

July 12, 2017

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University- Bachelor of Science in Technology Systems with Emphases in: 1) Information and Computer Technology, 2) Technical Management, 3) Robotics, Automation, and Controls, and 4) Product Development

Issue

Utah State University (USU) requests approval to offer a Bachelor of Science (BS) in Technology Systems with emphases in: 1) Information and Computer Technology, 2) Technical Management, 3) Robotics, Automation, and Controls, and 4) Product Development effective Fall Semester, 2017. The program will be available through distance learning at USU extension campuses. The proposed program was approved by the institutional Board of Trustees March 3, 2017.

Background

The proposed program was guided through collaboration from the Bear River Region CTE Consortium composed of career and technical education leaders from USU, Bridgerland Technology College (BTC), and local school districts. Utah State University has also worked closely with regional industry personnel. These industry partners expressed a need for further education beyond the currently available Associate of Applied Science (AAS) in General Technology, desiring an efficiently designed stackable credential pathway that culminates in a baccalaureate degree.

The program is designed to accommodate students who have earned a one-year certificate through the BTC as well as students who have started other technical programs at USU and are looking for an alternative degree pathway that utilizes their technical experience and skills. Students enrolled in the program will complete requirements of the USU AAS in General Technology. In accordance with current articulation agreements in place between USU and BTC, graduates from BTC one-year non-credit certificate programs will use the BTC content toward requirements of the AAS degree. Upon completion of all other requirements for the AAS, students will be awarded 30 credits at USU in consideration of having completed the BTC program. Students earning the AAS degree may then seamlessly proceed with the pathway by fulfilling all remaining requirements for the BS degree. The entire pathway is designed to be completed within 120 – 121 credit hours, depending on the area of emphasis chosen.

The following tables provide an overview of the labor market information for occupational groups associated with the proposed program.

Information Extracted from Department of Workforce Services Utah Economic Data Viewer- 2014 - 2024

SOC Code	Occupational Category	Median Wage- Utah	Average Annual Job Openings- Utah	Median Wage- Logan Area	Average Annual Job Openings- Logan Area
11-3021	Computer and Information Systems Managers	\$117,120	170	\$95,870	n/a
17-3027	Mechanical Engineering Technicians	\$48,710	20	\$46,930	n/a
11-3051	Industrial Production Managers	\$89,840	90	\$61,220	10
27-1024	Graphic Designers	\$44,220	170	\$34,650	n/a

Burning Glass Labor Insight Tool Reflecting Data from May 1, 2016 – April 30, 2017

SOC Code	Occupational Category	Mean Advertised Salary- Utah	Number of Job Postings- Utah	Mean Advertised Salary- Logan/Brigham City	Number of Job Postings- Logan/Brigham City
11-3021	Computer and Information Systems Managers	\$120,447	217	n/a	n/a
17-3027	Mechanical Engineering Technicians	\$48,629	57	n/a	5
11-3051	Industrial Production Managers	\$71,165	450	n/a	17
27-1024	Graphic Designers	\$39,777	421	n/a	11

Policy Issues

The proposed program has been developed through established institutional procedures and Board of Regents policy. Chief academic officers as well as faculty in related departments from the Utah System of Higher Education institutions have reviewed the proposal and have provided input.

Commissioner's Recommendation

The Commissioner recommends the Board of Regents approve the Utah State University Bachelor of Science in Technology Systems with emphases in: 1) Information and Computer Technology, 2) Technical Management, 3) Robotics, Automation, and Controls, and 4) Product Development.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Utah System of Higher Education Program Description - Full Template

Section I: The Request

Utah State University requests approval to offer the following Baccalaureate degree(s): Bachelor of Science Degree in Technology Systems effective Fall 2017. This program was approved by the institutional Board of Trustees on 3-3-17.

Section II: Program Proposal

Program Description

Present a complete, formal program description.

The School of Applied Sciences, Technology, and Education (ASTE) at Utah State University (USU) is developing a Bachelor of Science (BS) in Technology Systems degree to begin Fall 2017, if approved. This degree is a stand-alone degree, and it is also designed to stack onto the existing Associate of Applied Science (AAS) degree in General Technology. The degree will have four emphasis areas: Information and Computer Technology; Technical Management; Robotics, Automation, and Controls; and Product Development. The program will be available through distance learning at all USU campuses.

Consistency with Institutional Mission

Explain how the program is consistent with the institution's Regents-approved mission, roles, and goals. Institutional mission and roles may be found at higheredutah.org/policies/policyr312/.

The mission of Utah State University is to be one of the nation's premier student-centered land-grant and space-grant universities by fostering the principle that academics come first, by cultivating diversity of thought and culture, and by serving the public through learning, discovery, and engagement.

The new BS degree in Technology Systems reflects the University mission and goals by:

- Offering a program that is current and directed to the needs of the students to further their education
- Providing learning, discovery, and engagement opportunities directly relating to the students' talents, skills and career objectives
- Encouraging interdisciplinary opportunities with course content focusing on technology, product development, management, business and entrepreneurship skills and applied technology experiences. Students will have opportunities to participate in industry-related internships
- Encouraging the formation of new partnerships with local and regional industries
- Serving as a catalyst for business and industry innovation
- Supporting the regional campuses with online courses for training and other special programs

Section III: Needs Assessment

Program Rationale

Describe the institutional procedures used to arrive at a decision to offer the program. Briefly indicate why such a program should be initiated. State how the institution and the USHE benefit by offering the proposed program.

The proposed program is a culminating effort to address stackable credentials to assist economic growth in the Bear River Region. This effort has been guided heavily by direct input from the Bear River Region Committee of the Utah State Board of Education's Career and Technical Education department. The input from the secondary career and technical education directors in the region, coupled with the input from the Bridgerland Applied Technology College, provides the underpinnings of this

degree. Regents Policy R473, Standards for Granting Academic Credit for Course Work Completed at Applied Technology Centers, provides for the AAS in General Technology program at USU. Since the creation of the AAS degree, USU has been working closely with industry in the region to support the AAS degree in General Technology and provide opportunities for workforce development, culminating in a B.S. degree. Through these efforts, advisors from regional industry partners have expressed a need for further education beyond the AAS. Students who have completed the AAS degree have indicated a desire to further their education without redundancy and remediation. The proposed program will service a pipeline of students interested in robotics; information and computer technology; product development; and technical management. This will increase the number of trained professionals in Northern Utah, and throughout the state, by creating stackable credential training opportunities.

The proposed Bachelor of Science Degree in Technology Systems fills a need of the local industry. For example, the Human Resources director at Autoliv indicated that the local automated manufacturing industry actively recruits students from Indiana State University and a few schools in California. They have had retention issues with workers from out of state and would like to hire local graduates with the right degree. It will also provide an opportunity for individuals in industrial settings who have completed a one-year certificate and/or an AAS degree and are now seeking opportunities to promote their career advancement.

Labor Market Demand

Provide local, state, and/or national labor market data that speak to the need for this program. Occupational demand, wage, and number of annual openings information may be found at sources such as Utah DWS Occupation Information Data Viewer (jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do) and the Occupation Outlook Handbook (www.bls.gov/oco).

The institution reviewed data from the Utah Department of Workforce Services to assess the projected job growth for fields related to the four emphasis areas of associated with the degree. The annual average projected number of workers needed for the computer and information technology fields in the Bear River Region is 1,490 with an annual median wage of \$52,737 and a 2.3% annual percent increase. Using the Utah Department of Workforce Services Occupational Projections 2014-2024 (<http://jobs.utah.gov/wi/pubs/outlooks/state/index.html>), the other emphases show strong positive growth within the State as well. For example, the annual growth rate of Mechanical Engineering Technicians - Robotics, Automation, and Control emphasis: 2.8% annual growth rate/\$48,710 median annual wage; Industrial Production Managers - Technical Management emphasis: 2.1% annual growth rate /\$89,840 median annual wage; and Graphic Designers - Product Development emphasis 2.9% annual growth rate/\$\$44,220 median annual wage. This information demonstrates the need for graduates from this type of degree within the region and State.

Student Demand

Provide evidence of student interest and demand that supports potential program enrollment. Use Appendix D to project five years' enrollments and graduates. Note: If the proposed program is an expansion of an existing program, present several years enrollment trends by headcount and/or by student credit hours that justify expansion.

This degree offers a cohesive pathway, starting in high school to a BS degree, that allows students to take steps in their employment in the industries associated with the proposed programs. For example, in the Northern Utah region, high school students attend a technical college and can obtain a 900 hour certificate before graduation. Also in Cache, Box Elder, and Rich counties, the school districts have partnered with Bridgerland Technical College (BTC) to provide STEM programs that have more than 120 students currently enrolled who would be qualified to enter the dproposed program. Upon completion of the BTC certificate, students can then become employed within the region and may receive tuition reimbursement as they move forward with the AAS degree and then with the BS degree.

The table below shows students that are currently advancing in the AAS General Technology degree program. As shown, there has been a steady increase in the number of students enrolled. This degree program offers students a way to further their education after completing training at the BTC.

AAS Degree Enrollment and Graduation Numbers:

Total Enrollments		Total Graduates	
2012-2013	3	2012-2013	3
2013-2014	7	2013-2014	4
2014-2015	15	2014-2015	5
2015-2016	19	2015-2016	7
2016-2017	27	2016-2017	-

This degree also provides an outlet for students who have started other technical degrees at USU and are looking for an alternative degree pathway that utilizes, and highlights, their technical experience and skills. For example, a student who is not matriculated into the junior and senior year design studios of the Outdoor Product Design and Development degree program can apply their credits into a degree in Technology System emphasizing Product Development.

Similar Programs

Are similar programs offered elsewhere in the USHE, the state, or Intermountain Region? If yes, identify the existing program(s) and cite justifications for why the Regents should approve another program of this type. How does the proposed program differ from or compliment similar program(s)?

This program does not exist in USU's service region. Currently, the association that offers national accreditation, the Association of Technology, Management, and Applied Engineering (ATMAE), does not accredit any similar programs in the state. Utah Valley University has been identified as having a similar stackable degree for Technology Management, and it offers a BS degree in Mechatronics, a similar

degree to the proposed Robotics, Automation, and Controls emphasis area. The development focus within this planning effort has been in the Bear River Region to provide a stackable credential and serve the industry in this region.

Collaboration with and Impact on Other USHE Institutions

Indicate if the program will be delivered outside of designated service area; provide justification. Service areas are defined in higheredutah.org/policies/policyr315/. Assess the impact the new program will have on other USHE institutions. Describe any discussions with other institutions pertaining to this program. Include any collaborative efforts that may have been proposed.

This program will not conflict with other institutions since this program is not offered in the Northern Utah region. This program has the potential and capacity to build upon existing programs offered at USU-Eastern (Price and Blanding campuses), and through the Regional Campus network to extend this program primarily into rural areas of Utah that are within USU's service region.

External Review and Accreditation

Indicate whether external consultants or, for a career and technical education program, program advisory committee were involved in the development of the proposed program. List the members of the external consultants or advisory committee and briefly describe their activities. If the program will seek special professional accreditation, project anticipated costs and a date for accreditation review.

An advisory committee composed of representatives from key industry leaders in Northern Utah have reviewed the proposed degree and has expressed support. Nationally, ATMAE offers accreditation for programs similar to this proposal. This program has been designed to meet ATMAE standards. Once the program is in place, accreditation will be pursued. According to the ATMAE website, the average cost of initial accreditation visit fee is \$5000.

Section IV: Program Details

Graduation Standards and Number of Credits

Provide graduation standards. Provide justification if number of credit or clock hours exceeds credit limit for this program type described in R401-3.11, which can be found at higheredutah.org/policies/R401.

The proposed program aligns with the standards and number of credits of other programs granting the Bachelors of Science degree at USU. Upon graduation a student will have earned a minimum of 120 credits.

Admission Requirements

List admission requirements specific to the proposed program.

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

Curriculum and Degree Map

Use the tables in Appendix A to provide a list of courses and Appendix B to provide a program Degree Map, also referred to as a graduation plan.

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

How do existing administrative structures support the proposed program? Identify new organizational structures that may be needed to deliver the program. Will the proposed program impact the delivery of undergraduate and/or lower-division education? If yes, how?

This degree program is a collaboration between multiple colleges and schools within the university. The majority of required courses are already established and offered. Only a few courses will need to be developed or restructured within ASTE to offer the Technology Systems degree. The program is designed to allow students to take courses distance/online via the established delivery systems at USU's Regional Campuses at Brigham City, Price, Blanding, and Moab and will not affect other course offerings or delivery methods of undergraduate education.

Faculty

Describe faculty development activities that will support this program. Will existing faculty/instructors, including teaching/graduate assistants, be sufficient to instruct the program or will additional faculty be recruited? If needed, provide plans and resources to secure qualified faculty. Use Appendix C to provide detail on faculty profiles and new hires.

The proposed program draws on strengths and expertise of the faculty in the School of Applied Sciences, Technology and Education along with collaboration from the Bridgerland Applied Technology College that provides technical content training for students within the AAS degree in General Technology. Additional courses offered in programs outside the department, (e.g., the Huntsman School of Business) 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 one additional faculty member. Additional faculty will be considered as the enrollment in the program grows or industry partners sponsors such additions.

Staff

Describe the staff development activities that will support this program. Will existing staff such as administrative, secretarial/clerical, laboratory aides, advisors, be sufficient to support the program or will additional staff need to be hired? Provide plans and resources to secure qualified staff, as needed.

With little restructuring, current staff resources are sufficient for the needs of this new program, with the exception of an advisor who will be hired in year 2 following implementation. As the program grows, additional staff will be considered.

Student Advisement

Describe how students in the proposed program will be advised.

The School of Applied Sciences, Technology and Education 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 advise students in the AAS General Technology program. If needed, student peer mentors will assist the advisors with the increased number of students. It is anticipated one additional advisor will be hired in year two following implementation.

Library and Information Resources

Describe library resources required to offer the proposed program if any. List new library resources to be acquired.

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

Projected Enrollment and Finance

Use Appendix D to provide projected enrollment and information on related operating expenses and funding sources.

Section VI: Program Evaluation

Program Assessment

Identify program goals. Describe the system of assessment to be used to evaluate and develop the program.

The School of Applied Sciences, Technology and 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.

The program has four primary objectives. After completion of this degree program, students will be able to:

1. Demonstrate technical knowledge and ability in at least one of the following emphasis areas: Technical Management; Robotics, Automation, and Controls; Product Development; and Information and Computer Technology.
2. Develop computational skills specific to problems and critical issues that exist in one of the emphasis areas.
3. Demonstrate written, verbal and visual communication skills and problem solving skills.
4. 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 approximate 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.

Student Standards of Performance

List the standards, competencies, and marketable skills students will have achieved at the time of graduation. How and why were these standards and competencies chosen? Include formative and summative assessment measures to be used to determine student learning outcomes.

The student performance standards have been identified and developed through partnership with industry through an advisory committee. The standards will be evaluated and adapted as industry partners provide feedback.

Core Standards of Performance

- Assess safety concerns in an industrial environment
- Evaluate technology as it relates to society
- Demonstrate technical and professional communication skills
- Demonstrate effective leadership, teamwork, and communication skills
- Apply a design process to an industry related project
- Apply technical concepts related to their emphasis area through an industry related project
- Apply creative design processes and evaluate outcomes

Management and Technical Standards

- Analyze factors affecting human resource management issues, production planning, scheduling, and inventory control relative to business goals and professional development (technical management emphasis)
- Obtain industry certification(s)
 - at least three industrial robotic platforms (robotics, automation, and controls emphasis)
 - at least three ICT related systems/platforms (information and computer technology)
- Explain and apply the basic decision making, production, and creative processes involved in the conversion of materials to finished products (product development and robotics, automation, and controls emphases)
- Apply technical knowledge and skills related to computer hardware and software (information and computer technology emphasis)

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

List all courses, including new courses, to be offered in the proposed program by prefix, number, title, and credit hours (or credit equivalences). Indicate new courses with an X in the appropriate columns. The total number of credit hours should reflect the number of credits required to be awarded the degree.

For variable credits, please enter the minimum value in the table for credit hours. To explain variable credit in detail as well as any additional information, use the narrative box at the end of this appendix.

		Course Number	NEW Course	Course Title	Credit Hours
General Education Courses (list specific courses if recommended for this program on Degree Map)					
General Education Credit Hour Sub-Total					30
Required Courses					
<input type="radio"/>	<input type="radio"/>	BUSN2200		Business Communications	3
<input type="radio"/>	<input type="radio"/>	BUSN2320		Small Business Management for CTE	3
<input type="radio"/>	<input type="radio"/>	TEE2300		Electronics Fundamentals (QI)	4
<input type="radio"/>	<input type="radio"/>	TEE3000	X	Hazard Recognition and Control	3
<input type="radio"/>	<input type="radio"/>	ASTE3440		Science, Technology and Modern Society (DSC)	3
<input type="radio"/>	<input type="radio"/>	ASTE3050		Technical and Professional Communication Principles (CI)	3
<input type="radio"/>	<input type="radio"/>	CMST2110		Interpersonal Communication (BHU/HR)	3
<input type="radio"/>	<input type="radio"/>	ASTE4250		Internship**	4
<input type="radio"/>	<input type="radio"/>	ASTE4900		Senior Project	3
<input type="radio"/>	<input type="radio"/>	ELEC1XXX		ATC 900 hr certificate or USU certificate of completion	30
<input type="radio"/>	<input type="radio"/>			**This course will be renamed & restructured upon program approval	
Required Course Credit Hour Sub-Total					59
Elective Courses					
<input type="radio"/>	<input type="radio"/>			Choose 4 of the following courses (16 credits):	
<input type="radio"/>	<input type="radio"/>	BUSN2010		Financial Accounting	4
<input type="radio"/>	<input type="radio"/>	BUSN2020		Managerial Accounting	4
<input type="radio"/>	<input type="radio"/>	BUSN2050		Business Law	4
<input type="radio"/>	<input type="radio"/>	BUSN2390		Organizational Behavior	3
<input type="radio"/>	<input type="radio"/>	BUSN2590		Business Ethics & Social Responsibility	2
<input type="radio"/>	<input type="radio"/>	BUSN2800		Computerized Accounting	2
<input type="radio"/>	<input type="radio"/>	BUSN2988		Special Problems (Entrepreneurial Thought)	3
<input type="radio"/>	<input type="radio"/>	CMST1020		Public Speaking (BHU)	3
<input type="radio"/>	<input type="radio"/>				
Elective Credit Hour Sub-Total					16
Core Curriculum Credit Hour Sub-Total					105

Can students complete this degree without emphases? Yes or No

	Course Number	NEW Course	Course Title	Credit Hours
	Name of Emphasis:		Robotics, Automation, and Controls	
+ -	BCIS1000		Introduction to Computer Science	3
+ -	TEE2400		Industrial Networking**	3
+ -	TEE3380		Advance PLC**	3
+ -	TEE3390		HMI**	3
+ -	TEE3370	×	Industrial Robotics	3
+ -			**This course will be renamed & restructured upon program approval	
Emphasis Credit Hour Sub-Total				15
Total Number of Credits to Complete Program				120
Remove this emphasis				

	Course Number	NEW Course	Course Title	Credit Hours
	Name of Emphasis:		Information and Computer Technology	
+ -	TEE3400		Computer Automation**	3
+ -	TEE3710		Advanced Hardware**	3
+ -	TEE3510		Advanced Server Administration**	3
+ -	TEE4710		Security and Digital Forensics**	3
+ -	TEE3050		Network Administration**	3
+ -			**This course will be renamed & restructured upon program approval	
Emphasis Credit Hour Sub-Total				15
Total Number of Credits to Complete Program				120
Remove this emphasis				

	Course Number	NEW Course	Course Title	Credit Hours
	Name of Emphasis:		Product Development	
+ -	TEE2230		Advanced Materials and Processing Systems	3
+ -	TEE2020		Computer-Integrated Manufacturing Systems	3
+ -	FCSE3030		Textile Science (DSC/QI)	4
+ -	OPDD4420		Digital Design Technologies for Outdoor Products I	3
+ -	OPDD4430		Digital Design Technologies for Outdoor Products II	3
Emphasis Credit Hour Sub-Total				16
Total Number of Credits to Complete Program				121
Remove this emphasis				

	Course Number	NEW Course	Course Title	Credit Hours
	Name of Emphasis:		Technical Management	
+ -	MGT3250		Introduction to Human Resource Management	3
+ -	MGT3510		New Venture Fundamentals	2
+ -	MGT3520		New Venture Management	2
+ -	MGT3540		New Venture Financing	2
+ -	MGT3700		Operations Management	2
+ -	MGT4720		Production Planning and Control	2
+ -			Internship or MGT elective	2
Emphasis Credit Hour Sub-Total				15
Total Number of Credits to Complete Program				120
Remove this emphasis				

Program Curriculum Narrative

Describe any variable credits. You may also include additional curriculum information.

This program is designed to stack onto the AAS in General Technology available at USU; however, it can be completed in a traditional method using a current USU certificate of completion. Both the 900+ hour ATC certificate and the USU certificate of completion fulfill 30 technical credits within the degree program.

Degree Map

Degree maps pertain to undergraduate programs ONLY. Provide a degree map for proposed program. Degree Maps were approved by the State Board of Regents on July 17, 2014 as a degree completion measure. Degree maps or graduation plans are a suggested semester-by-semester class schedule that includes prefix, number, title, and semester hours. For more details see <http://higheredutah.org/pdf/agendas/201407/TAB%20A%202014-7-18.pdf> (Item #3).

Please cut-and-paste the degree map or manually enter the degree map in the table below.

First Year Fall	Cr. Hr.	First Year Spring	Cr. Hr.
Working on 900 hr certificate or equivalent		Working on 900 hr certificate or equivalent	
Total		Total	
Second Year Fall	Cr. Hr.	Second Year Spring	Cr. Hr.
ENGL1010 Introduction to Writing	3	BUSN2320 Small Business Management/CTE	3
MATH1050	3	BUSN2200 Business Communication	3
Breadth Social Science Course	3	Emphasis Area Credit (for AAS)	3
Emphasis Credits (AAS)	3	Breadth Exploration (Gen Ed)	3
Breadth Creative Arts	3	ECN1500 Intro to Economic Institutions	3
Total	15	Total	15
Third Year Fall	Cr. Hr.	Third Year Spring	Cr. Hr.
ASTE3050 Technical & Professional Comm.	3	Breadth Humanities	3
Breadth Life Science	3	Breadth Physical Science	3
Emphasis Area Credit (AAS)	3	ENGL2010 Intermediate Writing	3
Emphasis Area Credit (AAS)	3	TEE2300 Electronics Fundamentals	3
Elective Credit (BS)	3	Emphasis Credits (BS)	3
Total	15	Total	15
Fourth Year Fall	Cr. Hr.	Fourth Year Spring	Cr. Hr.
TEE3400 Hazard Recognition and Control	3	ASTE4250 Internship	3
ASTE3440 Science & Tech of Mod Society	3	ASTE4900 Senior Project	3
CMST3250 Organizational Communication	3	Elective Credit (BS)	3
Emphasis Credits	3	Emphasis Credits	3
Emphasis Credits	3	Emphasis Credits	3
Total	15	Total	15

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					
Faculty: Part Time with Doctorate					
Faculty: Full Time with Masters		1		M.S. - Information Systems	100%
Faculty: Part Time with Masters					
Faculty: Full Time with Baccalaureate					
Faculty: Part Time with Baccalaureate					
Teaching / Graduate Assistants					
Staff: Full Time					
Staff: Part Time			1	B.S. - Advisor	25%

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	953	963	973	988	1,003	1,023
# of Majors in Proposed Program(s)		10	20	35	50	70
# of Graduates from Department	154	164	174	189	204	224
# Graduates in New Program(s)		0	5	10	15	20
Department Financial Data						
	Department Budget					
	Year Preceding Implementation (Base Budget)	Year 1	Year 2	Year 3		
		Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)		
<i>Project additional expenses associated with offering new program(s). Account for New Faculty as stated in Appendix C, "Faculty Projections."</i>						
EXPENSES – nature of additional costs required for proposed program(s)						
<i>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.</i>						
Personnel (Faculty & Staff Salary & Benefits)	\$2,041,467	\$90,000	\$105,000	\$105,000		
Operating Expenses (equipment, travel, resources)	\$121,333	\$5,000	\$5,000	\$5,000		
Other:						
TOTAL PROGRAM EXPENSES		\$95,000	\$110,000	\$110,000		
TOTAL EXPENSES	\$2,162,800	\$2,257,800	\$2,272,800	\$2,272,800		
FUNDING – source of funding to cover additional costs generated by proposed program(s)						
<i>Describe internal reallocation using Narrative 1 on the following page. Describe new sources of funding using Narrative 2.</i>						
Internal Reallocation		\$95,000	\$110,000	\$110,000		
Appropriation						
Special Legislative Appropriation						
Grants and Contracts						
Special Fees						
Tuition						
Differential Tuition (requires Regents approval)						
PROPOSED PROGRAM FUNDING		\$95,000	\$110,000	\$110,000		
TOTAL DEPARTMENT FUNDING	\$0	\$95,000	\$110,000	\$110,000		
Difference						
Funding - Expense	(\$2,162,800)	(\$2,162,800)	(\$2,162,800)	(\$2,162,800)		

Part II: Expense explanation

Expense Narrative

Describe expenses associated with the proposed program.

One new faculty member will be added to the technology faculty with expertise linked to information technology. It is anticipated the position will be at the Brigham City regional campus. Additional advising capacity will be needed beginning in Year 2. Also, it is anticipated an incremental operating cost of \$5,000 will be needed to support the program.

Part III: Describe funding sources

Revenue Narrative 1

Describe what internal reallocations, if applicable, are available and any impact to existing programs or services.

Funding for the program will come from internal realignments at USU based on shifts in student credit hours.

Revenue Narrative 2

Describe new funding sources and plans to acquire the funds.

