8-30-2023

Curriculum Subcommittee Agenda September 7, 2023

Utah State University

Utah State University

CURRICULUM SUBCOMMITTEE
Chad Simon, Chair

September 7, 2023
2:00 – 3:00 p.m.
Old Main-Champ Hall
Zoom (Statewide)

AGENDA

Approval of Minutes – *April 6, 2023*

Program Proposals
Request from the Department of Nutrition, Dietetics and Food Sciences in the College of Agriculture and Applied Sciences to offer a Chocolate Science Certificate of Proficiency.

Request from the Department of Nutrition, Dietetics and Food Sciences in the College of Agriculture and Applied Sciences to establish the Student Nutrition Access Center.

Request from the Department of Technology, Design and Technical Education in the College of Agriculture and Applied Sciences to restructure the Accounting Practices Certificate of Completion.

Requestion from the Department of Technology, Design and Technical Education in the College of Agriculture and Applied Sciences to offer an Engineering Technology AAS.

Request form the Department of Technology, Design and Technical Education in the College of Agriculture and Applied Sciences to offer an Engineering Bachelor of Applied Science.

Request from the Department of Geosciences in the College of Science to change the name of the Geology-Geo Workforce Emphasis (BA | BS) to Geology-Professional Emphasis (BA | BS).

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to offer a Marine Science Minor.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Ecology Specialization in the Master of Science.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Ecology Specialization in the PhD program.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Hydrology Specialization in the Master of Science.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Hydrology Specialization in the PhD program.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Management Specialization in the Master of Science.

Request from the Department of Watershed Sciences in the S.J. & Jessie E. Quinney College of Natural Resources to discontinue the Watershed Management Specialization in the PhD Program.

Request from the Department of Instruction, Patrol Services and Digital Initiatives in the University Libraries to change the department name from Instruction Collections and Patron Services and Library Public Services.

Request from the Department of Special Collections Digital & Cataloging in the University Libraries to change the department name from Special Collections Digital & Cataloging to Library Collections and Discovery.

Request from Empowering Teaching Excellence in the Office of the Provost and Chief Academic Officer to establish the Center for Empowering Teaching Excellence.

Semester Course Approval Reviews:
https://usu.curriculog.com/

College of Agriculture and Applied Sciences
ADVS –
APEC – 2
ASTE – 11
AVTE –
LAEP – 1
NDFS – 3
PSC –
TDTE - 50

Caine College of the Arts
ART –
MUSC –
THEA -

Jon M. Huntsman School of Business
ACCT –
DAIS – 8
BECN –
MHR –
MSLE – 6

Emma Eccles Jones College of Education and Human Services
COMD –
HDFS –
ITLS –
KHS –
NURS –
PSY –
SPERC–
TEAL -

College of Engineering
BENG –
CEE –
ECE –
EED –

MAE –

College of Humanities and Social Sciences
CSPH –
ENGL –
HIST –
JCOM –
POLS –
SWRK –
SOCA –
WGLC –

S.J. & Jessie E. Quinney College of Natural Resources
ENVS – 3
WATS – 7
WILD – 1

College of Science
BIOL – 1
CHEM –
CS – 1
GEOS – 5
MATH – 2
PHYS – 1

College of Veterinary Medicine
VCLS –

University Libraries
LIBR – 2

Other Business
New Baccalaureate Programs Template – Toni Gibbons

Cross/Dual Listed Information for the EPC Handbook – Toni Gibbons

Adjourn: 3:00 pm

April 6, 2023
2:00 – 3:00 p.m.
Old Main-Champ Hall

MINUTES

Present: Richard Walker, Caine College of the Arts
Mateja Savoie-Roskos, College of Agriculture and Applied Sciences
Chad Simon, Jon M. Huntsman School of Business, Chair
Nate Trauntvein, Emma Eccles Jones College of Education and Human Services
Thomas Fronk, College of Engineering
Peter Howe, S.J. & Jessie E. Quinney College of Natural Resources
Paul Barr, Provost's Office, EPC Chair
Richard Cutler, Graduate Council
Toni Gibbons, Registrar's Office
Abraham Rodriguez, USUSA Executive VP

Absent: Michele Hillard, Secretary
Matt Sanders, College of Humanities and Social Sciences
Greg Podgorski, College of Science
Rachel Wishkoski, University Libraries
Sunshine Brosi, USU Eastern
Mark Chynoweth, Statewide Campuses
Sarah Pope, Graduate Senator

Visitors:

Approval of Minutes *– March 2, 2023,*
Motion to approve the March 2, 2023, Minutes made by Thomas Fronk. Seconded by Richard Walker. Minutes approved as distributed.

Program Proposals

Semester Course Approval Reviews

College of Agriculture and Applied Sciences
ADVS –
APEC –
ASTE –
AVTE –
LAEP –
NDFS –
PSC –

Caine College of the Arts

ART –
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Jon M. Huntsman School of Business
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MSLE –

Emma Eccles Jones College of Education and Human Services
COMD –
HDFS –
ITLS –
KHS –
NURS –
PSY –
SPER –
TEAL –

College of Engineering
BENG –
CEE –
ECE –
EED –
MAE –

College of Humanities and Social Sciences
CSPH –
ENGL –
HIST –
JCOM –
POLS –
SWRK –
SOCA –
WGLC –

S.J. & Jessie E. Quinney College of Natural Resources
ENVS –
WATS –
WILD –

College of Science
BIOL –
CHEM –
CS –
GEOL –
MATH –
PHYS -

Other Business
CIP Code change for the Bachelor of Science in Kinesiology
Motion to make the CIP Code Changes made by Nate Trauntvein. Seconded by Richard Cutler. CIP Code Changes approved.

UCC-EPC Totals for 2022-2023 – Toni Gibbons
There has been a lot of work completed this year and things seem to be going through the process smoothly and efficiently.

Curriculum Subcommittee Membership (who will continue to serve)
Paul Barr nominated Chad Simon to continue to serve as the Curriculum Subcommittee Chair.
Motion to have Chad Simon continue as the Curriculum Subcommittee chair made by Thomas Fronk. Seconded by Nate Trauntvein. Unanimous vote.

The subcommittee is very appreciative of the communication and work that is completed before the meeting. The work that Toni Gibbons and the Registrar's Office does is invaluable.

There is a new house bill that will require program reviews e very 7 years by the Board of Higher Education. Each year they will receive graduation numbers in programs vs. other USHE schools to check the viability of programs. Paul Barr suggested that the Curriculum Subcommittee may want to conduct their own evaluations and reviews and encourage the colleges do it as well.

Adjourn: 2:30 pm

CAAS - Nutrition, Dietetics and Food Sciences - Chocolate Science - Certificate of Proficiency

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: CAAS

DEPARTMENT (include all cross listed departments)*: Nutrition, Dietetics and Food Sciences

Current Title (if applicable)*: Not applicable

Proposed Title*: Chocolate Science - Certificate of Proficiency

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 01.1001

Minimum Number of Credits (if applicable)* 16

Maximum Number of Credits (if applicable)* 16

Type of Degree: (BA, BS, etc.)* Certificate of Proficiency

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [x] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

The objective of this new degree is to provide training to people that are interested in chocolate science. This degree will be taught on-line so that students with full-time jobs can take the certificate. This degree is targeted to students with or without training in food science. The Department of Nutrition, Dietetics, and Food Science requests the approval of a Certificate of Proficiency in Chocolate Science so that it can be available for students in Fall 2024.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

The cocoa and chocolate industry are a growing market with a market size of 8 billion dollars in 2016 and has been forecasted to grow to 10.4 billion dollars by 2027 in North America (Statista). Similar growth trends have been reported worldwide with an increase from 0.82 trillion dollars in 2016 to a forecasted value of 1.33 trillion dollars in 2027 (Statista). This increase in the market size is associated with an increased demand for qualified workers that are trained in the process of making chocolate.

Food Science is the discipline that trains people in the science of food processing and production. Over 50 colleges offer a degree in food science in the USA (https://datausa.io/profile/cip/food-science#tmap_institutions_grads) but none of them offer specific training in chocolate science. A survey conducted in 2022 by Dr. Silvana Martini, Food Science Professor at Utah State University, with major players in the chocolate industry has indicated that there is a need for specific training in chocolate science to prepare potential employees to work in the chocolate industry. Currently there is no formal training available related to chocolate science at academic institutions worldwide. The only training available is through short courses or workshops offered by professional organizations such as PMCA, FCIA, and NCA.

In 2018, The College of Agriculture and Applied Sciences at Utah State University opened the first bean-to-bar manufacturing facility (The Aggie Chocolate Factory) operated by an academic institution in the world. The main mission of this facility is to provide learning opportunities to students in the Food Science Program and Utah State University. Every year, about 150 USU students enrolled in the class Chocolate science, history, and society (a General Ed, Physical Science class), use the facilities to learn the science behind chocolate processing.

The Food Science Program at Utah State University proposes to create an undergraduate Certificate of Proficiency in Chocolate Science. We propose that this degree be taught on-line with a short in-person component for extra credit. The on-line modality for this degree will allow interested students throughout the country and the world to enroll in the class. The short non-mandatory in-person component will include hands-on laboratory activities at the Aggie Chocolate Factory (ACF) that will be condensed in one week.

This certificate will provide training to current and potential employees of chocolate companies and to entrepreneurs that are looking for training opportunities to start their own chocolate company. The Certificate of Proficiency in Chocolate Science will be an undergraduate degree to allow interested students without a degree in Food Science to enroll. Utah State University would be the first academic institution to offer this type of degree.

Labor Market Demand (if applicable)

The confectionery industry, including chocolate, candy, gums and mints creates more than 200,000 jobs in the USA and each confectionery job supports another 11 jobs in the US economy. This contributes over 49 billion dollars to the US economy. Similarly, the confectionery industry creates over 1800 jobs in the State of Utah, contributing over 330 million dollars to its economy. In 2023 the chocolate industry alone employed over 50,000 people with an increase of 1.6% between 2018 and 2023 (https://www.ibisworld.com/industry-statistics/employment/chocolate-production-united-states/).

The State of Utah has 11 bean-to-bar chocolate companies and 28 companies that use chocolate to manufacture chocolate confections. In a survey conducted by Dr. Silvana Martini in 2022 among major confectionery and chocolate industry (Barry Callebaut, Blommer, Cargill, Guittard, Clason), over 82% of the respondents mentioned that there is (53%) or there maybe (28%) a clear need for training in confectionery topics and over 90% of the respondents said that they will be extremely likely (59%) or somewhat likely (32%) to hire an employee with a confectionery degree. It is clear that there is a local, national, and international market for trained people in the chocolate industry and the Food Science Program at Utah State University can fulfill this need.

Consistency with Institutional Mission & Institutional Impact*

Utah State University is the land-grant institution of the State of Utah, and its mission and vision are to empower people by providing excellent and innovative education with a focus on accessibility and inclusion. This program fits USU's mission and vision by providing a new program to the people of Utah, the USA, and the world that can't be found anywhere else. The program will be led by Dr. Silvana Martini and by experts in the field. This modality will allow USU to provide exceptional education to students by including in the curriculum novel and current issues relevant to the chocolate industry. Students in this program will also have unique hands-on opportunities at the Aggie Chocolate Factory, a unique facility in any academic institution worldwide.

Finances*

No funds are required for this certificate. Four new courses will be developed for this program: The new courses developed for this new program are: NDFS 1060: History of Cocoa and Chocolate; NDFS 1061: Cocoa Processing; NDFS 1062: Chocolate Processing; and NDFS 1063: Product Development with Chocolate. All new courses will be developed by Dr. Silvana Martini, a Professor in the Nutrition, Dietetics, and Food Science Department and Director of the Aggie Chocolate Factory. Even though Dr. Martini will be the listed instructor for these courses, invited speakers from multinational chocolate companies will be invited speakers and will help with curriculum development. Dr. Martini has already contacted Industry Speakers and they have agreed to participate in the development of the courses included in this degree on a volunteer basis. Therefore, no financial assistance is requested to develop this new degree or to teach new courses associated with it. NDFS 1250: Sanitation and Safety is another course that will be included in this degree, and it is already taught on-line in the NDFS Department.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

The program will consist of 16 credits taught over a period of 2 semesters (Fall and Spring). The program will be 100% on-line (synchronous) to allow people with full-time jobs to take the classes. An in-person non-mandatory component will be offered in one of the classes (NDFS 1062: Chocolate Processing) where students will be able to spend one-week at the Aggie Chocolate Factory for extra credit.

During the first semester (Fall) students will take 3 classes (9 credits): NDFS 1060: The history of Chocolate and Cocoa (2 credits), NDFS 1061: Cocoa processing (4 credits), and NDFS 1250: Sanitation and safety (3 credits). The second semester (Spring), students will take 2 classes (7 credits): NDFS 1062: Chocolate Processing, and NDFS 1063: Product Development with Chocolate. This information is also presented in the Degree Map attached to this proposal.

Four out of the five classes will be new classes. NDFS 1250 is already taught in the NDFS Department. The new classes will be developed by Dr. Silvana Martini, a Professor in Food Science, and industry partners that already agreed to help with curriculum development on a voluntary basis.

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

CAAS - Nutrition, Dietetics and Food Sciences - Student Nutrition Access Center

4.1.c R401 NEW ADMINISTRATIVE UNIT

Proposal Information

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE or UNIVERSITY DIVISION:* CAAS

DEPARTMENT or UNIT: * Nutrition, Dietetics and Food Sciences

PROPOSED UNIT TITLE:* Student Nutrition Access Center

REQUEST

TYPE OF UNIT BEING REQUESTED

Click the change that best reflects your proposal.

Unit Being Requested*

- ( ) New Administrative Unit (new colleges and professional schools - use full template)
- (•) New Center
- ( ) New Institute
- ( ) New Bureau

DESCRIPTION | NARRATIVE

Administrative Unit Description and Narrative*

The mission of the Student Nutrition Access Center (SNAC) is to increase access to nutritious food while educating Aggies about basic needs resources and sustainable food practices. SNAC was formed in 2010 by Utah State University's (USU) Center for Community Engagement to address food insecurity faced by college students.

Nearly 33 percent of USU students are experiencing food insecurity (Savoie-Roskos et al., 2023). Studies have revealed that food insecurity is linked to decreased academic achievement and inferior self-reported health, including mental and physical well-being (Van Woerden et al., 2019). At SNAC, students have access to resources that enable them to concentrate on achieving academic success instead of trying to meet their basic needs. Since the SNAC campus food pantry has gained more attention, the number of student visits has significantly risen from 3,482 in 2018 to over 11,500 in 2022, assisting more than 1,950 individuals annually.

To accomplish its mission, SNAC partners with 16 different organizations from campus, the local community, and state entities to provide food to students in Logan. Last year, the partnership with USU Dining Services allowed SNAC to recover and redistribute over 20,000 pounds of food to students that would have otherwise been discarded. Also, in 2022, the USU Gleaning Team collected more than 5,000 pounds of fresh produce from the local community and donated it to SNAC for distribution. Additionally, the collaboration with the Cache Community Food Pantry and the Utah Food Bank allows SNAC to increase its range of food options for students.

On July 1, 2023, SNAC moved under the purview of the Nutrition, Dietetics, and Food Sciences (NDFS) department within the College of Agriculture and Applied Sciences (CAAS). The shift provides SNAC with additional resources and partnerships within CAAS, the NDFS department, and USU Extension. Beginning in the fall semester of 2023, SNAC will deliver USU Extension Create Better Health programming on the Logan campus. Create Better Health is Utah's SNAP-ED programming. The SNAC program also offers Dietetics graduate students a chance to participate in a rotational placement focused on management. SNAC provides all students an opportunity to volunteer and help their fellow Aggies. In the future, SNAC aims to assist statewide campuses interested in setting up food pantries.

As part of the NDFS, SNAC has a budget of $148,540 for the first year. This budget covers various expenses, including a full-time Program Coordinator who will receive a salary of $55,000 along with benefits worth approximately $24,750. There is also a salary match of $8,000 for a full-time AmeriCorps Vista service member. Additionally, $30,000 has been allocated for two part-time work-study students and two part-time AmeriCorps members. The budget also includes $10,000 for office supplies and food repacking materials, $4,000 for renting vehicles and purchasing fuel, and $4,000 for website, marketing, and print materials. To ensure an adequate supply of produce during the winter months, $6,000 has been set aside for supplementary purchases, while $5,000 has been allocated for specialty foods like dairy-free milk and gluten-free bread. Finally, the remaining $1,790 can be used for miscellaneous items such as laundry, purchasing carts, bicycle maintenance, university fees, and parking.

SNAC is requesting Center status to aid in securing external funding sources to further enhance and broaden its services to students and the USU community.

References

Savoie-Roskos, M. R., Harrison, C., Coombs, C., Hendrickson, J., Hawes, R., Barney,

M., ... & LeBlanc, H. (2023). Food insecurity exists among college students at a midsized university in Utah. *Journal of Hunger & Environmental Nutrition*, *18*(1), 36-46.

Van Woerden, I., Hruschka, D., & Bruening, M. (2019). Food insecurity negatively impacts academic performance. *Journal of Public Affairs*, *19*(3), e1864.

SUBMIT AND APPROVE THE PROPOSAL

Click on the save all changes button below.

Scroll to the top left and click on the launch🚀 icon to launch your proposal.

CAAS - Technology, Design and Technical Education - Accounting Practices - Certificate of Completion

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: CAAS

DEPARTMENT (include all cross listed departments)*: Technology, Design and Technical Education

Current Title (if applicable)*: Accounting Practices - Certificate of Completion

Proposed Title*: Accounting Practices - Certificate of Completion

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 52.0302

Minimum Number of Credits (if applicable)* 32

Maximum Number of Credits (if applicable)* 32

Type of Degree: (BA, BS, etc.)* CC

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [x] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [x] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

The Accounting Practices Certificate of Completion is a 32-credit hour stackable credential that will also fulfill requirements leading to the Associate of Business, Small Business and Entrepreneurship Associate of Applied Science, Associate of Applied Science in General Technology, and the Bachelor's Degree in Technology Systems (TESY). In addition, this certificate also qualifies students for skills-based positions within the finance, accounting, and business world with additional skills geared toward small business ownership and support. A certificate of completion allows students ample momentum to facilitate solid foundational skills and give timely successes as the student transitions into industry or higher degree pathways. These successes will support student completion of certificate and degree programs in related areas of interest in the technology sphere, a hotbed of activity within Utah. Through a combination of theoretical knowledge and practical experiences, students will develop the skills necessary to perform accounting tasks, analyze financial data, and make informed decisions. Additionally, as a certificate of completion, it allows students an opportunity to earn skills and transition into the professional world quickly.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

The Accounting Practices Certificate of Completion has been re-designed through collaboration with industry and faculty-wide committees to facilitate a two-semester certificate offering. The certificate program has been created with the Four-Corners region as the intended space for re-launch. This certification will enable individuals from the Navajo Nation and rural southeastern Utah to enter the university with the ability to gain a viable remote work certification after two semesters of college and offer timely expertise to rural parts of the Four-Corners region. The Accounting Practices Certificate of Completion aims to provide students with highly sought skills in financial management and accounting services with a marketable skill set and industry-developed curriculum. Students who complete the certificate will be prepared to work in the industry or create a small business built around their acquired skills.

Labor Market Demand (if applicable)

According to the Bureau of Labor Statistics, in 2021, the average annual salary in the Bookkeeping and accounting technology industry is $44,100, with a median hourly wage of $21.20, with a projected growth of 16% in Utah over the next ten years. This opportunity is available to students after a semester of training. (https://www.bls.gov/oes/current/oes433031.htm). Bookkeeping and accounting technology is a diverse occupation with prospects at all skill levels and higher opportunities for earning potential for the student as they continue their education and select concentration areas to continue their skill development in other areas of finance. The purpose of this certificate program is to allow entry-level employees an opportunity for stable and in-demand employment with a short time commitment from the learner. As the proposed certificate of completion offers accelerated entrance to the job market and short-term credentials, students are able to access more advanced jobs and higher wages. The proposed certification will be crucial for businesses in regions of the state looking to diversify and help to bring new jobs to rural areas of Utah.

Consistency with Institutional Mission & Institutional Impact*

The restructure of the Certificate of Completion in Accounting Practices will be offered through the Department of Technology, Design, and Technical Education (TDTE) at the Southeast region locations in Price, Moab, and Blanding. Existing faculty, staff, facilities, and equipment will implement and sustain the proposed certificate program. No additional resources will be required.

The certificate will provide independent, nationally developed certifications and a stackable credential toward the two-year Associate of Applied Science in General Technology. Credits earned in the certificate program will meet requirements for the following existing Associate and BS program requirements:

- AAS, Small Business and Entrepreneurship
- AB, Associate of Business
- AAS, General Technology
- BS, Technology Systems

Additionally, the Department of Technology, Design, and Technical Education (TDTE) at Utah State University offers a broad-based Associate of Applied Science degree in General Technology with various emphasis areas. The proposed Certificate of Completion would likely lead toward emphasizing technology systems. The proposed certificate provides an opportunity to develop region-specific training at USU residential campuses in rural parts of the state. It creates a needed framework to lead the state in forming new partnerships and alignment with the Utah System of Higher Education – Technical Education Division.

Finances*

The restructure of the certificate will be cost-neutral. All courses for the certification are currently offered, developed, and no new faculty, staff, library, or operational funds are required to facilitate this offering. There will be no budgetary impact on other programs or units at Utah State University.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Accounting Practices	**Certificate of Completion**	**Requirements**
Course Prefix/Number	Course Title	Credit Hours
BUSN 1050	Business Mathematics	3
BUSN 1021	Personal Finance	3
BUSN 1091	Business Presentations	2
BUSN 1111	Accounting Principles	3
BUSN 1410	Spreadsheet I (Excel)	2
BUSN 2010	Financial Accounting	4
BUSN 2020	Managerial Accounting	4
BUSN 2151	Income Tax Preparation	2
BUSN 2320	Small Business Management	3
BUSN 2050	Business Law	3
BUSN 2800	Computerized Accounting	2
BUSN 2977	Internship Education Experiences	1
	Total	**32**

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

Utah System of Higher Education
New Academic Program Proposal
Cover/Signature Page - Full Template

Institution Submitting Request: Utah State University

Proposed Program Title: Engineering Technology

Are There New Emphases: **Yes [ ]** **No [X]**

Names of New Emphases (Separated by Commas):

Sponsoring School, College, or Division: College of Agriculture and Applied Sciences

Sponsoring Academic Department(s) or Unit(s): Technology, Design and Technical Education

Classification of Instructional Program Code[1] : **6 - Digit CIP: 15.0000**

Min/Max Credit Hours Required of Full Program: **63** **/ 63**

Proposed Beginning Term[2]: Spring 2024

Institutional Board of Trustees' Approval Date:

Program Type (mark all that apply with an x):

[X] (AAS)	Associate of Applied Science Degree
[ ] (AA) **[ ] (AS)** **[ ]** **[ ]**	Associate of Arts Degree Associate of Science Degree Specialized Associate Degree (specify award type[3]:) Other (specify award type[3]:)
[ ] (BA) **[ ] (BS)** **[ ] (BAS)** **[ ]** **[ ]**	Bachelor of Arts Degree Bachelor of Science Degree Bachelor of Applied Science Degree Specialized Bachelor Degree (specify ward type[3]:) Other (specify award type[3]:)
[ ] (MA) **[ ] (MS)** **[ ]** **[ ]**	Master of Arts Degree Master of Science Degree Specialized Bachelor Degree (specify ward type[3]:) Other (specify award type[3]:)
[ ]	Doctoral Degree (specify award type[3]:)
[ ]	K-12 School Personnel Program
[ ]	Out of Service Area Delivery Program **[ ]** Attached MOU
[ ]	Out of Mission Program
[ ]	NEW Professional School

[1] For CIP code classifications, please see http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55.
[2] "Proposed Beginning Term" refers to first term after Regent approval that students may declare this program.
[3] Please indicate award such as APE, BFA, MBA, MEd, EdD, JD

Changes to Existing Programs or Administrative Units Required (mark all that apply with an x, if any):

[ ]	Program Restructure with or without Consolidation
[ ]	Emphases transfer from another program or academic unit
[ ]	Name Change of Existing Program or Academic Unit
[ ]	Program transfer to a different academic unit
[ ]	Suspension or discontinuation of a unit or program
[ ]	Reinstatement of a previously suspended/discontinued program or administrative unit
[ ]	Other

Chief Academic Officer (or Designee) Signature:
I, the Chief Academic Officer or Designee, certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

Please type your first and last name Date:

☐ I understand that checking this box constitutes my legal signature.

Utah System of Higher Education
Program Description - Full Template

Section I: The Request

Utah State University's (DEPARTMENT NAME) requests approval to offer the following degree(s):

To be effective on:

This program was approved by the institutional Board of Trustees on:

Section II: Program Proposal

Program Description

The Department of Technology, Design, and Technical Education (TDTE) at Utah State University (USU) is developing an Engineering Technology Associates of Applied Science degree to begin Spring 2024, if approved. This degree is a standalone degree, and it is also designed to "stack" onto existing 900-hour certificates from Utah's Technical Colleges. The degree will focus on educating students on applied engineering principles by using math, science, and practical experiences to solve real-world problems. The degree will have a core of math, science, engineering, laboratory work, and digital design, with several electives allowing the students to focus on robotics, additive manufacturing, advanced manufacturing, electronics, quality and reliability, and CAD systems. The program will be offered both face-to-face on the Logan Main Campus and online for non-traditional and distance learners. The program will seek accreditation through the Accreditation Board for Engineering and Technology (ABET).

Consistency with Institutional Mission

Utah State University (USU) is a land grant university, which means it has a specific mission and goals outlined by the Morrill Act of 1862. Additionally, USU serves as a regional community college and technical college for the southeast region. The desire for a workforce development strategy that is both innovative and emphasizes stackable pathways into higher learning opportunities for students is the central mission of USU. As a result, it is the intention of USU to offer an engineering technology program that is centered around the diverse needs of the state.

As a leader in education and workforce development, USU aims to provide accessible and relevant education to meet the needs through a program that accommodates the learners' barriers to success. An engineering technology program through USU contributes to this goal by offering a curriculum that aligns with the needs of the local and regional industries, preparing students for high-demand careers in engineering and technology fields that local industry partners support. By offering a practical and applied education, the program can equip graduates with the skills and knowledge required to address real-world challenges and contribute to the economic development in Utah and beyond.

Utah State University is committed to continual research and innovation as land grant universities are expected to engage in research and innovation to advance knowledge and promote economic growth. An engineering technology program can actively contribute to research by conducting applied research projects in collaboration with industries and government agencies.

Additionally, a vital aspect of the Land Grant Mission is outreach and extension, which seeks to engage with communities and provide these services. An engineering technology program can fulfill this role by actively collaborating with local industries, organizations, and communities. This collaboration can involve offering technical assistance, training programs, and consulting services to address engineering and technology-related challenges businesses and communities face. By sharing expertise and resources, the program can enhance the competitiveness of local industries, promote economic development, and improve the quality of life for Utah residents.

A vital aspect of this program proposal is the desire to increase access for adult learners as they transition from one stage of their career to the next. Land grant universities strive to create an inclusive and diverse learning environment that reflects the state's demographics and promotes equal opportunities for all. This engineering technology program can contribute to this goal by actively recruiting and supporting students from diverse backgrounds, including underrepresented groups, and by accommodating learning in contextual space through industry collaboration.

Section III: Needs Assessment

Program Rationale

The proposed engineering technology program request was birthed from necessity as regional workforce partners voiced concern for unmet workforce needs. As a result, curricular development processes were initiated in partnership with industry and accrediting bodies to help meet the industry's needs while maintaining program fidelity.

Engineering technology is dynamic and constantly evolving, driven by technological advancements and ever-changing industry demands. To create a relevant program, it is essential to actively involve industry representatives, employers, and professionals in the program development process. By seeking their input, the emerging trends, technological advancements, and skill requirements can be identified that shape the industry's needs. This industry-driven approach will ensure program alignment with the current and future demands of the engineering technology field, thus increasing the employability of graduates.

Developing a successful engineering technology program requires strong collaboration and partnerships with industry stakeholders. By actively engaging employers, professional organizations, and industry experts, valuable partnerships will be established that facilitate internships, co-op opportunities, and real-world projects for students. These collaborations will enhance students' practical skills and knowledge and provide them with networking opportunities and potential employment prospects. Moreover, industry partners can contribute to curriculum development, ensuring it reflects the latest industry practices and technologies relevant for their future career advancements.

The curriculum of the engineering technology program will be designed based on input from industry partners to ensure its alignment with industry needs and demands. The program will offer a balanced mix of theoretical knowledge and hands-on practical experience, emphasizing the application of engineering principles and advanced technologies in real-world settings. Courses will cover various relevant topics such as engineering design, manufacturing processes, quality assurance, project management, and emerging technologies specific to the industry. Additionally, the program will incorporate industry-standard software, tools, and equipment to familiarize students with the available resources used in the field.

To deliver a high-quality education that meets industry standards, faculty members will possess a combination of academic qualifications and industry experience. This blend of expertise will ensure that students receive instruction that combines theoretical knowledge with practical insights. Faculty members will engage in ongoing professional development activities, including industry conferences, workshops, and collaborations with industry partners. By staying connected with industry trends and best practices, faculty will be better equipped to deliver relevant and up-to-date instruction to students.

A robust system of continuous evaluation and improvement will be implemented to ensure the ongoing relevance and quality of the program. Feedback from industry partners, alumni, and employers will be actively sought and incorporated into program reviews and updates. This iterative process will help identify areas for improvement, emerging industry needs, and opportunities for curriculum enhancement. The program will also regularly conduct graduate surveys and track the employment outcomes of graduates to assess the program's effectiveness in meeting industry demands.

Labor Market Demand

Nationally, the Bureau of Labor Statistics (BLS) projects that employment in engineering occupations will grow by 4% between 2019 and 2029, adding over 139,000 new jobs to the economy. The BLS also reports that engineering occupations offer a median annual wage of $81,440, significantly higher than the median annual wage for all occupations of $41,950.

Furthermore, as technological advances continue to shape various industries, the demand for professionals with practical, hands-on experience in engineering is expected to increase. The proposed Associate of Applied Science in Engineering Technology program will provide students with the practical skills and knowledge needed to succeed in these rapidly evolving industries and prepare them for the job market upon graduation.

There is considerable demand for engineering professionals as the projected growth rate is high for the coming years. Locally and nationally, the expectation for positive growth in engineering and engineering-related areas shows economically solid promise for the coming years. According to data from the Utah Department of Workforce Services, occupations related to engineering are expected to see a 27% increase in employment in Utah between 2020 and 2030. This growth is higher than the projected average employment growth of 8.6% across all occupations in the state.

In addition, Utah's median wage for engineering occupations is significantly higher than the state's overall median wage. As of May 2020, Utah's median hourly wage for architecture and engineering occupations was $41.83, compared to the state's overall median hourly wage of $20.46. Moreover, salaries for more specific occupations within the Engineering sector, oriented toward Engineering Technology, report

median wages on 6-digit CIP codes in a range from $44.31 per hour to $30.62. This data suggests that engineering occupations are in high demand and offer increased earning potential for graduates.

The proposed Associate of Applied Sciences in Engineering Technology program will provide students with the skills and knowledge needed to succeed in this dynamic field, contribute to the growth of Utah manufacturing industries across the state, and supply a demand for highly skilled engineering professionals.

Student Demand

The Engineering Technology Program is expected to generate significant student demand, particularly from two key groups: students from technical colleges and individuals seeking to re-enter education from industry. Technical college graduates who have completed associated certificate work may seek opportunities to further their education and advance their careers. The proposed Engineering Technology program provides an ideal pathway for these students to continue their educational journey in a high-wage, high-demand field. The program addresses the demand for a seamless transition from technical college toward a four-year degree program by offering a curriculum that leverages their technical knowledge and skills.

These students are attracted to the program because it allows them to deepen their understanding of engineering principles, gain specialized knowledge in their chosen field, and broaden their career prospects, making them eligible for future promotion. The program's emphasis on industry collaboration ensures that the education provided is efficient and aligned with industry demands, making graduates highly employable. This aspect appeals to technical college graduates seeking a competitive edge in the job market and the opportunity for upward career mobility.

Additionally, there is a growing trend of individuals with industry experience seeking to re-enter education to enhance their skills, explore new career opportunities, or pursue a career change. The proposed Engineering Technology Program, with its emphasis on industry input and demand, offers a unique opportunity for these individuals to update their knowledge and acquire formal qualifications in the engineering technology field. With their practical industry experience, these students bring valuable insights and perspectives to the program. Their presence enriches classroom discussions, enhances collaborative learning, and contributes to a dynamic educational environment. Their industry connections and experiences also provide valuable networking opportunities and potential job placements after graduation.

The program's flexibility in scheduling, including part-time and evening classes, caters to the needs of individuals who may be juggling work, family responsibilities, or other commitments. This flexibility, combined with the program's industry relevance and hands-on approach, appeals to individuals re-entering education and seeking a program that directly aligns with their professional goals and aspirations.

Similar Programs

This program does not exist in USU's service region. Currently, the association that offers national accreditation, the Accreditation Board for Engineering and Technology (ABET), accredits Engineering Technology AAS programs at Weber State University, Utah Valley University, Salt Lake Community College, and Southern Utah University in the state. Of the current programs, very few have a “stacking” component to allow technical college students to articulate their certificates for credits toward graduation in Engineering Technology. The program is also to be offered face-to-face and fully online to meet the needs of industry in the Bear River Region and Wasatch Front.

Collaboration with and Impact on Other USHE Institutions

The proposed Engineering Technology Program recognizes the importance of creating seamless educational pathways for students transitioning from technical colleges. The program is committed to establishing solid collaborations with area technical colleges for stackable credentials to facilitate this transition and ensure students can build upon their prior technical education. The first step in collaborating with technical colleges is to align the curriculum of the Engineering Technology Program with the courses offered at these institutions. By reviewing the course offerings and competencies of technical college programs, areas of overlap can be identified and clear pathways established for credit transfer and advanced standing in the Engineering Technology Program. This alignment will minimize redundancy in coursework and enable students to seamlessly transition into the program without any loss of credit.

To formalize the collaboration and facilitate credit transfer, the Engineering Technology Program will work closely with technical colleges to develop articulation agreements. These agreements will outline the specific courses, competencies, and credits to be recognized for transfer into the program. They will provide clear guidelines for technical college graduates on how their prior coursework can be applied towards meeting the requirements of the Engineering Technology Program. Articulation agreements will create a transparent and efficient process for credit evaluation and transfer, ensuring a smooth transition for students.

Collaboration with technical colleges goes beyond credit transfer. The Engineering Technology Program will establish advising and support services to assist students from technical colleges in transitioning to the program. Academic advisors will be available to guide students through the admission process, provide information on course equivalencies, and help them navigate the curriculum. These advisors will also be knowledgeable about scholarships, financial aid, and other resources available to support students during their educational journey.

One of the critical benefits of collaborating with technical colleges is the opportunity to offer stackable credentials. The Engineering Technology Program will work closely with technical colleges to identify specific technical certificate or associate degree programs that align with the program's focus areas. Students can earn interim credentials along their educational pathway by recognizing and awarding stackable credentials. These credentials provide valuable industry-recognized certifications and enhance the employability of students who may choose to enter the workforce before completing their applied associate degree.

External Review and Accreditation

An advisory board with industry leaders in Northern Utah from Northrop Grumman, Lockheed Martin, Autoliv, TCR Composites, and ATK have reviewed the degree plan proposal and support this program. Additional advisory members will be added as the need arises. Nationally, the Accreditation Board for Engineering and Technology (ABET) offers accreditation for programs similar to this proposal. This program has been designed to meet their standards and once the program is in place, accreditation will be applied for with the first graduating class as defined by ABET, with the initial projected review after three years. According to the ABET website, the average cost of the initial accreditation visit fee is $20,000.

Section IV: Program Details

Graduation Standards and Number of Credits

The Engineering Technology AAS aligns with the standards and number of credits of other programs granting the Associate of Applied Science degree at USU. Upon graduation, a student will have earned a minimum of 63 credits.

Admission Requirements

Requirements for admission into the Associate of Applied Science in Engineering Technology degree program are consistent with the general University undergraduate admission requirements.

Curriculum and Degree Map

See Appendix A & B

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

This degree program proposal is a result of many requests from industry partners currently working with the Technology Systems program. This program will share many technical skill courses with the technology systems program while also providing specific Engineering Technology coursework and training. It is anticipated an additional 11 courses will be needed to be able to provide the specific set of knowledge and skills graduates would need to enter the industry. With 11 new courses, the program will require two additional faculty members along with an educational specialist to be able to offer the additional courses required. Funding for faculty overload, adjunct instructors, or graduate students to help with courses in both TESY and this Engineering Technology degree program that will likely have capacity issues. The program is designed to have a path to the degree through the USU Online System, with additional options for students at many regional campuses.

Faculty

The courses draw on the strengths and expertise of the faculty in the Department of Technology, Design, and Technical Education, along with collaboration from the faculty at USU Eastern and Bridgerland Technical College that provides technical content training for students within the AAS degree. Additional courses offered in programs outside the department, (e.g., the Schools of Math and Science)) will be applied to this degree with minimal student impact. Through restructuring and reallocation of teaching assignments, the faculty can accommodate the student demand of the proposed program while requiring only two additional faculty members. The positions for the faculty members are being funded through growth funds in the college and being supported by the university to develop this program for our industry partners. Additional faculty will be considered as the enrollment in the program grows or industry partners sponsors such additions.

Staff

With little restructuring, current staff resources are sufficient for the needs of this new program, but funding will be provided at the university level to fund a program coordinator to help with the projected growth of the program. As the program grows or industry partners sponsor such additions, additional staff will be considered.

Student Advisement

The Department of Technology, Design, and Technical Education (TDTE) has designated advisors throughout the regional campus system and within the College of Agriculture and Applied Sciences. The advisors for this program will be the same individuals who also advise students in the early stages of the Engineering Technology program. Funding is being allocated at the University level to fund a program advisor after the first year to help with the projected growth. If needed, student peer mentors will assist the advisors with the increased number of students and additional advising capacity will be added as student numbers warrant within TDTE.

Library and Information Resources

No additional library resources will be needed to support this program. Key journals and readings are already available through USU's library system to support the AAS in Engineering Technology.

Projected Enrollment and Finance

See Appendix D

Section VI: Program Evaluation

Program Assessment

The Department of Technology, Design, and Technical Education will conduct on-going assessment of the degree program and make improvements or adjustments as needed. The objectives selected for this program include skills and knowledge identified by industry leaders and those required by ABET for accreditation. This program has four primary objectives. After completion of this degree program, students will be able to:

1. Graduates will demonstrate a commitment to professional and ethical responsibilities, diversity, inclusion awareness and lifelong professional development.

2. Graduates will be recognized as having mastered both theory and application of the body of knowledge in the engineering technology field.
3. Graduates will demonstrate the ability to effectively, creatively, and methodically solve broadly-defined engineering problems through experimentation, analysis, synthesis, and evaluation of data through the use of the engineering design process.
4. Graduates will be recognized as being personally effective as individuals, team members and team leaders through oral, written, and visual communication.
5. Graduates will acquire training and develop skills necessary for a career or an advanced degree program.

Instructors will use student course evaluations as a formative step in evaluating the program. The program faculty will have the opportunity to interact and work with other faculty from across campus to seek feedback. The department will also conduct exit interviews/surveys of graduating students and use portfolios and senior projects to evaluate the technical, written, verbal, and communication skills of the students. The program will survey alumni at approximately five-year intervals to provide an opportunity for student reflection on the program outcomes and overall value. Industry partners will offer internships and provide feedback about the program through an advisory committee.

The program will also be assessed by ABET and the feedback will be integrated into the program to maintain accreditation. ABET requires certain standards to be met and will help keep the evaluation and assessment at the forefront of the faculty's decision-making.

Student Standards of Performance

The student performance standards have been identified and developed through partnership with industry through an advisory committee and through ABET. The standards will be evaluated and adapted as industry partners provide feedback and as student outcomes that are reported to ABET will be assessed and shared with faculty.

Core AAS Standards of Performance

The ABET student outcomes for use in accreditation of the AAS program that will be used for assessing are as follows:

For associate degree programs, these student outcomes must include, but are not limited to, the following elements:

(1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;

(2) an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and

(5) an ability to function effectively as a member of a technical team.

Additional ABET Standards

1. Include a technical core preparing students for the increasingly complex technical specialties later in the curriculum;

2. Develop student competency in the discipline;

3. Include design considerations appropriate to the discipline and degree level such as: industry and engineering standards and codes; public safety and health; and local and global impact of engineering solutions on individuals, organizations and society; and

4. Combine technical, professional, and general education components to prepare students for a career, further study, and lifelong professional development.

5.The curriculum must include topics related to professional and ethical responsibilities, diversity and inclusion awareness, quality, and continuous improvement.

6. The physical or natural science content of the curriculum must be appropriate to the discipline and must include laboratory experiences.

Industry partnerships will be used to evaluate and provide feedback of students' learning and performance in an industrial setting. Completion of a senior design project will be evaluated using a common rubric to assess the student standards of performance. Artifacts demonstrating student performance will be included in a portfolio and collected throughout the courses in the program.

Appendix A: Program Curriculum

Course Number	NEW Course	Course Title	Credit Hours
General Education Courses (list specific courses recommended for this program on Degree Map)			
		General Education Credit Hour Sub-Total	17
Required Courses			
ETEC 1000	Yes	Introduction to Engineering Technology	1
TESY 1200		Computer-Aided Drafting and Design	3
ETEC 2300	Yes	Introduction to Electronics	4
ETEC 1010	Yes	Engineering Technology Principles	3
TESY 1030		Materials Processing and Systems	3
ETEC 2020	Yes	Introduction to Automation	3
TEE 2850		Statics and Strengths of Materials	3
ETEC 2010	Yes	Introduction to Quality	3
ETEC 2200	Yes	Technical Communication for Engineering Technology	3
TESY 2250		Occupational Experience in General Technology	3
		Required Course Credit Hour Sub-Total	29
Elective Courses			
TEE 1010		Graphic Communication Technologies	3
TEE 1040		Construction and Estimating	3
TEE 1640		Introduction to Welding	3
TEE 2030		Wood-Based Manufacturing Systems	3
TEE 2200		Aquaponic Systems	3
TEE 2220		Civil Engineering and Architecture	3
TESY 2270	Yes	Intermediate CAD	3
		Elective Credit Hour Sub-Total	17
		Core Curriculum Credit Hour Sub-Total	

Add An Emphasis:

Can students complete this degree without emphases? ☐ *Yes* ☐ *No*

Course Number	NEW Course	Course Title	Credit Hours
Name of Emphasis:			
		Emphasis Credit Hour Sub-Total	
		Total Number of Credits to Complete Program	

Program Curriculum Narrative

This Engineering Technology degree program requires students to take 16 to 17 credits in general education which can be seen in the degree map below. This program is designed to be stackable with a certificate from a technical college. Proposals for a new course for this degree program that will carry a CL2 general education designation are being submitted concurrently with this proposal. The core requirements for the program contain 29 credits leaving 17 credits of technical electives totaling 63 credits required. Technical electives can include courses articulated with the Utah Technical College System and USU Eastern.

Degree Map

First Year Fall	Cr. Hr.	First Year Spring	Cr. Hr.
ENGL 1010 Intro to Writing (CL1)	3	APEC 1600 Nat Resources/Econ (BAI)	3
MATH 1050 College Algebra (QL)	4	MATH 1060 Trigonometry (QL)	2
ETEC 1000 Introduction to Engineering Technology	1	ETEC 1010 Engineering Technology Principles	3
TESY 1200 Computer-Aided Drafting and Design	3	TESY 1030 Materials and Proc.	3
ETEC 1300 Introduction to Electronics	4	Any BCA, BHU, BLS, or BSS	3
		Technical Elective	3
Total	15	**Total**	17
Second Year Fall	**Cr. Hr.**	**Second Year Spring**	**Cr. Hr.**
ETEC 2020 Intro to Automation	3	ETEC 2200 Technical Communication for Engineering Technology	3
MATH 1210 Calculus I (QL)	4	TESY 2250 Occupational Experience in General Technology	3
TEE 2850 Statics and Strengths of Materials	3	PHYS 1800 Physics of Tech (BPS)	4
ETEC 2010 Intro to Quality	3	CHEM 1210 Principles of CHEM	4
Technical Elective	3	CHEM 1215 Chem Lab	1
Total	16	**Total**	15

Appendix C: Current and New Faculty / Staff Information

Part I. Department Faculty / Staff

Identify # of department faculty / staff (headcount) for the year preceding implementation of proposed program.

	# Tenured	# Tenure -Track	# Non -Tenure Track
Faculty: Full Time with Doctorate			2
Faculty: Part Time with Doctorate			
Faculty: Full Time with Masters			1
Faculty: Part Time with Masters			1
Faculty: Full Time with Baccalaureate			
Faculty: Part Time with Baccalaureate			2
Teaching / Graduate Assistants			
Staff: Full Time			
Staff: Part Time			3

Part II. Proposed Program Faculty Profiles

List current faculty within the institution -- with academic qualifications -- to be used in support of the proposed program(s).

	First Name	Last Name	Tenure (T) / Tenure Track (TT) / Other	Degree	Institution where Credential was Earned	Est. % of time faculty member will dedicate to proposed program.	If "Other," describe
Full Time Faculty							
	Trevor	Robinson	Other	Phd - TEE	Utah State University	100	
	Andrew	Deceuster	Other	Phd - ENGR	Utah State University	100	
	Steve	Williams	Other	MS - TEE	Utah State University	100	
							Add Another Full Time
Part Time Faculty							
	Corey	Ortiz	Other	Phd - TEE	Utah State University	75	
	Larry	Gardner	Other	Phd - Physics	Utah State University	50	
	Alex	Thompson	Other	BS - TESY	Utah State University	50	
							Add Another Part Time

Part III: New Faculty / Staff Projections for Proposed Program

Indicate the number of faculty / staff to be hired in the first three years of the program, if applicable. Include additional cost for these faculty / staff members in Appendix D.

	# Tenured	# Tenure -Track	# Non -Tenure Track	Academic or Industry Credentials Needed	Est. % of time to be dedicated to proposed program.
Faculty: Full Time with Doctorate			1	Three or more years of industry experience working with manufacturing, quality assurance, and/or engineer products.	100
Faculty: Part Time with Doctorate					
Faculty: Full Time with Masters			1	Five or more years of industry experience working with manufacturing, quality assurance, and/or engineer products.	100
Faculty: Part Time with Masters					
Faculty: Full Time with Baccalaureate					
Faculty: Part Time with Baccalaureate					
Teaching / Graduate Assistants					
Staff: Full Time			2	Skills as an academic advisor and an education specialist	100
Staff: Part Time					

Appendix D: Projected Program Participation and Finance

Part I.

Project the number of students who will be attracted to the proposed program as well as increased expenses, if any. Include new faculty & staff as described in Appendix C.

Three Year Projection: Program Participation and Department Budget						
	Year Preceding Implementation	New Program				
		Year 1	Year 2	Year 3	Year 4	Year 5
Student Data						
# of Majors in Department	600	640	680	720	760	800
# of Majors in Proposed Program(s)		20	40	50	50	50
# of Graduates from Department	120	120	140	150	160	170
# Graduates in New Program(s)		10	15	20	20	20

Department Financial Data				
	Department Budget			
	Year Preceding Implementation (Base Budget)	Year 1	Year 2	Year 3
Project additional expenses associated with offering new program(s). Account for New Faculty as stated in Appendix C, "Faculty Projections."		Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)
EXPENSES – nature of additional costs required for proposed program(s)				
List salary benefits for additional faculty/staff each year the positions will be filled. For example, if hiring faculty in year 2, include expense in years 2 and 3. List one-time operating expenses only in the year expended.				
Personnel (Faculty & Staff Salary & Benefits)	$568,052.00	$130,000.00	$260,000.00	$411,000.00
Operating Expenses (equipment, travel, resources)	$25,000.00	$5,000.00	$10,000.00	$15,000.00
Other:	$87,600.00	$65,000.00	$65,000.00	$0.00
TOTAL PROGRAM EXPENSES		$200,000.00	$335,000.00	$426,000.00
TOTAL EXPENSES	$680,652	$880,652	$1,015,652	$1,106,652
FUNDING – source of funding to cover additional costs generated by proposed program(s)				
Describe internal reallocation using Narrative 1 on the following page. Describe new sources of funding using Narrative 2.				
Internal Reallocation	$87,600.00	$70,000.00	$75,000.00	$15,000.00
Appropriation				
Special Legislative Appropriation				
Grants and Contracts				$86,000.
Special Fees				
Tuition				$65,000.00
Differential Tuition (requires Regents approval)				
PROPOSED PROGRAM FUNDING		$70,000.00	$75,000.00	$160,000.00
TOTAL DEPARTMENT FUNDING	$680,652	$750,652	$755,652	$846,652
Difference				
Funding - Expense	$0	$130,000.00	$260,000.00	$260,000.00

Part II: Expense explanation

Expense Narrative

Please note that the budget is the same for the R401 proposal for the AAS in Engineering Technology. The two programs will share budget and faculty. The department is well positioned with six faculty members with background and experience in engineering technology. However, those six faculty members are committed to the General Technology AAS and Technology Systems BS with overlap in the Outdoor Product Design and Development BS and some technical certificate programs. Two additional faculty members, for which funding is not currently available, will be required to effectively deliver the BAS and AAS degree programs in Engineering Technology. Additionally, a professional academic advisor will be required and an educational specialist who will work with industry to make sure curriculum is aligned with industry needs, develop internship and career placement opportunities for students, and market the program. The laboratories are currently well-equipped to support the new program, although some additional equipment may be required to support the additional enrollments.

Part III: Describe funding sources

Revenue Narrative 1

One-time funding of $87,000.00 was provided from USU Central Administration for the current fiscal year, prior to program implementation, to develop the program, overall curriculum, and individual new courses. USU Central Administration has also committed funding for a professional academic advisor for the first two years of the program, after which it is expected that growth funding from tuition will be used for the academic advisor position moving forward. The operating budget will be reallocated within the department as managing this new program will be very similar to operating the department's current programs.

Revenue Narrative 2

Ongoing funding for one new full-time faculty position will be required beginning in the first year of program implementation. Ongoing funding for a second full-time faculty position will be required in the second year of program implementation. It is estimated that each position will require a minimum of $90,000 in salary plus benefits for a total cost of $260,000 for the two faculty positions. External funding will be used to support the educational specialist position that will be added in year three of the program and grant funding will be sought to purchase any additional required equipment for the program.

Utah System of Higher Education
New Academic Program Proposal
Cover/Signature Page - Full Template

Institution Submitting Request: Utah State University

Proposed Program Title: Engineering Technology

Are There New Emphases: **Yes [ ]** **No [X]**

Names of New Emphases (Separated by Commas):

Sponsoring School, College, or Division: College of Agriculture and Applied Sciences

Sponsoring Academic Department(s) or Unit(s): Technology, Design and Technical Education

Classification of Instructional Program Code[1] : **6 - Digit CIP:** 15.0000

Min/Max Credit Hours Required of Full Program: 120 / 120

Proposed Beginning Term[2]: Spring 2024

Institutional Board of Trustees' Approval Date:

Program Type (mark all that apply with an x):

[ ] (AAS)	Associate of Applied Science Degree
[ ] (AA) **[ ] (AS)** **[ ]** **[ ]**	Associate of Arts Degree Associate of Science Degree Specialized Associate Degree (specify award type[3]:) Other (specify award type[3]:)
[ ] (BA) **[ ] (BS)** **[X] (BAS)** **[ ]** **[ ]**	Bachelor of Arts Degree Bachelor of Science Degree Bachelor of Applied Science Degree Specialized Bachelor Degree (specify ward type[3]:) Other (specify award type[3]:)
[ ] (MA) **[ ] (MS)** **[ ]** **[ ]**	Master of Arts Degree Master of Science Degree Specialized Bachelor Degree (specify ward type[3]:) Other (specify award type[3]:)
[ ]	Doctoral Degree (specify award type[3]:)
[ ]	K-12 School Personnel Program
[ ]	Out of Service Area Delivery Program **[ ]** Attached MOU
[ ]	Out of Mission Program
[ ]	NEW Professional School

[1] For CIP code classifications, please see http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55.
[2] "Proposed Beginning Term" refers to first term after Regent approval that students may declare this program.
[3] Please indicate award such as APE, BFA, MBA, MEd, EdD, JD

Changes to Existing Programs or Administrative Units Required (mark all that apply with an x, if any):

[ ]	Program Restructure with or without Consolidation
[ ]	Emphases transfer from another program or academic unit
[ ]	Name Change of Existing Program or Academic Unit
[ ]	Program transfer to a different academic unit
[ ]	Suspension or discontinuation of a unit or program
[ ]	Reinstatement of a previously suspended/discontinued program or administrative unit
[ ]	Other

Chief Academic Officer (or Designee) Signature:
I, the Chief Academic Officer or Designee, certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

Please type your first and last name Date:

☐ I understand that checking this box constitutes my legal signature.

Utah System of Higher Education
Program Description - Full Template

Section I: The Request

Utah State University's Technology, Design and Technical Education requests approval to offer the following degree(s): Engineering Technology

To be effective on: Spring 2024

This program was approved by the institutional Board of Trustees on:

Section II: Program Proposal

Program Description

The Department of Technology, Design, and Technical Education (TDTE) at Utah State University (USU) is developing an Engineering Technology Bachelor of Applied Science degree to begin in the Spring of 2024. This degree is a standalone degree, and it is also designed to "stack" onto existing AAS degrees and 900-hour certificates from Utah's Technical Colleges. The degree will focus on educating students on applied engineering principles by using math, science, and practical experiences to solve real-world problems. The degree will have a core of math, science, engineering, laboratory work, and digital design, with several electives allowing the students to focus on robotics, additive manufacturing, advanced manufacturing, electronics, quality and reliability, or CAD systems. The program will be offered face-to-face on the Logan Main Campus and online for non-traditional and distance learners. The program will seek accreditation through the Accreditation Board for Engineering and Technology (ABET).

Consistency with Institutional Mission

Utah State University (USU) is a land grant university, which means it has a specific mission and goals outlined by the Morrill Act of 1862. Additionally, USU serves as a regional community college and technical college for the southeast region. The desire for a workforce development strategy that is both innovative and emphasizes stackable pathways into higher learning opportunities for students is the central mission of USU. As a result, it is the intention of USU to offer an engineering technology program that is centered around the diverse needs of the state.

As a leader in education and workforce development, USU aims to provide accessible and relevant education to meet the needs through a program that accommodates the learners' barriers to success. An engineering technology program through USU contributes to this goal by offering a curriculum that aligns with the needs of the local and regional industries, preparing students for high-demand careers in engineering and technology fields that our local industry partners support. By offering a practical and applied education, the program can equip graduates with the skills and knowledge required to address real-world challenges and contribute to the economic development in Utah and beyond.

Utah State University is committed to continual research and innovation as land grant universities are expected to engage in research and innovation to advance knowledge and promote economic growth. An engineering technology program can actively contribute to research by conducting applied research projects in collaboration with industries and government agencies.

Additionally, a vital aspect of the Land Grant Mission is outreach and extension, which seeks to engage with communities and provide these services. An engineering technology program can fulfill this role by actively collaborating with local industries, organizations, and communities. This collaboration can involve offering technical assistance, training programs, and consulting services to address engineering and technology-related challenges businesses and communities face. By sharing expertise and resources, the program can enhance the competitiveness of local industries, promote economic development, and improve the quality of life for Utah residents.

A vital aspect of this program proposal is the desire to increase access for adult learners as they transition from one stage of their career to the next. Land grant universities strive to create an inclusive and diverse learning environment that reflects the state's demographics and promotes equal opportunities for all. This engineering technology program can contribute to this goal by actively recruiting and supporting students from diverse backgrounds, including underrepresented groups, and by accommodating learning in contextual space through industry collaboration.

Section III: Needs Assessment

Program Rationale

The proposed engineering technology program request was initiated from necessity as regional workforce partners voiced concern for unmet workforce needs. As a result, curricular development processes were initiated in partnership with industry and accrediting bodies to help meet the industry's needs while maintaining program fidelity.

Engineering technology is dynamic and constantly evolving, driven by technological advancements and ever-changing industry demands. To create a relevant program, it is essential to actively involve industry representatives, employers, and professionals in the program development process. By seeking their input, emerging trends, technological advancements, and skill requirements can be identified that shape the industry's needs. This industry-driven approach will ensure program alignment with the current and future demands of the engineering technology field, thus increasing the employability of graduates.

Developing a successful engineering technology program requires strong collaboration and partnerships with industry stakeholders. By actively engaging employers, professional organizations, and industry experts, valuable partnerships can be developed that facilitate internships, co-op opportunities, and real-world projects for students. These collaborations will enhance students' practical skills and knowledge and provide them with networking opportunities and potential employment prospects. Moreover, industry partners can contribute to curriculum development, ensuring it reflects the latest industry practices and technologies relevant for their future career advancements.

The curriculum of the engineering technology program will be designed based on input from industry partners to ensure its alignment with industry needs and demands. The program will offer a balanced mix of theoretical knowledge and hands-on practical experience, emphasizing the application of engineering principles and advanced technologies in real-world settings. Courses will cover various relevant topics such as engineering design, manufacturing processes, quality assurance, project management, and emerging technologies specific to the industry. Additionally, the program will incorporate industry-standard software, tools, and equipment to familiarize students with the available resources used in the field.

To deliver a high-quality education that meets industry standards, faculty members will possess a combination of academic qualifications and industry experience. This blend of expertise will ensure that students receive instruction that combines theoretical knowledge with practical insights. Faculty members will engage in ongoing professional development activities, including industry conferences, workshops, and collaborations with industry partners. By staying connected with industry trends and best practices, faculty will be better equipped to deliver relevant and up-to-date instruction to students.

A robust system of continuous evaluation and improvement will be implemented to ensure the ongoing relevance and quality of the program. Feedback from industry partners, alumni, and employers will be actively sought and incorporated into program reviews and updates. This iterative process will help identify areas for improvement, emerging industry needs, and opportunities for curriculum enhancement. The program will also regularly conduct graduate surveys and track the employment outcomes of graduates to assess the program's effectiveness in meeting industry demands.

Labor Market Demand

Nationally, the Bureau of Labor Statistics (BLS) projects that employment in engineering occupations will grow by 4% between 2019 and 2029, adding over 139,000 new jobs to the economy. The BLS also reports that engineering occupations offer a median annual wage of $81,440, significantly higher than the median annual wage for all occupations of $41,950.

Furthermore, as technological advances continue to shape various industries, the demand for professionals with practical, hands-on experience in engineering is expected to increase. The proposed Bachelor of Applied Science in Engineering Technology program will provide students with the practical skills and knowledge needed to succeed in these rapidly evolving industries and prepare them for the job market upon graduation.

There is considerable demand for engineering professionals as the projected growth rate is high for the coming years. Locally and nationally, the expectation for positive growth in engineering and engineering-related areas shows economically solid promise for the coming years. According to data from the Utah Department of Workforce Services, occupations related to engineering are expected to see a 27% increase in employment in Utah between 2020 and 2030. This growth is higher than the projected average employment growth of 8.6% across all occupations in the state.

In addition, Utah's median wage for engineering occupations is significantly higher than the state's overall median wage. As of May 2020, Utah's median hourly wage for architecture and engineering occupations was $41.83, compared to the state's overall median hourly wage of $20.46. Moreover, salaries for more specific occupations within the engineering sector, oriented toward Engineering Technology, report median wages on 6-digit CIP codes in a range from $44.31 per hour to $30.62. This data suggests that engineering occupations are in high

demand and offer increased earning potential for graduates.

The proposed Bachelor of Applied Science in Engineering Technology program will provide students with the skills and knowledge needed to succeed in this dynamic field, contribute to the growth of Utah manufacturing industries across the state, and supply a demand for highly skilled engineering professionals.

Student Demand

The Engineering Technology Program is expected to generate significant student demand, particularly from two key groups: students from technical colleges and individuals seeking to re-enter education from industry. Technical college graduates who have completed associated certificate work may seek opportunities to further their education and advance their careers. The proposed Engineering Technology program provides an ideal pathway for these students to continue their educational journey in a high-wage, high-demand field. The program addresses the demand for a seamless transition from technical college toward a four-year degree program by offering a curriculum that leverages their technical knowledge and skills.

These students are attracted to the program because it allows them to deepen their understanding of engineering principles, gain specialized knowledge in their chosen field, and broaden their career prospects, making them eligible for future promotion. The program's emphasis on industry collaboration ensures that the education provided is efficient and aligned with industry demands, making graduates highly employable. This aspect appeals to technical college graduates seeking a competitive edge in the job market and the opportunity for upward career mobility.

Additionally, there is a growing trend of individuals with industry experience seeking to re-enter education to enhance their skills, explore new career opportunities, or pursue a career change. The proposed Engineering Technology Program, with its emphasis on industry input and demand, offers a unique opportunity for these individuals to update their knowledge and acquire formal qualifications in the engineering technology field. With their practical industry experience, these students bring valuable insights and perspectives to the program. Their presence enriches classroom discussions, enhances collaborative learning, and contributes to a dynamic educational environment. Their industry connections and experiences also provide valuable networking opportunities and potential job placements after graduation.

The program's flexibility in scheduling, including part-time and evening classes, caters to the needs of individuals who may be juggling work, family responsibilities, or other commitments. This flexibility, combined with the program's industry relevance and hands-on approach, appeals to individuals re-entering education and seeking a program that directly aligns with their professional goals and aspirations.

Similar Programs

This program does not exist in USU's service region. Currently, the association that offers national accreditation, the Accreditation Board for Engineering and Technology (ABET), accredits Engineering Technology programs at Weber State University, Utah Valley University, and Southern Utah University in the state. Of the current program, none have a “stacking” component to allow technical college students to articulate their certificates for credits toward graduation in Engineering Technology. The program is also to be offered face-to-face and fully online to meet industry needs in the Bear River Region and Wasatch Front.

Collaboration with and Impact on Other USHE Institutions

The proposed Engineering Technology Program recognizes the importance of creating seamless educational pathways for students transitioning from technical colleges. The program is committed to establishing solid collaborations with area technical colleges for stackable credentials to facilitate this transition and ensure students can build upon their prior technical education. The first step in collaborating with technical colleges is to align the curriculum of the Engineering Technology Program with the courses offered at these institutions. By reviewing the course offerings and competencies of technical college programs, areas of overlap can be identified and clear pathways established for credit transfer and advanced standing in the Engineering Technology Program. This alignment will minimize redundancy in coursework and enable students to seamlessly transition into the program without any loss of credit.

To formalize the collaboration and facilitate credit transfer, the Engineering Technology Program will work closely with technical colleges to develop articulation agreements. These agreements will outline the specific courses, competencies, and credits to be recognized for transfer into the program. They will provide clear guidelines for technical college graduates on how their prior coursework can be applied towards meeting the requirements of the Engineering Technology Program. Articulation agreements will create a transparent and efficient process for credit evaluation and transfer, ensuring a smooth transition for students.

Collaboration with technical colleges goes beyond credit transfer. The Engineering Technology Program will establish advising and support services to assist students from technical colleges in transitioning to the program. Academic advisors will be available to guide students through the admission process, provide information on course equivalencies, and help them navigate the curriculum. These advisors will also be knowledgeable about scholarships, financial aid, and other resources available to support students during their educational journey.

One of the critical benefits of collaborating with technical colleges is the opportunity to offer stackable credentials. The Engineering Technology Program will work closely with technical colleges to identify specific technical certificate or associate degree programs that align with the program's focus areas. Students can earn interim credentials along their educational pathway by recognizing and awarding stackable credentials. These credentials provide valuable industry-recognized certifications and enhance the employability of students who may choose to enter the workforce before completing their bachelor's degree.

External Review and Accreditation

An advisory board with industry leaders in Northern Utah from Northrop Grumman, Lockheed Martin, Autoliv, TCR Composites, and ATK have reviewed the degree plan proposal and support this program. Additional advisory members will be added as the need arises. Nationally, the Accreditation Board for Engineering and Technology (ABET) offers accreditation for programs similar to this proposal. This program has been designed to meet their standards and once the program is in place, accreditation will be applied for with the first graduating class as defined by ABET, with the initial projected review after three years. According to the ABET website, the average cost of the initial accreditation visit fee is $20,000.

Section IV: Program Details

Graduation Standards and Number of Credits

The proposed program aligns with the standards and number of credits of other programs granting the bachelor of science degree at USU. Upon graduation, a student will have earned a minimum of 120 credits including general education, University Studies, and major courses.

Admission Requirements

The admission requirements will be consistent with the existing USU undergraduate admission requirements.

Curriculum and Degree Map
See Appendix A

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

This degree program proposal is a result of many requests from industry partners currently working with the Technology Systems program. This program will share many technical skill courses with the technology systems program while also providing specific Engineering Technology coursework and training. It is anticipated that an additional 11 courses will need to be developed to be able to provide the specific set of knowledge and skills graduates would need to enter the industry. With 11 new courses, the program will require two additional faculty members along with an educational specialist to be able to offer the additional courses required. Funding for faculty overload, adjunct instructors, or graduate students to help with courses in both Technology Systems and this Engineering Technology degree program will likely have capacity issues. The program is designed to have a path to the degree through the USU Online System, with additional options for students at many regional campuses.

Faculty

The courses draw on the strengths and expertise of the faculty in the Department of Technology, Design, and Technical Education, along with collaboration from the faculty at USU Eastern and Bridgerland Technical College that provides technical content training for students within the AAS degree. Additional courses offered in programs outside the department, will be applied to this degree with minimal student impact. Through restructuring and reallocation of teaching assignments, the faculty can accommodate the student demand of the proposed program while requiring only two additional faculty members. The positions for the faculty members are being funded through growth funds in the college and are supported by the university to develop this program for our industry partners. Additional faculty will be considered as the enrollment in the program grows or industry partners sponsors such additions.

Staff

With little restructuring, current staff resources are sufficient for the needs of this new program, but funding will be provided at the university level to fund an Educational Specialist to help with the projected growth of the program. As the program grows or industry partners sponsor such additions, additional staff will be considered.

Student Advisement

The Department of Technology, Design, and Technical Education (TDTE) has designated advisors throughout the regional campus system and within the College of Agriculture and Applied Sciences. The advisors for this program will be the same individuals who also advise students in the early stages of the Engineering Technology program. Funding is being allocated at the University level to fund a program advisor after the first year to help with the projected growth. If needed, student peer mentors will assist the advisors with the increased number of students and additional advising capacity will be added as student numbers warrant within TDTE.

Library and Information Resources

Additional resources will not be needed. USU's current undergraduate resources include all software needed for this degree program.

Projected Enrollment and Finance

See Appendix D

Section VI: Program Evaluation

Program Assessment

The Department of Technology, Design, and Technical Education will conduct on-going assessment of the degree program and make improvements or adjustments as needed. The objectives selected for this program include skills and knowledge identified by industry leaders and those required by ABET for accreditation. This program has four primary objectives. After completion of this degree program, students will be able to:

1. Graduates will demonstrate a commitment to professional and ethical responsibilities, diversity, inclusion awareness and lifelong professional development.
2. Graduates will be recognized as having mastered both theory and application of the body of knowledge in the engineering technology field.
3. Graduates will demonstrate the ability to effectively, creatively, and methodically solve broadly-defined engineering problems through experimentation, analysis, synthesis, and evaluation of data through the use of the engineering design process.
4. Graduates will be recognized as being personally effective as individuals, team members and team leaders through oral, written, and visual communication.
5. Graduates will acquire training and develop skills necessary for a career or an advanced degree program.

Instructors will use student course evaluations as a formative step in evaluating the program. The program faculty will have the opportunity to interact and work with other faculty from across campus to seek feedback. The department will also conduct exit interviews/surveys of graduating students and use portfolios and senior projects to evaluate the technical, written, verbal, and communication skills of the students. The program will survey alumni at approximately five-year intervals to provide an opportunity for student reflection on the program outcomes and overall value. Industry partners will offer internships and provide feedback about the program through an advisory committee.

The program will also be assessed by ABET and the feedback will be integrated into the program to maintain accreditation. ABET requires certain standards to be met and will help keep the evaluation and assessment at the forefront of the faculty's decision-making.

Student Standards of Performance

The student performance standards have been identified and developed through partnership with industry through an advisory committee and through ABET. The standards will be evaluated and adapted as industry partners provide feedback and as student outcomes that are reported to ABET will be assessed and shared with faculty.

Core Standards of Performance

The ABET student outcomes for use in accreditation that will be used for assessing the program are as follows:

(1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

(2) an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

(5) an ability to function effectively as a member as well as a leader on technical teams.

Additional ABET Standards

1. Include a technical core preparing students for the increasingly complex technical specialties later in the curriculum;

2. Develop student competency in the discipline;

3. Include design considerations appropriate to the discipline and degree level such as: industry and engineering standards and codes; public safety and health; and local and global impact of engineering solutions on individuals, organizations and society; and

4. Combine technical, professional, and general education components to prepare students for a career, further study, and lifelong professional development.

5. The curriculum must include topics related to professional and ethical responsibilities, diversity and inclusion awareness, quality, and continuous improvement.

6. The physical or natural science content of the curriculum must be appropriate to the discipline and must include laboratory experiences.

7. Baccalaureate degree curricula must provide a capstone or integrating experience that develops student competencies in applying both technical and non-technical skills in solving problems.

Industry partnerships will be used to evaluate and provide feedback of students' learning and performance in an industrial setting. Completion of a senior design project will be evaluated using a common rubric to assess the student standards of performance. Artifacts demonstrating student performance will be included in a portfolio and collected throughout the courses in the program.

Appendix A: Program Curriculum

Course Number	NEW Course	Course Title	Credit Hours
General Education Courses (list specific courses recommended for this program on Degree Map)			
		General Education Credit Hour Sub-Total	29
Required Courses			
ETEC 1000	Yes	Introduction to Engineering Technology	1
TESY 1200		Computer-Aided-Drafting and Design	3
ETEC 2300	Yes	Introduction to Electronics	4
ETEC 1010	Yes	Eng Technology Principles	3
TESY 1030		Materials Processing and Systems	3
ETEC 2020	Yes	Introduction to Automation	3
TEE 2850		Statics and Strengths of Materials	3
ETEC 2010	Yes	Introduction to Quality	3
ETEC 2200	Yes	Technical Communication for Engineering Technology	3
TESY 2250		Occupational Experience in General Technology	3
ETEC 3200	Yes	Professional Communication in Engineering Technology	3
ETEC 3010	Yes	Material Science	3
ETEC 3020	Yes	Energy and Power Systems	3
ETEC 4900	Yes	Capstone/Sr. Project I	3
TESY 3000		Hazard Recognition and Control	3
ETEC 4910	Yes	Capstone/Sr. Project II	3
		Required Course Credit Hour Sub-Total	47
Elective Courses			
TEE 1010		Graphic Communication Technologies	3
TEE 1040		Construction and Estimating	3
TEE 1640		Introduction to Welding	3
TEE 2030		Wood-Based Manufacturing Systems	3
TEE 2200		Aquaponic Systems	3
TEE 2220		Civil Engineering and Architecture	3
TESY 2270	Yes	Intermediate CAD	3
TESY 3040		Design for Additive Manufacturing	3
TESY 3200		Additive Manufacturing I	3
TESY 3210		Additive Manufacturing II	3
TESY 3270		Advanced Computer-Aided Drafting	3
TESY 4300		Intellectual Property for Product Developers	3
TESY 4330		Product Innovation Processes, Tools, and Strategies	3
TESY 3030		Computer-integrated Manufacturing Systems	3
TESY 4230		Advanced Materials and Processing Systems	3
TESY 4500		Quality Management Systems	3
TESY 4510		Quality Root Cause Analysis Methods and Applications	3
TESY 4520		Statistical Quality Control w/SPC	3
TESY 4530		Principles of Lean Manufacturing	3
TESY 4540		Quality Management Systems II	3
TESY 4410		Industrial Automation and Networking	3
TESY 4420		Industrial Robotics	3
TESY 4430		Advanced Programmable Logic Controllers	3
TESY 4440		Machine Vision and Inspection	3
TESY 4450		Human Machine Interface	3
		Elective Credit Hour Sub-Total	36
		Core Curriculum Credit Hour Sub-Total	

Add An Emphasis:

Can students complete this degree without emphases? ☐ *Yes* ☐ *No*

Course Number	NEW Course	Course Title	Credit Hours
Name of Emphasis:			
		Emphasis Credit Hour Sub-Total	
		Total Number of Credits to Complete Program	

Program Curriculum Narrative

This Engineering Technology degree program requires students to take 29 general education credits which can be seen in the four-year plan. This program is designed to be stackable with a certificate from a technical college and the AAS in Engineering Technology program. Proposals for new courses for this degree program that will carry CL2, CI, and QI general education designations are being submitted concurrently with this proposal. The core requirements for the program contain 47 credits leaving 36 credits of technical electives. Technical electives can include certificates articulated in from the Utah Technical College System and USU Eastern. Additionally, institutional certificates providing more depth can be obtained. Related insitutional certificates currently active in the USU system include Quality and Reliability, Advanced Manufacturing, and Additive Manufacturing with more being planned. Additional technical electives may be added and approved when they make logical sense for a career pathway.

Degree Map

First Year Fall	Cr. Hr.	First Year Spring	Cr. Hr.
ENGL 1010 Intro to Writing (CL1)	3	APEC 1600 Nat Resources/Econ (BAI)	3
MATH 1050 College Algebra (QL)	4	MATH 1060 Trigonometry	2
ETEC 1000 Introduction to Engineering Technology	1	ETEC 1010 Engineering Technology Principles	3
TESY 1200 Computer-Aided Drafting and Design	3	TESY 1030 Materials and Processing Systems	3
ETEC 1300 Introduction to Electronics	4	Any Breadth Creative Arts (BCA)	3
		Communication Literacy 2 (CL2)	3
Total	15	**Total**	17
Second Year Fall	**Cr. Hr.**	**Second Year Spring**	**Cr. Hr.**
ETEC 2020 Introduction to Automation	3	ETEC 2200 Technical Communication for Engineering Technology	3
MATH 1210 Calculus I	4	TESY 2250 Occupational Experience in General Technology	3
TEE 2850 Statics and Strengths of Materials	3	PHYS 1800 Physics of Tech (BPS)	4
ETEC 2010 Intro to Quality	3	CHEM 1210 Principles of CHEM	4
Any Breadth Social Science (BSS)	3	CHEM 1215 Chem Lab	1
Total	16	**Total**	15
Third Year Fall	**Cr. Hr.**	**Third Year Spring**	**Cr. Hr.**
Upper Div Technical Elective	3	ETEC 3020 Energy Systems	3
Upper Div Technical Elective	3	ETEC 3010 Material Science	3
Any Breadth Humanities (BHU)	3	Upper Div Technical Elective	3
Technical Elective	3	Any Breadth Life Science (BLS)	3
ETEC 3200 Technical Communication	3	Elective	3
Total	15	**Total**	15
Fourth Year Fall	**Cr. Hr.**	**Fourth Year Spring**	**Cr. Hr.**
ETEC 4900 Capstone/Sr. Project I	3	Technical Elective	4
Upper Div Technical Elective	3	Upper Div Technical Elective	3
Upper Div Technical Elective	3	TESY 3000 Hazard recog/control	3
Elective	5	ETEC 4910 Capstone/Sr. Project II	3
Total	**14**	**Total**	**13**

Appendix C: Current and New Faculty / Staff Information

Part I. Department Faculty / Staff

Identify # of department faculty / staff (headcount) for the year preceding implementation of proposed program.

	# Tenured	# Tenure -Track	# Non -Tenure Track
Faculty: Full Time with Doctorate			2
Faculty: Part Time with Doctorate			
Faculty: Full Time with Masters			1
Faculty: Part Time with Masters			1
Faculty: Full Time with Baccalaureate			
Faculty: Part Time with Baccalaureate			2
Teaching / Graduate Assistants			
Staff: Full Time			
Staff: Part Time			3

Part II. Proposed Program Faculty Profiles

List current faculty within the institution -- with academic qualifications -- to be used in support of the proposed program(s).

	First Name	Last Name	Tenure (T) / Tenure Track (TT) / Other	Degree	Institution where Credential was Earned	Est. % of time faculty member will dedicate to proposed program.	If "Other," describe
Full Time Faculty							
	Trevor	Robinson	Other	Phd - TEE	Utah State University	100	
	Andrew	Deceuster	Other	Phd - ENGR	Utah State University	100	
	Steve	Williams	Other	MS - TEE	Utah State University	100	
							Add Another Full Time
Part Time Faculty							
	Corey	Ortiz	Other	Phd - TEE	Utah State University	75	
	Larry	Gardner	Other	Phd - Physics	Utah State University	50	
	Alex	Thompson	Other	BS - TESY	Utah State University	50	
							Add Another Part Time

Part III: New Faculty / Staff Projections for Proposed Program

Indicate the number of faculty / staff to be hired in the first three years of the program, if applicable. Include additional cost for these faculty / staff members in Appendix D.

	# Tenured	# Tenure -Track	# Non -Tenure Track	Academic or Industry Credentials Needed	Est. % of time to be dedicated to proposed program.
Faculty: Full Time with Doctorate			1	Three or more years of industry experience working with manufacturing, quality assurance, and/or engineer products.	100
Faculty: Part Time with Doctorate					
Faculty: Full Time with Masters			1	Five or more years of industry experience working with manufacturing, quality assurance, and/or engineer products.	100
Faculty: Part Time with Masters					
Faculty: Full Time with Baccalaureate					
Faculty: Part Time with Baccalaureate					
Teaching / Graduate Assistants					
Staff: Full Time			2	Skills as an academic advisor and an education specialist	100
Staff: Part Time					

Appendix D: Projected Program Participation and Finance

Part I.

Project the number of students who will be attracted to the proposed program as well as increased expenses, if any. Include new faculty & staff as described in Appendix C.

Three Year Projection: Program Participation and Department Budget						
	Year Preceding Implementation	New Program				
		Year 1	Year 2	Year 3	Year 4	Year 5
Student Data						
# of Majors in Department	600	640	680	720	760	800
# of Majors in Proposed Program(s)		40	80	120	160	200
# of Graduates from Department	120	120	140	150	160	170
# Graduates in New Program(s)		0	20	30	40	50

Department Financial Data				
	Department Budget			
		Year 1	Year 2	Year 3
Project additional expenses associated with offering new program(s). Account for New Faculty as stated in Appendix C, "Faculty Projections."	Year Preceding Implementation (Base Budget)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)
EXPENSES – nature of additional costs required for proposed program(s)				
List salary benefits for additional faculty/staff each year the positions will be filled. For example, if hiring faculty in year 2, include expense in years 2 and 3. List one-time operating expenses only in the year expended.				
Personnel (Faculty & Staff Salary & Benefits)	$568,052.00	$130,000.00	$260,000.00	$411,000.00
Operating Expenses (equipment, travel, resources)	$25,000.00	$5,000.00	$10,000.00	$15,000.00
Other: One time internal allocation to initiate program develop courses (USU Budget Hearing Process)	$87,600.00	$65,000.00	$65,000.00	$0.00
TOTAL PROGRAM EXPENSES		$200,000.00	$335,000.00	$426,000.00
TOTAL EXPENSES	$680,652	$880,652	$1,015,652	$1,106,652
FUNDING – source of funding to cover additional costs generated by proposed program(s)				
Describe internal reallocation using Narrative 1 on the following page. Describe new sources of funding using Narrative 2.				
Internal Reallocation	$87,600.00	$70,000.00	$75,000.00	$15,000.00
Appropriation				
Special Legislative Appropriation				
Grants and Contracts				$86,000.00
Special Fees				
Tuition				$65,000.00
Differential Tuition (requires Regents approval)				
PROPOSED PROGRAM FUNDING		$70,000.00	$75,000.00	$160,000.00
TOTAL DEPARTMENT FUNDING	$680,652	$750,652	$755,652	$846,652
Difference				
Funding - Expense	$0	$130,000.00	$260,000.00	$260,000.00

Part II: Expense explanation

Expense Narrative

Please note that the budget is the same for the R401 proposal for the AAS in Engineering Technology. The two programs will share budget and faculty. The department is well positioned with six faculty members with background and experience in engineering technology. However, those six faculty members are committed to the General Technology AAS and Technology Systems BS with an overlap in the Outdoor Product Design and Development BS and some technical certificate programs. Two additional faculty members, for which funding is not currently available, will be required to effectively deliver the BAS and AAS degree programs in Engineering Technology. Additionally, a professional academic advisor will be required, and an educational specialist who will work with industry to make sure the curriculum is aligned with industry needs, develop internship and career placement opportunities for students, and market the program. The laboratories are currently well-equipped to support the new program, although some additional equipment may be required to support the additional enrollments.

Part III: Describe funding sources

Revenue Narrative 1

One-time funding of $87,000.00 was provided from USU Central Administration for the current fiscal year, prior to program implementation, to develop the program, overall curriculum, and individual new courses. USU Central Administration has also committed funding for a professional academic advisor for the first two years of the program, after which it is expected that growth funding from tuition will be used for the academic advisor position moving forward. The operating budget will be reallocated within the department as managing this new program will be very similar to operating the department's current programs.

Revenue Narrative 2

Ongoing funding for one new full-time faculty position will be required beginning in the first year of program implementation. Ongoing funding for a second full-time faculty position will be required in the second year of program implementation. It is estimated that each position will require a minimum of $90,000 in salary plus benefits for a total cost of $260,000 for the two faculty positions. External funding will be used to support the educational specialist position that will be added in year three of the program and grant funding will be sought to purchase any additional required equipment for the program.

COS - Geosciences - Geology - Professional Emphasis - BA BS

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

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COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)* COS

DEPARTMENT (include all cross listed departments)* Geosciences

Current Title (if applicable)* Geology - GeoWorkforce Emphasis - BA BS

Proposed Title* Geology - Professional Emphasis - BA BS

CIP Code

Enter the Correct CIP Code by Using the Following Link: Classification Instruction Programs

CIP Code (6-digits) * 40.0699

Minimum Number of Credits (if applicable)* 120

Maximum Number of Credits (if applicable)* 126

Type of Degree: (BA, BS, etc.)* BA, BS

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [x] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other (explain

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

The purpose of this proposal request is to change the name of the Geology: GeoWorkforce Emphasis - BA, BS degree to Geology: Professional Emphasis.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

The Geology: GeoWorkforce BA, BS degree program has only been in existence for a few years. One of the hopes for this program was to increase the number of majors in the Geosciences Department. Unfortunately, the response to this relatively new degree program has been tepid. Consequently, students and faculty in the department were consulted to propose possible reasons. The most common response was that the name of the program did not portray it accurately. When asked for possible replacement names, Professional was the most popular. It is hoped that changing the name to Professional will increase the number of students pursuing this degree emphasis.

Labor Market Demand (if applicable)

Information on the Labor Market Demand was provided at the time the GeoWorkforce Emphasis - BA, BS degree was proposed a few years ago. No updated information has been acquired since then. This proposal request merely is to change the name of the degree program to Professional.

Consistency with Institutional Mission & Institutional Impact*

This information also was provided when the GeoWorkforce Emphasis - BA, BS degree program was proposed. No changes to the degree other than this name change has been requested since then. Presumably, the degree still is consistent with the Institutional Mission & Institutional Impact.

Finances*

The proposed request to change the name of the GeoWorkforce Emphasis - BA, BS degree program to Professional will have no financial impact whatsoever.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Not applicable to this proposed request to change the name of the GeoWorkforce Emphasis -

Narrative

BA, BS degree program to Professional.

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Marine Science - Minor

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)* QCNR

DEPARTMENT (include all cross listed departments)* Watershed Sciences

Current Title (if applicable)* NA

Proposed Title* Marine Science - Minor

CIP Code

Enter the Correct CIP Code by Using the Following Link: Classification Instruction Programs

CIP Code (6-digits) * 30.3201

Minimum Number of Credits (if applicable)* 20

Maximum Number of Credits (if applicable)* 21

Type of Degree: (BA, BS, etc.)* Minor

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [x] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other (explain

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* To develop a marine science minor within the Watershed Sciences Department.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

The Watershed Sciences Department proposes a marine science minor for students majoring in one of the Watershed Sciences degrees (B.S. in Fisheries and Aquatic Sciences, B.S. in Management and Restoration of Aquatic Ecosystems). Through coursework and immersive experiences, the marine science minor will introduce students to marine ecosystems, marine biota, the chemical and physical properties of the ocean and the seafloor, and the conservation and management of marine resources. The marine science minor will be supported by Watershed Sciences, Quinney College of Natural Resources, and USU faculty, who have teaching and research expertise in several marine disciplines, including coral reef ecology, marine ecology, wetland ecology, fisheries, paleoceanography, and marine conservation. The goal of the marine science minor is to make our graduates more competitive in pursuing careers in the burgeoning blue economy, to increase the attractiveness of Watershed Sciences majors, and to satisfy current and prospective student interest in an affordable marine program in the Intermountain West.

The ocean covers 75% of the Earth's surface, generates most of the world's oxygen, regulates our climate, and helps feed the world. In addition, the blue economy (i.e., all economic activities associated with the oceans, seas, and coasts) is worth $2.5 trillion, supports over 3.5 million jobs in the USA, and is one of the fastest-growing sectors of the economy in North America. As a result, the ocean is a sentinel for planetary health and wellness. Yet, many college students in non-coastal states lack opportunities to learn about the ocean and its role in societal well-being. Utah State University's Watershed Sciences Department is well-positioned to fill this academic gap in the Intermountain West by offering top-notch marine science courses and experiences. The Watershed Sciences Department already provides exciting courses in oceanography, fish diversity and fisheries, and wetland ecology and restoration. Additionally, Watershed Sciences offers a unique study abroad course that allows students to work with USU's faculty doing on-the-ground coral reef research on Australia's Great Barrier Reef. By expanding these opportunities with four new classes and offering a marine science minor, Watershed Science graduates will have the knowledge and academic credentials to compete for graduate school positions and careers in various marine disciplines.

Developing a marine science minor will also help satisfy student demand for an affordable marine program and will likely generate significant interest in the Watershed Sciences majors. Current and prospective students have shown a profound interest in USU developing a marine science program. In Spring 2023, we surveyed 248 students enrolled in undergraduate science courses at USU to gauge their interest in a marine science minor. Despite two of the courses surveyed being breadth science classes that cater mainly to non-science majors, 67% of students responded yes or maybe. In addition, our Department's Academic Adviser, Melanie Conrad, receives many inquiries each year from prospective and current students asking whether USU offers any degrees in marine science. USU is uniquely positioned to meet student demand for a marine program at a fraction of the cost of other western Universities. If approved, a marine science minor at USU would make us one of only two colleges in the Intermountain West to offer a marine-based program; the other being Arizona State University. Although several colleges in California, Washington, and Oregon offer marine science programs, these Universities are expensive to attend. At USU, students could receive a quality minor in marine science for, on average, 32% cheaper than any other college offering a marine science minor or major in the Western United States.

Labor Market Demand (if applicable)

The blue economy is one of the fastest-growing economies in the nation. Between 2014 and 2019, the marine-related gross domestic product grew 4.25%, double the total US gross domestic product growth for that same time. Even during the COVID-19 pandemic, American seaports expanded, and the demand for maritime commerce is expected to triple by 2030. In response to this growth, the USA and other countries are preparing a new workforce that will tackle challenges in expanding ocean technology and infrastructure while at the same time managing and protecting marine resources sustainably.

Graduates supplementing one of their Watershed Science degrees with a marine science minor will be more competitive for marine-based jobs in tourism and recreation, biomedical, national defense, shipping and transportation, commercial and recreational fishing, data science, aquaculture, power generation, and research. Although the Bureau of Labor Statistics (bls.gov) does not specifically address job growth in marine fields, employment across the above sectors is anticipated to increase between 4% and 36% by 2031. Statistics from the University of Hawaii, Hilo, and the University of Washington provide evidence that students with marine knowledge are sought after in the workforce, as 70-80% of students obtaining some degree in marine science from their programs go on to graduate school or careers in their field of study.

Consistency with Institutional Mission & Institutional Impact*

The mission of Utah State University is to be one of the nation's premier student-centered land-grant and space-grant universities, emphasizing excellence in teaching, research, and outreach. While USU is located in Utah, which is a landlocked state, a marine science minor can still support the university's mission in several ways:

Interdisciplinary Approach: USU promotes an interdisciplinary approach to education and research. A marine science minor can contribute to this by providing students with a broader perspective and understanding of the interconnectedness of various scientific disciplines, including biology, geology, chemistry, and environmental science. This interdisciplinary knowledge can be valuable for tackling complex environmental challenges and fostering collaboration across different fields.

Environmental Stewardship: USU emphasizes the importance of environmental stewardship and sustainability. By offering a marine science minor, the university can promote awareness and knowledge about marine ecosystems, which are crucial for the health of our planet. Students with a marine science minor can contribute to sustainable practices, conservation efforts, and the protection of marine resources, aligning with USU's commitment to environmental responsibility.

Research Opportunities: USU is known for its research excellence. A marine science minor can provide students with opportunities to engage in research related to marine environments, even if they are not physically located near the ocean. This can involve projects focused on freshwater systems, aquaculture, climate change impacts, or other aspects of marine science that can be studied in landlocked regions.

Outreach and Education: USU places importance on community engagement and outreach. With a marine science minor, students can participate in outreach activities to educate the public, K-12 students, and local communities about marine science, ocean conservation, and environmental issues. This aligns with USU's commitment to extending knowledge beyond the campus and making a positive impact on society.

Global Perspective: Although USU is based in a landlocked state, a marine science minor can offer students a global perspective. Marine science has global relevance due to the interconnectedness of oceans and their influence on climate, biodiversity, and human well-being. By incorporating a marine science minor, USU can broaden students' understanding of global environmental issues and prepare them to address these challenges on a larger scale.

Overall, while USU may not have direct access to marine environments, offering a marine science minor aligns with the university's mission of excellence in teaching, research, and outreach. It expands the educational opportunities available to students, fosters interdisciplinary collaboration, promotes environmental stewardship, and contributes to a global perspective on pressing environmental issues.

Finances*

All resources needed to offer the Marine Science minor already exist at USU and we do not foresee any additional financial needs to maintain the program in the future. One new course (Marine Biology) will be developed to fulfill program requirements, but this will be done within the teaching load of an existing faculty member (Associate Professor Edd Hammill). In addition, we will be adding a new lecture and lab series (Ichthyology) to the Fisheries and Aquatic Sciences major that will also serve as a core class in the Marine Science minor. The Ichthyology class will be taught by Chad Teal, our recent Utah Cooperative Fish and Wildlife Research Unit hire. Advising for the program can be completed with existing QCNR advising staff and faculty major advisors.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

We plan to initially limit the marine science minor to students enrolled in a watershed sciences bachelor's degree program to ensure students have the relevant complementary science background and experiences to make the minor a valuable addition when they are applying for jobs. The marine science minor will require students to complete a minimum of 20 credits, 14 of which are required courses that span a breadth of marine subdisciplines. The remaining 6 credits can be achieved by taking at least two electives from a list of curated courses (see program curriculum). The curriculum was developed to ensure that USU marine science minors receive a rigorous program of study with several opportunities for experiential learning. The minor requirements are achievable for individuals enrolled in a watershed sciences degree with no additional time required to earn their degree.

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Ecology Specialization - MS

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Ecology Specialization - MS

Proposed Title*: Watershed Science - Watershed Ecology Specialization - MS

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 26.1301

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* MS

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale* This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact* No impact.

Finances* NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Ecology Specialization - PhD

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Ecology Specialization - PhD

Proposed Title*: Watershed Science - Watershed Ecology Specialization - PhD

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 26.1301

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* PhD

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale* This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact* No impact.

Finances* NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Hydrology Specialization - MS

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Hydrology Specialization - MS

Proposed Title*: Watershed Science - Watershed Hydrology Specialization - MS

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 40.0605

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* MS

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale* This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact* No impact.

Finances* NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Hydrology Specialization - PhD

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Hydrology Specialization - PhD

Proposed Title*: Watershed Science - Watershed Hydrology Specialization - PhD

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 40.0605

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* PhD

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☑ Yes ☐ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact*

No impact.

Finances*

NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Management Specialization - MS

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

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Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Management Specialization - MS

Proposed Title*: Watershed Science - Watershed Management Specialization - MS

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 40.0605

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* MS

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale* This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact* No impact.

Finances* NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

QCNR - Watershed Sciences - Watershed Science - Watershed Management Specialization – PhD

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: QCNR

DEPARTMENT (include all cross listed departments)*: Watershed Sciences

Current Title (if applicable)*: Watershed Science - Watershed Management Specialization - PhD

Proposed Title*: Watershed Science - Watershed Management Specialization – PhD

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 40.0605

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* PhD

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [x] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [ ] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose* Remove non-utilized degree specialization.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale* This specialization is not used by the department or USU.

Labor Market Demand (if applicable)

Consistency with Institutional Mission & Institutional Impact* No impact.

Finances* NA

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

LIBR - Instruction, Patron Services and Digital Initiatives - Library Public Services

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: LIBR

DEPARTMENT (include all cross listed departments)*: Instruction, Patron Services and Digital Initiatives

Current Title (if applicable)*: Instruction Collections and Patron Services

Proposed Title*: Library Public Services

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 000000

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* NA

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [x] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

A change is required so that our department name better reflects our internal library organization and work. The existing name is simultaneously overly prescriptive and unclear to those who see it. The current name neither corresponds to typical divisions of library labor nor the way in which our library staff currently operate. The name change simplifies and provides more clarity about the work and areas of responsibility subsumed within the department.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

This request to rename and restructure the Department of Library Instruction, Collections, and Patron Services into the Department of Public Services is based on our desire to simplify and refocus our work so that we can provide our core services and collection access in ways that meet the needs of our community of users while making efficient and effective use of our existing faculty and staff. To this end, the Libraries would like to reorganize into a more typical library alignment with a public facing department and a department that is more focused on collections. By changing the name of this department, the Libraries are projecting a focus on direct patron interaction, but without narrowly defining that interaction so specifically on only teaching, making explicit that our suite of services related to academic support is much broader. The goal is to be able to direct efforts more toward emerging areas such as supporting research consultation, digital scholarship, the physical and digital user experience, and robust outreach and programming—all areas which provide direct services to patrons.

Labor Market Demand (if applicable)

This is not applicable to the University Libraries.

Consistency with Institutional Mission & Institutional Impact*

This restructure is intended to better serve students, faculty, and the community by building more capacity into our support for consultations services, digital scholarship, event programming, and physical/digital space planning. It will not impact other programs at the university beyond the two current library departments involved nor will it impact programs outside of the institution. This restructure will allow better allocation of time and resources to ensure a more efficient allocation of staffing resources within the University Libraries.

Finances* No additional funding will be required as a part of this request. There is no financial impact on the University Libraries or on the larger institution.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

LIBR - Special Collections Digital & Cataloging - Library Collections and Discovery

4.1.a R401 ABBREVIATED PROGRAM PROPOSAL

R401-Abbreviated Program Proposal

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE (include all cross listed colleges)*: LIBR

DEPARTMENT (include all cross listed departments)*: Special Collections Digital & Cataloging

Current Title (if applicable)*: Special Collections Digital and Cataloging

Proposed Title*: Library Collections and Discovery

CIP Code

Enter the Correct CIP Code by Using the Following Link:

Classification Instruction Programs

CIP Code (6-digits) * 000000

Minimum Number of Credits (if applicable)* 0

Maximum Number of Credits (if applicable)* 0

Type of Degree: (BA, BS, etc.)* n/a

REQUEST

TYPE OF CHANGE BEING REQUESTED

Click the change(s) that best reflect your proposal.

New Academic Program:

- [ ] Certificates of Completion
- [ ] Certificates of Proficiency
- [ ] CTE - Certificate of Completion
- [ ] CTE - Certificate of Proficiency
- [ ] Institutional Certificate of Proficiency
- [ ] K-12 Endorsement Program
- [ ] Minor
- [ ] New Emphasis for Existing Program
- [ ] Out of Service Area Delivery Program (attach signed MOU)
- [ ] Post-Baccalaureate Certificate
- [ ] Post-Masters Certificate

Existing Academic Program Changes:

- [ ] Name Change of Existing Program
- [ ] Program Restructure (with or without Consolidation)
- [ ] Program Transfer to a New Academic Department or Unit
- [ ] Program Suspension (on hold-not listed in catalog)
- [ ] Program Discontinuation (permanent program removal)
- [ ] Reinstatement of Previously Suspended Program
- [ ] Out-of-Service Area Delivery Program (attach signed MOU)

Administrative Unit Changes:

- [x] Name Change of Existing Unit
- [ ] Administrative Unit (Transfer)
- [ ] Administrative Unit (Restructure-with or without Consolidation)
- [ ] Administrative Unit (Suspension-on hold)
- [ ] Administrative Unit (Discontinuation-permanent unit removal)
- [ ] Reinstatement of Previously Suspended Administrative Unit
- [ ] Reinstatement of Previously Discontinued Administrative Unit

Other: (explain change)

ADDITIONAL APPROVALS (if applicable)

Graduate Council Approval* ☐ Yes ☑ No

Teacher Licensure Program Approval (STEP)* ☐ Yes ☑ No

SECTION I: THE REQUEST

R401 Purpose*

A change is required so that our department name better reflects our internal library organization and work. The existing name is simultaneously overly prescriptive and unclear to those who see it. The current name neither corresponds to typical divisions of library labor nor the way in which our library currently operates. The name change simplifies and provides more clarity about the work and areas of responsibility subsumed within the department.

SECTION II: PROGRAM PROPOSAL

Proposed Action & Rationale*

This request to rename and restructure the Department of Library Special Collections, Digital, and Cataloging into the Department of Collections and Discovery is based on our desire to simplify and refocus our work so that we can provide our core services for collection development, access, and support in ways that meet the needs of our community of users while making efficient and effective use of our existing faculty and staff. To this end, the Libraries would like to reorganize into a more typical library alignment with a public facing department and a department that is more focused on collections. By changing the name of this department, the Libraries will project a focus on collections, but without providing such specificity about the nature of the collections, their use, or the processing techniques. The goal is to be able to focus more on emerging areas such as electronic resource management, digital preservation, special collections curation, and the creation of metadata—all areas that would benefit from realigning our staff to reduce redundancy of effort, increase capacity for processing, and improve programmatic operation.

Labor Market Demand (if applicable)

This is not applicable to the University Libraries.

Consistency with Institutional Mission & Institutional Impact*

This restructure is intended to better serve students, faculty, and the community by increasing the ability of library staff to more efficiently and effectively process and steward collection materials thereby making our materials more readily available to our community of users through both discovery tools and engagement opportunities. It will not impact other programs at the university beyond the two current library departments involved nor will it impact programs outside of the institution. This restructure will allow better allocation of time and resources to ensure a more efficient allocation of staffing resources within the University Libraries so that

ensure a more efficient allocation of staffing resources within the University Libraries so that Special Collections and General Collections can better coordinate their efforts.

Finances*

No additional funding will be required as a part of this request. There is no financial impact on the University Libraries or on the larger institution.

SECTION III: CURRICULUM (if applicable)

Program Curriculum Narrative

Attach (if applicable) completed Program Curriculum and Degree Map to this request by clicking on the Files icon located on the right-hand side of the screen.

SUBMIT AND APPROVE THE PROPOSAL

Click on the SAVE ALL CHANGES button below.

Scroll to the top left and click on the LAUNCH icon to launch your proposal.

PROV - Empowering Teaching Excellence - Center for Empowering Teaching Excellence

4.1.c R401 NEW ADMINISTRATIVE UNIT

Proposal Information

HELPS AND HINTS FOR COMPLETING R401 PROPOSALS

Writing Guidelines/Suggestions

USHE R401 Policy

Deadlines and Schedules

Process and Flowchart

COLLEGE AND DEPARTMENT INFORMATION

Click on the college(s) and department(s) that are included on this request

COLLEGE or UNIVERSITY DIVISION:* PROV

DEPARTMENT or UNIT: * Empowering Teaching Excellence

PROPOSED UNIT TITLE:* Center for Empowering Teaching Excellence

REQUEST

TYPE OF UNIT BEING REQUESTED

Click the change that best reflects your proposal.

Unit Being Requested*

- ( ) New Administrative Unit (except new colleges and professional schools - use full template)
- (•) New Centers
- ( ) New Institutes
- ( ) New Bureaus

DESCRIPTION | NARRATIVE

Administrative Unit Description and Narrative*

Dr. Paul Barr, *Vice Provost* at Utah State University (USU), in partnership with Dr. Travis Thurston, *Director of Teaching Excellence*, together propose the change of the existing unit, Empowering Teaching Excellence (ETE), to the **Center for Empowering Teaching Excellence** as a response to the need for providing ongoing support for faculty and instructors across the USU-system to engage in teaching excellence in the 21st century. Currently, ETE facilitates collaborative professional learning opportunities between instructors from different disciplines, role statements, and campuses to more fully ingrain a culture of teaching excellence in all instruction occurring at the institution. ETE began hosting events and providing instructional support in 2014, and more recently was established as its own stand-alone unit in January 2020. As an existing unit with an adequate budget, there are no additional financial needs at this time to continue to provide a sufficient level of support for individualized professional development and ongoing programs and services in teaching excellence.

This proposal for the Center has been structured using the American Council on Education (ACE) and Professional and Organizational Development Network's (POD Network) *Center for Teaching and Learning Matrix* providing research-supported benchmarks and evidence-based practice in educational development. This proposal uses the term educational development, instead of faculty development, as educational development signals how the field of faculty development is evolving to expand the breadth of work. As part of that breadth, the proposed Center will further the development of the Student Collaborators on Teaching (SCOTs) pilot program that follows a students-as-partners model by engaging student voices in the process of educational development and teaching excellence, and will include a faculty appointed position of Provost Faculty Fellow to collaborate with ETE staff.

This proposal emerged from the recognition that centers serving this function and providing access to educational development programs and services exist across the USHE system, and the proposed center will provide educational development programs, services, and events, similar to the teaching and learning centers at other USHE institutions, including: University of Utah, Utah Valley University, Southern Utah University, and Utah Tech University. ETE has established collaborations with the centers at these other USHE institutions including sharing instructional resources and organizing and hosting an annual Teaching for Learning (T4L) Conference. The proposed center will be better suited to continue to collaborate with the other teaching and learning centers across USHE and be a leader in educational development across the state.

Consistency with Institutional Mission/Institutional Impact

This proposal situates the center and its staff within the existing administrative structure of the Office of the Provost and Chief Academic Officer. With the creation of this new center, ETE will continue to align programs, events, and services with the USU Strategic Plan. Specifically, ETE strives to *Strengthen a Healthy, Vibrant, and Resilient University Community* (Objective 1.4), and provides *Further Opportunity and Success* (Objective 4.1). In keeping with the values, the new center will collaborate and partner with other divisions and units across the USU-system including work with Statewide campuses. The center will also continue to operate in close collaboration with USU Libraries, the Center for Instructional Design and Innovation, the Center for Community Engagement, the Division of Diversity, Equity, and Inclusion, and others to provide the highest level of support to meet each of USU's core theme's: *learning*, *discovery*, and *engagement*.

- The proposed center aligns with USU's goals for *learning,* as the center magnifies

efforts to engage faculty members in individualized professional development through the ETE10 program, and to unite the teaching and learning community around the idea that teaching excellence is an ongoing career pursuit that leads to greater student success and supports the institution's affirmation that "academics come first."

- The proposed center aligns with USU's goals for *discovery,* as the center provides funding awards for faculty to engage in student-centered educational research and the scholarship of teaching and learning (SoTL) by disseminating findings at ETE events and publishing in peer-reviewed outlets, including the in-house *Journal on Empowering Teaching Excellence* and the *Empower Teaching Open-Access Book Series*.
- The proposed center aligns with USU's goals for *engagement,* as a key element of this proposal is for the center to facilitate, both internally across units and campuses at USU and externally across USHE and throughout higher education, collaborations to engage in teaching excellence which in turn improves the classroom, lab, and field experiences for our students by aligning with the institution's priority on student success.

While aligned to the goals of USU, specifically the mission of the center, as established by the ETE Faculty Committee, is to elevate and promote a culture of teaching excellence that leads to deeper student learning. To accomplish this mission, the center will provide events, programs, services, and publications that:

- Engage USU instructors in evidence-based teaching practices and scholarship
- Encourage reflective pedagogical practices
- Support instructors in developing student-centered approaches to teaching
- Connect instructors across disciplines, role statements, and campuses to collaborate toward the common goal of teaching excellence
- Provide feedback to instructors about their teaching practices and potential areas for improvement from both colleagues and students
- Allow instructors to contribute to current scholarship on teaching and learning
- Foster more inclusive educational environments and the active mentoring of students from diverse backgrounds

In aligning with USU's core themes and striving to fulfill our own specific mission, the Center for Empowering Teaching Excellence will continue to benefit from the counsel and guidance of two standing committees: the ETE Faculty Committee and the ETE Executive Committee. The faculty committee meets on a regular basis to identify the needs for themes and topics associated with the events, services and programs being provided. The faculty committee consists of faculty members representing each of the colleges as well as faculty representing Statewide campuses. The chair of the faculty committee also sits on the executive committee which is made up of key stakeholders from the Office of the Provost & Chief Academic Officer and the Office of the Executive Vice President to serve as an advisory board for the center. Both of these groups will continue to meet regularly to discuss the affairs of the center, its successes, and potential areas for targeted growth and improvement.

SUBMIT AND APPROVE THE PROPOSAL

Click on the save all changes button below.

Scroll to the top left and click on the launch icon to launch your proposal.