 credits of thesis research. No more than 3 credits of thesis credit can be included on the Program of Study.

With committee approval, graduate credit may be transferred from other colleges and universities with accredited graduate programs, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not

have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

### Specializations

A specialization is available in Geomorphology and Earth Surface Processes.

Return to: Academic Departments and Programs

### Watershed Science - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

### Degree Programs

A Doctor of Philosophy degree in Watershed Sciences is available for students interested in pursuing a research or academic career. The PhD requires completion of original research and 30 approved graduate credits beyond an MS degree, or 60 approved graduate credits with no MS degree. Written comprehensive examinations are required of all students pursuing the PhD degree. At the discretion of the student's graduate supervisory committee, an additional oral examination may be required.

At least one year of full-time registration must be in residence at USU including a minimum of two consecutive semesters. The purpose of the residency requirement is to ensure that the doctoral student experience includes at least one period of concentrated attention to study, research, and interaction with faculty. This period of immersion in the department is an important part of preparation for future work in academic and other research communities. The residency requirement for PhD students requires at least 33 USU semester credits from an approved Program of Study. The balance of credits may be from USU or from other institutions, subject to transfer credit limits and the approval of the student's supervisory committee.

With committee approval, graduate credit may be transferred from other accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

### Specializations

A specialization is available in Geomorphology and Earth Surface Processes.

Return to: Academic Departments and Programs

### Watershed Science Minor

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Watershed Sciences

(16 credits)

All courses required for the Watershed Science minor must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WATS courses used to meet requirements for this minor.

#### A. Required Courses (10 credits)

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WATS 4490 - Small Watershed Hydrology (QI) 4

WATS 4530 - Water Quality and Pollution 3

#### B. Electives (6 credits)

Select two courses from the following:

WATS 3820 - Climate and Climate Change (DSC/QI) 3 or

PSC 3820 - Climate and Climate Change (DSC/QI) 3

WATS 4500 - Limnology: Ecology of Inland Waters 3

WATS 5150 - Fluvial Geomorphology 3 or

GEO 5150 - Fluvial Geomorphology 3

WATS 5640 - Riparian Ecology and Management 3

Return to: Academic Departments and Programs

### Conservation and Restoration Ecology - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Students must complete the General Education Requirements:

BIOL 1620 (BLS) and CHEM 1110 (BPS), CHEM 1120 (BPS) or CHEM 1220 (BPS) may be used toward the Breadth requirements. ENVS 2340 (BSS) is recommended.

MATH 1050 and MATH 1100 will fulfill the Quantitative Literacy (QL) and Exploration requirement

Students must also complete the University Studies Depth Requirements:

two courses having CI designation, will fulfill the Communication Intensive (CI) requirement

STAT 2000 or STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 (DSS) may be used toward the depth course requirement. PHIL 3530 (DHA) is recommended.

#### Graduation Requirements

General Science Foundation Courses, Departmental Common Courses, and all courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WILD courses used to meet the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Wildland Resources must complete the General Science Foundation Courses and the Departmental Common Courses, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in the course descriptions.

A. General Science Foundation Courses (34-35 credits) and the following:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

NR 2220 - General Ecology 3

Select one of the following chemistry series (9 credits):

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

B. Departmental Courses (18 credits)

WILD 2000 - Natural Resources Professional Orientation 1

WILD 2400 - Wildland Resource Techniques 3

WILD 3800 - Wildland Plants and Ecosystems 4

WILD 3810 - Plant and Animal Populations 3

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3830 - Range Plant Taxonomy and Function 3

WILD 3850 - Vegetation and Habitat Management 3

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

Bachelor of Science in Conservation and Restoration Ecology

Students in the Conservation and Restoration Ecology major must meet the course requirements for University Studies, as well as complete the General Science Foundation Courses and the Departmental Common Courses listed above. They must also complete 15 credits of Degree Program Courses, as follows:

A. Degree Program Courses (15 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

WILD 4600 - Conservation Biology 3

WILD 4700 - Ecological Foundations of Restoration 3

#### B. Degree Program Electives (21 credits)

Students in the Conservation and Restoration Ecology major must meet with their advisor and plan a program of study for their 21 credits of degree program electives. Students must identify an organizing theme or comprehensive plan to guide the selection of their degree program electives, and all courses counted toward this requirement must be approved in advance by the student's advisor and department head. Courses taken to complete a dual major with another major within the S.J. and Jessie E. Quinney College of Natural Resources may not be counted toward fulfillment of this requirement.

#### C. Free Elective Credits

Students may take the remainder of the 120 credits from any department. Courses which meet General Education "Breadth Requirements" and University Studies "Depth Education Requirements" should be included to ensure meeting General Education and University Studies Requirements.

#### Note:

Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:  
<http://www.opm.gov/qualifications/standards/IORs/gs0400/0408.htm>

#### Conservation and Restoration Ecology Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

#### Freshman Year (28 credits)

##### First Semester (14 credits)

BIOL 1610 - Biology I 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 2340 - Natural Resources and Society (BSS) 3 or

Other Approved Breadth Social Science (BSS) course 3

USU 1300 - U.S. Institutions (BAI) 3 or

Other Approved Breadth American Institutions (BAI) course 3

WILD 2000 - Natural Resources Professional Orientation 1

#### Second Semester (14 credits)

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

NR 2220 - General Ecology 3

USU 1320 - Civilization: Humanities (BHU) 3 or

Other Approved Breadth Humanities (BHU) course 3

#### Sophomore Year (30-31 credits)

##### First Semester (16 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

CHEM 1110 - General Chemistry I (BPS) 4 or

CHEM 1210 - Principles of Chemistry I 4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

WILD 2400 - Wildland Resource Techniques 3

#### Second Semester (14-15 credits)

CHEM 1120 - General Chemistry II (BPS) 4 or

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1 or

CHEM 1215 - Chemical Principles Laboratory I 1

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WILD 1800 - Introduction to Geographic Information Sciences 3

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

BCA course 3

Junior Year (31 credits)

First Semester (15 credits)

PSC 3000 - Fundamentals of Soil Science 4

WILD 3800 - Wildland Plants and Ecosystems 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3 or

WILD 3830 - Range Plant Taxonomy and Function 3

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

Second Semester (16 credits)

WILD 3810 - Plant and Animal Populations 3

WILD 3850 - Vegetation and Habitat Management 3

DHA course 3

Elective courses 7

Senior Year (31 credits)

First Semester (16 credits)

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

Elective courses 10

Second Semester (15 credits)

WILD 4600 - Conservation Biology 3

WILD 4700 - Ecological Foundations of Restoration 3

Elective courses 9

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300

3

General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Ecology (Wildland Resources) - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quiney College of Natural Resources

Department of Wildland Resources

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

## Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

## Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

## Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

## Ecology Course Requirements

### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

## Functional (Core) Blocks

### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

## 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

## 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

## 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

## 5. Human Ecology

### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

### Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

## Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

## Translational Ecology

ENVS 6410 - Translational Ecology 3

## Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

## Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

Ecology (Wildland Resources) - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Interdepartmental Program in Ecology

Director: Nancy Huntly

Location: Natural Resources 314

Phone: (435) 797-2555

FAX: (435) 797-3872

E-mail: [nancy.huntly@usu.edu](mailto:nancy.huntly@usu.edu)

WWW: <http://www.usu.edu/ecology/>

Degrees offered: Master of Science (MS) and Doctor of Philosophy (PhD) in the following departments: Biology; Environment and Society; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources

## Graduate Program

The ecology program at Utah State University is administered by the interdepartmental Ecology Center. Its goals are to promote research and graduate education in the science of ecology and to provide expert, professional information and advice for decision makers considering actions that affect the environment. The research carried out by the center's associates covers the full spectrum of ecology on several continents, but most of it is centered in the montane and desert regions of the western United States.

Students earn their degrees in ecology while maintaining residence in one of the participating departments; the center itself does not grant degrees. The candidate selects or is assigned a major professor from the department appropriate to his or her interests.

## Degree Requirements

Requirements for graduate degrees in ecology include the university and departmental degree requirements, as well as the Ecology Center requirements outlined below, which are formulated by the Ecology Center Faculty Advisory Committee. This committee comprises faculty representatives designated by the respective department heads from the departments of Biology; Environment and Society; Geology; Plants, Soils, and Climate; Watershed Sciences; and Wildland Resources. The Ecology Center director chairs the committee.

The ecology MS and PhD are research degrees requiring a research thesis or dissertation. The following course requirements for each of these degrees fall into two categories. The first is a general science category. Students receiving graduate degrees in ecology are expected to have some breadth and sophistication in

modern science. The second category includes ecology course requirements. These are, for the most part, general requirements, with the specific courses taken by each student selected by his or her graduate committee and tailored to his or her needs and professional goals.

#### Ecology MS and PhD Degrees General Science Requirements

For further details, see the USU Ecology Center website: <http://www.usu.edu/ecology/>

#### Ecology Course Requirements

##### Master of Science

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students need only register once per academic year.

One course must be taken from two of the functional (core) blocks. The four available blocks are shown below.

##### Doctor of Philosophy

Attendance in Ecology Seminar (BIOL 6870 or ENVS 6870 or PSC 6870 or WATS 6870 or WILD 6870) is required when in residence, but students should only register once per academic year.

One course must be taken from three of the functional (core) blocks. Students continuing from the MS to the PhD degree can apply block courses taken for the MS degree to the PhD requirement. The four available blocks are shown below.

##### Functional (Core) Blocks

###### 1. Biophysical Ecology

CEE 6740 - Environmental Quality Modeling 3

GEO 6680 - Paleoclimatology 3 or

PSC 6680 - Paleoclimatology 3 or

WATS 6680 - Paleoclimatology 3

GEO 6150 - Fluvial Geomorphology 3 or

WATS 6150 - Fluvial Geomorphology 3

PSC 6130 - Soil Genesis, Morphology, and Classification 4

PSC 6500 - Environmental Physics of Land Ecosystems and Climate 3

PSC 6820 - Environmental Biophysics 2

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

PSC 5350 - Wildland Soils 3 or

PSC 6350 - Wildland Soils 3

OR

WILD 5350 - Wildland Soils 3 or

WILD 6350 - Wildland Soils 3

###### 2. Organismic, Population, and Evolutionary Ecology

BIOL 6240 - Physiological Ecology of Vertebrates 3

BIOL 6260 - Behavioral Ecology 3

BIOL 6380 - Evolutionary Genetics 4

BIOL 6600 - Comparative Animal Physiology 3

WATS 6230 - Fish Ecology 2 or

WATS 7230 - Fish Ecology 2

WILD 6401 - Population State Variables 2

WILD 6402 - Demographic Vital Rates 1

WILD 6403 - Dynamics of Structured Populations 2

WILD 6720 - Advanced Conservation Biology 3 or

WILD 7720 - Advanced Conservation Biology 3

WILD 6730 - Forest Community Ecology 4

WILD 7200 - Plant Physiological Ecology 3

WILD 7400 - Plant Population Ecology 3

###### 3. Community, Ecosystem, and Landscape Ecology

BIOL 6010 - Biogeography 3

BIOL 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

PSC 6200 - Biogeochemistry of Terrestrial Ecosystems 3 or

WILD 6200 - Biogeochemistry of Terrestrial Ecosystems 3

BIOL 6590 - Animal Community Ecology 4

WATS 6310 - Wetland Ecology and Management 3

WATS 6700 - Restoration Ecology 4 or

WILD 6700 - Restoration Ecology 4

WATS 6820 - Stream Ecology 3 or

WATS 7820 - Stream Ecology 3

WILD 6710 - Landscape Ecology 3 or

WILD 7710 - Landscape Ecology 3

WILD 6770 - Plant Community Ecology 3

WILD 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WILD 7000 - Theory and Applications of Wildland Ecosystem Management 3

#### 4. Quantitative Ecology

BIOL 6750 - Topics in Biology 1-3 (See Ecology Center webpage for accepted course title)

MATH 6820 - Topics in Mathematics (Topic) 3

STAT 5120 - Categorical Data Analysis 3

STAT 5570 - Statistical Bioinformatics 3 or

STAT 6570 - Statistical Bioinformatics 3

STAT 5600 - Applied Multivariate Statistics (CI) 3

STAT 6200 - Analysis of Unbalanced Data and Complex Experimental Designs 3

WATS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

WATS 6920 - Advanced GIS and Spatial Analysis 3

WILD 6510 - Topics in Spatial Ecology 1-3

#### 5. Human Ecology

##### Policy

ASTE 5260 - Environmental Impacts of Agricultural Systems (CI) 3 or

ASTE 6260 - Environmental Impacts of Agricultural Systems 3

ENVS 6150 - Conservation Policy for Private Lands 3

ENVS 6320 - Water Law and Policy in the United States 3

ENVS 6900 - Graduate Special Topics 1-6 (See Ecology Center webpage for accepted course title)

##### Recreation

ENVS 6400 - Ecological Aspects of Wildland Recreation 3

ENVS 6580 - Sustainable Nature-Based Tourism 3

##### Planning

ENVS 6200 - Bioregional Analysis and Planning 5

LAEP 6110 - Landscape Planning for Wildlife 3

LAEP 6270 - Site Analysis: Social, Behavioral, and Biophysical Dimensions 4

##### Translational Ecology

ENVS 6410 - Translational Ecology 3

##### Economics and Sustainability

APEC 5560 - Natural Resource and Environmental Economics 3

ENVS 5550 - Sustainability: Concepts and Measurement 3 or

ENVS 6550 - Sustainability: Concepts and Measurement 3

##### Anthropology, History, Psychology and Sociology

ANTH 5340 - Archaeology of the Desert West 3 or

ANTH 6340 - Archaeology of the Desert West 3

ENVS 6300 - Social and Environmental Psychology of Natural Resources 3 or

ENVS 7300 - Social and Environmental Psychology of Natural Resources 3

HIST 6460 - Seminar in Environmental History 3

SOC 5640 - Managing Community Conflict (CI) 3 or

SOC 4640 - Managing Community Conflict 3

SOC 6620 - Environment, Technology, and Social Change 3

SOC 6630 - Natural Resources and Social Development 3

Return to: Academic Departments and Programs

## Forestry - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Students must complete the General Education Requirements:

BIOL 1620 (BLS) and CHEM 1220 (BPS) may be used toward the Breadth requirements. ENVS 2340 is recommended.

MATH 1050 and MATH 1100 will fulfill the Quantitative Literacy (QL) and Exploration requirement

Students must also complete the University Studies Depth Requirements:

WATS 3700 will fulfill the Communication Intensive (CI) requirement

STAT 2000 or STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 (DSS) and APEC 3012 (DSS) may be used toward the depth course requirement. PHIL 3530 (DHA) is recommended.

### Graduation Requirements

General Science Foundation Courses, Departmental Common Courses, and all courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WILD courses used to meet the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Wildland Resources must complete the General Science Foundation Courses and the Departmental Common Courses, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in the course descriptions.

A. General Science Foundation Courses (34-35 credits) and the following:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

NR 2220 - General Ecology 3

Select one of the following chemistry series (9 credits):

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

B. Departmental Courses (24 credits)

WILD 2000 - Natural Resources Professional Orientation 1

WILD 1800 - Introduction to Geographic Information Sciences 3 or

GEOG 1800 - Introduction to Geographic Information Sciences 3

WILD 2400 - Wildland Resource Techniques 3

WILD 3810 - Plant and Animal Populations 3

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

WILD 3850 - Vegetation and Habitat Management 3

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

Bachelor of Science in Forestry

Students in the Forestry major must meet the course requirements for University Studies, as well as complete the General Science Foundation Courses and the Departmental Common Courses listed above. They must also complete 33 credits of Professional Coursework, including the following:

#### A. Degree Program Courses (27 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 3300 - Fundamentals of Recreation Resources Management 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 5350 - Wildland Soils 3

WILD 5700 - Forest Assessment and Management (CI) 3

WILD 5710 - Forest Vegetation Disturbance Ecology and Management 3

WILD 5750 - Applied Remote Sensing 3

#### B. Electives

Students may take the remainder of the 120 credits from any department. Students may want to consider additional coursework in GIS and also may want to consider pursuing a GIS minor through the Watershed Sciences Department. Courses which meet General Education "Breadth Requirements" and University Studies "Depth Education Requirements" should be included to ensure meeting University Studies Requirements.

#### Note:

Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:

<http://www.opm.gov/qualifications/standards/IORs/gs0400/0460.htm>

#### Forestry Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

#### Freshman Year (30 credits)

##### First Semester (15 credits)

BIOL 1610 - Biology I 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 2340 - Natural Resources and Society (BSS) 3 or other approved Breadth Social Science (BSS) course 3

approved Breadth American Institutions (BAI) course 3

WILD 2000 - Natural Resources Professional Orientation 1

Elective course 1

##### Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

Approved Breadth Humanities (BHU) course 3

Approved Breadth Creative Arts (BCA) course 3

Elective course 1

#### Sophomore Year (30-32 credits)

##### First Semester (16 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

CHEM 1110 - General Chemistry I (BPS) 4

ENVS 3300 - Fundamentals of Recreation Resources Management 3

NR 2220 - General Ecology 3

WILD 2400 - Wildland Resource Techniques 3

##### Second Semester (15-17 credits)

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

CHEM 1110 - General Chemistry I (BPS) 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WILD 1800 - Introduction to Geographic Information Sciences 3

Elective course 2-3

Junior Year (30-32 credits)

First Semester (17 credits)

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

PSC 3000 - Fundamentals of Soil Science 4

WILD 3800 - Wildland Plants and Ecosystems 4

WILD 3820 - Forest Plants: Identification, Biology, and Function 3

Second Semester (13-15 credits)

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 3810 - Plant and Animal Populations 3

WILD 3850 - Vegetation and Habitat Management 3

Approved Depth Humanities & Creative Arts (DHA) course 2-3

Elective course 2-3

Senior Year (30 credits)

First Semester (15 credits)

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

WILD 5710 - Forest Vegetation Disturbance Ecology and Management 3

WILD 5750 - Applied Remote Sensing 3

Elective course 2

Second Semester (15 credits)

WILD 5350 - Wildland Soils 3

WILD 5700 - Forest Assessment and Management (CI) 3

Elective courses 9

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Forestry - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The MS degree is offered for students motivated toward a management or administrative career in natural resources. The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. From 6-15 semester credits of thesis research are required. The semesters during

which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option is recommended for professional forestry managers who do not plan on research careers. The Plan B option requires the production of a paper. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study. For a master's degree, the minimum number of credits required is 30 semester credits. At least 24 semester credits for a master's degree must be from a committee-approved and an SGS-approved Program of Study from Utah State University.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Forestry - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

For a PhD, the minimum number of credits required is 30 credits with a master's degree in a related field; 60 credits are required otherwise. A minimum of 12 dissertation credits is required for a post-master's doctorate and a minimum of 18 for a non-master's doctorate. The semesters during which a student registers for dissertation credit should correspond as closely as possible to the semesters in which the dissertation work is done and faculty supervision is provided. Doctoral students must meet an academic residency requirement which ensures that the doctoral

student experience includes at least one period of concentrated attention to study, research, and interaction with faculty. This period of immersion in the culture of students' departments is an important part of their preparation for future work in academic communities. The residency requirement for doctoral studies consists of the following: At least 33 USU semester credits from an approved Program of Study are required for doctoral students. The balance of credits may be from USU or from other institutions, subject to transfer limits and the approval of the student's supervisory committee.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Range Science - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The MS degree is offered for students motivated toward a management or administrative career in natural resources. The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is provided. The Plan B option is recommended for professional rangeland managers who do not plan on research careers. The Plan B option requires the production of a paper. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study. For a master's degree, the minimum number of credits required is 30 semester credits. At least 24 semester

credits for a master's degree must be from a committee-approved and an SGS-approved Program of Study from Utah State University.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Range Science - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

For a PhD, the minimum number of credits required is 30 credits with a master's degree in a related field; 60 credits are required otherwise. A minimum of 12 dissertation credits is required for a post-master's doctorate and a minimum of 18 for a non-master's doctorate. The semesters during which a student registers for dissertation credit should correspond as closely as possible to the semesters in which the dissertation work is done and faculty supervision is provided. Doctoral students must meet an academic residency requirement which ensures that the doctoral student experience includes at least one period of concentrated attention to study, research, and interaction with faculty. This period of immersion in the culture of students' departments is an important part of their preparation for future work in academic communities. The residency requirement for doctoral studies consists of the following: At least 33 USU semester credits from an approved Program of Study are required for doctoral students. The balance of credits may be from USU or from other institutions, subject to

transfer limits and the approval of the student's supervisory committee.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Rangeland Resources - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Students must complete the General Education Requirements:

BIOL 1620 (BLS) and CHEM 1110 (BPS), CHEM 1120 (BPS) or CHEM 1220 (BPS) may be used toward the Breadth requirements. ENVS 2340 (BSS) and ECN 1500 (BAI) are recommended.

MATH 1050 and MATH 1100 will fulfill the Quantitative Literacy (QL) and Exploration requirement

Students must also complete the University Studies Depth Requirements:

WATS 3700 plus one other CI course will fulfill the Communication Intensive (CI) requirement

STAT 2000 or STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: Humanities and Creative Arts (DHA) and Social Sciences (DSS). ENVS 4000 (DSS) or APEC 3012 (DSS) may be used toward the depth course requirement.

Graduation Requirements

General Science Foundation Courses, Departmental Common Courses, and all courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WILD courses used to meet

the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Wildland Resources must complete the General Science Foundation Courses and the Departmental Common Courses, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in the course descriptions.

A. General Science Foundation Courses (34-35 credits) and the following:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

NR 2220 - General Ecology 3

Select one of the following chemistry series (9 credits):

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

Bachelor of Science in Rangeland Resources

Students in the Rangeland Resources major must meet the course requirements for University Studies, as well as complete the General Science Foundation Courses and the Departmental Common Courses listed above. They must also complete 24-25 credits of Degree Program

Courses and 6-8 credits of Degree Program Electives, including the following:

A. Degree Program Courses (24-25 credits)

ADVS 2080 - Beef and Dairy Herd Health and Production Practices 3 or

ADVS 2090 - Sheep Production Practices 2

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3

BIOL 4421 - Plant Taxonomy I 2

BIOL 4422 - Plant Taxonomy II 1

ENVS 3010 - Fundamentals of Natural Resource and Environmental Policy 3

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3

PSC 5130 - Soil Genesis, Morphology, and Classification 4

WATS 3700 - Fundamentals of Watershed Science (CI) 3

WILD 4000 - Principles of Rangeland Management 3

B. Degree Program Electives (6-8 credits)

Students must meet with their advisor to plan a program of study for their 6-8 credits of degree program electives. Program option areas may include: agribusiness management, animal science, geographic information science, soil science, watershed science, and wildlife science. Students wanting to pursue employment with the Bureau of Land Management, U.S. Forest Service, Natural Resources Conservation Service, and other federal land management agencies should review the suggested electives listed below.

Suggested Electives for Federal Employment

Students wanting to qualify as a rangeland management specialist or soil conservationist with a federal land management agency should check the U.S. Office of Personnel Management website.

Rangeland Management Series:

A listing of required coursework for the Rangeland Management Series (GS-454) is shown at:

<http://www.opm.gov/qualifications/standards/IORs/gs0400/0454.htm>

In addition to several of the courses listed under the General Science Foundation, Departmental Common Courses, and Degree Program Courses sections, students must also take the following courses to meet the minimum requirements for the Rangeland Management Series:

Directly Related Plant Science Courses (select 1 course)

BIOL 4400 - Plant Physiology (QI) 4

PSC 3500 - Structure and Function of Plants 3

PSC 5550 - Weed Biology and Control 4

Related Resource Management Courses (select 1 course)

ENVS 3300 - Fundamentals of Recreation Resources Management 3

PSC 4320 - Forage Production and Pasture Ecology 3

WILD 4500 - Principles of Wildlife Management 3

WILD 5300 - Wildlife Damage Management Principles 3

Soil Conservation Series:

A listing of required coursework for the Soil Conservation Series (GS-457) is shown at:  
<http://www.opm.gov/qualifications/standards/IORs/gs0400/0457.htm>

In addition to several of the courses listed under the General Science Foundation, Departmental Common Courses, and Degree Program Courses sections, students must also take the following courses to meet the minimum requirements for the Soil Conservation Series:

Plant Science Courses

PSC 3500 - Structure and Function of Plants 3

PSC 5550 - Weed Biology and Control 4

C. General Electives

Students may take the remainder of the 120 credits from any department. Courses which meet General Education "Breadth Requirements" and University Studies "Depth Education Requirements" should be included to ensure meeting University Studies Requirements.

Minimum University Requirements

Total Credits

120

Grade Point Average (most majors require higher GPA)

2.00 GPA

Credits of C- or better

100

Credits of upper-division courses (#3000 or above)

40

USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)

30 USU credits

Completion of approved major program of study

See college advisor

Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300

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General Education Requirements and University Studies Depth Requirements

Return to: Academic Departments and Programs

Wildlife Biology - MS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The MS degree is offered for students motivated toward a management or administrative career in natural resources. The MS may be obtained through either a Plan A (research thesis) or Plan B (nonthesis) program. The Plan A option requires a thesis based on original research conducted by the student. From 6-15 semester credits of thesis research are required. The semesters during which a student registers for thesis credit should correspond as closely as possible to the semesters in which the thesis work is done and faculty supervision is

provided. The Plan B option is recommended for professional wildlife managers who do not plan on research careers. The Plan B option requires the production of a paper. At least 2 credits of thesis research are required, but no more than 3 credits of thesis credit can be included on the Program of Study. For a master's degree, the minimum number of credits required is 30 semester credits. At least 24 semester credits for a master's degree must be from a committee-approved and an SGS-approved Program of Study from Utah State University.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Wildlife Biology - PhD

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

Degree Programs

The PhD degree is intended for students seeking a research or academic career. Comprehensive exams (both oral and written) are required in the doctoral program.

For a PhD, the minimum number of credits required is 30 credits with a master's degree in a related field; 60 credits are required otherwise. A minimum of 12 dissertation credits is required for a post-master's doctorate and a minimum of 18 for a non-master's doctorate. The semesters during which a student registers for dissertation credit should correspond as closely as possible to the semesters in which the dissertation work is done and faculty supervision is provided. Doctoral students must meet an academic residency requirement which ensures that the doctoral student experience includes at least one period of concentrated attention to study, research, and interaction with faculty. This period of immersion in the

culture of students' departments is an important part of their preparation for future work in academic communities. The residency requirement for doctoral studies consists of the following: At least 33 USU semester credits from an approved Program of Study are required for doctoral students. The balance of credits may be from USU or from other institutions, subject to transfer limits and the approval of the student's supervisory committee.

With committee approval, graduate credits may be transferred from accredited graduate schools, provided the minimum residency requirement (including thesis and dissertation credit) at USU is met. Only 12 semester credits may be transferred into a graduate program at USU. Transfer credit, which must not have been used for any other degree, will be shown on official USU transcripts at completion of the degree.

Return to: Academic Departments and Programs

Wildlife Science - BS

Return to: Academic Departments and Programs

S.J. and Jessie E. Quinney College of Natural Resources

Department of Wildland Resources

The following courses can be used to fulfill the General Education Requirements:

BIOL 1620 (BLS) and CHEM 1110 (BPS), CHEM 1120 (BPS) or CHEM 1220 (BPS) may be used toward the Breadth requirements. ENVS 2340 (BSS) is recommended.

MATH 1050 and MATH 1100 will fulfill the Quantitative Literacy (QL) and Exploration requirement

Students must also complete the University Studies Depth Requirements:

WILD 3300 and one other CI course will fulfill the Communication Intensive (CI) requirement

STAT 2000 or STAT 3000 will fulfill the Quantitative Intensive (QI) requirement

APEC 3012 or ENVS 4000 (DSS) may be used to fulfill the Depth Social Science course requirements.

Students may choose from a variety of courses to fulfill the Depth Humanities Creative Arts (DHA) requirements

### Graduation Requirements

General Science Foundation Courses, Departmental Common Courses, and all courses listed as major subject courses must be taken on an A-B-C-D-F basis. A grade of C- or better is required for all WILD courses used to meet the requirements for a major or minor in the department. The grade point average for all courses taught by the S.J. and Jessie E. Quinney College of Natural Resources must be 2.5 or higher.

In addition to completing the University Studies course requirements, all students earning an undergraduate degree in the Department of Wildland Resources must complete the General Science Foundation Courses and the Departmental Common Courses, as listed below. Some of these courses may be used toward the University Studies requirements, as indicated by the University Studies designations listed in the course descriptions.

A. General Science Foundation Courses (34-35 credits) and the following:

BIOL 1610 - Biology I 4

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

MATH 1100 - Calculus Techniques (QL) 3

PSC 3000 - Fundamentals of Soil Science 4

STAT 2000 - Statistical Methods (QI) 4 or

STAT 3000 - Statistics for Scientists (QI) 3

NR 2220 - General Ecology 3

Select one of the following chemistry series (9 credits):

CHEM 1110 - General Chemistry I (BPS) 4

CHEM 1120 - General Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1

OR

CHEM 1210 - Principles of Chemistry I 4

CHEM 1215 - Chemical Principles Laboratory I 1

CHEM 1220 - Principles of Chemistry II (BPS) 4

### B. Departmental Courses (24 credits)

WILD 2000 - Natural Resources Professional Orientation 1

WILD 1800 - Introduction to Geographic Information Sciences 3 or

GEOG 1800 - Introduction to Geographic Information Sciences 3

WILD 2400 - Wildland Resource Techniques 3

WILD 3800 - Wildland Plants and Ecosystems 4

WILD 3810 - Plant and Animal Populations 3

WILD 3820 - Forest Plants: Identification, Biology, and Function 3 or

WILD 3830 - Range Plant Taxonomy and Function 3

WILD 3850 - Vegetation and Habitat Management 3

WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4

### Bachelor of Science in Wildlife Science

Students in the Wildlife Science major must meet the course requirements for University Studies, as well as complete the General Science Foundation Courses and the Departmental Common Courses listed above. They must also complete 24 credits of Degree Program Courses, including the following:

A. Degree Program Courses (21-22 credits)

APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3 or

ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3 or

SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3 or

SOC 3610 - Rural Sociology (DSS) 3

BIOL 5560 - Ornithology 3 or

BIOL 5570 - Herpetology 3 or

WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3 or

WATS 4650 - Principles in Fishery Management 3 or

WILD 5560 - Applied Avian Ecology 3

BIOL 5580 - Mammalogy 3

WILD 3300 - Management Aspects of Wildlife Behavior (CI) 3

WILD 4500 - Principles of Wildlife Management 3

WILD 4600 - Conservation Biology 3

WILD 4880 - Genetics in Conservation and Management 3

## B. Electives

Students may take the remainder of the 120 credits from any department. Courses which meet General Education "Breadth Requirements" and University Studies "Depth Education Requirements" should be included to ensure meeting University Studies Requirements. GEOG 1800 is recommended.

## Note:

Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:  
<http://www.opm.gov/qualifications/standards/IORs/gs0400/0486.htm>

Wildlife Science Major Four Year Plan (Suggested Schedule)

Please meet with your advisor to complete your specific four year plan.

Freshman Year (30 credits)

First Semester (15 credits)

BIOL 1610 - Biology I 4

ENGL 1010 - Introduction to Writing: Academic Prose (CL1) 3

ENVS 2340 - Natural Resources and Society (BSS) 3 or other approved Breadth Social Science (BSS) course 3

other Approved Breadth American Institutions (BAI) course 3

WILD 2000 - Natural Resources Professional Orientation 1

Elective course 1

Second Semester (15 credits)

BIOL 1620 - Biology II (BLS) 4

MATH 1050 - College Algebra (QL) 4

NR 2220 - General Ecology 3

approved Breadth Humanities (BHU) course 3

Elective course 1

Sophomore Year (30 credits)

First Semester (15 credits)

CHEM 1110 - General Chemistry I (BPS) 4 or

CHEM 1210 - Principles of Chemistry I 4

ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) 3

MATH 1100 - Calculus Techniques (QL) 3

WILD 2400 - Wildland Resource Techniques 3

Elective course 2

Second Semester (15 credits)

CHEM 1120 - General Chemistry II (BPS) 4 or

CHEM 1220 - Principles of Chemistry II (BPS) 4

CHEM 1125 - General Chemistry II Laboratory 1 or

CHEM 1215 - Chemical Principles Laboratory I 1

GEOG 1800 - Introduction to Geographic Information Sciences 3 or

WILD 1800 - Introduction to Geographic Information Sciences 3

STAT 3000 - Statistics for Scientists (QI) 3

approved Breadth Creative Arts (BCA) course 3

Elective course 1

Junior Year (30 credits)

First Semester (15 credits)

BIOL 5580 - Mammalogy 3

PSC 3000 - Fundamentals of Soil Science 4

WILD 3800 - Wildland Plants and Ecosystems 4

Elective course 4	Total Credits
Second Semester (15 credits)	120
WILD 3300 - Management Aspects of Wildlife Behavior (CI) 3	Grade Point Average (most majors require higher GPA)
WILD 3810 - Plant and Animal Populations 3	2.00 GPA
WILD 3850 - Vegetation and Habitat Management 3	Credits of C- or better
WILD 4600 - Conservation Biology 3	100
DHA and CI course (both criteria) 3	Credits of upper-division courses (#3000 or above)
Senior Year (30 credits)	40
First Semester (15 credits)	USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)
APEC 3012 - Introduction to Natural Resource and Regional Economics (DSS) 3 or	30 USU credits
ENVS 4000 - Human Dimensions of Natural Resource Management (DSS) 3 or	Completion of approved major program of study
SOC 3610 - Rural Sociology (DSS) 3 or	See college advisor
SOC 4620 - Sociology of the Environment and Natural Resources (DSS) 3	Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300
WATS 3100 - Fish Diversity and Conservation (DSC/CI) 3	3
WILD 3820 - Forest Plants: Identification, Biology, and Function 3 or	General Education Requirements and University Studies Depth Requirements
WILD 3830 - Range Plant Taxonomy and Function 3	Return to: Academic Departments and Programs
Elective course 2	
WILD 4750 - Monitoring and Assessment in Natural Resource and Environmental Management 4	
Second Semester (15 credits)	
BIOL 5560 - Ornithology 3 or	
BIOL 5570 - Herpetology 3 or	
WILD 5560 - Applied Avian Ecology 3	
WILD 4500 - Principles of Wildlife Management 3	
WILD 4880 - Genetics in Conservation and Management 3	
Elective courses 6	
Minimum University Requirements	