A Message from the President of the College

Five principal factors contribute to the high quality of the summer session program at Utah State Agricultural College.

A rich offering of courses is selected to meet the needs of summer session students. They provide opportunity for graduate study in several fields. Provision is made for meeting requirements of several states for certificates in a variety of educational services such as administration, teaching, guidance, and special education. Those who are beginning college or who are continuing at the undergraduate level may pursue many of their basic courses.

A variety of short courses, institutes, and workshops provide for the specialized needs of groups who wish to spend briefer periods in school.

Informal events of educational and recreational nature include outstanding lectures, musical programs, drama, and social gatherings.

The atmosphere of the College is one of friendship and congeniality. Students and teachers intermingle in a spirit of equality and fellowship.

Pleasant physical surroundings such as cool climate, wholesome community life, and recreational opportunities add to one's learning efficiency.

You will enjoy and profit by a summer at Utah State.

Daryl Chase
Summer School Announcement for 1956

June 11 – August 17

First Session
June 11 – July 20

Second Session
July 25 – August 17

Please bring this bulletin with you when you come to register.
SUMMER SCHOOL

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President

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Professor of Botany and Plant Pathology

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Association Professor of Poultry Husbandry

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And Accounting

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Associate Professor of History

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Professor of Psychology
Head, Psychology Department

FULLER, PAULINE, B.S., M.S.
Assistant Professor of Physical Education

GARDNER, ELDON J., B.S., M.S., Ph.D.
Professor, Zoology Department

GARDNER, V. D., B.S., M.B.A.
Professor of Accounting and Business

GERBER, ROBERT K., B.S., M.S.
Assistant Professor of Horticulture

GILMORE, FLORENCE R., B.S., M.S.
Head of Clothing, Textiles and Related Arts Department
Associate Professor of Clothing, Textiles and Related Arts

GOODWIN, D. L., B.S., M.S., Ph.D.
Assistant Professor, Range Management

GROUTAGE, HARRISON T., A.B., M.S.
Instructor Fine Arts

GUNNELL, MERRILL H., B.S., M.S.
Assistant Professor of Zoology

HAILES, CHARLES W., B.S., M.S.
Assistant Professor of Industrial Education

HAMSON, ALVIN RUSSELL, B.S., M.S., Ph.D.
Associate Professor of Horticulture

HANSEN, BASIL, A.B., M.A., Ed.D.
Associate Professor of Education

HANSEN, BURRELL F., B.S., M.A., Ph.D.
Assistant Professor of Speech

HARDY, CLYDE T., B.S., M.S., Ph.D.
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Assistant Professor of Political Science

HATCH, TERRANCE E., B.S., M.S., Ed.D.
Assistant Professor of Education

HATFIELD, DOROTHY, M.S., B.S.
Assistant Professor of Clothing, Textiles, and Related Arts

HENDRICKS, KING, B.S., M.A., Ph.D.
Professor of English

HIMES, ELLVERT H., B.S., M.A., Ph.D.
Dean of Students

HOLMAN, VALERA
Instructor, Nursery School

HUNSAKER, H. B., B.S., M.S.
Professor of Physical Education
Head, Physical Education and Recreation Department

HUNSAKER, NEVILLE C.
Professor of Mathematics

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Professor of Agricultural Economics and Marketing
JACOBSEN, ERNEST A., A.B., M.A., Ed.D.
Professor of Education
Dean, Summer School

JAMES, GARTH A., B.S., M.S.
Instructor in Bacteriology and Public Health

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Professor of English

LARSEN, JESSIE, B.S., M.F.A.
Associate Professor of Art

LEE, GARTH L., B.A., M.A., Ph.D.
Associate Professor of Chemistry

LEWIS, DOROTHY B., B.S., M.S.
Assistant Professor in Child Development and Parent Education

LINFORD, GENE M., B.S., M.S.
Assistant Professor of Zoology

McBRIDE, C. D., B.S., M.S.
Assistant Professor of Industrial Education

MERKLEY, CHARLES N., B.S.
Associate Professor of Woodwork and Building Construction

MERKLEY, MARGARET B., B.S.
Instructor of Home Economics

MEYER, GEORGE A., B.A., S.T.B., Ph.D.
Professor and Head, Modern Language Department

MINER, MERTHYR L., B.S., D.V.M.
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MORGAN, FLOYD T., B.S., M.A.
Associate Professor of Drama

MORTENSEN, J. LYNN, B.S., M.S.
Assistant Professor of English

MURRAY, EVAN B., B.S., M.S.
Professor of Economics
Head, Economics Department

MYERS, CHESTER J., B.S., M.A., Ph.D.
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Head, Speech Department

NAYLOR, WILLIAM S., B.M., M.M., Ph.D.
Acting Head, Fine Arts Department

NELSON, DALE O., B.S., M.S.
Assistant Professor of Health, P. E., and Recreation

NEWMAN, PARLEY, B.S., M.S., Ph.D.
Assistant Professor of Speech

NOBLE, LEE GRANDE, B.S., M.S., Ed.D.
Professor of Education
Co-ordinator of Extension Class Work, Home Study Evening School

NORTON, ROBERT A., B.S., M.S., Ph.D.
Assistant Professor of Horticulture

PAHTZ, GEORGE
Instructor in Instrumental Music

PERRY, ROLLAND, A.B., Ph.D.
Professor of Physics

POLLARD, LEONARD H., B.S., M.S., Ph.D.
Professor of Vegetable Crops and Horticulture
Head, Horticulture Department
REESE, L. GRANT, B.S., M.S.  
Instructor English Department

REYNOLDS, H. REUBEN  
Graduate, Chicago Art Institute  
Professor of Art

RICE, MOYLE Q., B.S., M.A.  
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RICHARDSON, STANLEY S., B.S., M.S.  
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Head, Agricultural Education Department

ROS Kelley, R. WELLING, B.S., M.S., Ph.D.  
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Head, Sociology Department  
Director, Division of Social Work

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Instructor in Floriculture

SHARP, HEBER CANNON, B.S., M.S., Ph.D.  
Associate Professor of Psychology

SHAW, EDITH SMITH, B.A., M.A.  
Assistant Professor of Education  
Supervisor of Elementary Teaching Training

SHIOZAWA, KENJI, B.S., M.S.  
Instructor in Landscape Architecture and Planning

SHUFE, LeGRANDE, B.S., M.S., D.V.M.  
Assistant Professor of Veterinary Science

SMITH, Winslow Whitney, A.B., A.M., Ph.D.  
Professor of Bacteriology and Public Health  
Head, Bacteriology and Public Health Department

STEVENS, KENNETH R., B.S., M.S., Ph.D.  
Professor of Bacteriology and Public Health

STONE, DAVID R., B.A., M.A., Ph.D.  
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TAYLOR, STERLING A., B.S., M.S., Ph.D.  
Associate Professor of Agronomy

TERASAWA, HARUKO, B.S.  
Instructor of Clothing, Textiles, and Related Arts

TEZAK, WILLIAM V., B.A., M.B.A.  
Assistant Professor of Business Administration and Secretarial Science

THORNE, JOSEPH L., B.S., M.S., D.V.M.  
Assistant Professor, Veterinary Science

THORNLEY, GWENDELLA, B.S., M.S.  
Assistant Professor of Speech

VAN ORDEN, HARRIS O., B.S., M.S., Ph.D.  
Associate Professor of Chemistry

VERMILLION, UNA, A.B., M.A.  
Professor of Institutional Management

WELTI, WALTER, B.A., M.A., Mus. D.  
Professor of Vocal Music

WILCOX, ETHELYN R., B.S., M.S., Ph.D.  
Professor of Nutrition

WILLEY, LYNN, B.S., M.S.  
Assistant Professor of Automotive Tech.
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PAUL A. BONIFAS, M.A.
Professor of Art
University of Washington

PAUL BRYANT
Director of Athletics
Texas A & M College

WILLIS BECKETT, M.S.
Choral Director
Ohio College Conservatory of Music

JOHN COOPER
Professor of Physical Education
University of Southern California

MAX F. DALBY, A.B., M.A.
Director of Instrumental Music
Weber College

EARL FILLMORE
Logan City Sanatorium

CLAUDE W. GRANT, Ph.D.
Head, Department of Psychology
University of Utah

EVELYN HANSEN
Demonstrator, Utah Power and Light Co.

MAUDE HARDMAN, B.A., M.A.
Supervisor of Art
Salt Lake City Schools

SHELDON HAYES, Ph.D.
Head, Department of Bacteriology
Weber College

WENDELL J. HUNT, B.S., M.A., Ed.D.
Principal Paw Paw Elementary School
Kalamazoo, Michigan

PAUL LANDIS, Ph.D.
Professor of Sociology
Washington State College

HAROLD G. MEALY, B.M., M.M.
Associate Professor of Music
Idaho State College

DELBERT NAPPER, B.S., M.S.
Supervisor of Art
Logan City Schools

DRAYTON NUTTALL, A.B., M.A., Ed.D.
Chief Bureau of School District Organization
California State Department of Education

THOMAS O’DEA, B.S., A.M., Ph.D.
Associate Professor of Sociology
Fordham University

JEAN PUGMIRE, B.S., M.S.
Instructor in Education
College of Southern Utah

ROBERTS, REED
Logan District Sanitarian
ADOLPH RUPP
Basketball Coach
University of Kentucky

CLARENCE SAWHILL
Director of Bands
University of California at Los Angeles

JEANETTE SCHLOTTMANN
Instructor of Dance
Barnard College

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Tooele County School District

MELVIN STRONG, B.A., M.A., Ed.D.
Principal Mount Olympus
Granite School District

WILLIAM L. SUnderMEYER, Ph.D.
Head, Department of German
Gettysburg College

LLOYD M. THEURER, B.S., M.S.
Superintendent of Schools
Cache County School District

MARIE JEPPSON THORNE, M.S.
Box Elder School District

IRVING WASSERMANN
Teacher of Piano
U.S.A.C.

NORMAN WAMPLER, B.A., M.A., Ph.D.
Superintendent of Schools
Bellflower, California

EDGAR WIGHT, B.S., M.S.
Education Specialist
Bureau of Indian Affairs

PERRY WILSON, B.S., M.S.
Director of Guidance Services
Logan City Schools
Summer School Fees

The College reserves the right to alter any of these charges without notice.

Total fees first session only (average) ....................................................... $36.00
Total fees second session only (average) ................................................... 28.00
Total fees both sessions (average) .......................................................... 52.00

Distributed as follows:

Registration for Summer Quarter ............................................................ $10.00
Tuition for Summer Quarter ....................................................................... 33.00
Tuition for first session only ....................................................................... 19.00
Tuition for second session only ................................................................. 14.00
Activity Fee (Required of all students enrolling for 5 or more credits) ........ 3.00
Activity Fee—Second Session only ............................................................. 1.00

(Required of all students enrolling for 5 or more credits)

Health Fee ..................................................................................................... 1.00
Special Students — Registration Fee .......................................................... 10.00

Plus $3.00 per credit hour (Maximum 5 hrs.)

Auditor's Fee (per course) ........................................................................... 10.00
(Does not apply to regularly registered students who may secure visitor's permits from Registrar's Office.)

P.E. 176—Camping Trip Packing................................................................. 8.00
Equipment Rental ......................................................................................... 8.00
Transportation .............................................................................................. 10.00

Forestry 96, 97; Range 98; Wildlife 99: $5.00 lab fee in each course.

Music Clinic (non-credit) ........................................................................... 7.50
Graduation Fee ............................................................................................. 10.00
Social Work Certificate ............................................................................... 5.00
Master’s Degree Fee for binding and proofing Thesis ................................ 5.00

Qualifying Examination in Graduate School:

1 part .............................................................................................................. 5.00
2 parts .......................................................................................................... 6.00

Building Fee (First Session) ....................................................................... 3.00
(Second Session) ......................................................................................... 2.00

(Remitted to students who have paid the building fee for three preceding quarters.)

Excess breakage or loss as determined by departments must be paid at Cashier Office before credit will be released.

Private instruction in Speech—12 and 112—per lesson ................................ 1.75
Music—Individual Instruction with members of the College staff:

1 ½ credits .................................................. $25.00
3 credits .................................................. 50.00

Individual instruction with additional authorized teachers (as arranged for with the Department of Music) is registered for at the college and given like credit, but paid for by private arrangement with the teacher concerned.

Practice Fees:
Practice room with Piano, 1 hour per day per Quarter ................................ $2.50
Practice room without Piano, 1 hour per day per Quarter ........................... 1.75
Organ, 1 hour per day per Quarter .............................................................. 5.00

All fees paid, with the exception of the $10.00 registration fee, may be refunded to any student in residence who withdraws from school before the end of the third week of either session, in proportion that the number of instructional weeks, subsequent to withdrawal, bears to the number of instructional weeks in the period covered by the fees paid.
Utah State Agricultural College

Utah State Agricultural College was established in 1888 under the provisions of the Land-Grant College Act. It serves the people of Utah and the intermountain west through three main divisions: (1) the instructional services of the college, (2) the Agricultural Experiment Station, and (3) the Cooperation Extension Service. The instructional services are organized in seven schools: Agriculture, Business and Social Sciences, Education, Engineering and Technology, Forestry, Range and Wildlife Management, Home and Family Living, and Humanities and Sciences. The Graduate School and the Summer School are also organized to render special services. Through all these schools, it is the policy of the college to make available to students opportunities for a broad program of collegiate education, including vocational, technical, scientific and liberal education. The object is to foster all that makes right living, good citizenship, vocational efficiency, and general culture. Fundamentally, the college has always considered the main function of education in its broadest sense to be the preservation and improvement of the democratic way of life.

All departments offer curricula leading to the B.S. degree; many offer the M.S.; and some the Ph.D. or the Ed.D.

The college is located one mile east of the center of Logan on the brow of a hill overlooking Cache Valley. One mile still further to the east is the entrance to scenic Logan Canyon through which Highway 89 leads onto Bear Lake and points east, or north through Wyoming to the South entrance of Yellowstone Park.

With its population of sixteen thousand, Logan serves as a delightful center of student life. The climate in the summer time seldom becomes oppressively warm, while the evening canyon breeze makes summer nights especially comfortable. Student enrollment at the college during the regular academic year has in recent years exceeded five thousand. Enrollment in the Summer School ranges from one thousand to fifteen hundred.

The Summer School

Summer quarters have achieved a significant place in American collegiate institutions, partly because they are organized to meet the needs of many different groups of people. There are always some students who carry on with their regular scholarship program; there are the elementary and secondary teachers meeting certification requirements or proceeding toward advanced degrees as they continue in their regular teaching positions, and finally there are many special groups who spend a week or two weeks or longer in short courses specifically adapted to their professions or avocations.

The Utah State Agricultural College Summer School is organized to meet these diverse needs. For many years it has been a significant part of the institution. Since 1924 the program has been expanded to include visiting professors from different parts of the nation who supplement the regular faculty in various departments in giving advanced courses, conducting institutes, or giving one or more special lectures. Lyceum numbers in music and drama are also a significant part of the summer program.

A full quarter of study is available this summer, divided into two sessions, the first of six weeks from June 11 to July 20, and the second from July 25 to August 17. Some courses in the first session are arranged to terminate in three weeks, thus making it possible for individuals to
complete an intensive program for college credit if they cannot be on the campus for a longer period.

In general the 1956 summer offering has been planned to meet the needs of the groups indicated above. First, many regular students of undergraduate standing will wish to use the summer quarter to complete requirements earlier than otherwise possible. Similarly, many high school graduates may want to enroll in college this summer in order to get their advanced schooling started without delay. Several departments are offering freshman courses to meet these needs, as well as more advanced courses meeting graduation requirements. Second, teachers planning to renew certificates or meet certification requirements for Utah and surrounding states will find that specific courses have been listed to meet their needs. Course needs for other special groups have also been kept in mind, and suitable offerings made available. A third group which the Summer School seeks to serve directly is the large number of graduate students who find it advantageous to pursue their school work in the summer time. A detailed description of the policies of the graduate school is included later in this bulletin.

REGISTRATION

Graduates from high schools in good standing with the institution last attended may be admitted to the summer sessions without being required to submit official applications for admission.

Students admitted without credentials are considered as special students without official collegiate rating. Those desiring to become candidates for a degree must submit credentials covering all high school as well as college or university credits completed to date. The responsibility for submitting credentials rests upon the student. It is recommended that anyone who may be considering becoming a candidate for a degree should present credentials for evaluation at the earliest possible date so as to enable faculty advisers to give the maximum of counseling service.

The student load during the Summer Quarter is subject to approval by the deans of the various schools. A maximum of nine credits may be taken the first session, and six the second. Students are reminded that this number cannot be exceeded without the special approval of the dean of the school concerned. Nor will completion of correspondence study or extension class work paralleling Summer School be permitted if the combined total of credits exceeds the above figures unless special approval has been granted.

Students who desire to register for credit in research problems or field studies should make the necessary arrangements with the Registrar's Office at the beginning of the session in which the work is recorded. Credits allowed and fees charged for this type of study will depend on the time spent and the work accomplished.

Registration for the Summer Quarter will take place Monday, June 11 in the Main Reading Room of the Library, beginning at 8 a.m. and continuing to 3 p.m. Classes will begin Tuesday morning, June 12. Students who fail to complete registration on Monday may do so any succeeding afternoon from 1 to 4 p.m. in the Summer School office (M182). The first step in registration is to call at the Registrar's Office to obtain registration forms and instructions. Students will find it to their advantage to send in the registration request form on the last page of this bulletin before registration day. Although this is not necessary it will insure that all previous records as well as registration forms will be ready for them on June 11.

There will be no special registration period for the second session.
New students or students making changes or additions can complete the registration process any time during the first week of the second session. Regularly scheduled second session classes will begin Wednesday, July 25, and continue four weeks, to August 17. The same rules as apply in the first session limit the amount of credit a student may take. Any regular college course which is not definitely scheduled for the second session in the catalog or the schedule bulletin will be given in that period if ten students petition the Summer Quarter Dean and join the class. Credit in the second session is computed on the basis of one hour of credit for 10 one-hour lecture periods or 10 three-hour laboratory periods. Registration forms for any session period will not be accepted after the period has ended.

Scheduled classes, whether first or second session, may not be given if fewer than eight students register. If it is possible to do so, any course listed in the general catalog will be given if eight or more students request it. Requests should be directed to the head of the department concerned.

All graduate students must register with the Dean of the Graduate School, Dr. J. Stewart Williams, who will be in the Main Reading Room of the library on Monday, June 11; thereafter, at his office in the Main building.

CLASS SCHEDULE

The time of meeting for each class is designated along with course description. A schedule bulletin will be available as a guide on registration day. During the first term classes are 50 minutes in length with 10 minute intervals. During the second session the classes will recite according to the following schedule.

<table>
<thead>
<tr>
<th>Period</th>
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<tbody>
<tr>
<td>I</td>
<td>7:30 to 8:50</td>
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<td>II</td>
<td>9:00 to 10:20</td>
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<tr>
<td>III</td>
<td>10:40 to 12:00</td>
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<tr>
<td>IV</td>
<td>1:00 to 2:20</td>
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Auxiliary Activities

Coaching School — June 4-8

The 30th Annual Coaching School at Utah State College will be held from June 4th through June 8th in the Student Union Building. Paul Bryant, Texas A & M, will be featured as the guest lecturer on football; and Adolph Rupp, University of Kentucky, will be the guest lecturer on basketball. Paul Bryant is starting his second year with the Texas Aggies, prior to this he served eight years as Kentucky’s head coach and left with an impressive record of 60 wins, 23 losses and 5 ties. He also defeated the Oklahoma Sooners in the 1951 Sugar Bowl. Adolph Rupp needs no introduction to the basketball world, being the wildcat mentor for 25 years, he has compiled a fabulous record of 519 wins in 604 starts. Both men are very much interested in fundamentals and know the problems of high school coaches.

In addition to football and basketball, lectures will be given on baseball by Branch Rickey, Jr., Pittsburg Pirates; wrestling by George “Doc” Nelson, and athletic training by Roland “Kickapoo” Logan. There will be discussion groups and demonstrations in football and basketball as well as the other sports.

Registration for the school carries one credit for each course for the week. There will be free golf privileges at the Logan Country Club for those enrolled in the Coaching School. In addition sightseeing excursions will be conducted. If possible reservations for enrollment in the Coaching School should be in before the opening date of June 4th.

Junior Red Cross Training Program — July 29 to August 4

For the second summer the Utah State Junior Red Cross Leadership Training Program will have its headquarters at the College. The purpose of the Program is to offer to 60 outstanding student leaders from Utah secondary schools the opportunity to learn how Junior Red Cross can serve community needs, promote world understanding, prepare for first aid, water safety, and home nursing. If you are interested in five days of training and recreation, write to Mrs. Dorothea McLaughlin, Director, Junior Red Cross, The American Red Cross, 555 Foothill Drive, Salt Lake City, Utah.

Conference Leader’s Workshop — June 12 to 16

An intensive five-day workshop in conference planning and leading will be conducted as a part of the Summer School during the week of June 12 to 16. It will be a practical training course for leaders in various capacities in business, industry, education, civil service, labor unions, and other functions.

Various types of situations that call for group discussions will be studied, and techniques for large and small conference discussion groups for different purposes will be demonstrated. Members of the workshop will participate widely in the planning and leading of discussion group meetings.

One of the conference techniques to be studied and demonstrated will be Paul Pigors’ Incident Process.

Those who complete the course will be granted a certificate and two quarter hours of advanced college credit.
June 11-July 20 — Weight Control Conferences

Planned for those people interested in controlling their weight. A series of six weekly meetings will be held with different leaders for each discussion period. The leaders will include members of the Foods and Nutrition staff, a Doctor of Medicine, a Dietitian, Physical Therapist and possibly others.

Living Accommodations

The housing situation is better at Utah State than it has been for many years. Nearly any type of accommodation desired can be obtained through the College Housing Office or private home owners.

Many Logan City residents list their apartments, rooms, or board and room accommodations with the College Housing Office, Room 133, Main Building. Such listings may be had by anyone who wishes to call for them. The Housing Office has the following accommodations available for Summer School students:

Lund Hall offers campus dormitory accommodations for single men and women. Lund Hall because of its size will also be available for some teachers or married couples without children who wish to remain on the campus. Some limitation in reservations for this hall is made so those desiring to live there should make reservations as early as possible.

College Apartments are available for couples or families on a monthly basis.

On page 49 in this catalog there is a form for use in making application for housing. The College Housing Office operates on a year-round basis. Inquiries are welcomed at any time.

Summer School Recreation

The college and community provides a well-rounded program of recreation activities to meet the leisure time needs of faculty and students. A Recreation Council plans a wide variety of activities which are conducted by the various departments and the summer school Recreation Director. These activities include the Theatre Workshop, Art exhibits, musical programs, Aggie Ranger Hike, lectures, dances, lawn parties, canyon parties, etc. The swimming pool, tennis courts, ball diamonds, bowling alleys, games rooms, etc., are open for all students, and tournaments are conducted in many of these activities. Organized excursions are often taken to the Bird Refuge, Old Juniper, Bear Lake, Minnetonka Caves and Mt. Logan. Logan Canyon is unequaled as a picnic and camping area. The college provides every opportunity for its students to achieve "the abundant life."

The college would appreciate being of service to you, through its departments and director of recreation, in planning your recreation program.

Teacher Placement Bureau

The College Teacher Placement Bureau functions actively during the Summer School session. All teachers seeking employment are encouraged to register with the bureau. Superintendents and others who employ teachers are invited to utilize the services of the bureau. Application folders will be made available upon request and interviews with applicants may be arranged through the bureau.

The Teachers' Placement Bureau is located in Main Building, Room 281.
Logan City Recreation Program

Through official cooperation of the Logan City Board of Education and the Logan City administration, recreation programs operate throughout the year. This is expanded during the summer to provide several recreation centers throughout the community where several activities are carried on. In addition, some special courses in music and similar fields are scheduled. Children of Summer School participants may be admitted to any of the recreational activities sponsored by the community. For further information, inquiries should be addressed to: Mr. Glenn Worthington, Superintendent of Recreation, Logan, Utah.

Lecture and Entertainment Series

It is a custom of long standing to devote the eleven o'clock period daily to a series of outstanding lecturers and entertainment features. An excellent roster of speakers and artists have been selected for this year.

Utah Girls State — June 3-10

The purpose of this annual conference, under the direction of the state organization of the American Legion Auxiliary, is to educate our young women in the duties, privileges, rights and responsibilities of American citizenship. Headquarters are in the Student Union Building. Faculty members cooperate in arrangements, give some of the lectures, and assist in recreational activities.

Summer Music Camp — June 18-29

WALTER WELTI, Director

The camp serves two functions. It offers to high school students the opportunity to broaden and deepen their musical talents in an atmosphere of friendly achievement and healthy recreation. It provides teachers and supervisors of music an opportunity to observe expert instructors at work with high school groups while pursuing advanced work in their respective fields.

Dance Workshop — June 11-29

As part of the offering in physical education this summer, special emphasis is being given to the field of dance during the period June 13 through July 1. Miss Jeanette Scholttmann of New York City will be visiting instructor of an intensive workshop conducted during this period. Interested students will enroll in physical education.

Welding Engineering Exposition — July 13-14

A two-day exposition of new developments in welding techniques, welding equipment, welding of alloys, solving welding problems in the shop, on the job, on the farm; applications of welding in industry, welding programs in schools and in industry, and clinical methods.

For industrial engineers and technicians, mechanics, shop operators, farmers with farm shops, trainers in industry, instructors in schools and dealers in welding supplies and equipment.

Conference sessions, section meetings, forum periods, clinic sessions, and exhibits.
Speakers from leading industries and engineering organizations will be featured.

**Aggie Ranger Hike — July 25-Aug. 4**

The annual Summer School Hiking and Camping trip (Aggie Rangers) will take place during the two weeks immediately following the first session of Summer School. Course work in camp preparation, packing, and other details will be held in the first few days before the trip. A primitive area in the West will be selected for a ten-day laboratory experience in camping and hiking.

**Art Education Workshop — June 11-29**

An art education workshop for teachers is again being held on the campus through the first three weeks of the summer session, June 11 to June 29. Two members of the State Curriculum Committee in Art are listed as special instructors for this course, and other members of the committee will cooperate. The workshop is planned for the regular classroom teacher. It is anticipated that theory and background material will be discussed but the major emphasis will be upon learning how to do what is called for in providing good art experiences for the child. Five credits may be earned by participating in the workshop and it is anticipated that this will take the full time of the teachers for the first three weeks. Students who enrolled in the workshop last year may do so again for more advanced work. New students, of course, may also enroll.

**Curriculum Workshop in Secondary School Art — June 4-8**

The Utah Department of Secondary Education through its curriculum committee for art education is presently engaged in a program of developing a curriculum guide for secondary school art. A conference of one week of intensive work will be devoted to consideration of basic problems involved in construction of the guide. Invitation is extended to all secondary school art teachers to assist the committee with this program. Participants may register for credit for this work.

See Art, page 25.
GRADUATE SCHOOL

J. STEWART WILLIAMS, DEAN

Organization

Graduate study is supervised by the Dean of the Graduate School, assisted by the Graduate Council. This council consists of one representative from each of the seven schools of the college, and the Libraries. Members of the council are appointed by the President in December of each year to serve a one-year term commencing the first of July following.

The Graduate Council for 1956-57 is as follows:

- School of Agriculture—Professor Leonard W. Pollard
- School of Arts and Sciences—Professor Eldon J. Gardner
- School of Commerce—Professor Evan B. Murray
- School of Education—Professor Arden Frandsen
- School of Engineering—Professor M. Greaves
- School of Forest, Range and Wildlife Management—Professor Laurence A. Stoddart
- School of Home Economics—Professor Ethelwyn B. Wilcox
- Libraries—Professor Milton Abrams

Admission to Graduate School

A graduate with a Bachelor's degree from Utah State Agricultural College or from any other accredited college or university may be admitted to the Graduate School. Seniors in this college who have an average of "B" or better in all their courses in the junior and senior years, and who at the beginning of any quarter lack not more than five quarter credits to complete all requirements for the Bachelor's degree, may be allowed to register in the Graduate School.

An application for admission accompanied by transcripts of all previously earned credits and letters of recommendation should be presented as far in advance of the day of registration as possible.

The applicant must be approved by the department in which he proposes to work.

Students who cannot qualify for the degree program in a particular field may be admitted to the Graduate School as non-candidate students. Admission to the Graduate School does not imply admission to candidacy for a higher degree.

Master's Degree

General: The Master of Science degree is offered in most of the basic biological, physical, and social sciences and in various educational, industrial, and professional divisions of the college. The specific departments in which the Master of Science degree is given, together with the courses provided by the departments, may be determined by consulting the departmental statements provided in this catalogue under the various undergraduate schools of the College.

Qualifying Examinations: A qualifying examination is required by the Graduate School and may be taken prior to registration. If not taken, this examination and any qualifying examination required by the student's department must be taken as soon as possible after registration. The results
of these examinations become a part of the student's file in the graduate office. If a student is found to be deficient in the work basic to the field in which he proposes to study, he may be required to take undergraduate courses, which do not count in the minimum requirements for the Master's degree, to satisfy the deficiency.

**Supervisory Committee:** When it has been determined that a student is acceptable as a possible candidate for a higher degree, the major professor will suggest a committee to assist in guiding the student's program and in conducting necessary additional qualifying examinations and the final examination. When the student's program has been determined and approved by his committee, he will be advanced to candidacy for a degree. Advancement to candidacy must be accomplished before the end of the winter quarter if the student is to graduate at the following commencement. When the student's research is best supervised by a federal collaborator, or other person who is not a member of the regular teaching staff, such collaborator or other person may be designated as thesis director. This thesis director is a member of the student's committee.

**Student Program:** The student program for the Master of Science degree must include:

1. At least 15 credits taken on the Logan campus;
2. At least 45 credits in courses numbered 100 or above which are approved for graduate credits;
3. At least 10 credits, exclusive of thesis, in courses numbered 200 or above;
4. A thesis with 9 to 15 credits, or thesis alternate as described below.

**Thesis:** Each candidate for a Master of Science degree, usually must present a thesis on a topic within the field of his major subject which must represent from 9 to 15 hours of the credit presented for his degree. The thesis must be a contribution to the field of knowledge, based on the student's own research, or a treatment and presentation of known subject matter from a new point of view. After final approval by the department, the thesis must be typewritten in standard form; and a copy must be submitted to each member of the student's Advisory and Examining Committee at least two weeks before the date of his final examination. After approval by the committee and the department, and after the student has successfully passed the final examination, four copies of the final draft of the thesis must be deposited in the graduate office. Two of these copies will be deposited in the library, another sent to the department, and the fourth returned to the student.

**Thesis Alternate:** The supervisory committee may permit the substitution of three advanced reports, valued at 6 to 10 credits, for the regular thesis. These are known as "Plan B" reports. The Master's program is otherwise the same under "Plan B."

For students working under "Plan B" in general agriculture, the Dean of the School of Agriculture will select a major professor to be the chairman of the supervisory committee. The students' program must include a minimum of 6 credits each in the fields of Plant Science, Animal Science, and Agricultural Economics.

**Final Examination:** Each candidate for a Master of Science degree is required to pass a comprehensive final examination on the subjects of his graduate study and on his thesis. This examination may be oral or written or both as his committee may decide, and is open to all faculty members and officials of the Graduate School. Arrangements for the time and place of the examination are made by the Dean of the Graduate School. A member of the Advisory and Examining Committee, other than the major professor, or a representative of the Graduate Council is appointed to act as chairman of the examination and submits to the Graduate
Council the results of the examination. For candidates who are to receive their degree at the June Commencement, the date of the final examination should be not later than May 10.

**Time Limit:** Work for a Master of Science degree must be completed within six years from the date of matriculation as a regular student in the Graduate School if the work is done wholly or in part during the regular academic year. If the work is done entirely in summer sessions, a maximum of seven years is allowed. Older work may be revalidated by examination.

**Extension Course Credit:** The amount of extension or off-campus credit to be allowed will be determined in consideration of the student's entire course program. In no case will more than nine quarter hours of extension credit be allowed as counting toward a degree and the total of off-campus credit may not exceed 15 hours, exclusive of thesis.

All extension courses for which graduate credit is sought must be regularly registered for through the Graduate School, and must have the sanction of the head of the department in which the student is doing his graduate work. Credit toward a Master of Science degree is not granted for correspondence study.

**Transfer Credit:** A maximum of 9 quarter credits of graduate work satisfactorily completed at another approved Graduate School may be allowed toward a Master of Science degree. The extent to which such credit may reduce either the course or the residence requirements will be determined by the student's committee.

**Credit Load:** Maximum load for full-time graduate students is 16 credits. Maximum for assistants engaged in teaching or research is 12 credits.

**Degrees of Civil Engineer and Irrigation Engineer**

The School of Engineering and Technology offers a two-year graduate program in Civil Engineering and Irrigation Engineering leading to the degrees of Civil Engineer and Irrigation Engineer. The plan of study for these degrees is similar in many respects to plans at other western institutions for degrees of Civil Engineer, Mechanical Engineer, etc.

**Special Requirements:** The student program for these degrees includes:
1. A minimum of 6 quarters of study, of which at least 3 quarters must be in residence at Utah State Agricultural College.
2. Completion of 90 credits of approved courses.
3. Completion of a minimum of 30 credits of graduate courses (200 series) exclusive of thesis.
4. Completion of an adequate thesis based on a research program for which a maximum of 30 credits may be allowed by the committee.

For candidates who present the Master of Science degree in an appropriate field of engineering, and who have completed a thesis project for this degree, the requirements will be modified as follows:
1. A minimum of 3 quarters in residence.
2. Completion of a suitable program of study of not less than 45 credits, of which
   (a) at least 30 credits must be graduate courses (200 series), and which may include
   (b) a maximum of 20 credits for thesis.

The suggested curriculum for these degrees is detailed in the section on engineering.
Degree of Doctor of Philosophy

**General:** The degree of Doctor of Philosophy (Ph.D.) is awarded by the Utah State Agricultural College in recognition of high attainment and productive scholarship in a special field of learning.

Admission to the Graduate School to work toward the degree of Doctor of Philosophy is obtained in the same manner as for the Master's degree. Qualifying examinations are similarly required, and the student's program is likewise directed by a supervisory committee.

**Student Program:** The student program for the Doctor of Philosophy degree must include:

1. Three years of full-time graduate study above the Bachelor's degree. If the student has a Master's degree, then two years will be required. The student's supervisory committee may recommend that part of this program be taken at other schools, but the last year must be spent in residence at Utah State Agricultural College.
2. A minimum of 135 credits of approved graduate study beyond the Bachelor's degree, 90 credits beyond the Master's degree;
3. A major field to which approximately two-thirds of the program is devoted, and a minor field to which approximately one-third of the time is devoted;
   - The minor may be divided between two suitably related areas. A master's degree in a suitably related area may satisfy the minor requirement.
4. A research problem on which a thesis will be presented. Credits for this thesis may not exceed 45, and work on the thesis should ordinarily occupy most of the third year, but may be carried on with course work throughout the program.

**Language Requirement:** A reading knowledge of at least one foreign language is required of all candidates. The particular language required will be that which meets best the applicant's needs. Requirement of a second language will be optional with the department in which the student is taking his major. The degree of proficiency of the applicant to use the required language in his chosen field and his knowledge of the grammar and structure of the language will be determined by a committee appointed by the Dean of the Graduate School from members of the Language department.

The language examination should be taken before the beginning of the third year of study.

**Comprehensive Examination and Candidacy:** Written and oral examinations are conducted by the supervisory committee and the departments concerned, usually in the last quarter of the second year of the student's work, to determine his fitness for admission to candidacy for the degree of Doctor of Philosophy.

**Thesis:** A completed dissertation approved by the department must be presented to the supervisory committee not later than May 1 of the year in which the student will graduate. The dissertation must show ability to do critical and independent research. It must present a contribution to knowledge in scholarly fashion.

**Final Examination:** The final examination in defense of the candidate's thesis will be conducted by the supervisory committee not later than two weeks before the date of commencement.

**Teaching and Research Assistantships**

A number of teaching and research assistantships in various departments of the college are available each year to graduate students. Teach-

Graduate Programs in Education

The following graduate degrees are offered in the field of Education:

**Master of Science:** The Master of Science degree is awarded to those students completing a full year of graduate work in specified courses and writing a research thesis for which 9 to 15 credits is allowed. The thesis requirement may be fulfilled by the writing of two field studies.

**Master of Education:** The Master of Education degree is granted in each of the following areas:
- Master of Education in School Administration and Supervision
- Master of Education in Secondary Education
- Master of Education in Elementary Education
- Master of Education in Vocational Education

The course of study leading to the Master of Education degree in each of the above areas has for its purpose the preparation of thoroughly prepared teachers, supervisors, and administrators. It aims at providing a broad foundation in the field of education and in the particular area of specialization, and differs from the Master of Science degree by providing more flexible requirements designed to meet the specific needs of the individual students. This professional degree emphasizes proficiency in the interpretation and application of research.

**Doctor of Education.** The professional degree of Doctor of Education is designed especially to prepare for leadership and expert service in the field of education. Requirements for this degree include the development of a high degree of competence in an area of specialization in education plus a thorough development of skills and knowledge of the broad field of education and in a supplementary field other than professional education.

Detailed requirements for the above degrees may be obtained at the office of either the Dean of the Graduate School or the Dean of the School of Education.

**Graduation**

Requirements for graduation in the various schools and departments of the College are listed in the general catalog. In most cases students can complete many of these requirements by attendance during summer quarters. In every department, one or more advisers are assigned to guide
the student's work leading toward graduation. Students planning to attend
during the summer are invited to write to the departments in which they
are interested for evaluation of credits and other such guidance services.

Graduation exercises are held only once during the year—at the end
of the spring quarter. Students who complete all requirements during the
summer may receive official statements of completion by applying to the
chairman of the Graduation Committee. Their degrees will be conferred
at Commencement the following spring.

AGRICULTURAL ECONOMICS AND MARKETING

G. T. BLANCH, Professor; DOUGLAS STRONG, Assistant Professor.

214. Research in Agricultural Economics. Thesis. Credit and time
arranged. Both sessions.

215. Special Problems in Agricultural Economics. Credit and time ar-
 ranged. Both sessions.

AGRICULTURAL EDUCATION

STANLEY RICHARDSEN, Professor

291. Special Problems for Ag Teacher. (Not given 1956.) For teachers of vocational agriculture who desire to develop a more practical pro-
gram for future, young, and adult farmers. Held during Agricultural
Teachers Summer Conference. Daily 8 to 11 and 1 to 4 for one week.
2 credits. First session.

Note: If there is a need, the following courses will be offered during
the four weeks after the completion of course No. 291:

124. Methods of Teaching Farm Mechanics. Scope of mechanics in
agriculture, lesson planning, course of study preparation, shop equipment
and management, skill requirements, and supervised practice. Daily 10 to
12 except Friday. 3 credits. First session.

225. Special Problems in Agricultural Education. A consideration
of needs of individual students and special types of service. Daily 8 to 9
for four weeks. 1-2 credits. First session.

AGRONOMY

H. B. PETERSON, D. W. PITTMAN, D. C. TINGEY, Professors; W. H.
BENNETT, S. A. TAYLOR, Associate Professors; R. L. SMITH, D. R.
McALLISTER, Assistant Professors.

150. Special Problems in Agronomy. Conferences or library or lab-
oratory investigations. Subject, time and credit arranged. Both sessions.

218. Special Problems in Agronomy. Special problems in crop pro-
duction, crop breeding, soil fertility or other phases of agronomy work
are investigated. Students review literature on the problem and conduct
experiments in the laboratory or on field plots. Credit and time arranged.

230. Research and Thesis. Outlining and conducting research in soils
or farm crops and preparation of thesis. Credit and time arranged. Both
sessions.

Any course listed in the regular catalog will be given in the summer
sessions upon petition of ten or more students who may need and desire
such a course.
ART

FLOYD V. CORNABY, H. REUBEN REYNOLDS, Professors; JESSIE LARSON, Associate Professor; HARRISON GROUTAGE, Assistant Professor.

Visiting Faculty

PAUL A. BONIFAS, MAUDE HARDMAN, DELBERT NAPPER, EMILY STAPLES

1. **Art Structure and Design.** Creative approach to line, mass, form, pattern, texture, color, and their combined relationship to design construction. 3 credits. Second Session.

7. **Freehand Drawing.** Objective drawing of natural forms from observation and memory in various media. A desirable prerequisite to all painting courses. 3 credits. Second Session.

103. **History and Appreciation of Art.** A philosophical rather than a chronological approach to an understanding and appreciation of art in general from its earliest archaic beginnings through periods of romantic and classical emphasis. 3 credits. First Session.

108A. **Oil Painting.** Landscape, still-life or figure composition employing various approaches and techniques of painting. 3 credits. Second Session.

108F. **Watercolor.** Various techniques in the contemporary use of watercolor media. 3 credits. First Session.

111. **Fabric Design and Application.** Projects in creating designs of character and beauty and applying them to suitable textiles in techniques of block print, stencil, hooked rug, freehand painting, creative embroidery, silk-screen printing or batik. Desirable prerequisites: Art 1 and 2. 3 credits. Second Session.

112. **Ceramics.** Creative methods of shaping and finishing pottery and ceramic sculpture in various types and styles. 3 credits. First Session.

114. **Leathercraft.** Design and construction of widely diversified projects in leather, and in combination with wood, metal, glass, etc. 3 credits. First Session.

153-154. **Art Education Workshop.** This course is designed to give teachers a chance to explore the field of art experiences, to work with many types of art media, to explore the background material and to develop a philosophy of art suited to the learning needs of the growing child. Attention will be given to the correlation of the art program to
the other subjects of the elementary curriculum and some time will be devoted to the place of research and methods for its use in art activities. This course is designed to give help to the regular classroom teacher. First Session (1st 3 weeks). 5 credits. Reynolds


BOTANY AND PLANT PATHOLOGY

RALPH W. AMES, Professor

234. Special Problems. Open to qualified students majoring in pathology, taxonomy, plant physiology, or cytology. Time and credit arranged. First and second session.

250. Research. Open to all qualified students in botany and plant pathology. Time and credit arranged. First and second session. Staff

BACTERIOLOGY AND PUBLIC HEALTH

SHELDON P. HAYES, Visiting Professor; W. WHITNEY SMITH, KEN- NETH R. STEVENS, Professors; GARTH A. JAMES, Assistant Professor; EARL L. FILLMORE, REED A. ROBERTS, Special Assistant Professors.

Bacteriology

10. Elementary Bacteriology. Basic concepts and practical application. 5 credits. First Session—8 to 9:50 a.m.—P. 302—Hayes

294. Bacteriology Problems. Prerequisite: Consent of instructor. Credit and time arranged. First Session—James

299. Thesis Research. Prerequisite: Graduate status and consent of instructor. Credit and time arranged. First Session—James

Public Health

155. School Health. Meets state certification requirements in health education. 3 credits. First Session—10 to 10:50 a.m.—P. 302—Hayes

254. Advanced Public Health Problems. Prerequisite: Consent of instructor. Credit and time arranged. First Session—Fillmore

BUSINESS ADMINISTRATION

V. D. GARDNER, Professor

134. **Work Simplification.** Problems in industrial location; choice of site; buildings and layouts; selection, purchase, and arrangement of equipment; purchasing of stores; organization; industrial research; labor relations and problems in managerial control. Problems in work simplification, time and motor study included in 1934. First Session. Daily 2. 3 Credits.

**CHEMISTRY**

MELVIN C. CANNON, THEODORE M. BURTON, Professors; NORMAN BAUER, GARTH L. LEE, HARRIS O. VAN ORDEN, Associate Professors.

10, 11. **General Chemistry.** Fundamental Principles of Inorganic Chemistry Prerequisite: One unit of high school or college algebra. Lecture daily 7. Laboratory TTh 8-11, Recitation MWF 8. Both terms. 5 credits each term.

121, 122. **Organic Chemistry.** Fundamentals of Chemistry of carbon compounds. Prerequisites: Chemistry 5 or Chemistry 11. Lecture daily 8. Laboratory MTWTh 9-12. Both terms. 5 credits each term.

198, 298. **Research.** Open to senior and graduate students in chemistry. Time and credit arranged.

**CHILD DEVELOPMENT AND PARENT EDUCATION**

DON C. CARTER, Associate Professor; RUBY EAMES, DOROTHY LEWIS, Assistant Professors; VALERA HOLMAN, Instructor and Head Teacher, Preschool Laboratory.

CD 80s. **Guidance of the Young Child.** Review of developmental principles with special emphasis on social-emotional growth; fostering growth through creative materials and play equipment; guidance philosophy, principles and techniques. 3 credits. MWF 7, 4 hours lab weekly arranged. First Session.

CD 174s. **Nursery School Methods.** Must parallel practice teaching. Special consideration will be given to understanding the needs of individual children in the preschool laboratory, and evaluating the principles used in guiding them. 3 credits. Daily 7. First Session.

CD 175s. **Practice Teaching in the Nursery School.** An opportunity to apply principles of child guidance in the preschool laboratory. Open to qualified students upon consultation with the instructor. 3 credits. Daily 8-11. First Session.

CD 67s. **The Child in the Family.** To help students develop a philosophy of family living as desirable background for the child; fundamentals of growth and development; and a beginning concept of guidance. 3 credits. Daily 9. Second Session.

CD 290s. **Seminar in Child Development.** Discussions of readings in child development, with emphasis on insight and self-understanding. Open to qualified students in other departments. 2 credits. MW, 2-4. Second Session.
CLOTHING, TEXTILES AND RELATED ARTS

FLORENCE GILMORE, Associate Professor
DOROTHY HATFIELD, Assistant Professor
HARUKO TERASAWA, Instructor

133. Advanced Home Furnishings. A laboratory course giving experience in furniture renovation. 3 credits. MTWT. 1-4. Hatfield

165. Tailoring. Application of techniques used in tailoring suits and coats. Prerequisites: CTRA 25. Recommended CTRA 125. MTWT. 8-11. 3 credits. Gilmore

190. Special Problems. Independent study under direction of professor of a problem in CTRA in which upper division or graduate student has special interest or need. Consult department head before enrolling. Time and credit arranged. Gilmore

210. Research for Master’s Thesis. Gilmore

290. Special Problems. Open to Graduate students in Clothing, Textiles and Related Arts. Time and credit arranged. Gilmore

DAIRY INDUSTRY

GEORGE B. CAINE, A. J. MORRIS, Professors
PAUL B. LARSEN, GEORGE E. STODDARD, Associate Professors

150. Special Problems in Dairy Production. Arranged for a limited number of students. Time and credit arranged. Both sessions. Staff

216. Research in Dairy Production. Arranged for a limited number of students. Time and credit arranged. Both sessions. Staff

217. Research in Dairy Manufacturing. Time and credit arranged. Both sessions. Morris

254. Special Problems in Dairy Manufacturing. Time and credit arranged. Both sessions. Larsen

DRAMA

FLOYD T. MORGAN, Associate Professor
VOSCO CALL, Assistant Professor

166. Drama Production. A course dealing with problems of play selection, casting, acting, directing, scenery construction and painting, lighting, costume and make-up. Recommended to drama teachers, M.I.A. drama directors, recreation leaders. Students will assist with the production of the Cache Valley Centennial musical play. Daily at 1 and crew times arranged. 3 Credits. First Session. Morgan and Staff

190. Problems and Projects in Theatre. Selected research problems of merit or advanced projects in acting, directing, scene design, costume design, costume construction, lighting, technical practice, make-up and theatre management. Projects may be done in connection with this summer’s musical production or they may be independent endeavors. Credit and time arranged. Morgan and Staff

204. Thesis. Time and credit arranged. Staff

Theatre Workshop

Utah State’s Theatre Workshop is now in its eighth season. Plays presented in past summers include Antigone, The Importance of Being

This summer Theatre Workshop participants will assist with the production of the Cache Valley Centennial musical play to be presented in the outdoor amphitheatre July 2 to 14.

ECONOMICS

EVAN B. MURRAY, Professor; V. L. ISRAELSEN, Professor.

51. General Economics. This is a course in economics principles and problems for the general college student. Both Terms. Daily 8. 5 Credits. Israelsen and Murray


165. Money and Banking. Critical analysis of our present monetary and banking system. First Term. Daily 10. 3 Credits. Israelsen

EDUCATION

JOHN C. CARLISLE, ELLVERT H. HINES, E. A. JACOBSEN, L. G. NOBLE, Professors; CASEEL D. BURKE, ELDON M. DRAKE, BASIL C. HANSEN, EDITH S. SHAW, Associate Professors; TERRANCE E. HATCH, Assistant Professor; PEARL S. BUDGE, JEAN FUGMIRE, THOMAS TAYLOR, Instructors.

Visiting Faculty

ROSS M. COXE, WENDELL J. HUNT, DRAYTON NUTTALL, NORMAN WAMPLER, E. L. WIGHT, LLOYD M. THEURER, MELVIN STRONG.

102. Teaching the Language Arts. A study of language development in children and its implications for class room practice. Emphasis will be placed upon these aspects of communications: listening, speaking, writing and reading. 3 credits. First session. Daily at 9. Shaw

104. Elementary School Curriculum. Familiarizes prospective elementary teachers with the nature and content of the elementary curriculum and factors that influence its development. Includes an introduction to Utah Elementary Teaching and Supplements, and considers some of the objectives, methods of instruction, teaching aids and materials, and sources of information related to the subjects of the curriculum. 3 credits. Second session. Daily at 9. Shaw

107. Teaching of Reading. Considers the objectives of the reading program, stages of reading development, skills and attitudes to be gained, the materials of instruction, and the experiences of children that contribute to achievement of the objectives of reading. 3 credits. First session. Daily at 10. Shaw

108. Social Studies in the Public School. Social responsibilities and opportunities of youth in the modern world. Emphasizes the part to be played by the school and the teacher in helping children meet problems of living. Deals with content and methods on both elementary and secondary levels. 3 credits. Second session. Daily at 10:40. Coxe

109. Methods and Materials for Teaching Elementary Science. A course designed to give practical help to elementary school teachers who
wish to teach science more effectively. Various areas of science are examined from the viewpoint of elementary school children, and related teaching techniques and materials are considered. Emphasis is placed on the construction of home-made equipment, the provision of science experiences outside the classroom, and the development of scientific attitudes. 3 credits. First session. Daily at 8.

109b. **Teaching of Arithmetic.** The course will deal with the modern viewpoints and techniques of teaching arithmetic and will provide opportunity for creating instructional materials and devices. 3 credits. Second session. Daily at 7:30.

111. **Principles of Secondary Education.** The background and status of the American Secondary school. Problems concerning desirable objections and functions are analyzed. An introduction to various type curricula and methods is included. 3 credits. StafF

113. **Principles of Guidance.** Major emphasis given to organization of guidance as a service, including individual and occupational difference, tests, measurements, and counseling. 3 credits. First session. Daily at 8.

114. **Organization and Administration.** Fundamental principles of organization and administration of schools in the American public school system with emphasis on Utah conditions. 3 credits. First session. Daily at 9.

136. **Improving Instruction in the Elementary School.** An analysis of the newer concepts of method and of the basic factors which contribute to effective learning. Motivation, problem solving, laboratory techniques, and materials of learning will receive attention. 3 credits. First session. Daily at 8.

138. **Improvement of Teaching in Secondary Schools.** Designed to meet the needs of teachers, supervisors, and administrators. Emphasis will be upon recent development in the improvement of teaching learning situations and activities from the junior high school to the junior college. 3 credits. First session. Daily at 10.

161. **Audio-Visual Aids in Education.** Studies the building of a workable program in which the newest materials and techniques are utilized. 3 credits. First session. Section 1, daily at 8. Section 2, daily at 2.

162. **Techniques and Development of Audio-Visual Aids.** This course will emphasize methods and techniques of teaching by using local resources. The field trip, the school campus, grass, leaves, soil, local factories, the airport, and so forth, can become practical visual aids for the classroom teacher. Local filmstrips, slides, photographs and charts will be utilized to demonstrate how the classroom teacher can use these local materials and facilities in teaching. For teachers in the secondary and elementary school. 3 credits. First session. Daily at 9.

179. **Improvement of Reading in High School and College.** Problems in the teaching of reading at the high school and college levels. The course is concerned with analyzing student needs, using appropriate remedial and developmental techniques, providing for individual differences, and developing basic insights for continued growth of reading efficiency. Includes laboratory-type experiences where appropriate. 3 credits. First session. Daily at 8.

182. **History of Education.** Major educational movements from early Greece to the present with emphasis on purposes, organization, instructional procedures, curriculum, etc., and their bearing on today’s education. 3 credits. Second session. Daily at 9.
205. **Reading and Conference.** Provides for individually directed study in subjects of one's special interest and the preparation. Credit arranged. First or second sessions. **Staff**

207b. **Workshop for Elementary Principals.** A two weeks program under the direction of the Northwest Elementary Principals Association. Will utilize such techniques as lectures, panels, seminars, field trips, and group and individual study in identifying and attacking the problems of the pre-service preparation and in-service growth and effectiveness of the elementary school principal. 3 credits. July 9-20. Daily 9-12 and 1-3. **Wampler**

208. **School Supervision.** The principles and practices of school supervision including the qualifications and responsibilities of the supervisor in elementary and secondary education. 3 credits. July 2-20. Daily 1 to 3. First session second three weeks. **Staff**

211. **Educational Measurements and Statistics.** Principles of measurements, tests and test construction, statistical analysis, and evaluation procedures in education. 3 credits. First session. Daily at 7. **Wilson**


215. **Curriculum Development.** An advanced course for graduate students which deals with practical problems of curriculum building at both the elementary and secondary levels. Experiences in preparing units of work will be included. For principals, supervisors, superintendents, and individuals preparing for these positions. 3 credits. First session. Daily at 8. **Strong**

217. **The Junior High School.** The course will consider problems of curriculum and teaching in the junior high school. Class members will have opportunities to work on problems of immediate concern to them. For teachers, supervisors, and administrators. 3 credits. First session. Daily at 10. **Strong**

218. **Public Relations in Education.** Objectives and techniques and media for an improved school public relations program are listed and evaluated. 3 credits. First session. Daily at 9. **Hansen**

221. **School Administration.** The work of the school administrator and the principles upon which the profession of school administration is practiced. Federal, state, and local relations to education are studied. 3 credits. First session. Daily at 1. **Hansen**

223. **Legal Aspects of School Administration.** Emphasis is given to responsibilities and function of local and district school administrators with interpretation of legal status, form, and procedure as established by statutes, legal opinions, and court decisions. 3 credits. First session. Daily at 10. **Nuttall**

237. **Problems in Secondary Education.** For graduate students in secondary education and those preparing for school administration and supervision in the junior or senior high schools. Reviews current research in areas of special interest to class members. 3 credits. First session. Daily at 10. **Hatch**

241. **Evaluation in the Elementary School.** Will consider evaluation as an integral part of the program of the modern elementary school. Evaluative methods and techniques and instruments of evaluation will receive attention. 3 credits. First session. Daily at 9. **Hunt**

245. **Problems in Elementary Education.** Consideration given those fields of elementary education that members of the class desire to investigate in order to gain modern authoritative viewpoints. Opportunity for both individual and group work. 3 credits. First session, first three weeks. Daily 1 to 3. **Burke**
263. **Foundation in Conservation Education.** This course is designed to acquaint enrollees with the importance of natural resources in our daily lives. The necessity of wise, planned use of our soil, water, forest, grasslands, and wildlife, will be discussed. Practical application for classroom teachers will be made through classroom activities, field trips, and various teaching aids. Correlation with science and social studies courses will be demonstrated. For both elementary and secondary school teachers. 3 credits. First session. Daily at 8.

267. **Introduction to Research.** An inquiry into the nature and sources of research problems with a study of underlying principles and methods of working out such problems in education. Some attention is given thesis writing as a problem related to research. 3 credits. First session. Daily at 9.

271. **Research and Thesis Writing.** Individual work in thesis writing with necessary guidance and criticism. Credit arranged. Either or both sessions.

272. **Modern Philosophies of Education.** An inquiry into the sociological, psychological and the philosophical concepts that influence the course of education. 3 credits. Second session. Daily at 9.

281. **School Finance.** The importance of finances in a school system; principles and practices involved in collecting and distributing school revenues, with special reference to conditions in Utah. 3 credits. First session. Daily at 10.

**ELECTRICAL ENGINEERING**

LARRY S. COLE, Professor and Head of Department; CLAYTON CLARK, Professor; BERTIS L. EMBRY, BRUCE O. WATKINS, Associate Professors; WILLIAM L. JONES, Assistant Professor.

Any course listed in the regular catalog will be given in the summer sessions upon petition of a sufficient number of students who may need and desire such a course.

**ENGINEERING DRAWING**

AUSTIN G. LOVELESS, Associate Professor

61. **Engineering Drawing.** The use of drafting instruments, graphic solutions, applied geometry, lettering, principles of shape description, sectioning and auxiliary views. 3 credits. 2nd session.

63. **Descriptive Geometry.** Principal and auxiliary views, points, lines and planes, developments, intersections and warped surfaces. Engineering problems relating to cut and fill, mining, geology, and industrial design, are selected. Prerequisites: E.D. 61. One lecture, two labs. 2nd session.

**ENGLISH**

KING HENDRICKS, HUBERT W. SMITH, WENDELL M. KECK, MOYLE Q. RICE, Professors; MAXWELL D. EDWARDS, THORNTON Y. BOOTH, J. LYNN MORTENSEN, Assistant Professors; L. GRANT REESE, Instructor; WILLIAM SUNDERMEYER, Visiting Professor.

Duncan, Audrey  
Head of Stenographic Bureau

Halverson, Roy L., B.S.  
Professor of Music and Education  
Chairman, Music Department

Hardy, Eugene, B.S.  
Assistant Professor of Industrial Education

* Hatch, Conrad V., B.S., M.S.  
Assistant Professor of Physical Sciences and Chemistry  
Chairman, Division of Physical Sciences

Holmer, Ralph R., Captain  
Assistant Professor of Air Science

Hruska, Thomas J., M/Sgt, USAF  
Administrative NCO

Johnson, Blaine, B.S., M.A.  
Assistant Professor of Music and Education

Johnson, Carol D., B.S., M.A.  
Instructor, Secretarial Science

Jones, Eulalia B., B.A.  
Librarian, Instructor in Education

Kelley, Ralph D., Major  
Associate Professor of Air Science

Kemppainen, Charles W., S/Sgt.  
Administrative Assistant, USAF

Kupfer, Vern K., B.S., M.S.  
Assistant Professor of Psychology and Social Science

LeBaron, George L., B.S., M.S.  
Assistant Professor of Physics and Physical Science

Lindstrom, Gaell, B.A.  
Instructor in Art  
Chairman, Art Department

Magleby, V. R., B.S.  
Assistant Professor of Agriculture and Biology

Manning, William H., A.B.  
Professor Emeritus of Music

Matthews, Darrell H., B.S.  
Assistant Professor of Animal Husbandry

Moore, Lanice, B.S., M.A.  
Assistant Professor of Foods

Nelson, Dale, B.S.  
Instructor, Journalism and English  
Chairman, Department of Public Relations

Ogden, Phil R., B.S., M.S.  
Assistant Professor of Range Management

Osborne, Bruce H., B.S.  
Instructor in Physical Education  
Athletic Coach

Petty, Cleo M., B.S.  
Assistant Professor of Physical Education  
Athletic Coach

*On Leave
FACULTY

Plumber, J. H., B.A., M.A.
Assistant Professor of English
Dean of Students

Protratz, Paul W., T/Sgt., USAF
Supply Sergeant

Reeves, Jeniel, B.A.
Instructor in Physical Education

Robinson, Max E., B.S., M.S.
Assistant Professor of Range Management

Rowley, Richard M., B.S., M.A.
Assistant Professor of English and Speech

Sargent, David L., B.S., M.S.
Professor Emeritus of Biology

Schmutz, Clarence, B.S., M.A.
Associate Professor of Agricultural Economics
Chairman, Division of Agriculture

Stephenson, A. W., B.S., M.B.A.
Associate Professor of Commerce
Chairman, Division of Commerce

Stevens, Raymond A., CWO, USAF
Assistant Professor of Air Science

Tippets, Twain, B.A., M.A.
Assistant Professor of English and Speech
Chairman, Division of English

Wahlquist, A. Glenn, B.S., M.S.
Assistant Professor of Agronomy and Biology
Chairman, Division of Biological Science

Winters, Jayne L., B.A.
Instructor in Textiles
The elementary teachers of Iron County School District serve as critic teachers in the Division of Education.

OTHER MEMBERS OF STAFF

Matheson, Edward G., Superintendent of Heat Plant and Grounds
Cox, R. Reid, Superintendent of Maintenance

Rigby, Eldro, Manager of Campus Farm

Roberts, Joseph, Superintendent of Buildings

Robb, Ward S., Registrar, and Veterans’ Coordinator

ACCREDITED INSTRUCTORS COOPERATING WITH C. S. U.

Felt, Paul E., Director, L. D. S. Institute of Religion

Helland, Eugene, Director, C.S.U. Band

Johnson, Mrs. Blaine, Special Instructor in Music

Jones, Bernella, Special Instructor in Music

Thorley, Max J., Special Instructor in Music
Forestry Summer Camp

Director, Associate Professor RAYMOND R. MOORE

The School of Forest, Range and Wildlife Management owns or controls 3,000 acres of forest and range land approximately 25 miles from the campus within the Cache National Forest, where summer camp facilities are established. Eight weeks of field instruction is given at the Tony Grove Summer Camp and is required for graduation of all students in the School of Forest, Range and Wildlife Management. Attendance at this camp is required between the sophomore and junior year and is prerequisite to the technical courses of the junior and senior years.

There are four instruction courses offered at summer camp with a total of nine credits, and students in the School of Forest, Range and Wildlife Management are required to take all four courses. This summer camp opens Monday, June 4.

96. Surveying. Practical field problems in surveying methods commonly employed in forest, range and wildlife management. Lab. fee $5.00. Summer Camp. 3 credits. Staff

97. Forest Practice. Field studies in inventories, successional stages and growth of stands of trees. Study of forest soils and related land uses. Lab. fee $5.00. Summer Camp. 2 credits. Staff

98. Range Practice. Field practice in the problems of range land analysis and correlation of land uses. Lab. fee $5.00. Summer Camp. 2 credits. Staff

99. Wildlife Practice. Integrated studies of wildlife populations in relation to other forms of life and to other land uses. Lab. fee $5.00. Summer Camp. 2 credits. Staff

Conservation 100. Conservation Education in Public Schools. A basic course dealing with problems of conservation and use of natural resources with especial emphasis upon soil, trees, forage plants, and wildlife. Teaching methodology will be stressed. 2-3 field trips. 3 credits, first term. S. Ross Tocher

GEOLOGY

CLYDE T. HARDY, Associate Professor

1. Introductory Physical Geology. For students in non-science areas. First session. 5 credits. 8-10 daily. Hardy

HISTORY

M. R. MERRILL, Professor and Head of the Department; J. DUNCAN BRITE, Professor; S. GEORGE ELLSWORTH, Associate Professor.

105. Greek History. Greek civilization to the Roman conquest, 146 B.C. Emphasizes political, social, intellectual and artistic development and contributions. First session. 3 credits. Daily 9. Brite

111. Medieval Civilization. Social, political, economic, and religious institutions in Western Europe from the Fifth Century A.D. to the completion of the Medieval synthesis with Dante. The approach will be through the lives and thoughts of great personalities and the development of major institutions. Second session. 3 credits. Daily 9. Ellsworth
137. History of Utah. Geography and native peoples; early explorations; the Mormon migration, settlement and colonization of the Mountain West; social, political, and economic development of Utah in the territorial period with some consideration of developments since statehood. Second session. 3 credits. Daily 10:40. Ellsworth

176. History of the Far East. Recent and contemporary international relations in East Asia. First session. 3 credits. Daily 8. Brite

203. Readings and Conferences. Either session, with consent of instructor. Credit arranged. Staff

298. Directed Research. Either session, with consent of instructor. Credit arranged. Staff

HOME ECONOMICS EDUCATION

MARGARET MERKLEY, Instructor

117S. Current Developments in Home Economics Education. A study of the newer developments in the field of homemaking at the secondary level. Class is planned to serve advanced undergraduate students. Students may arrange with instructor to substitute this class for Home Economics Education 120. Prerequisite or parallel: Psychology 102. 3 credits. Merkley

199S. Special Problems in Home Economics Education. Independent study under direction of a problem in home economics education developed around individual needs of students. 1-2 credits. Time arranged. First session. Merkley

210S. Research for Master’s Thesis. Time and credit arranged. Merkley

195S. Workshop in Home Economics Education for Secondary Schools. The workshop will deal with aspects of curriculum and methods in teaching homemaking in secondary schools. Considerable time is devoted to planning and developing units of work, teaching materials, techniques. July 1 to July 20. 8-10 daily. 4 credits. Staff

HORTICULTURE

L. H. POLLARD, Professor; ALVIN R. HAMSON, Associate Professor; ROBERT A. NORTON, ROBERT K. GERBER, Assistant Professors; OTTO RIETHMANN, Instructor in Floriculture.

156. Special Problems. Time arranged. Credit arranged. Staff

202. Research and Thesis. Time arranged. Credit arranged. Staff

215. Special Problems. Time arranged. Credit arranged. Staff

HOUSEHOLD ADMINISTRATION

DOROTHY HATFIELD, Assistant Professor

150. Home Management House. Residence students are directed in practical management of home experiences. Required of all students majoring in the School of Home and Family Living. Prerequisites: HA 149, F&N 24 and 25. Limited to 6 students. First session. Time arranged. 4 credits. Hatfield
INDUSTRIAL EDUCATION

WILLIAM E. MORTIMER, Professor; CHARLES W. HAILES, C. D. McBRIDE, CHARLES N. MERKLEY, LYNN WILLEY, Assistant Professors.

Visiting Faculty

DR. ROBERT D. BROWN

13. Driver Training. Designed for those who desire to learn to drive an automobile correctly and safely. Includes study of traffic rules and regulations essential to sound driving; physical qualifications and tests of drivers; general mechanics; operation, and servicing of the automobile; highway safety engineering; and actual supervised training in dual-control cars. 2 credits. First session. MWF. 3 Lab. Arranged. T-7. WILLEY

61. Fundamentals of Woodwork. Study and practice in the use and care of hand tools including the sharpening of tools, and a study of the fundamental hand tool processes. An introduction to the use of common woodworking machines is included. Practice in wood construction is provided through the building of projects. 3 credits. First session. Daily 7-10. MERKLEY

111. The General Shop. Comprehensive study of the types of "General Shop," its advantages and applications; content and organization of subject matter; methods of teaching and shop plans. General shop projects, shop plans and new trends in content and equipment are given special consideration. Prerequisite: I.E. 107. 3 credits. First session. Daily 8. HAILES

113. Driver Education and Traffic Safety. To acquaint prospective teachers and others with available instructional materials in the field of driver education and the latest methods of presenting these materials in the classroom and on the road. Supervised practice is arranged for each student. 3 credits. First session. MWF 2-4. Lab arranged. T17. WILLEY

141. Art Metalwork. Laboratory work in embossing, sinking, engraving, etching, and metal spinning operations. Work is done in copper, brass, and aluminum on projects designed for utility and artistic merit. Prerequisites: Art 2, Machine Tool Technology. 3 credits. Second session. Daily 9-12 plus 1 hour arranged. HAILES

167. Special Problems in Industrial Education. For qualified students majoring in Industrial Education who wish to do specialized work not covered by other courses. Time and credit arranged. Section 1, first session; Section 2, second session. HAILES

172. Cabinet Work. Design and construction of furniture and cabinets, including a study of woods suitable for furniture and cabinet making, wood turning, inlaying, and types of wood finishing. Projects are built which include inlaying and overlaying. Prerequisite: I.E. 63. 3 credits. Second session. Daily 9-12 plus 1 hour arranged. MERKLEY

174. Art Woodwork. Decorative means that craftsmen employ for artistic appeal. Art turning, chip carving, band saw shaping, scrollng, twisted turning, inlaying and overlaying. Consideration is given decorative effects obtained by two-tone staining, bright colored stains and lacquers, burning and fine polishing. Prerequisite: I.E. 63. 3 credits. First session. Daily 1-4. MERKLEY

180. Industrial Arts for Elementary Schools. Objectives and theory of Industrial Arts in the elementary school. Suitable instructional content will be presented for each grade level and methods of teaching and organizing instructional materials will be carefully considered. Instruction is
given on the use of tools and materials in the shop where projects suitable for the elementary school will be constructed from wood, metal, and plastic. 3 credits. First session. Daily 1-3. Brown

259. Planning and Equipping School Shops. Principles and practice in planning and equipping modern industrial arts laboratories and trade and industrial shops. For administrators, supervisors, directors, architects, and others interested in planning new or remodeling existing facilities. Students study basic plans of laboratory or shop design and arrangements of equipment, and apply these principles to solution of their particular problems. Prerequisite: I.E. 110. 3 credits. First session. Daily 9. Brown


267. Reading and Conference. Provides for study in advanced and specialized problems in Industrial Education. Problems are selected with approval of the department head; investigation is carried on under direction of the major professor. Time and credit arranged. Section 1, first session; Section 2, second session. Hailes

270. Seminar in Industrial Education. Gives opportunity for investigation and reporting of individual problems. 2 credits. Second session. Daily 7:30 a.m. Hailes

271. Research and Thesis Writing. Provides for individual work in thesis writing in industrial education. The thesis is written in accordance with standard thesis requirements and under the direction of the major professor. Time and credit arranged. Hailes

290. Advanced Studies Under Plan "B." Special library and seminar problems or studies designed to meet requirements for reports under plan "B." 2-3 credits. Time arranged. Hailes

LANDSCAPE ARCHITECTURE

LAVAL S. MORRIS, Professor; KENJI SHIZAWA, Assistant Professor.

135. Travel Course. A major field trip to examine a variety of projects in planning and design. Students are required to take this course at least twice during their training. 3 credits. Staff

Details of the trip are being arranged by the Department of Landscape Architecture and students are advised to call at the departmental office before registration.

LIBRARY SCIENCE

MILTON ABRAMS, Associate Professor and Chairman; RUSSELL DAVIS, JAMES TOLMAN, Assistant Professors; ANN SMITH, Instructor.

Library Science may be used as a teaching minor in connection with a major in Education. This course prepares the student for a librarian certificate as issued by Utah State Board of Education and for a position as school librarian on the elementary or secondary level. A teaching minor of not fewer than 18 credits must be selected from Library Science courses.

The courses required for an Elementary library certificate are English 122, L.S. 120, and L.S. 150; for a high school library certificate: L.S. 120, L.S. 150, and L.S. 155.
The following elective courses may be used to satisfy the requirements of the Northwest Association of Secondary and Higher School Standards of 30 hours for a library position in high schools of more than 300 students. Education 161, 107; English 122; Speech 118.

1. **Introduction to Librarianship.** A preview of the library profession, its philosophy and requirements. **Davis - Smith**

50. **Reference Materials.** Basic reference tools and an introduction to the library. **Davis**

100. **Advanced Reference and Bibliography.** Principal reference materials in the major subject fields. Methods of bibliography. **Prerequisite Library Science 50. Tolman**

113. **Book Repair and Binding.** Limited to Library Science minors. **Beutler**

120. **Cataloging and Classification.** Dewey decimal system of arranging books in an orderly fashion and the methods of preparing a library card catalog. **Davis**

150. **Library Administration.** Procedures and techniques of library operation. **Davis**

155. **Book Selection.** The materials used and records required in ordering books. **Tolman**

160. **Art of the Book.** The history of bookmaking, printing, and libraries **Tolman**

170. **Readings and Conference.** Time and credit arranged. Any quarter. Limited to Library Science minors. Instructors approval required. **Staff**

### MATHEMATICS

NEVILLE HUNSAKER, Professor of Mathematics

34. **Introduction to College Algebra.** Prerequisite: One year of high school algebra. Students who have had more than one year of high school algebra are not given college credit for mathematics 34. **First session. Hunsaker**

50. **Descriptive Astronomy.** First session. 3 credits. **Hunsaker**

### MODERN LANGUAGE AND LATIN

GEORGE A. MEYER, Professor; THELMA FOGELBERG, MARION L. NIELSEN, Associate Professors; ALDYTH THAIN, JESSE G. NELSON, GORDON PORTER, Assistant Professors.

#### French

1. **Elementary French.** 5 credits. Daily 9 and 1. **First session. Staff**

106. **Selective Reading.** Arr. **Staff**

#### German

1. **Elementary German.** 5 credits. Daily 9 and 1. **First session. Staff**

106. **Selective Reading.** Arr. **Staff**
Spanish

1. Elementary Spanish. 5 credits. Daily 9 and 1. First session.

106. Selective Reading. Arr.
M.L.B. English for Foreign Students. Basic training in the structure of the language, with exercises and drills for increasing comprehension and ability to write accurately. It is required of all foreign students who have failed to make required scores on English proficiency examinations on entering College. It may be used as an elective by others. 3 credits. Daily 10.

DIVISION OF MUSIC

WILLIAM S. NAYLOR, WALTER WELTI, Professors; A. L. Dittm'er, IRVING WASSERMANN, Associate Professors; GEORGE PAHTZ, Instructor; WILLIS BECKETT, MAX DALBY, MARIE THORNE JEPPSON, HAROLD MEALY, CHARENCE E. SAWHILL, EDWARD STEUERMANN, Visiting Instructors.

150. Elementary School Music for Classroom Teachers. Applying of music to the elementary classroom. Problems, methods and materials in singing; rhythm, creative music, reading and appreciation. 2 credits. First session.

113. History of Music. The development of music from antiquity through the work of Bach and Handel. 3 credits.

133. Chorus. The chorus will provide the singing ensemble for the Cache Valley centennial. Additional time as available will be used in standard repertorie. 1 credit. First session.

201. Seminar in Theory. A graduate course dealing with the application of skills in theory to the teaching situation. 3 credits. First session.

154A. Creative Music Handicrafts. A workshop class in the construction and study of easily played musical instruments from those of the rhythm band to those of adult appeal. This work is suitable to application in elementary grades and in junior high school. Work may be on various prepared models or a development of original ideas. No previous musical training is necessary. 3 credits. First session. Daily, 2 periods.

155A. Creative Music Handicrafts. Same as 154A. This may be a continuation of the course for those registered during the first session, or new students may register at the beginning of the second session. 3 credits. Second session. Daily 3 periods.

156A. Creative Music. Methods and devices for a vital approach to music in the elementary class room, included singing, listening, and creative activities; a study of materials, teaching aids, and basic technics in arranging music; designed particularly for elementary teachers who have not had training in music. 3 credits. Second session. Daily 1½ periods.

157A. Application and Methods in the Use of Simple and Informal Musical Instruments. The effective use of simple rhythm, pre-band and informal string instruments, including instruments made in 154A above; methods, application to reading, to solo and ensemble, and to accompaniment situations; arranging, program planning, correlation with general curriculum. No previous training is necessary. 3 credits. July 2-20. Daily 2 period.
SUMMER MUSIC CAMP. Two weeks, June 18-29.

Walter Welti, Director.

The camp serves two functions. It offers to high school students the opportunity to broaden and deepen their musical talents in an atmosphere of friendly achievement and healthy recreation. It provides teachers and supervisors of music an opportunity to observe expert instructors at work with high school groups while pursuing advanced work in their respective fields.

For High School Students.

30A. Clinic Band. All members of the band will register for this course. High school graduates who meet college entrance requirements may receive one hour of college credit upon payment of registration fee. Daily 1-3. M. Dalby, Sawhill

33A. Clinic Chorus. All members of the chorus will register for this course. It is recommended as a second ensemble for all instrumentalists who are not in both band and orchestra. Credit given as for music 30A. Daily 10-12. Beckett

25A. Clinic Orchestra. All members of the orchestra will register for this course. Credit given as for music 30A. Daily 8-10. Mealy

7A. Fundamentals of Music. The notation of pitch and rhythm; terminology of music; scales, key signatures; basic ear training. Especially recommended to all students who expect to continue music study at the college level. Daily 3. Mealy

For Visiting Teachers and Supervisors 253A—Advanced Band Methods.


221A. Woodwind Clinic. An intensive study of the woodwind family with recommended methods of teaching. One credit. ......daily, June 18-29. Max Dalby

Piano Festival—Two days, June 20-21.

First day: Preliminary screening of student pianists. Recital by Mr. Steuermann.

Second day: Final screening and student recital. Edward Steuermann

Master Class for Piano Teachers and Advanced Students. Three weeks, July 2 to 20. Irving Wasserman

180A. Participants (limited to 10 students). Two lessons per week for the three weeks. These lessons are semi-private. While the student enjoys the concentrated attention of the teacher, the class is present as auditors, thus receiving both the advantages offered by the broad repertoire covered and the pedagogical insights gained by observing the work of a master teacher. 2 hours daily. 2 credits. Additional special fee $15.00.

180B. Auditors. Observation of the work of 180A above. Of special value to teachers. 2 hours daily. 1½ credits.

116. Literature of the Piano. A consideration of selected master
works for the piano and its precursors, from J. S. Bach to D. Siarlotti through the works of Beethoven. 2 credits. 1½ periods daily.

Wasserman

Private Lessons in Music. Private lessons are available in piano, voice, organ, woodwind and brass instruments. Qualified students may receive undergraduate or graduate credit if the course is taken under departmental sanctions.

Major Piano. See master class for piano teachers and advanced students.

Secondary Piano. 92A, 93A.
Major Organ. 62A, 63A, 162A, 163A.
Major Voice. 64A, 65A, 164A, 165A.
Woodwinds. 92A, 93A.
Major Brass Instruments. 72A, 73A, 172A, 173A, Minor Brass 94A, 95A.
Major String Instruments. 74A, 75A, 174A, 175A, Minor String 96A, 97A.

POLITICAL SCIENCE

M. R. MERRILL, Professor and Head of Department
M. JUDD HARMON and EDWIN L. PETERSON, Assistant Professors.


145. History of Political Thought. This course covers political thought from its beginnings in the Greek period to Machiavelli. First session. 3 credits. Daily 9. Harmon

170. Geopolitics. The basic principles of this subject as developed in the recent past and present. First session. 3 credits. Daily 10. Peterson

203. Readings and Conferences. For senior and graduate students. Time and credit arranged.

211. Thesis. For graduate students who are preparing a master’s degree thesis. Time and credit arranged.

PHYSICAL EDUCATION, RECREATION, AND HEALTH

H. B. HUNSAKER, Professor and Head of Department; J. M. PEASE, LOIS DOWNS, Associate Professors; DALE NELSON, RAY WATTERS, PAULINE FULLER, Assistant Professors; NED STRINGHAM, ARTHUR MENDINI, Instructors.

Visiting Faculty

JOHN COOPER, Associate Professor of Education and Physical Education, University of Southern California, Los Angeles
Professional Courses

First Session

120a. Football Coaching School. 1 credit. Daily A.M. June 4 to June 11.
120b. Basketball Coaching School. 1 credit. Daily P.M. June 4 to June 11.

147a. Dance Technique. A dance workshop for teachers and students is scheduled for the first three weeks of the summer session. Theory and background material will be discussed but the major emphasis will be on modern dance techniques. Training the body as an instrument of expression in terms of dance. Fundamentals of movement, analysis and practice of action in space, time, and dynamics. June 11 to 29. 2 credits.

147b. Dance Composition. A course designed to give training and experience in dance composition. Development of ideas, creation of movement themes, analysis of style and construction of dance form. For high school students, college students or anyone interested in modern dance. 2 credits.

153. Leadership in Dancing. An advanced class in dance leadership to meet the needs of students who expect to teach social or square dancing in schools or churches. One quarter of social or square dancing should be taken as a prerequisite. Emphasis on methods of teaching group dancing and creation of original routines. 2 credits.


157. Field Work in Recreation. (Prerequisite approval of department head.) This course is designed to give practical experience in conducting recreational programs at playgrounds and the campus under the supervision of the college recreation staff and the director of the program to which the individual is assigned. Students will be expected to plan and conduct programs in a variety of activities applying principles, methods, and techniques gained in his prerequisite work. Credits and time arranged.

207. Seminar in Motor Learning. Discussion and experimentation in learning motor skills with practical application for the physical education teacher and coach. 3 credits. G30. 10:00.

208. Problems in the Analysis of Athletic Performance. Various types of Athletic Performance are critically analyzed on the basis of accepted principles. Practical application is made for the teacher and coach. 3 credits. G30. 8:00.

250. Reading and Conference. A course provided for individual directed study in physical education. Time and credit arranged.

271. Research and Thesis Writing. Provides for individual work in thesis writing with the necessary guidance and criticism. Time and credit arranged.

277S. Physical Education Activities for Elementary Schools. A course designed to give the theory and practice of physical education for the
elementary grades. The various areas of elementary physical education programs will be studied emphasizing physical education responsibility to the total education curriculum. 3 credits. MG. Daily at 9. Downs
295. Problems in Physical Education. 3 credits. Seminar. 9:00. Hunsaker

Activity Courses

First Session

25. Tennis (Elem.) Men and Women. 1 credit. Courts.  
   Section 1, Daily at 10  
   Section 2, Daily at 1  
   Staff

52. Swimming (Elem.) Men and Women. 1 credit.  
   Section 1, daily at 2  
   Nelson

61. Archery. 1 credit. Section 1, daily at 9.  
   Downs

73. Golf (Elem.) Men and Women. 1 credit. Section 1.  
   Staff

168. Social and Square Dancing. 1 credit. MG.  
   Section 1, daily at 2.  
   Fuller

Professional Courses

Second Session

157. Field Work in Recreation. (Prerequisite approval of department head.) This course is designed to give practical experience in conducting recreational programs at playgrounds and campus under the supervision of the college recreation staff and the director of the program to which the individual is assigned. Students will be expected to plan and conduct programs in a variety of activities applying principles, methods, and techniques gained in his prerequisite work. Credits and time arranged.  
   Staff

   Hunsaker

197. Facilities and Equipment for Physical Education and Recreation. A study of the design and construction of indoor and outdoor facilities necessary for the conduct of extensive programs of physical education and recreation. Consideration also will be given to the purchase, care, and repair of equipment utilized in the program. 3 credits. G27. Daily at 1.  
   Staff

250. Reading and Conference. A course providing for individual directed study in physical education. Time and credit arranged.  
   Staff

271. Research and Thesis Writing. Provides for individual work in thesis writing with the necessary guidance and criticism. Time and credit arranged.  
   Staff

299. Physical Education Seminar. Opportunity for investigation and report of individual problems and for group discussion and criticism on these reports. 3 credits. 9:00 daily.  
   Staff

Activity Courses

Second Session

25. Tennis (Elem.) Men and Women. 1 credit. Courts.  
   Section 1, daily at 7:30.  
   Staff
52. Swimming (Elem.) Men and Women. 1 credit. Pool. Section 1, daily at 9.

73. Golf (Elem.) Men and Women. 1 credit. Section 1, daily at 10:40.

**PHYSICS**

ROLLAND PERRY, Professor

Physics 20. Mechanics and Molecular Physics. 5 credits, both sessions. Daily, 8. Lab. MW 1 to 3. Room W 108. Perry


A non-mathematical treatment of physical principles and concepts, with emphasis on their importance in the modern way of life. Intended specifically for Teachers and others with limited training in science.

**PHYSIOLOGY**

ELDON J. GARDNER, Professor

THOMAS L. BAHLER, Associate Professor

4. General Physiology. For the student who desires a survey of physiology and who is not planning advanced intensive study in the field. It deals with the functioning of the human body with emphasis upon broad general biological principles. Second session. 5 credits. Daily 9-12. Gunnell

200. Special Problems, Physiology. The student who wishes to engage in some line of original research and is qualified to do so may elect and study some topic of Physiology. Open to undergraduates only by special arrangement with the department. Either or both sessions. Credit arranged.

260. Research and Thesis. Research connected with problem undertaken for partial fulfillment of requirement for an advanced degree. Either or both sessions. Time and credit arranged. Staff

**POULTRY**

C. L. DRAPER, Professor

1. General Poultry. Breeds, judging, incubation, brooding, feeding, marketing, designed to meet the needs of the students wishing a general knowledge of the poultry industry and the problems of production, and a foundation upon which other courses are built. Three credits. Daily at 10. First session. Staff

125. Special Problems. Time and credit arranged. Staff


214. Research Problems in Poultry Production. Time and credit arranged. First session. Draper

**PSYCHOLOGY**

ARDEN FRANDSEN, Professor; DAVID STONE, Associate Professor; HEBER SHARP, Associate Professor.

Psy. 105. Child Psychology and Development. The roles of matura-


and emotional development in children from birth to adolescence. Generalizations with respect to dynamics of personality, individual differences, emotions, motivation, how children learn, observe, and think are applied to understanding and guiding children’s behavior in home, school, and community. Opportunity for observation and applications of psychological methods of child study in the school is provided. Prerequisite: General Psychology. 3 credits. First session. 9. Frandsen

112. Application of Statistics to Education and Psychology. Elementary study of statistical procedures used in handling test scores in schools and of the concepts needed to read current educational and psychological literature. May be taken by last quarter sophomores who have taken General Psychology. 3 credits. Second session. 10:40. Stone

123. Psychology of Exceptional Children. The development and behavior characteristics of exceptional children and of the education, home management, social control, and psychological treatment, suited to their needs. The groups included are the mentally deficient, physically handicapped, the gifted, and children having serious personality and conduct problems. 3 credits. First session. 7. Sharp

183. Theory and Techniques of Counseling. Principles and techniques of counseling students on problems of curriculum planning and vocational choice, on problems of improving methods of study, and on problems of emotional and social adjustment will be studied. Applications will be made also to administrative, supervisory teaching, and other interpersonal relations situations. 3 credits. First session. 8. Sharp

202. Psychology of Adolescence. Growth, psychological and social characteristics and development, educational and guidance needs, and adjustment problems of adolescents as met in schools, homes, and communities. Prerequisite: Educational Psych. (This course and the Psychology of Learning provide training in advanced educational psychology for graduate students in secondary education and in psychology.) 3 credits. Second session. 9. Stone

208. Learning in the Elementary School. Advanced study, from the points of view of learning theory and experiments in educational and child psychology, of the aims, curriculum, methods of teaching, provisions for individual differences, and evaluation of outcomes in the elementary school. Intended especially for supervisors, principals, and teachers of the elementary school interested in graduate study. Thesis topics are suggested. Provision is also made for undergraduate students who need the course Psycho. 108 for certification. 3 credits. First session. 10.

*213. Organization and Administration of Guidance. Development and evaluation of plans for utilization of school and community resources in guidance. 3 credits. Frandsen

214. Independent Readings in Psychology. This course provides opportunity for independent readings and conferences on topics selected by the student. 2 credits. Both sessions. Arranged. Himes

217. Research for Master’s Thesis in Psychology. Credit and time arranged with the approval of a member of the Department of Psychology. Credits arranged. Both sessions. Arranged. Staff

281. Psychometrics Applied to Guidance. For school counselors, personnel workers, social workers, and clinical psychologists. Consideration is given selection, evaluation, administration, interpretation, and practical uses of tests of intelligence, aptitudes, interests, personality and quality of personal and social adjustment. Prerequisites: General Psychology and Elementary Statistics. For seniors or graduate students. 5 credits. First session. 1-3. Wilson
SECRETARIAL SCIENCE

INA DOTY, Associate Professor; W. V. TEZAK, Instructor

41. First-Quarter Type. For students who have had no previous training in typewriting. Designed to develop a thorough knowledge of the keyboard and machine parts. Personal-use typing problems, centering, letter styles. Daily 8. 1 credit. First session. Tezak

41. First-Quarter Type (continuation). A class designed for students who have taken SS 41 during first session. Second session. Daily 7:30. 1 credit. Tezak


94. Burroughs Calculator. Practice in addition, multiplication, subtraction, and division on Burroughs calculators and the application of the machine to various business computations such as percentages, discounts, prorating, decimal equivalents, and constants. First session. Daily 8. 2 credits. Doty


SOCIOLOGY

R. WELLING ROSKELLEY, Professor; THEREL R. BLACK, Assistant Professor; WILLIAM A. DEHART, Assistant Professor.

Visiting Faculty

PAUL H. LANDIS, THOMAS F. O’DEA

70. Introductory Sociology. Offered for students in all schools and departments of the college. Emphasis is placed upon developing the student’s understanding of the social world about him, and how his social experience contributes to his personality development. Soc. 10 or 70 is a prerequisite for all Upper Division classes. Second session. 5 credits. Daily 9:00 to 12. Black

141. Rural Community Organization and Leadership. Analysis of forces and procedures at work in developing community organization, with special emphasis on techniques of training teachers to help make the community more effective. First session. 3 credits. Daily 9. Roskelley

165. Youth and the Modern World. Transition of youth into a changing adult society. First session. Daily 10. 3 credits. Landis


207. Graduate Seminar. Short subjects within the field of Sociology and pertinent to but not available in regular courses are selected for study. Second session. 3 credits. Daily 7:30. Roskelley

275. American Civilization. Analysis of selected problems in American civilization patterns, values, directional change, programs of control and guidance. First session. 3 credits. Time arranged. O'Dea

SOCIAL WORK

180. Group Relations and Group Dynamics. Analysis of group and intergroup relations and processes. Methods of group work, leadership, and group dynamics are emphasized. Second session. 3 credits. Daily 7:30. Dehart

SPEECH

CHESTER J. MYERS, REX E. ROBINSON, Professors; BURRELL F. HANSEN, Associate Professor; GWENDELA THORNLEY, PARLEY W. NEWMAN, Assistant Professors.

4s. Principles of Reading. Effective oral and silent reading of literary selections. A preparatory course for understanding and appreciation of the printed page. Practice material includes both standard literature and reading matter. 3 credits. Daily 9. Second session. Thornley

5s. Extempore Speech. Designed to meet the specific needs of professional people in the practice of their professions. Basic principles of effective speaking, with emphasis on composition and delivery of the forms of address of greatest interest to those for whom the course is provided. 3 credits. Daily 10. Second session. Thornley

12. Individual Problems. Individual attention given in private to particular needs of the student in an effort to eliminate personal defects, develop skill, and solve individual speech problems. Recommended for everyone needing individual speech instruction, and to all speech majors. Special fee. Either session. Time and credit arranged. Staff

82s. Radio Speech. Analysis and development of the speech skills and speech forms as applied to radio. Development of acceptable standards of voice and articulation for radio presentation is emphasized. Effective organization and presentation of the various speech types utilized on the air-announcements, talks, program continuities, interview roundtables are included. 3 credits. Daily 9. First session. Hansen

112. Private Instruction. Individual attention given in private to particular needs of the student in an effort to eliminate personal defects, develop skill, and solve individual speech training and to all those who are majoring in speech. Special fee. Time and credit arranged. Staff

118s. Story Telling. The story as an educational factor; analysis and classification of typical stories with reference to each period of the child's development. Study of sources, adaptation of material, and actual practice in story telling. Consideration is given to stories of western pioneer life. The work is designed to meet the needs of student teacher, recreational leader, church activity leader, librarian, and parent. 3 credits. Daily 10. First session. Myers

124s. Oral Interpretation. Various literary forms are studied for platform presentation. The mastering of significant selections from great masters. Reading from manuscript and from memory. 3 credits. First session. Daily 9. Myers
184. Educational Broadcasting. Study and practice in the preparation and broadcasting of educational programs for children and adults. Designed to acquaint teachers, extension agents, civic workers, and others engaged in public informational activities with the broadcast services. 3 credits. Daily 10.

Hansen

186. Radio and Television Training. Enrollment limited to students qualified by training and ability for actual broadcasting experience in a station. Students so qualified are allowed to register for from 3 to 5 credits. Students serve an apprenticeship under direction of the station staff in executing duties expected of a regular staff employee. Students render three hours service per week broadcasting for each registered hour of credit. Time and credit arranged.

Hansen

190. Problems in Speech. Especially selected work, individually assigned, handled, and directed in consultation with the student. Special speech problems of merit and of mutual interest to student and instructor are investigated and reported upon in this course. Consult the instructor for permission to register. Credit and time arranged.

Staff


Staff

201. Thesis. Prerequisite: Graduate standing. Either session. Time and credit arranged.

Staff

VETERINARY SCIENCE

M. L. MINER, Professor; LeGRANDE SHUPE, Associate Professor; ROYAL A. BAGLEY, JOSEPH L. THORNE, Assistant Professors.

50. Artificial Insemination of Cattle. Outlined for training students in artificial insemination of cattle and to train technicians for doing insemination in the Artificial Breeding Associations in the State. Fulfills the requirements for the qualifications necessary for the student to be eligible to take the State Board Examination. 3 credits. Daily 8 to 5. June 4-16.

First session.

Shupe and Thorne

120. Animal Hygiene. Daily 8-9; Lab. T. 2-5. 4 credits. First session.

Miner

ZOLOGY

ELDON J. GARDNER, Professor; MERRILL H. GUNNELL, GENE H. LINFORD, Assistant Professors.

1. Principles of Biology. Basic principles of life as illustrated in plants and animals, with emphasis on concepts of fundamental importance, including organization of living things, energy relationships, growth, relation to environment, kinds of living things, reproduction, development, inheritance, and evolution. For lower division students, except those who elect Botany 24, 25 or Zoology 2 or 3 and 4. 5 credits. Daily 7-9. First session.

Gunnell

123. Natural History of Animals. Teachers and other students of nature will receive help in learning the names and distribution of birds, mammals, frogs, reptiles, fishes, insects, etc., in this course; also interesting and useful facts concerning their habits, homes and uses to man. Methods and materials for teaching nature study and biology in the elementary
and secondary schools will be considered, including such procedures as the collection and preparation of specimens for study, display and storage, using homemade or moderately priced equipment. 3 credits. First session. Daily 1, with one or two short field trips per week to be arranged.

- 201. Special Problems, Zoology. The student who wishes to engage in some line of original research and is qualified to do so may elect and study some topic of Zoology. Open to undergraduates only by special arrangement with the department. Either or both sessions. Credit and time arranged.


APPLICATION FOR SUMMER SESSION HOUSING

Utah State Agricultural College

Instructions: Print or use typewriter. A deposit of $5.00 for dormitory or $10.00 for apartment accommodations must accompany this application if you wish a place reserved. In the event that you are unable to come, notify us by June 8 and a refund will be granted.

Applicant's full name.................................................. Sex..... Date..............

Present Address ..................................................................................................................

Applicant's year in college................. Age........ Marital Status..............

If married, state number in family group..........................................................

Dates of period for which applying: From..................................................19........ to .................................................................19........

Housing desired 1st choice.................. 2nd.......................... 3rd..........................

Check for $5 or $10 enclosed.................. Money order enclosed..........................

I am planning to attend and will send deposit later. ..........................

I plan to arrive on (date) ..................................................................................

Mail to: Coordinator, Student Housing
Utah State Agricultural College
Logan, Utah

Registration procedures at the College are made more convenient for all concerned if the student submits an application in advance. Please send in the form below at your convenience.
U.S.A.C. REQUEST FOR REGISTRATION MATERIALS

Date

To the Registrar:

I am tentatively planning to enroll in the 1956 Summer Quarter. Please prepare registration materials for me. I expect to attend the session beginning

(Larger, heavier lined boxes below are for the use of the IBM Department. Smaller lighter, lined boxes are for the convenience of students in checking answers.

Print name as it appears on birth certificate, or passport, if new student. If former student, as it appears on student identification card. If your name is not printed correctly, credit earned may not be properly posted.

Student No. ............................................

Last First Middle

Prepared at U.S.A.C. (Yes ☐) (No ☐) (Res. ☐) (Ext. ☐) (Corr. ☐)

Year Entry

Last quarter and year First quarter and year

Sex Ct

Citizen of which country?

Religious Preference

Rel. n.f.r.

Year Birth

Date of birth

High School last attended

City and State

High School last attended

Other Colleges attended with location

Adm State or Co. High School College

Permanent Address

Street City State Phone No.

Logan Address

Street City State Phone No.

Marital Status (Single ☐) (Married ☐). Have you ever enrolled under any other name (i.e. Maiden Name) (Yes ☐) (No ☐). If so, give name previously enrolled under

Last First Middle
Education - Vacation in the heart of the scenic west