

AGENDA

Joint Working Meeting
State Board of Regents & Institutional Boards of Trustees
Thursday, July 30, 2015
Southern Utah University

Pre-Meeting for New Regents & Trustees (all invited)

Location: Shooting Star

10:30 – 11:30 a.m. Welcome (Chair Campbell)
 Orientation/Training for New Regents and Trustees (Dave Buhler)

Joint Working Meeting for Regents and Trustees

Location: Charles Hunter

12:00 to 1:00 p.m. Welcome (Chair Campbell)
 Opening Session/Lunch Higher Education Strategic Directions & Goals (Dave Buhler)

1:15 – 2:15 p.m. Workshops 1 & 2

Location for Workshop 1: Yankee Meadows

Location for Workshop 2: Vermillion Cliffs

2:30 – 3:30 p.m. Workshops 3 & 4

Location for Workshop 3: Yankee Meadows

Location for Workshop 4: Vermillion Cliffs

Workshops

1. Student Debt & Impact of Pell Grants (Dave Feitz)
2. USHE's Role in Career and Technical Education (Blair Carruth)
3. Capital Facility Process and Needs (Greg Stauffer)
4. Helping Concurrent Enrollment Contribute to Student Success (Liz Hitch)

Dinner for Regents & Trustees

5:30 – 7:30 p.m. – HCC Patio

Play of your choice: *Amadeus* or *The Taming of the Shrew*

STATE BOARD OF REGENTS
SOUTHERN UTAH UNIVERSITY, CEDAR CITY, UTAH
HUNTER CONFERENCE CENTER
FRIDAY, JULY 31, 2015

AGENDA

7:30 – 8:50 AM **BREAKFAST MEETING – STATE BOARD OF REGENTS, SOUTHERN UTAH UNIVERSITY
BOARD OF TRUSTEES, PRESIDENT WYATT, COMMISSIONER BUHLER**
Location: Charles Hunter

8:30 – 9:00 AM **REFRESHMENTS FOR OTHERS**
Location: Vermillion Cliffs

9:00 AM – 10:30 PM **MEETINGS OF BOARD COMMITTEES**

ACADEMIC AND STUDENT AFFAIRS COMMITTEE

Regent Robert W. Prince, Chair

Location: Yankee Meadows

ACTION:

- | | |
|---|-------|
| 1. University of Utah – Doctor of Philosophy in Population Health Science with Emphases
in Biostatistics and Health Systems Research | TAB A |
| 2. Utah State University – Bachelor of Science in Outdoor Product Design & Development | TAB B |
| 3. Utah State University – Doctor of Philosophy in Neuroscience | TAB C |
| 4. Weber State University – Bachelor of Science and Master of Science in Computer Engineering | TAB D |
| 5. Weber State University – Master of Science in Nursing – Nurse Practitioner | TAB E |
| 6. Southern Utah University – Master of Science in Cyber Security and Information Assurance | TAB F |
| 7. Dixie State University – Bachelor of Science in Exercise Science | TAB G |
| 8. Policy R411 – <i>Cyclical Institutional Program Reviews</i> | TAB H |
| 9. Technology Initiative Advisory Board – Funding Allocations from the 2015 Legislative Session | TAB I |

CONSENT:

Please see the General Consent Calendar at TAB Y

INFORMATION:

- | | |
|--|-------|
| 1. Institutional Completion Update: Southern Utah University | TAB J |
|--|-------|

FINANCE/FACILITIES COMMITTEE

Regent Robert S. Marquardt, Chair

Location: Shooting Star

ACTION:

- | | |
|---|-------|
| 1. Utah State University – Student Fee and Housing System Series 2015 Revenue Bond Issue | TAB K |
| 2. Utah State University – Space Dynamics Laboratory Series 2015 Revenue Bond Issue | TAB L |
| 3. Utah State University – Property Purchase in Moab, Utah | TAB M |
| 4. Utah State University – Biological Science Building Project Design Approval | TAB N |
| 5. Dixie State University – East Elementary School Block Property Purchase | TAB O |
| 6. University of Utah – Orson Spencer Hall Replacement and Prior Lien Bond Refunding
Series 2015C Revenue Bond Issue | TAB P |

- | | |
|---|-------|
| 7. 2014-2015 USHE Performance Funding Allocations | TAB Q |
| 8. 2015-2016 USHE Performance Funding Model and Allocations | TAB R |

INFORMATION:

- | | |
|--|-------|
| 1. Southern Utah University – Center for the Arts Project Update | TAB S |
| 2. University of Utah – Series 2015 Certificates of Participation Refunding | TAB T |
| 3. Dixie State University – Series 2015 Student Housing Project Revenue Bond | TAB U |
| 4. Utah State University – Series 2015 Romney Stadium Westside Renovation Revenue Bond | TAB V |
| 5. Utah State Auditor Report on Athletics Revenue Subsidization | TAB W |

10:45 – 11:15 AM STATE OF THE UNIVERSITY – PRESIDENT WYATT
Location: Great Hall

11:15 – 12:15 PM COMMITTEE OF THE WHOLE
Location: Great Hall

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| 1. Appointment of Loreen Olney as Secretary to the Board of Regents | TAB X |
| 2. Oath of Office (3 new Regents) | |
| 3. Open Meetings Training (Commissioner) | |
| 4. General Consent Calendar | TAB Y |
| 5. Approval of 2015-2016 USHE Performance Funding Model and Allocation (Commissioner) | TAB R |
| 6. Completion Strategy Five: Reverse Transfer and Stackable Credentials (Commissioner) | TAB Z |
| 7. Issues from State Board of Education (tentative) | |
| 8. Reports of Board Committees | |
| 9. Resolution(s) (Jim Evans) | |

12:15 – 1:15 PM EXECUTIVE SESSION / LUNCH
Location: Charles Hunter

12:15 PM LUNCH FOR OTHERS
Location: HCC Patio

Projected times for the various meetings are estimates only. The Board Chair retains the right to take action at any time. In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify ADA Coordinator, 60 South 400 West, Salt Lake City, UT 84180 (801-321-7124), at least three working days prior to the meeting. TDD # 801-321-7130.

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Doctor of Philosophy in Population Health Sciences with Emphases in:
1) Biostatistics, and 2) Health Systems Research

Issue

The University of Utah (UU) requests approval to offer a new Doctor of Philosophy (Ph.D.) in Population Health Sciences with two areas of emphasis that include: 1) Biostatistics, and 2) Health Systems Research, effective Fall Semester, 2016. The UU's Board of Trustees approved the program April 14, 2015.

Background

The proposed program will guide students in developing the methodological expertise and collaborative skills required to assume leadership roles in cross-disciplinary research areas. Historically, departments within the School of Medicine have followed a traditional structure of aligning along defined specialties, functions, and educational requirements. The introduction of the Ph.D. in Population Health Sciences and its emphases in Biostatistics and Health Systems Research represents a shift in this paradigm to more cross-training and research.

The Biostatistics Emphasis will produce researchers with methodological and collaborative expertise to drive healthcare transformation and quantitative health science research. The Health Systems Research Emphasis will produce researchers whose work furthers the efficiency, value, and quality of health care for Utah, the United States, and the global population.

The proposed program is designed to complement, strengthen, and extend the capacity for scholarship throughout the University. The emphases in biostatistics and in health systems research will constitute the only Ph.D. level programs in these disciplines in the state of Utah.

The UU's new Department of Population Health Sciences (approved by the Board of Regents in 2014) will administer this new program. The UU considers this department as the cornerstone for transforming the University's \$2.1 billion healthcare system. The objectives of the Population Health Sciences Ph.D. program are aligned with strategic ongoing initiatives at the University of Utah Health Sciences Center. These strategic initiatives focus on improving health care quality and strengthening value-based outcomes. It is anticipated that this program will prepare graduates to shape and foster data-driven quality healthcare in Utah as well as other parts of the country and internationally.

The demand for students trained in the curriculum outlined in this proposal is high and the current supply of qualified individuals is inadequate. The national shortage of biostatisticians with graduate training is documented in the Center for Disease Control's *Health Objectives for the Nation* publications and the *Seventh Report to the President and Congress on the Status of Health Personnel in the United States* (<http://eric.ed.gov/?id=ED319999>). Similarly, the institution reported that Academy Health, a nonpartisan, not-for-profit, health services research and policy organization has documented a lack of researchers prepared to take on positions addressing current and future needs of the evolving healthcare system. At the time of this writing Academy Health's career page (<http://www.academyhealth.org/Training/content.cfm?ItemNumber=964&navItemNumber=2021>) showed nearly 40 open positions for biostatisticians and health systems researchers across the country.

Host departments of educational activities and programs within the University Health Sciences Center (HSC) receive funds through a formula developed and administered by the HSC Mission Based Management (MBM) Office and the School of Medicine Executive Committee. This proposed program will be initially supported by state appropriated funds allocated by the HSC. As the program matures, the HSC allocation will be amended to include Population Health Sciences so the department will then receive funding based on the MBM funding formula. It is estimated that by year eight the program will be sustainably funded through a combination of student differential tuition (if approved) and the applicable MBM formula. Additionally, the institution anticipates grant and contract funding will contribute to some program costs.

To meet the anticipated needs of the department and this new program, the UU anticipates hiring an additional seven full-time faculty members within the next few years. Costs to cover these faculty additions is part of the overall strategy of the new Population Health Sciences Department and will be covered through the funding model described herein.

Policy Issues

The proposed program has been developed and reviewed 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. There are no additional policy issues that need to be addressed relative to approval of the program.

Commissioner's Recommendation

The Commissioner recommends the Board of Regents approve the Doctor of Philosophy in Population Health Sciences with Emphases in Biostatistics and Health Systems Research.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Program Description – Full Template
University of Utah School of Medicine
Ph.D., Population Health Sciences

Section I: The Request

The University of Utah (U of U) requests approval to offer a new Doctor of Philosophy in Population Health Sciences with two areas of emphasis that include: 1) Biostatistics, and 2) Health Systems Research, effective Fall Semester, 2016. The U of U's Board of Trustees approved the program April 14, 2015.

Section II: Program Description

Complete Program Description

The Population Health Science Ph.D. program will focus primarily on the development of the rigorous methodological expertise required to conduct high impact research to improve the delivery of care to patient populations. The Population Health Sciences degree program will produce academic researchers with emphases in Biostatistics and Health Systems Research. The Biostatistics Emphasis will produce researchers with methodological and collaborative expertise to drive healthcare transformation and quantitative health science research. The Health Systems Research Emphasis will produce researchers whose work furthers the efficiency, value, and quality of health care for Utah, the United States, and the global population.

By creating common courses between the two emphases, this Ph.D. program will instill from its onset the concept of team science and collaboration. Students in both Biostatistics and Health Systems Research will have broad understanding of the issues in current healthcare delivery, and will work together to improve the breadth of research. Collaboration with the Cancer Control and Population Sciences (CCPS) Program of the Huntsman Cancer Institute will provide students with the opportunity to develop these skills in the setting of cancer research. This program will be a model for team-based science in the workplace. Students will learn in an integrated and collaborative environment and be able to make an immediate impact on health care research and transformation upon graduation from this program.

Purpose of Degree

The structure and curriculum of the Ph.D. in Population Health Sciences as well as the integrated approach between the emphases in Health Systems Research and Biostatistics is unique. This program will cultivate the scholarship required to impact healthcare delivery. Population Health Sciences will educate students in content and methodology to advance health science research.

Institutional Readiness

The new Department of Population Health Sciences in the School of Medicine was approved by the Utah State Board of Regents on May 16, 2014. An interim chair was appointed in August 2014 and initial faculty members have been recruited. The proposed degree will provide opportunities to engage, rather than compete with, other departments and colleges across the University to strengthen collaborative scholarship in this academic area. This degree program will also be overseen and evaluated by an interdisciplinary external advisory board in order to maintain and uphold its collaborative mission.

The graduate program infrastructure in the Department of Population Health Sciences offers opportunities for collaborative research with clinician-scientists in the Health Sciences clinical departments as well as

other campus investigators. Similar to other School of Medicine basic science departments, the Population Health Sciences department leverages and connects the resources being deployed specifically to improve care delivery to patient populations.

Departmental Faculty

Department Faculty Category	Dpt Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Dpt Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	3	7	10
Full-time Non-Tenured	X	6	6
Part-time Tenured	X	X	X
Part-time Non-Tenured	X	X	X
With Master’s Degrees			
Full-time Tenured	X	X	X
Full-time Non-Tenured	X	X	X
Part-time Tenured	X	X	X
Part-time Non-Tenured	X	X	X
With Bachelor’s Degrees			
Full-time Tenured	X	X	X
Full-time Non-Tenured	X	X	X
Part-time Tenured	X	X	X
Part-time Non-Tenured	X	X	X
Other			
Full-time Tenured	X	X	X
Full-time Non-Tenured	X	X	X
Part-time Tenured	X	X	X
Part-time Non-Tenured	X	X	X
Total Headcount Faculty in the Department			
Full-time Tenured	3	7	10
Full-time Non-Tenured	X	6	6
Part-time Tenured	X	X	X
Part-time Non-Tenured	X	X	X

It is anticipated that the majority of the departmental faculty members will be tenure line. The task of mentoring and teaching approximately 4 students per emphasis, per year, in the Ph.D. program will be performed by a combination of fulltime Population Health Sciences faculty members and qualified adjunct and graduate program faculty members from across the University of Utah. This will ensure that students have expert mentors for their dissertation topics. By giving students access to both internal and adjunct faculty members, the doctoral program in Population Health Sciences will foster an educational experience that will facilitate cross-disciplinary learning and develop graduates who are readily employable, fundable investigators.

Staff

Additional Department of Population Health Sciences staff at both the departmental and divisional levels will be in place prior to acceptance of students. At the department level, there will be an administrative manager, an administrative assistant or executive secretary, a grants and contracts officer, and an academic program manager. Divisional administrative and scientific support will be provided based on the specific needs of each division.

Library and Information Resources

Students in the Ph.D. program in Population Health Sciences will have full access to the facilities and staff of the Spencer S. Eccles Health Sciences Library (EHSL), and the Marriott and Quinney libraries. The librarians are experts at navigating the sphere of information sources, ideation, identifying and creating dissemination venues for outcomes, and most importantly, teaching these lifelong information skills to others. Librarians facilitate and produce exemplary research by providing access to existing cutting edge research, performing high-level literature searching and management for evidence synthesis, and teaching best practice discovery and management techniques. Librarians' expertise in information retrieval saves the provider and researcher time. The EHSL has transformed to a vital collaboration space where teams and communities gather to share ideas, execute projects, create and innovate (educational design, devices, games, apps, etc.), and seek professional expertise from others, including librarians and staff.

Admission Requirements

Applicants for admission to the Ph.D. in Population Health Sciences will be recommended by the admissions committee of the Department of Population Health Sciences and approved by the Graduate School at the University of Utah. Applicants should have a demonstrated interest in population science research. It is anticipated that most applicants will have a master's or clinical doctoral degree, but compelling work experience, subject matter expertise, research or exemplary undergraduate coursework will be considered in lieu of a master's degree. The department also anticipates refining admissions requirements over time based on experience and a more defined applicant pool.

The following information must be submitted to the Graduate School via ApplyU:

1. Graduate Admission Application
2. Official transcripts of undergraduate and graduate coursework
3. Graduate Entrance Exam Scores (GRE recommended, but others may be considered with consent of the Department of Population Health Sciences)
4. For international students, a Test of English as a Foreign Language (TOEFL) score
5. A current Curriculum Vitae
6. A Statement of Purpose (less than 1000 words) that includes research experience and interest and long term career goals
7. 3-5 letters of recommendation from individuals with knowledge of the applicant's potential for success in a doctoral program

Admission to the Ph.D. in Population Health Sciences will require:

1. Acceptance to the Graduate School at the University of Utah
2. A minimum GPA of 3.0 in all college and post-baccalaureate work
3. Availability of faculty mentor resources that match the student's research interest
4. TOEFL score of at least 550, if applicable
5. Interview with Department of Population Health Sciences faculty and approval by the admissions committee

6. Completion of departmental pre-requisites

Student Advisement

Academic counseling for Ph.D. students in the Department of Population Health Sciences will be coordinated by the department Academic Program Manager and Director of Graduate Studies. The Academic Program Manager will inform students of academic expectations and financial obligations. The Academic Program Manager will also advise students on course offerings, compliance with departmental course requirements, and graduation requirements, in order to stay on track and on time for graduation. All tuition benefit positions will be coordinated through the Academic Program Manager.

Faculty Advisement

Each student will be mentored by the faculty Director of Graduate Studies and will be matched with an individual faculty advisor. Meetings for advisors and their advisees will be scheduled at regular intervals throughout the academic year to ensure that each student will meet his/her advisors and maintain open lines of communications. Advisors will assist with career development, finding research and scholarship opportunities, selection of dissertation topic, and recruitment of dissertation committee members, among other topics.

Justification for Graduation Standards and Number of Credits

Each student must successfully complete all graduation requirements to be awarded the Ph.D. degree. These requirements include a minimum of 62 graduate credits for a Ph.D. in Population Health Sciences when students enter the program with a relevant master's degree; this includes a minimum of 18 dissertation hours. Students who enter the degree program without a relevant master's degree must complete a minimum of 80 credits, including a minimum of 18 dissertation hours. All students must pass a departmental qualifying examination during the Spring semester of their second year. All students must successfully defend a doctoral dissertation. The department's examination processes and dissertation evaluation are consistent with other Ph.D. programs at the University of Utah. Students must complete all coursework and dissertation within 7 years of admission. Any exceptions must be approved by both the Graduate School and department.

External Review and Accreditation

This Ph.D. program is novel in its approach and does not have an accrediting body. Instead, there will be an advisory board that will comprise qualified persons across the University of Utah, other health systems in Salt Lake City, industry leaders, and national leaders in healthcare research. Assembling an external advisory board will be a first priority of the permanent Chair of Population Health Sciences.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	PROJ YR 1	PROJ YR 2	PROJ YR 3	PROJ YR 4	PROJ YR 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	0	0	0	0	8

Total # of Declared Major in Proposed Program	X	8	16	24	32	32
Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (as reported in Faculty table above)	3	16	16	16	16	16
Total Department Student FTE (Based on Fall Third Week)		8	16	24	32	32
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)		8:16	16:16	24:16	32:16	32:16
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: _____)						

Approximately 4 students per emphasis will be admitted in each of the first five years of the program. Student numbers will increase proportionally as additional emphases are established and approved.

Expansion of Existing Program

This is not an expansion of an existing academic program.

Section III: Need

Program Need

Population health and health services research expertise and successful scholarship already exist within the University of Utah, but there is an urgent need to broaden this knowledge and build on existing expertise in biostatistics, health systems research, and cancer population science. Cultivating these significant strengths will better equip the University to meet important challenges of evolving healthcare systems. The proposed Ph.D. in Population Health Sciences is designed to complement, strengthen, and extend the capacity for scholarship throughout the University of Utah. The emphases in biostatistics and in health systems research will constitute the only Ph.D. level programs in these disciplines in the state of Utah.

There is a significant need to make US health care delivery more value-driven and less complex and fragmented. Advanced healthcare scholarship produced by researchers in the Department of Population Health Sciences will enable healthcare transformation and improvement. By offering this degree program and recruiting established health sciences researchers to Salt Lake City, the University of Utah has the potential to become a flagship institution promoting and driving healthcare transformation in the United States. Recruitment of faculty to Utah will enrich the scholarship of a large number of existing graduate programs in addition to Population Health Sciences. The program will create a hub for education, investigation, and expertise in value-driven health services, cost, quality, outcomes, and health delivery systems research. It will also facilitate increased efficiency and effectiveness of clinical operations through population health management and quality improvement initiatives. The Ph.D. program will fulfill the University of Utah's commitment to the Utah State Legislature that the University will prepare its students to

meet the demands of a transforming health care system and have an immediate impact on the workforce and health care sector upon graduation. Through this Ph.D. program, the University of Utah can become the national leader in health system transformation and can continue to increase its impact on healthcare nationwide by disseminating innovative scholarly research and policy considerations.

Historically, departments within the School of Medicine have followed a traditional structure of aligning along defined specialties, functions, and educational requirements. The introduction of the Ph.D. in Population Health Sciences and its initial emphases in Biostatistics and Health Systems Research represents a shift in this paradigm to more cross-training and research. With increasing prominence of team-based scholarship, the distinctions along these traditional academic lines are becoming blurred, thus allowing for more collaborative approaches to the advancement of knowledge. Students completing a degree in Population Health Sciences at the University of Utah will be in a strong position to take advantage of this shifting paradigm. The program will provide opportunities for cross-institutional research and education in health systems and quantitative methods scholarship to meet the multi-faceted challenges of health care delivery in a multitude of decentralized, networked and collaboration based service systems.

In parallel, new practices, policies, and accreditation standards are promoting integrated health systems that rely on interdisciplinary partnerships. As more inter-professional approaches to learning, innovation, and care are adopted, the responsibility, accountability, and authority for safety, quality, efficiency and effectiveness of patient care are shifting away from an individual perspective to one that is focused on system-based solutions. Multiple elements, including the Affordable Care Act (ACA), are influencing the transformation of health care systems. Public and private clients and consumers are increasing the pressure on these health care systems to provide accurate and relevant data that report on quality of care, efficiency and value.

The Ph.D. in Population Health Sciences has been created to align with, and drive, the changing trends in healthcare delivery. The collaboration between health systems researchers and biostatisticians throughout the program exemplify team-based and collaborative research from inception. There will be seamless transition from students to professionals in the field to leaders in healthcare transformation, mirroring the shift in medicine towards multi- and trans-disciplinary collaboration.

Labor Market Demand

The cost and complexity of health care in the United States are unsustainable. Information on the value of health care as it relates to quality and costs is sometimes absent and often unreliable. The demand for leaders who have the expertise and skills to systematically address these problems and lead healthcare transformation remains unmet.

The demand for students trained in the curriculum outlined in this proposal is high and the supply is inadequate. The national shortage of biostatisticians with graduate training is documented in the *Objectives for the Nation* and the *Seventh Report to the President and Congress on the Status of Health Personnel in the United States*. Similarly, Academy Health, a nonpartisan, not-for-profit, health services research and policy organization has documented a lack of researchers prepared to take on positions addressing current and future needs of the evolving healthcare system. Currently there are nearly forty open positions for biostatisticians and health systems researchers across the country posted on Academy Health's career page. This number has been fairly constant over the past several months. This illustrates the urgency for moving forward with this uniquely designed program.

Student Demand

The Ph.D. in Population Health Sciences is a degree aimed specifically at the increased need to create a more efficient and effective healthcare system. This program will produce graduates with expertise in different concentrations in order to make an immediate impact on healthcare in the United States and beyond. This is a unique and innovative program unlike any other terminal degree program offered in Utah or in the Intermountain region. This Ph.D. is not a continuation of a traditional undergraduate degree. It allows candidates to be drawn from a variety of educational and professional experiences across and beyond health sciences disciplines.

This Ph.D. will provide students an opportunity to pursue Health Systems Research and Biostatistics in Utah while creating a core of healthcare scholarship and innovation at the University of Utah. As the biostatistics emphasis will constitute the sole doctoral program in biostatistics in the state of Utah, it can be expected to attract students who graduate from master's degree programs in statistics at the University of Utah, Utah State University, and Brigham Young University who wish to advance their education in biostatistics or related quantitative health science fields. During 2012-2014, an average of 3 graduates per year from the Brigham Young master's program went on to enter Ph.D. programs in either biostatistics or statistics. Approximately four University of Utah MSTAT students per year going back to 2012 have expressed interest in pursuing this type of Ph.D. An increasing number of scholars are turning their attention to the field of Population Health Sciences and healthcare transformation. By providing the program to educate researchers in this field, students and faculty alike will find an academic home for their research interests.

Similar Programs

The Public Health discipline is related to but different from the academic scope of this proposed department in important ways. Along with the University of Utah's Division of Public Health in the Department of Family and Preventive Medicine, there are several other accredited academic public health units in the Intermountain region. In Utah, both Brigham Young University and Westminster College have graduate public health programs. In the surrounding states, there are public health units in Colorado (University of Colorado, School of Public Health), Nevada (both University of Nevada Reno and University of Nevada Las Vegas have Schools of Community Health Sciences), and Idaho (Idaho State Public Health Program). Oregon State University has a School of Biological and Population Health Sciences that follows a traditional public health model with a multi-disciplinary approach linking biology and behavior to population and environmental health. The distinction between the proposed program and these other programs is the U of U program takes the perspective of the application of biostatistical and health systems research methodology as they pertain to the health care system for the purpose of improving delivery of care to patient populations. The Population Health Science's Ph.D. program will focus on graduating academic researchers with specific focus on populations related to health systems.

Collaborative Programs

Within the University of Utah, there are several programs that will have a collaborative relationship with the Department of Population Health Science and its Ph.D. students. A significant collaboration with the Huntsman Cancer Institute (the Division of Cancer Population Science is housed within the Huntsman Cancer Institute and constitutes the academic hub of HCI's Cancer Control and Population Sciences program) will provide students with the opportunity to develop expertise in cancer research. This collaboration will address the growing cost and prevalence of cancer-related treatments, which is one of the largest funded research areas in health care. It is estimated that one in two men and one in three women will get cancer in their lifetimes, creating a substantial need for specialized expertise in this area. This

unique partnership will allow students in all emphases to take advantage of the cutting edge research at Huntsman.

Across the University, there will be course sharing, appointment of adjunct professors, Ph.D. mentors for Population Health Sciences students, and collaborative research projects for students to participate in while matriculated.

In addition to the Huntsman Cancer Institute, potential partners for collaboration across the University of Utah include:

- Department of Family and Preventive Medicine
 - Division of Public Health
- Department of Internal Medicine
 - Division of Epidemiology
 - Division of Genetic Epidemiology
- Department of Biomedical Informatics
- College of Pharmacy
 - Department of Pharmacotherapy (and the Pharmacotherapy Outcomes Research Center)
- Department of Pediatrics
 - Intermountain Injury Control Research Center
- Center for Clinical and Translational Sciences
 - Masters in Clinical Investigation
- College of Social and Behavioral Sciences
 - Economics
 - Family and Consumer Studies
 - Political Science
 - Psychology
 - Public Administration
 - Sociology
- College of Engineering
 - Mechanical Engineering
- David Eccles School of Business
 - Master of Healthcare Administration
- College of Health
- College of Nursing
- College of Social Work
- Eccles Health Sciences Library
- College of Humanities
 - Department of Communications (Health Communication)
- College of Science
 - Department of Math
- School of Computing
 - Department of Computer Science

The Population Health Sciences Educational Committee convened in September, 2014 and met regularly to provide input to the new Ph.D. curriculum. This committee and its subcommittees included faculty from the Division of Public Health in the Department of Family and Preventative Medicine, the Division of

Epidemiology in the Department of Internal Medicine, the Departments of Biomedical Informatics, Pediatrics, Internal Medicine, and Pharmacotherapy, as well as the Master of Statistics and Master of Science in Clinical Investigation programs. Intermountain Health Care and the Veterans Administration were also represented on the Education Committee. Finally, there were several meetings with leaders and faculty members of divisions with areas of similar academic and research interests as this new program, specifically the Division of Public Health and the Division of Epidemiology, and input on the curriculum was also solicited from numerous additional faculty across the University. All aspects of the curriculum and proposal were shared for feedback and input throughout the development process from the key collaborative programs mentioned.

Collaboration with and Impact on Other USHE Institutions

This is a unique and targeted program that is not offered elsewhere by USHE institutions. There is a close relationship with the field of Public Health and a natural path between those programs to the academic mission of Population Health Sciences that is expected to resonate with students at other USHE Institutions. It is anticipated that the creation of this degree program will generate a foothold for healthcare transformation scholarship in the state of Utah and within the Intermountain Region.

Benefits

There is a pressing need for scholarship and research to improve healthcare in this country as well as other countries. By creating a core at the University of Utah for this type of research, and fostering an environment of innovation and cutting edge health systems and biostatistics methods research, the USHE has the potential to transform into a beacon of innovation and research in this field, which will contribute to attracting exemplary faculty and students. The University of Utah will find itself at the forefront of healthcare transformation study and research.

Consistency with Institutional Mission

The Ph.D. program in Population Health Sciences will serve as an academic hub from which to broaden knowledge and expertise, and it will significantly enhance the University of Utah Health Sciences' academic and clinical missions. It also addresses, in part, the University's commitment to the Utah Legislature to prepare students to meet the demands of a transforming healthcare system.

Section IV: Program and Student Assessment

Program Assessment

This program is not subject to accreditation from any agency. As a graduate program at the University of Utah, the program will be subject to review by the Graduate Council and the University's Academic Senate. In addition, the School of Medicine will evaluate the program the same way it currently evaluates programs in other departments within the College. This Ph.D. program will also be subject to review by its advisory board, which will be comprised of qualified persons from across the University of Utah, the Veterans Administration, Intermountain Healthcare, and other industry partners. Student and faculty feedback will be critical components of the program evaluation process. Students will provide feedback on courses mid-semester and at semester completion. Faculty will evaluate student performance and curriculum.

Expected Standards of Performance

Graduates of the Ph.D. program will have specific knowledge in the emphases within Population Health Sciences, specifically Biostatistics and Health Systems Research. These graduates will become researchers, teachers, thinkers, and planners in academia, government, and industry. The graduates will

have the skills required to lead in universities, hospitals, insurance companies, and government where healthcare delivery, biostatistics, and healthcare transformation research is practiced and taught. Students will acquire these skills through completion of graduate requirements. These are:

1. Coursework: Students in the Ph.D. program will be expected to complete coursework in biostatistics, epidemiology, and research design to develop the tools to conduct independent scholarship in Population Sciences research.
2. Qualifying Examinations: During the spring semester of their second year, students will take a qualifying examination to assess their knowledge within their specific discipline and of the tools of research required in Population Health Sciences.
3. Dissertation: After successful completion of the Qualifying Examination and advancement to candidacy, students will develop a proposal for the dissertation, complete and defend the research.

Section V: Finance

Department Budget

Three-Year Budget Projection							
Departmental Data	Current Departmental Budget – Prior to New Program Implementation (Y1-Y3)	Departmental Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	7,431,293	111,000	2,515,249	127,810	2,604,186	140,644	2,691,312
Benefits	2,306,139	39,300	785,406	44,793	813,282	48,730	840,274
Total Personnel Expense	\$9,737,432	\$150,300	3,300,655	\$172,603	3,417,468	\$189,374	3,531,586
Non-Personnel Expense							
Travel*	36,000	6,000	18,000	6,500	18,500	7,000	19,000
Capital	0	0	0	0	0	0	0
Library	0	0	0	0	0	0	0
Current Expense/Other	529,000	11,812	194,812	2,112	175,112	2,112	175,112
Total Non-personnel Expense	565,000	14,812	208,812	5,612	190,612	5,612	191,112
Total Expense (Personnel + Current)	\$10,302,432	\$168,112	\$3,513,467	\$181,215	\$3,611,080	\$198,486	\$3,725,698
Departmental Funding							

Appropriated Fund	5,201,801	142,912	1,729,124	151,215	1,947,441	164,886	2,009,450
Other: Clinical Dept./HCI	1,470,289	0	676,271	0	391,142	0	402,876
Special Legislative Appropriation	0	0	0	0	0	0	0
Grants and Contracts	3,630,341	0	1,108,072	0	1,242,497	0	1,279,772
Special Fees / Differential Tuition	0	25,200	25,200	30,000	30,000	33,600	33,600
Total Revenue	\$10,302,432	\$168,112	\$3,513,467	\$181,215	\$3,611,080	\$198,486	\$3,725,698
Difference							
Revenue-Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Departmental Instructional Cost / Student Credit Hour* (as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")	\$	\$1,000	\$	\$492	\$	\$335	\$

*Travel funds for students, faculty, and staff

Note: The "Current Departmental Budget-Prior to New Program Implementation" column is a current total for years 1-3. The "Addition to Budget" and "Total Budget" columns reflect the addition to the budget and total budget for each individual year as a result of the new program implementation. The increase in budget for all three years is \$547,813, for a total budget of \$10,850,245.

Funding Sources

The program will be funded through a combination of state funds, tuition differential (if approved), and institutional funds. Host departments of educational activities and programs within the University Health Sciences Center (HSC) receive educational funds (state, tuition, and other) through a formula developed and administered by the HSC Mission Based Management Office and the School of Medicine Executive Committee. The relevant funding formula for allocations associated with this Ph.D. program would be derived from student credit hours and from a Ph.D. student count. The applicable formula funds \$252.18 per student for each credit hour generated by the department ($\$252.18 \times \text{number of credits taught} \times \text{number of students}$), with an additional \$21,579 per Ph.D. graduate (amounts referenced are for FY 2015; per unit values may fluctuate from year to year based on state allocation and educational activities).

Funding indicated under Grants and Contracts represents current and anticipated federal and foundation grants and contracts, industry contracts, and clinical trials relating to the mission of the department.

The program will be initially supported by state appropriated funds allocated by the HSC to allow for the development of the program and start-up operations. During Year 4 the HSC allocation will be amended to include Population Health Sciences so the department will then receive funding based on the Mission Based Management Office funding formula. During Year 8 the program will be sustainably funded by a combination of student differential tuition (if approved) and the applicable formula.

Reallocation

Funds are not being reallocated from other School of Medicine Departments to support this program.

Impact on Existing Budgets

State fund allocations for any current School of Medicine basic or clinical department will not be diminished based on the establishment of this graduate program.

Section VI: Program Curriculum

The curriculum for the Population Health Sciences Ph.D. is designed as a four-year program for students who enter the program with a master's degree in a field related to its Biostatistics or Health Systems Research emphases. Students who are admitted without a related graduate degree will be required to take an additional year of classes, labeled Year-0 in the tables below, to obtain the core background expertise required by the Ph.D. program.

All Program Courses (with New Courses in Bold)

Population Health Sciences Ph.D. Core Courses for All Emphases

Course Prefix and Number	Title	Credit Hours
Required Courses		
PHS 7000	Biostatistics for Clinical Research	3
PHS 7020	Analysis of Secondary Data	4
PHS 7030	Applied Modern Causal Inference	2
WRTG 7060 or WRTG 7080	Scientific Writing (WRTG 7060) or Scientific Writing (WRTG 7080)	3
PHS 7100	Foundations of Population and Clinical Health	3
PHS 7310	Comparative Health Systems Seminar I	2
PHS 7305	Research Compliance Training	1
Total Number of Credits		18

Biostatistics Emphasis

Required Courses: Biostatistics Emphasis for students entering without a graduate degree in Statistics, Biostatistics, Math, or other relevant graduate degree- Year 0

Course Prefix and Number	Title	Credit Hours
Required Courses		
MA 5080	Statistical Inference I	3
FPMD 6300 or MDCRC 6100 and 6110	Introduction to Epidemiology	3
FPMD 7120 or Math 6010	Linear and Logistic Regression (FPMD 7120) or Linear Models (Math 6010)	3
MA 5090	Statistical Inference II	3
FPMD 6107 or FPMD 7130	Survival Analysis (FPMD 6107) or Longitudinal Data Analysis (FPMD 7130)	3
STAT 6003	Statistical Programming	3
Total Number of Credits		18

Population Health Sciences Ph.D.- Biostatistics Emphasis Years 1-4

Course Prefix and Number	Title	Credit Hours
Required Courses		
PHS 7000	Biostatistics for Clinical Research	3
PHS 7010	Analysis of Multilevel Data	3
PHS 7020	Analysis of Secondary Data	4
PHS 7030	Applied Modern Causal Inference	2
PHS 7035	Theory of Modern Causal Inference	2
FP MD6107 or FP MD 7130*	Survival Analysis or Longitudinal Data Analysis	3
WRTG 7060 or WRTG 7080	Scientific Writing (WRTG 7060) or Writing in the Health Sciences (WRTG 7080)I	3
PHS 7100	Foundations of Population and Clinical Health	3
PHS 7500	Special Topics Biostatistics	3
PHS 7310	Comparative Health Systems Seminar I	2
PHS 7305	Research Compliance Training	1
PHS 7900	Dissertation Work (minimum)	18
Sub-Total		47
Elective Courses		
	Directed Elective from Departmental Approved List	3
	Directed Elective from Departmental Approved List	3
	Directed Elective from Departmental Approved List	3
	Directed Elective from Departmental Approved List	3

Course Prefix and Number	Title	Credit Hours
	Directed Elective from Departmental Approved List	3
	Sub-Total	15
	Minimum Number of Credits with previous MS	62
	Minimum Number of Credits without previous MS	80

* Qualified students may substitute one of the classes from the mathematical statistics directed electives. These classes include MA 5075, MA 6020, MA 6070.

Health Systems Research Emphasis

Required Courses: Health Systems Research Emphasis for students entering without a graduate degree in Statistics, Biostatistics, Math, Economics, or other relevant graduate degree- Year 0

Course Prefix and Number	Title	Credit Hours
Required Courses		
FPMD 6300 or MDCRC 6100 and 6110	Introduction to Epidemiology	3
FPMD 7300	Epidemiology II	3
PHS 6000	Advanced Quantitative Methods I	3
PHS 6010	Advanced Quantitative Methods II	3
MDCRC 6230	Health Services Research	3
	Sub-Total	15
	Directed Elective (Optional)	3
	Total Number of Credits	18

Population Health Sciences Ph.D.- Health Systems Research Emphasis Years 1-4

Course Prefix and Number	Title	Credit Hours
Required Courses		
PHS 7000	Biostatistics for Clinical Research	3
PHS 7200	Health Systems Research Methods	3
PHS 7020	Analysis of Secondary Data	4
PHS 7030	Applied Modern Causal Inference	2
PHS 7310	Comparative Health Systems Seminar I	2
PHS 7320	Comparative Health Systems Seminar Domestic	1
PHS 7330	Comparative Health Systems Seminar International	1
PHS 7315	Comparative Health Systems Survey I	1
PHS 7325	Comparative Health Systems Survey Domestic	1
PHS 7335	Comparative Health Systems Survey International	2

Course Prefix and Number	Title	Credit Hours
WRTG 7060 or WRTG 7080	Scientific Writing (WRTG 7060) or Writing for the Health Sciences (WRTG 7080)	3
PHS 7100	Foundations of Population and Clinical Health	3
PADMN 6190 or FPMD 7140	Health Policy	3
ECON 6190 or ECON 7320	Health Economics	3
MDCRC 6120	Cost Effectiveness Analysis	1
FPMD 6600	Social Context of Medicine and Public Health	3
MDCRC 6260	Health Measurement and Survey Methods	2
PHS 7305	Compliance Training	1
MDCRC 6450	Grant Writing	2.5
PHS 7900	Dissertation (minimum)	18
	Sub-Total	59.5
Elective Courses		
	Directed Elective	3
	Sub-Total	3
Minimum Number of Credits with previous MS (including Dissertation)		62.5
Minimum Number of Credits without previous MS		80.5

The Population Health Sciences Curriculum Committee and external advisory board will continue to add appropriate directed electives to the approved list.

To avoid duplicating classes already taught at the university, this degree program will borrow heavily from the existing course catalog through required courses and directed electives.

Population Health Sciences will initially have two emphases in its Ph.D. program. Additional emphases are being considered, including an emphasis in Epidemiology. Epidemiology and any other future emphases will go through the governance process and separately seek approval from faculty, the Graduate Council, the Academic Senate, and the Board of Regents.

Program Schedule

Suggested Program Schedule: Biostatistics Emphasis for students entering without a graduate degree in Statistics, Biostatistics, Math, or other relevant graduate degree- Year 0

Course Prefix and Number	Title	Credit Hours
Required Courses		
Fall Semester Year 0		
MA 5080	Statistical Inference I	3
STAT 6003	Statistical Programming	3
FPMD 7120 or Math 6010	Linear and Logistic Regression (FPMD 7120) or Linear Models (Math 6010)	3
Spring Semester Year 0		
MA 5090	Statistical Inference II	3
FPMD 6107 or FPMD 7130	Survival Analysis (FPMD 6107) or Longitudinal Data Analysis (FPMD 7130)	3

Course Prefix and Number	Title	Credit Hours
FPMD 6300 or MDCRC 6100 and 6110	Introduction to Epidemiology	3
Total Number of Credits		18

Suggested Program Schedule: Biostatistics Emphasis for students entering with a graduate degree in Statistics, Biostatistics, Math, or other relevant graduate degree- Years 1-4

Course Prefix and Number	Title	Credit Hours
Required Courses		
Fall Semester Year 1		
PHS 7000	Biostatistics for Clinical Research	3
PHS 7100	Foundations of Population and Clinical Health	3
FPMD 6107 or FPMD 7130	Survival Analysis or Longitudinal Analysis (If not previously taken)	3
PHS 7305	Research Compliance Training	1
Total Number of Credits		10
Spring Semester Year 1		
PHS 7020	Analysis of Secondary Data	4
PHS 7010	Analysis of Multilevel Data	3
PHS 7310	Comparative Health Systems Seminar I	2
Total Number of Credits		9
Fall Semester Year 2		
PHS 7030	Applied Modern Causal Inference	2
PHS 7035	Theory of Modern Causal Inference	2
	Directed Elective	3
	Directed Elective	3
Total Number of Credits		10
Spring Semester Year 2		
WRTG 7060 or WRTG 7080	Scientific Writing (WRTG 7060) or Writing in the Health Sciences (WRTG 7080)	3
	Directed Elective	3
	Directed Elective	3
<i>Comprehensive Exams</i>		
Total Number of Credits		9
Fall Semester Year 3		
PHS 7500	Special Topics in Biostatistics	3
PHS 7900	Dissertation Work	6
Total Number of Credits		9
Spring Semester Year 3		
PHS 7900	Dissertation Work	9
Total Number of Credits		9
Fall Semester Year 4		

Course Prefix and Number	Title	Credit Hours
PHS 7900	Dissertation Work	9
	Total Number of Credits	9
Spring Semester Year 4		
PHS 7900	Dissertation Work	9
	Total Number of Credits	9

Suggested Program Schedule: Health Systems Research Emphasis for students entering without a Master's degree in Statistics, Biostatistics, Math, or other relevant graduate degree- Year 0

Course Prefix and Number	Title	Credit Hours
Fall Semester Year 0		
FPMD 6300 or MDCRC 6100 and 61111	Introduction to Epidemiology	3
	Directed Elective (Optional)	3
	Advanced Quantitative Methods I	3
Spring Semester Year 0		
FPMD 7300	Epidemiology II	
	Advanced Quantitative Methods II	3
MDCRC 6230	Health Services Research	3
	Sub-Total	15
	Directed Elective (Optional)	3
	Total Number of Credits	18

Suggested Program Schedule: Health Systems Research Emphasis for students entering with a graduate degree in Statistics, Biostatistics, Math, or other relevant graduate degree- Years 1-4

Course Prefix and Number	Title	Credit Hours
Required Courses		
Fall Semester Year 1		
PHS 7000	Biostatistics for Clinical Research	3
PHS 7100	Foundations of Population and Clinical Health	3
FPMD 6400	Social Context of Medicine & Public Health	3
PHS 7305	Research Compliance Training	1
	Total Number of Credits	10
Spring Semester Year 1		
PHS 7300	Health Systems Research Methods	3
PHS 7020	Analysis of Secondary Data	4
MDCRC 6220	Health Measurement and Survey Methods	2
PHS 7310	Comparative Health Systems Seminar I	2
	Total Number of Credits	11
Summer Year 1		

Course Prefix and Number	Title	Credit Hours
PHS 7315	Comparative Health Systems Survey I	1
	Total Number of Credits	1
Fall Semester Year 2		
MDCRC 6120	Cost Effectiveness Analysis	1
PHS 7030	Applied Modern Causal Inference	2
ECON 6190 or ECON 7320	Health Economics	3
	Directed Elective	3
	Total Number of Credits	9
Spring Semester Year 2		
WRTG 7060 or WRTG 7080	Scientific Writing (WRTG 7060) or Writing in the Health Sciences (WRTG 7080)	3
PADMN 6190 or FP MD 7410	Health Policy	3
	Directed Elective	2
PHS 7320	Comparative Health System Seminar Domestic	1
PHS 7325	Comparative Health System Survey Domestic	1
	<i>Comprehensive Exams</i>	
	Total Number of Credits	10
Fall Semester Year 3		
MDCRC 6450	Grant Writing	2.5
	Directed Elective	3
PHS 7900	Dissertation Work	4
	Total Number of Credits	9.5
Spring Semester Year 3		
PHS 7330	Comparative Health Systems Seminar International	2
PHS 7900	Dissertation Work	7
	Total Number of Credits	9
Summer Year 3		
PHS 7335	Comparative Health Systems Survey International	2
	Total Number of Credits	2
Fall Semester Year 4		
PHS 7900	Dissertation Work	9
	Total Number of Credits	9
Spring Semester Year 4		
PHS 7900	Dissertation Work	9
	Total Number of Credits	9

Note: There is a difference between the credit hour minimums shown in the program requirements and the credit hours shown in the sample schedules. There are two reasons for this. First, the institution anticipates students will come from a broad background of education and professional experience and has described a schedule with flexibility to allow students to take

additional courses and maintain full-time coursework based on deficiencies in core knowledge coming into the program. Second, there are Ph.D. students who will take additional courses or electives in order to gain extra knowledge or additional extra information in order to complete the dissertation.

Section VII: Faculty

Department of Population Health Sciences

Department Chair (To Be Named)

Full Time Faculty

Full Time Faculty

Full Time Faculty

Full Time Faculty

Biostatistics

Dr. Tom Greene Ph.D., M.S., Interim Chair, Department of Population Health Sciences; Proposed Division Chief

Full Time Faculty

Full Time Faculty

Health System Innovation and Research

Dr. Rachel Hess, M.D., M.S., Proposed Division Chief

Full Time Faculty

Full Time Faculty

Full Time Faculty

Cancer Population Sciences

Dr. Cornelia Ulrich, Ph.D., M.S., Proposed Division Chief

Full Time Faculty

Full Time Faculty

Full Time Faculty

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Bachelor of Science (BS) in Outdoor Product Design and Development

Issue

Utah State University (USU) School of Applied Sciences, Technology and Education requests approval to offer a Bachelor of Science (BS) Degree in Outdoor Product Design and Development. The request was approved by the Utah State University Board of Trustees on May 1, 2015, and, if approved, will become effective Fall 2015.

Background

The primary purpose of this degree program is to prepare future technical designers of outdoor products who can integrate business, environmental and technological considerations into the development of innovative products for the outdoors. The proposed degree program will meet the need of preparing future employees for this sector of Utah's economy. The industry is experiencing a shortage of qualified technical designers with specific skills required of design and developing products to be used in the outdoors.

There is not a similar program offered at other Utah Institutions or in the region. Students interested in being a technical designer for the outdoor product industry must currently choose from a two-year Associates Degree in Fashion Design option (Salt Lake Community College or Bridgerland Applied Technology College) or an Interdisciplinary Studies degree from Utah State University with an emphasis on fashion design and art. None of these programs meets the demand of the industry for a future workforce that has a bachelor's degree in Outdoor Product Design and Development.

In Utah, a new career pathway program is being developed for secondary students. The pathway will transition from Fashion Design, Merchandising and Manufacturing to Design Entrepreneurship. In 2011, the enrollment for courses within the pathway was approximately 34,730 students (according to data collected by Pearl Hart, Family and Consumer Sciences Specialist at the Utah State Office of Education). Further, eighth grade students receive initial experiences in apparel/clothing design and product development in an exploratory family and consumer sciences course. Total enrollment in 2011 was approximately 21,000 students out of a total of 41,435 enrolled eighth graders in the state. Since 2011, a

new course titled "Design Entrepreneurship" has been developed and implemented. Data is not currently available on the total number of students enrolled. For the 2016-2017 academic year, two new courses will be available to high school students titled "Sports and Outdoor Products 1" and "Advanced Sports and Outdoor Products." These courses have been developed to respond to the identification of outdoor products and recreation as one of Utah's key economic clusters by the Governor's Office of Economic Development. Students can follow a career pathway from these courses into the degree for Outdoor Product Design and Development.

Faculty currently exist at USU to offer this degree. All costs will be covered in existing budgets. No new faculty or staff FTE, library, or other operational funds will be required.

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. There are no additional policy issues that need to be addressed relative to approval of the program.

Staff Recommendation

The Commissioner recommends the Board of Regents approve Utah State University's Bachelor of Science in Outdoor Product Design and Development.

David L. Buhler
Commissioner of Higher Education

DLB/EJH
Attachment

Executive Summary – Full Template
Utah State University
Bachelor of Sciences Degree in Outdoor Product Design & Development
12/4/2014

Program Description

The School of Applied Sciences, Technology and Education (ASTE) at Utah State University (USU) is developing a Outdoor Product Design and Development degree with plans, if approved, to begin fall of 2015. The program will be offered on the Logan campus.

Role and Mission Fit

The proposed Bachelor of Science in Outdoor Product Design and Development will contribute to Utah State University's mission "to be one of the nation's premier student-centered land-grant universities". Developed based on student and industry demand, the degree program will provide a rigorous academic experience, cultivate diversity of thought and culture; and serve the public through learning, discovery, and engagement. Overall, the proposed program will enhance the visibility of the university across the nation and internationally; strengthen recruitment, retention, graduation, and placement of students in industry. It will help build new partnerships with an industry that depends on the economic and natural resources of Utah. The Bachelor of Science in Outdoor Product Design and Development will help prepare students for successful careers and add to the knowledge, skills and abilities required of a vibrant sector of the outdoor industry. These are all part of the University, College of Agriculture and Applied Sciences and School of Applied Sciences, Technology and Education mission and goals.

Faculty

The faculty in the School of Applied Sciences, Technology and Education can accommodate the proposed program. The faculty in Family and Consumer Sciences Education can facilitate the technical clothing production skills and professional seminar/studio experiences. Faculty in Technology and Engineering Education currently offer the computer-aided design courses needed and materials processing content and skills. Further, the faculty member in Agricultural Communications and Journalism can teach the skills required for digital technologies. The students in these programs take similar technical skill courses. The interdisciplinary nature of the program utilizes courses that are currently offered on the Logan campus. As the program grows, graduate student teaching and reallocation can support the addition of a faculty member to support additional courses or advising for the students.

Market Demand

Utah State University is responding to the demand for a trained workforce by the outdoor product design and development industry by creating an innovative and industry-inspired degree program. Not only is the industry calling for a trained workforce, but the demand for new and innovative outdoor products continues to rise. According to the Outdoor Industry Association (2012), more than 140 million Americans make outdoor recreation a priority. This fact is illustrated by the over \$646 billion that was spent on outdoor products in 2012 (Outdoor Industry Association, 2012). Outdoor recreation is a growing and diverse economic super sector that is a vital cornerstone of successful communities that cannot be ignored (OIA, 2012). Outdoor recreation is no longer a "nice to have", but it is a "must have" that provides a strong outlook for employment opportunities for future graduates (Outdoor Industry Association, 2012, p. 2). This degree program connects students to industry leaders and has been developed with assistance from the world's leading technical designers, world's largest fabric manufacturer and heads of outdoor product companies.

Student Demand

There are three specific factors that contribute to student demand for the study of Outdoor Product Design and Development in Utah. First, there are still a large number of secondary education programs facilitatiting clothing production courses and even outdoor clothing design. This would be a direct feeder to the post-secondary program. Currently, there is not an opporutnity for students to major in clothing production with an outdoor apparel emphasis in Utah or in the region. Second, there has been an increase in the number of students majoring in Interdisciplinary Studies (ITDS) in the College of Agriculture and Applied Sciences with an emphasis on clothing production, sewing and fashion design. The new OPDD program would be a specific program that would meet ITDS student needs. Third, there are currently two Associate of Applied Science degrees offered in Utah that would be a direct feeder for the program. With industry demand for employees, the new program would continue the AAS student’s education in Utah instead of requiring them to transfer to an institution in another state to complete the required education for employment.

Statement of Financial Support

None required.

- Appropriated Fund.....
- Special Legislative Appropriation.....
- Grants and Contracts.....
- Special Fees
- Differential Tuition (must be approved by the Regents).....
- Other (please describe).....

Similar Programs Already Offered in the USHE

There is not a similar program offered at other Utah Institutions or in the region. The closest programs recognized by the industry as appropriate for preparation to work in the outdoor product design and development field are located in Canada and Europe. Two-year fashion design programs are offered in Utah, but the industry demands an interdisciplinary program that integrates technical clothing design with engineering, considerations of the environment and sustainability, business skills, and advanced technology applications.

Program Description – Full Template
Utah State University
Bachelor of Science Degree in Outdoor Product Design & Development
12/4/2014

Section I: The Request

Utah State University requests approval to offer a bachelor's degree in Outdoor Product Design and Development effective Fall 2015. This program has been approved by the institutional Board of Trustees on May 1, 2015.

Section II: Program Description

Complete Program Description

The Bachelor of Science in Outdoor Product Design and Development prepares students to become professionals in the outdoor product industry (a \$646 billion industry that is continuing to grow according to the Outdoor Industry Association, 2012). Graduates of the program will be able to contribute to the design and development of a variety of soft goods (clothing and apparel-related accessories) for the outdoor product industry. This degree can also be used as a foundation to pursue advanced degrees in product design and development or other disciplines.

The primary focus of the degree will be on technical product design and development skills required by industry with a few courses integrated to connect to the business, environmental and technological side of the outdoor product industry. The industry is experiencing a shortage of qualified technical designers with specific skills required of design and developing products to be used in the outdoors. The proposed degree program will meet the need of preparing future employees for this super sector (according to the Outdoor Industry Association, 2012) in a state that is the premiere place for outdoor recreation (as quoted by the State of Utah Outdoor Recreation Vision, 2013). A degree in Outdoor Product Design & Development from Utah State University is the first step to a high skill, high wage, and high demand career opportunity. Many of the skills needed for success are included in the goals guiding the course curriculum and assessments. Complex 21st century skills (communication, problem solving, and critical thinking to name a few) are integrated into the program courses to ensure that graduates are well rounded and prepared for working in a complex industry and environment. Student learning will be facilitated through hands-on educational and studio-based experiences that integrate developmentally appropriate theory and research-based teaching strategies. A consortium of outdoor product industry representatives contributed to the development of specific learning outcomes for the program. Representatives from Black Diamond, Prana, W.L. Gore & Associates, Smartwool, Patagonia, Simm's Fishing, and the Office of Outdoor Recreation in the Governor's Office of Economic Development have been instrumental in the development of the program.

Purpose of Degree

The primary purpose of this degree program is to prepare future technical designers of outdoor products that can integrate business, environmental and technological considerations into the development of innovative products for the outdoors. The BS in Outdoor Product Design and Development provides excellent technical design and production-related learning experiences, meets the needs of students and the outdoor product industry, and matches the goals of the University, College, and Department. The degree will prepare students for careers in a wide range of outdoor product development sectors by providing a broad foundational education combined with practical "real world" experiences created with

assistance from leaders in the industry. The degree not only prepares the student for a future career, but also contributes to the economic development in Utah, the premiere place for outdoor recreation.

Institutional Readiness

As the land-grant institution in Utah, Utah State University has a unique opportunity to respond to a demand of industry that depends on the state economic and natural resources. The biggest assets that USU has for the Outdoor Product Design and Development degree will be the components of the degree and faculty already available at USU. In addition to the support from faculty in the School of Applied Sciences, Technology and Education (Family and Consumer Sciences Education, Technology and Engineering Education, and Agricultural Communications and Journalism), this degree program will bring together existing faculty in the College and University community to offer a degree that is innovative and cutting edge. The new program offers 13 new courses with the OPDD designation. The collaboration and support of faculty in other program areas within the department, college and university will assist in the development of the new courses (Family and Consumer Sciences Education for the clothing production and design courses; Technology and Engineering Education for the digital technologies and design-related courses; Landscape Architecture and Environmental Planning and Interior Design faculty to inform the development of studio-related experiences). Overall, this program provides Utah State University the opportunity to develop an interdisciplinary program that meets the current demand of students and the industry.

Departmental Faculty

Department Faculty Category	Department Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Department Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	13		13
Full-time Non-Tenured	1		2
Part-time Tenured			
Part-time Non-Tenured			
With Master’s Degrees			
Full-time Tenured	5		5
Full-time Non-Tenured	7		7
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor’s Degrees			
Full-time Tenured	2		2
Full-time Non-Tenured	6		6
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured	4		4
Full-time Non-Tenured	5		5
Part-time Tenured			
Part-time Non-Tenured	1		1

Total Headcount Faculty in the Department			
Full-time Tenured	19		19
Full-time Non-Tenured	19		19
Part-time Tenured			
Part-time Non-Tenured	1		1
Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")	31.42	X	32.42

Staff

Current faculty workloads will be adjusted to allow for the additional courses required of the proposed program. Faculty with the required education, experience and background are already involved with other programs within the department. Additional faculty will be considered as the enrollment in the program grows or the industry sponsors such additions. A new support staff position will assist with student recruitment, student advising, field experience coordination and facilitation and other program coordination duties as needed. This position and a faculty position to support the teaching responsibilities required by the degree program would be funded through university and/or department reallocation of funds. As stated previously, the 13 new courses with the OPDD designation will be developed in collaboration with faculty from across the department, college and university.

Library and Information Resources

Clothing production, design, and fashion studies-related holdings will be adequate for the Outdoor Product Design and Development program. Additional resources will not be needed. USU's current undergraduate resources include all software needed for this degree program.

Admission Requirements

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

Student Advisement

The School of Applied Sciences, Technology and Education has a designated advisor in the College of Agriculture and Applied Sciences Student Services Center. The new program will accommodate the students who were majoring in Interdisciplinary Studies with an emphasis in fashion-related studies. The use of a faculty mentor/advisor will assist the Advisor with the increased number of students.

Justification for Graduation Standards and Number of Credits

The proposed program aligns with the standards and number of credits of other programs granting the bachelors of Science degree at USU. A graduating senior who has followed the four-year plan will have earned a minimum of 120 credits including general education, University Studies and courses in the major.

External Review and Accreditation

There is currently no national accreditation process for a degree in Outdoor Product Design and Development. To evaluate the program, an advisory board of the world's leading technical designers, the world's largest fabric manufacturing company and heads of outdoor product companies will be established.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	PROJ YR 1	PROJ YR 2	PROJ YR 3	PROJ YR 4	PROJ YR 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	0	0	5	15	15
Total # of Declared Majors in Proposed Program	X	15	30	60	80	100
Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (<i>as reported in Faculty table above</i>)	31.42	31.42	32.42	32.42	32.42	32.42
Total Department Student FTE (<i>Based on Fall Third Week</i>)	656.74	676	696	716	736	736
Student FTE per Faculty FTE (<i>ratio of Total Department Faculty FTE and Total Department Student FTE above</i>)	20.9	21.5	21.5	21.6	22.7	22.7
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: _____)						

Expansion of Existing Program

The Bachelor of Science in Outdoor Product Development is a new degree program and not an expansion of an existing program.

Section III: Need

Program Need

Utah leads the nation in outdoor recreation (The State of Utah Outdoor Recreation Vision, 2013, p. 2). According to the “State of Utah Outdoor Recreation Vision” (2013), Utah’s outdoor recreation industry is a significant and growing part of the state’s economy, contributing to well-paying jobs for highly skilled workers. One specific area that needs a trained workforce is the outdoor product design and development industry. A program does not exist in the United States to train outdoor product design and development professionals with the specific skill set required by the innovative and rapidly growing industry. Fashion design programs and other industrial design programs have fallen short of the demand for an interdisciplinary program that Utah State University can provide as the land-grant university in the state that is referred to as “the premiere place for outdoor recreation”. There is a need for a technical design program that considers the economic, sustainability, and technological factors associated with this growing and diverse economic super sector that is vital to the Utah community. Additionally, the program will help supply professionals to the growing number of outdoor industry companies that are based in Utah and beyond, which currently have difficulty filling the growing number of open positions.

Labor Market Demand

Between 2005 and 2011 (an economic recession), the outdoor recreation economy grew approximately five percent annually (Outdoor Industry Association, 2012). The outdoor recreation economy includes companies and firms that contribute to product development across the supply chain. Specifically, manufacturers, vendors, wholesalers, and service providers are included in the data that has been collected and analyzed by The Utah Governor's Office of Economic Development, the University of Utah's Bureau of Economic and Business Research (BEBR), and the Outdoor Industry Association (OIA). Graduates of the proposed outdoor product design and development degree program will be prepared to work in this growing industry that relies on technical skills associated with design, engineering, technology, and other fields of study. According to the report "An Analysis of Utah's Recreation Industry", many industries have seen a decrease in employment opportunities due to the national economic recession, but employment in the outdoor industry has recovered and reached record levels (BEBR, 2014). The report provides specific data gathered from the Bureau of Labor Statistics, Utah State Tax Commission, and the Department of Workforce Services. Overall, it was found that average employment in the outdoor recreation sector has increased over 30 percent since 2002 with 67 percent increase in annual wages and salaries (BEBR, 2014, p. 7). Advancements in apparel, footwear and equipment for outdoor activities are driving innovation and entrepreneurship, while creating a demand for highly skilled workers that integrate technology, product design, manufacturing, sustainability and global commerce (OIA, 2012). The industry depends on product designers and developers to move the industry forward and lead the innovation of new products. This is evident by the increase in sales of outdoor products by consumers in Utah (\$1.9 billion in 2013) and across the nation (a total of over \$646 billion spent in 2012).

As the first state to create an economic development cluster focusing on the outdoor product industry, Utah has seen an increased number of outdoor recreation product companies relocating to the state. With immediate access to high-quality outdoor recreation experiences, Utah allows for hands-on product research, development and testing. The world's leading technical designers, the world's largest fabric manufacturer and heads of outdoor product companies have requested a new degree program to train their workforce be developed at Utah State University. Specifically, the closest innovative and interdisciplinary program to train future employees for the industry is located in Canada. It has been difficult for the industry to relocate designers from Canada to the United States. As the land-grant university, Utah State University is strategically positioned to support an industry that makes up a significant portion of the state's economy. Utah ranks first among the states in the concentration of outdoor/sporting goods jobs as a percentage of total state jobs. Today, there are over 1,000 outdoor product companies in Utah (Utah Governor's Office of Economic Development, Outdoor Products and Recreation Cluster, 2013). The following companies are currently headquartered in Utah and demand a trained workforce: Amer Sports (brands including Atomic, Salomon, Suunto, Arc'teryx, etc.), Backcountry.com, Black Diamond, Easton, ENVE Composites, Fezzari, Flat-Attack, Gregory Mountain Products, Liberty Mountain, Ogio, Petzl, Rossignol, Voile, EK Accessories, William Joseph, Chums, and Goathead Spikes to name a few. Students participating in the program will have access to the Outdoor Industry Association's summer and winter markets that showcase top outdoor products and companies. Nationally, the outdoor recreation industry sees an estimated \$646 billion dollars in direct sales with \$120.7 billion of that from product sales. If the outdoor recreation has moved from "nice to have" to a "must have" then the new degree program will see the same demand (Outdoor Industry Association, 2012, p. 2). Outdoor recreation contributes more than \$5.8B to the economy, employs more than 65,000 people and is the primary driver behind the \$7.4B tourism industry (Utah Governor's Office of Economic Development, 2015). These factors were enough to motivate Governor Herbert to create Utah's *Outdoor Recreation Vision* and announce the creation of Utah's Outdoor Recreation Office (ORO) in

January 2013 at Outdoor Retailer's Winter Market show in Salt Lake City. Utah thus became the first state to have an Outdoor Recreation Office (Utah Governor's Office of Economic Development, 2015). Since its inception in late summer of 2013, ORO follows this vision: *Establish a nationwide recreation management standard, acknowledging that outdoor recreation is an essential component of Utah's culture, identity, diverse economy, and well-being, and ensuring that the State's natural assets can sustain economic growth and quality-of-life dividends for years to come* (Utah Governor's Office of Economic Development, 2015). The office is housed in the Governor's Office of Economic Development and embodies the state's ongoing commitment to the recreation economy (Utah Governor's Office of Economic Development, 2015).

Student Demand

Students interested in being a technical designer for the outdoor product industry must currently choose from a two-year Associates Degree in Fashion Design option (Salt Lake Community College or Bridgerland Applied Technology College) or an Interdisciplinary Studies degree from Utah State University with an emphasis on fashion design and art. None of these programs meet the demand of the industry for a future workforce that has a bachelor's degree in Outdoor Product Design and Development. The proposed program will meet the student and labor demand by offering a program that integrates experiences in technical design that considers economic, sustainability, engineering and technological factors. Utah is a state with over 500 teachers certified to teach clothing production-related courses. These courses do not have many college and/or career opportunities for students after high school. The proposed program would be an important career pathway for students who currently participate in these courses in Utah and who have an interest in outdoor recreation and product development. Transfer students with an Associate's Degree from Snow College, Salt Lake Community College or Bridgerland Applied Technology College could pursue the new program and have a viable career upon completion.

In Utah, a new career pathway program is being developed for secondary students. The pathway will transition from Fashion Design, Merchandising and Manufacturing to Design Entrepreneurship. In 2011, the enrollment for courses within the pathway was approximately 34,730 students (according to data collected by Pearl Hart, Family and Consumer Sciences Specialist at the Utah State Office of Education). Further, eighth grade students receive initial experiences in apparel/clothing design and product development in an exploratory family and consumer sciences course. Total enrollment in 2011 was approximately 21,000 students out of a total of 41,435 enrolled eighth graders in the state. Since 2011, a new course titled "Design Entrepreneurship" has been developed and implemented. Data is not currently available on the total number of students enrolled. For the 2016-2017 academic year, two new courses will be available to high school students titled "Sports and Outdoor Products 1" and "Advanced Sports and Outdoor Products". These courses have been developed to respond to the identification of outdoor products and recreation as one of Utah's key economic clusters by the Governor's Office of Economic Development.

At Utah State University, there has been an increase in expressed interest by prospective and current students in design and entrepreneurship-related degree programs. According to central advising, approximately 75 students are working towards completion of an Interdisciplinary Studies (ITDS) major focusing on design combined with an entrepreneurship emphasis. These identified students would be better served by the new outdoor product design and development major. The Interdisciplinary Studies major at Utah State University is only designed "to provide the small number of students whose degree needs cannot be met with other majors". The increased number of students pursuing this option suggests the need for a formal degree program that integrates design, entrepreneurship, engineering,

product/technical design, and other fields. By working with current students in the ITDS major, the opportunity exists to graduate approximately 15 students in year four of the program.

It is the priority of the faculty involved in the design of the program to work towards building relationships with other post-secondary institutions in the state to offer a career pathway program that has multiple entry and exit points to better serve the state, current and prospective students, and one of the key economic clusters in the state. There is opportunity to develop stackable credentials across the education continuum.

Similar Programs

There is not a similar program offered at other Utah Institutions or in the region. The closest programs recognized by the industry as appropriate for preparation to work in the outdoor product design and development field are located in Canada and Europe. Two-year fashion design programs are offered in Utah, but the industry demands an interdisciplinary program that integrates technical clothing design with engineering, considerations of the environment and sustainability, business skills, and advanced technology applications.

Collaboration with and Impact on Other USHE Institutions

There are no other programs similar to the proposed program in the other USHE Institutions.

Benefits

USU and the USHE will benefit by offering the Bachelor of Science in Outdoor Product Design and Development because it represents a new and innovative approach to preparing an important industry to Utah's economy. The proposed curriculum will be a model for other programs across the nation as it is the first program of this nature available in the United States. Strategic partnerships are an integral part of the proposed program and will bring industry-relevant curriculum to students at Utah State University. There is a direct connection between the degree program and career opportunities in the outdoor product development industry. The new degree is intended to reflect the care and concern of professional educators in providing current, relevant, real-world problems to talented, motivated students. Students receive a relevant and rigorous educational experience that will help them develop a career not only as a designer, but also in many other sectors of the outdoor product industry.

This degree will contribute to the Governor's Outdoor Recreation Vision by offering students a degree option that directly relates to the current and future economy of the state.

Consistency with Institutional Mission

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 Bachelor of Science degree in Outdoor Product Design and Development reflects the University mission and goals by:

- Offering a program that is current and directed at the needs to the students
- Providing learning, discovery, and engagement opportunities directly relating to the students talents, skills and career objective

- Attract outstanding students in an environment that is highly competitive, demanding and engaging. The degree will help retain good students and be a major factor in them completing their college education
- The degree program will encourage interdisciplinary opportunities (courses focusing on technology and engineering, sustainability, business skills and hands-on design studio experiences). The program will also offer industry-based field experiences and internships
- Offering faculty new challenges and opportunities to use their talents and skills in areas for which they are highly qualified by the traditional degrees have not required them to use some of their abilities
- Encouraging the formation of new partnerships with the outdoor product industry
- Supporting the regional campuses with online courses for training for the industry and other special programs throughout the state

Section IV: Program and Student Assessment

Program Assessment

The School of Applied Sciences, Technology and Education will conduct on-going assessment of the degree program and make improvement or adjustments as needed. The competencies selected for this program include skills and knowledge outlined by industry leaders. Instructors will use student course evaluations as a formative step in the entire program as they see instantaneous reaction to their teaching. The program faculty will have the opportunity to interact and work with other design faculty from across campus. The department will also conduct exit interviews/surveys of graduating 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.

Expected Standards of Performance

Core Standards of Performance:

- Explain and interpret the organization and structure of the global product development industry for soft goods.
- Develop textile/apparel products for specific target markets within the outdoor industry to meet expectations for cost and quality (materials, performance, and aesthetics).
- Demonstrate effective leadership, teamwork, and communication skills.
- Plan, develop, and present merchandise lines for identified market segments within the outdoor product industry.
- Explain and apply the basic decision-making, production, and creative processes involved in the conversion of materials to finished textile/apparel products for the outdoors.
- Assess and evaluate the manner in which historic, cultural, economic, and environmental factors impact outdoor products.
- Evaluate the characteristics and performance of materials in textile/apparel products for the outdoors.
- Use technology and quantitative, analytical, and creative concepts in addressing a design dilemma.

Design Standards of Performance:

- Assess and evaluate aesthetic, historic, and trend information from a variety of sources to create innovative and artistic textile and apparel products for the outdoors.

- Apply the creative design process and evaluate outcomes.
- Develop and create images of fabrics and apparel in an artistic and informative manner using a variety of techniques, computer technology, and media.
- Apply technical knowledge and skills in pattern making, fit assessment, materials selection, and assembly processes to meet customer demand.
- Communicate creative and design work to professionals and consumers.

Production Standards of Performance:

- Analyze factors affecting human resource management issues, production planning, scheduling, and inventory control relative to business goals and professional development.
- Develop and analyze production methods appropriate to products, quality, cost, and equipment.
- Develop and analyze quality and engineering specifications and production standards for products and processes.
- Apply technology and work measurement to increase productivity, decrease costs, and shorten delivery time.

Merchandising Standards of Performance

- Assess market and consumer factors that influence apparel and textile merchandising and marketing decisions.
- Analyze merchandise assortments and line dimensions from a marketing perspective.
- Interpret and apply mathematical concepts and financial statements related to merchandise planning, control, and distribution.
- Demonstrate understanding of relationship management strategies with vendors, customers, employees, and other industry stakeholders.
- Recognize the types, functions, and significance of store and non-store retailing in contemporary global markets.

Section V: Finance

Department Budget

Three-Year Budget Projection							
Departmental Data	Current Departmental Budget – Prior to New Program Implementation	Departmental Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	\$3,572,519	\$35,725	\$3,608,244	\$36,082	\$3,644,326	\$36,443	\$3,680,769
Benefits	\$1,643,358	\$16,433	\$1,659,791	\$16,597	\$1,676,388	\$16,763	\$1,693,151
Total Personnel Expense	\$5,215,877	\$52,158	\$5,268,035	\$52,679	\$5,320,714	\$53,206	\$5,373,920

Non-Personnel Expense							
Travel	\$123,463	\$1,235	\$124,698	\$1,247	\$125,945	\$1,259	\$127,204
Capital	\$43,212	\$432	\$43,644	\$436	\$44,080	\$441	\$44,521
Library	\$18,521	\$184	\$18,705	\$188	\$18,893	\$189	\$19,082
Current Expense	\$432,122	\$4,322	\$436,444	\$4,363	\$440,807	\$4,408	\$445,215
Total Non-Personnel Expense	\$617,318	\$6,173	\$623,491	\$6,234	\$629,725	\$6,297	\$636,022
Total Expense (Personnel + Current)	\$5,833,195	\$58,331	\$5,891,526	\$58,913	\$5,950,439	\$59,503	\$6,009,942
Departmental Funding							
Appropriated Fund	\$4,742,814	\$47,428	\$4,790,242	\$47,902	\$4,838,144	\$48,381	\$4,886,525
Other:	\$368,253	\$3,683	\$371,936	\$3,719	\$375,655	\$3,756	\$379,411
Special Legislative Appropriation							
Grants and Contracts	\$722,128	\$7,220	\$729,348	\$7,292	\$736,640	\$7,366	\$744,006
Special Fees / Differential Tuition							
Total Revenue	\$5,833,195	\$58,331	\$5,891,526	\$58,913	\$5,950,439	\$59,503	\$6,009,942
Difference							
Revenue-Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Departmental Instructional Cost / Student Credit Hour* <i>(as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")</i>	\$236	\$0	\$236	\$0	\$236	\$0	\$236

Funding Sources

Not applicable—all costs will be covered in existing budgets. No new faculty or staff FTE, library, or other operational funds will be required.

Reallocation

No new funding required as the program will use existing resources and mechanisms.

Impact on Existing Budgets

No foreseeable negative impacts upon existing programs, departmental, college, or university budgets are anticipated.

Section VI: Program Curriculum

All Program Courses (with New Courses in Bold)

Course Prefix & Number	Title	Credit Hours
General Education (not met by major requirements): 21 credits		
Various	Breadth Creative Arts (BCA)	3
Various	Breadth Social Science (BSS)	3
Various	Breadth Humanities (BHU)	3
ENGL 1010	Introduction to Writing: Academic Prose (CL1)	3
ENGL 2010	Intermediate Writing: Research Writing in a Persuasive Model (CL2)	3
MATH 1050 or STAT 1040	College Algebra or Intro to Statistics (QL)	3
Various	Depth Social Science (DSS)	3

Course Prefix & Number	Title	Credit Hours
Outdoor Product Design & Development Major Requirements: 99 credits		
OPDD 1700	Outdoor Product Design & Development Prof. Seminar	8(1)
OPDD 1750	History of the Outdoor Industry	3
OPDD 3030	Design Thinking, Methods & Materials	3
OPDD 3400	Color Theory & Design	3
OPDD 3760	Outdoor Product Design & Development Studio I	3
OPDD 3770	Outdoor Product Design & Development Studio II	3
OPDD 4250	Outdoor Product Design & Dev. Industry Experience	3
OPDD 4420	Digital Design Technologies for Outdoor Products I	3
OPDD 4430	Digital Design Technologies for Outdoor Products II	3
OPDD 4440	Aesthetics, Human Factors and Brand Image	3
OPDD 4750	Senior Design Studio I	3
OPDD 4760	Senior Design Studio II	3
OPDD 4770	Senior Exhibit	1
FCSE 1140	Introductory Sewing	2
FCSE 2040	Clothing Production Principles	3
FCSE 3030	Textile Science (DSC, QI)	4
FCSE 3040	Advanced Clothing Production	3
FCSE 3080	Dress and Humanity (DHA)	3
FCSE 4040	Advanced Clothing Studies: Couture and Tailoring	3
TEE 1030	Material Processing Systems	3
TEE 1200	Computer Aided Drafting and Design	3
WATS 1200	Biodiversity and Sustainability (BLS)	3
ART 1020	Drawing I	3
ECN 1500	Intro. to Economic Institutions, History and Principles (BAI)	3
LAEP 2039	Foundations of Sustainable Systems	3
OSS 1550	Business Correspondence (CI)	3
CHEM 1110	General Chemistry (BPS)	3
MGT 2050	Legal and Ethical Environment of Business	3
MGT 3500	Fundamentals of Marketing	3
MGT 3510	New Venture Fundamentals	3
MGT 4070	Retail Management (CI)	3
ENVS 2340	Natural Resources and Society (BSS)	3
Sub-Total	Elective Courses	0
Sub-Total	Track/Options (if applicable)	0
Sub-Total	Total Number of Credits	120

Program Schedule

Freshman Year

FALL	CR	SPRING	CR
OPDD 1700: Professional Seminar	1	OPDD 1700: Professional Seminar	1
OPDD 1750: History of the Outdoor Industry (BCA)	3	FCSE 2040: Clothing Production Principles	3
FCSE 1140: Introductory Sewing	2	CMST 1020: Public Speaking, or CMST 2110: Interpersonal Communication or PHIL 2400: Ethics (BHU)	3

WATS 1200: Biodiversity & Sustainability	3	STAT 1040: Intro to Statistics (QL)	3
ENGL 1010: Introduction to Writing (CL 1)	3	ART 1020: Drawing I	3
ECN 1500: Intro to Economic Inst. (BAI)	3		
Total	15	Total	13

Sophomore Year

FALL	CR	SPRING	CR
OPDD 1700: Professional Seminar	1	OPDD 1700: Professional Seminar	1
TEE 1030: Material Processing Systems	3	TEE 1200: Computer Aided Drafting & Design	3
ENGL 2010: Intermediate Writing (CL 2)	3	CHEM 1110: General Chemistry (BPS)	3
FCSE 3040: Advanced Clothing Prod.	3	OPDD 3030: Design Thinking, Methods, & Mat.	3
OPDD 3400: Color Theory & Design	3	FCSE 4040: Advanced Clothing Production	3
LAEP 2039: Fdn. of Sustainable Systems	3		
Total	16	Total	13

Summer

OPDD 4250: Outdoor Product Design & Development Industry Experience 3 credits

Junior Year

FALL	CR	SPRING	CR
OPDD 1700: Professional Seminar	1	OPDD 1700: Professional Seminar	1
FCSE 3080: Dress & Humanity (DHA)	3	OPDD 3770: OPDD Studio II	3
FCSE 3030: Textile Science (DSC, QI)	4	ENVS 2340: Nat. Resources & Society (BSS)	3
OPDD 3760: OPDD Studio II	3	JCOM 2010: Media Smarts (BSS)	3
OSS 1550: Business Correspondence (CI)	3	OPDD 4430: Digital Design Technologies II	3
OPDD 4420: Digital Design Technologies I	3		
Total	17	Total	13

Summer

OPDD 4250: Outdoor Product Design & Development Industry Experience 3 credits

Senior Year

FALL	CR	SPRING	CR
OPDD 1700: Professional Seminar	1	OPDD 1700: Professional Seminar	1
OPDD 4750: Senior Design Studio I	3	OPDD 4760: Senior Design Studio II	3
MGT 3500: Fundamentals of Marketing	3	OPDD 4770: Senior Exhibit	1
MGT 2050: Legal & Ethical Env. of Bus.	3	MGT 4070: Retail Management (CI)	3
OPDD 4440: Aesth. Human Fctrs, Brand	3	CMST 3330: Intercultural Communication (DSS)	3
		MGT 3510: New Venture Fundamentals	3
Total	13	Total	14

Section VII: Faculty

The School of Applied Sciences, Technology & Education has broad expertise in technical and content-related skills as well as existing specific expertise to support an outdoor product design and development

degree program. The table below shows faculty with general expertise areas followed by the faculty who have expertise/credentials related directly to Business Education.

ASTE	Faculty	Teach	Res	Ext	Serv	Admin	Degree	University
Richard	Beard	8		76	8		PhD	Texas A&M Univ, Extension Ed.
Kelsey	Hall	65	30		5		EdD	Texas Tech Univ, Agric. Ed.
Rebecca	Lawver	65	30		5		PhD	Univ of Missouri, Agric. Ed.
Bruce	Miller	20			5	75	PhD	Iowa State Univ, Agric. Ed.
Betty	Murri	95			5		MS	USU, Clothing and Textiles
Michael	Pate	65	30		5		PhD	Iowa State Univ, Agric. Ed.
Edward	Reeve	65	25		10		PhD	Ohio State Univ, Ind. Tech. Ed.
Lindsey	Shirley	70		25	5		PhD	Iowa State Univ, Family & Consumer Sciences Ed.
Debra	Spielmaker	60		35	5		PhD	USU, Curriculum & Inst.
Denise	Stewardson			90	10		MA	Univ of Maryland, Industrial Arts Ed.
Gary	Stewardson	65	30		5		PhD	Univ of Maryland, Industrial Arts Ed.
Brian	Warnick	70	25		5		PhD	Oregon State Univ. Education
Julie	Wheeler	95			5		MS	USU, Home Economics & Consumer Education

References

Outdoor Industry Association (2012). *The Outdoor Recreation Economy*. Retrieved from http://outdoorindustry.org/pdf/OIA_OutdoorRecEconomyReport2012.pdf

Utah Governor's Office of Economic Development, Outdoor Products and Recreation Cluster (2013). *The State of Utah Outdoor Recreation Vision*. Retrieved from <http://www.utah.gov/governor/docs/OutdoorRecreationVision.pdf>

Utah Governor's Office of Economic Development (2015). *Outdoor Recreation Office*. Retrieved from <http://business.utah.gov/programs/outdoor/>

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Doctor of Philosophy in Neuroscience

Issue

Utah State University (USU) requests approval to offer a Doctor of Philosophy (Ph.D.) in Neuroscience effective August 31, 2015. The institutional Board of Trustees approved the degree on May 1, 2015.

Background

USU's proposed interdisciplinary Ph.D. in Neuroscience would be administratively based in the Department of Psychology in the Emma Eccles Jones College of Education and Human Services, but would utilize courses and faculty from multiple departments: Psychology; Biology; Communicative Disorders and Deaf Education; Health, Physical Education, and Recreation; Mathematics and Statistics; Biological Engineering; and Family, Consumer, and Human Development. The proposed degree would be comprised of 64 total credits: 43 required, 9 elective, and 12 in one of three focus areas (Transitional Neuroscience, Educational Neuroscience, or Lifespan Neuroscience). A vast majority of the courses needed for the proposed Ph.D. in Neuroscience are already offered at USU under existing programs.

Neuroscience is a rapidly-growing field, and Ph.D. graduates are in demand to fill an increasing number of research, teaching, and clinical positions in universities, hospitals, and rehabilitation centers. Labor market information in the USU proposal points to hundreds of available, high-wage positions in neuroscience. The proposed USU Ph.D. program would focus primarily on applied clinical neuroscience in response to the need for neuroscientists with expertise in applying basic neuroscience discoveries to clinical, behavioral, and educational topics and questions.

The proposed USU Ph.D. program was developed in consultation with the director of the interdepartmental PhD program in neuroscience at the University of Utah. The two institutions view the respective Ph.D. programs as complementary, with the University of Utah focusing on basic neurophysiology and Utah State focusing on translating basic discoveries in neuroscience into clinical knowledge. The number of annual applicants for the University of Utah's Ph.D. in Neuroscience far outpaces the number of available slots in the program, so a new Ph.D. in Neuroscience at USU would provide additional opportunities, as well as a different focus.

Policy Issues

The proposed degree has been developed and reviewed in accordance with processes established by Utah State University and the Board of Regents. The USHE Chief Academic Officers, with input from appropriate faculty at their institutions, are supportive of USU's request to offer a Doctor of Philosophy in Neuroscience. There are no additional policy issues relative to approval of this program.

Commissioner's Recommendation

The Commissioner recommends the Regents approve the request by Utah State University to offer a Doctor of Philosophy in Neuroscience.

David L. Buhler
Commissioner of Higher Education

DLB/GVB
Attachment

**Program Description
Utah State University
Doctor of Philosophy in Neuroscience**

Section I: The Request

Utah State University (USU) requests approval to offer a Doctor of Philosophy (PhD) in Neuroscience effective August 31, 2015. The institutional Board of Trustees approved the degree on May 1, 2015.

Section II: Program Description

Complete Program Description

The primary goal of the proposed doctoral program in neuroscience is to provide students with a strong educational and research foundation in cellular, cognitive, and behavioral neuroscience. Students will apply critical concepts in neuroscience to understanding normal and disordered processes of sensation, movement, cognition, language, and communication across the lifespan. This goal will be accomplished through a core set of neuroscience courses, advanced electives, and laboratory experiences. Students in the neuroscience doctoral program are expected to align themselves with a focus area: Translational Neuroscience, Educational Neuroscience, or Lifespan Neuroscience. The program will produce experts in experimental and applied research across a variety of academic disciplines.

Purpose of Degree

The proposed Neuroscience PhD program at Utah State University will be strongly interdisciplinary, involving faculty in Psychology; Biology; Communicative Disorders and Deaf Education; Health, Physical Education, and Recreation; Mathematics and Statistics; Electrical and Computer Engineering; and Family, Consumer, and Human Development. The Neuroscience PhD program will serve to connect faculty and students who are currently engaged in neuroscience research related to sensation, information processing, memory, decision-making, language development, cognitive development, motor development, and aging, as well as applied clinical neuroscience related to neurodevelopmental, neurogenic, and neurocognitive disorders.

Students in the interdisciplinary Neuroscience PhD Program will learn the theoretical, conceptual, and methodological issues involved in neuroscience research within one of three focus areas: Translational Neuroscience, Educational Neuroscience, or Lifespan Neuroscience.

- The Translational Neuroscience focus area emphasizes understanding the signal transduction pathways underlying neurophysiological function in normal and disease states at the molecular, cellular, tissue, system, and organism levels. Students will understand trans-disease processes related to core brain functions that are required for appropriate behavioral regulation, attention, memory, and decision-making. Translational research experiences will combine approaches in genetics, biophysics, electrophysiology, functional imaging, and behavioral analyses in order to explore the mechanisms underlying normal and aberrant neuronal function in a variety of systems across the lifespan. Students will explore the use of animal models as a means for examining underlying causes of neurodevelopmental and neuropsychological disorders starting at the genetic level, working up through fundamental brain functioning, and then observing how these processes

are impacted by individual experience throughout the lifespan. Students in this focus area will also understand neurocognitive and neurophysical abnormalities that are the source of a wide range of human disorders, including depression, schizophrenia, autism, attention deficit disorder, anxiety, drug addiction, communication disorders, and others.

- The Educational Neuroscience focus area is designed to apply the principles of behavioral, cognitive, and biological neuroscience to core problems in education related to cognition, socialization, learning, and/or teaching. Students will explore the anatomical and functional neurological mechanisms that contribute to cognition, language, and literacy development, as well as the relationships between neural activation patterns and children's performance on cognitive, linguistic, communicative, and literacy tasks. This focus area is also designed to help students understand the neurophysiological, neurobiological, and environmental contributions to sensory disorders, intellectual disabilities, communication disorders, learning disabilities, autism spectrum disorders, and motor disorders in children. Students will learn how to combine behavioral experimentation methods with neuroimaging methods (Near Infrared Spectroscopy, EEG, eye-tracking, and pupilometry) to examine processes involved in accessing, manipulating, storing, retrieving, and classifying information and associated changes in activation patterns across micro- and macro-brain structures during information processing tasks. New advances in translational research and research on the principles of neuroplasticity will lead to greater understanding of the best ways to promote brain changes through language, literacy, and STEM education. Research on educational neuroscience should lead to innovative perspectives on the integration of basic research and educational practices and to the development of sound education policies.
- The Lifespan Neuroscience focus area will emphasize the study of changes in central and peripheral nervous system structures from infancy to late adulthood with corresponding effects on behavior in domains such as cognition, language, and emotion. This focus area includes the neuroscience of movement and how the motor system interacts with sensory, perception, and cognitive systems. Normative changes in attention, memory, executive functions, and other cognitive processes will be juxtaposed with pathological conditions. Areas of study include normal aging, language and communication disorders, movement variability, movement timing/sequences, motor planning, motor learning, and functional recovery in populations with disorders and disabilities, such as aphasia, apraxia, Alzheimer's disease, and other dementias. Students may focus on neuropsychological assessment of speech, language, and cognitive-communicative functions; variability across different linguistic populations; and language treatment following stroke, traumatic brain injury, neurosurgery, and degenerative disorders. Coursework and research experiences may examine the role of genes, environmental factors, and gene-environment interactions in normal aging, disease-free survival and longevity, as well as examining factors that increase risk for depression and disease states that occur in late-life. In addition to foundational courses in neuroscience, seminars will be offered that are specific to each specialty area.

In their courses, students will develop an appreciation of the cognitive factors that influence patterns of brain activation in human and animal models, and they will learn about the effects of disease on brain anatomy and integrity. In their lab rotations, students will gain hands-on experience with data acquisition, data processing, statistical analysis, and visualization techniques related to research on brain structures and functions before, during, and after neurorehabilitation. Upon completion of the program, students will be prepared to design and conduct state-of-the-art neuroscience research that employs a variety of neuroimaging methods and that contributes to the solution of educational, medical, social, and vocational problems.

Institutional Readiness

Current administrative structures that support graduate programs, including supports from the Office of Research and Graduate Studies, as well as college and departmental infrastructures that are already in place, will be used to support this program. No new supports or organizational structures are needed. This neuroscience program will be an interdisciplinary program, but will be administratively housed in the Psychology department. The staff resources (e.g., Graduate Program Coordinator) already in place will be used to support this program. This proposed program will have minimal impact on the delivery of undergraduate courses. Some of the courses currently being taught, that will be part of this program, are open to advanced undergraduate students, but this slight increase in offerings for undergraduates will be the only impact on undergraduate programs.

Program Faculty

The numbers in the below table reflect faculty across the seven departments involved in the program. Because this program is interdisciplinary, only program faculty (and not all faculty in the seven participating departments) are reflected in this table.

Program Faculty Category	Faculty Headcount – Prior to Program Implementation*	Faculty Additions to Support Program	Faculty Headcount at Full Program Implementation*
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	12	0	12
Full-time Non-Tenured	7	0	7
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
With Master’s Degrees			
Full-time Tenured	0	0	0
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
With Bachelor’s Degrees			
Full-time Tenured	0	0	0
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
Other			
Full-time Tenured	0	0	0
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
Total Headcount Faculty			
Full-time Tenured	12	0	12
Full-time Non-Tenured	7	0	7

Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
Total Program Faculty FTE <i>(As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")</i>	19	0	19

*These numbers reflect faculty across the seven participating departments. Only faculty who will be involved in the proposed Neuroscience PhD program are included.

No new lines are required for this program as existing faculty can cover program needs. However, additional faculty lines would strengthen the program in terms of diversity of course offerings and lab experiences. Opportunities for targeted hires in the neuroscience area will be explored over time.

Staff

Existing staff will be utilized to provide support to the neuroscience program. Although interdisciplinary, the program will be housed in the Psychology department, where the current staff can provide support for admissions, student tracking, etc. As with all doctoral-level program advising, advising duties will be carried by individual faculty mentors, as well as the program steering committee, which will be comprised of all faculty involved in the Neuroscience PhD program.

Library and Information Resources

No additional library resources will be needed to support this program. Key journals in the neuroscience area (e.g., *Cognitive Neuroscience*, *Journal of Neuroscience*, *Annals of Neurology*, *Neuropathology*, *Neuroscience Research*, *Neurobiology of Learning and Memory*, *Current Topics in Behavioral Neurosciences*, *Neuroscience and Biobehavioral Reviews*, *Trends in Neurosciences and Annals of Neurology*, *Nature Neuroscience*) are available digitally at USU's library.

Admission Requirements

Prospective students will submit the standard graduate school application through the School of Graduate Studies. Admissions criteria will be consistent with graduate school requirements, including a 3.0 (or higher) GPA for the last 60 credits and GRE scores for the verbal and quantitative areas at the 40th percentile or above. Students will also submit a statement of interest / letter of intent that should address their fit with the program in terms of research interests that are consistent with current faculty in the program.

Student Advisement

Students will be assigned a faculty advisor at the time they are admitted to the program. This faculty member will remain the student's primary advisor through the student's time in the program. Each student's progress in the program will be reviewed annually by all program faculty in a student review meeting. Students will receive written feedback on their progress following this meeting. The feedback will address progress in the areas of: research skills and progress; progress toward completion of the program; didactic course work; assistantship performance; other accomplishments and/or concerns.

Justification for Graduation Standards and Number of Credits

Students entering the program with a bachelor's degree will be required to earn a minimum of 64 credits for graduation. Students entering with a master's degree must earn a minimum of 44 credits. This credit requirement is consistent with other doctoral programs in the sciences at USU and with neuroscience programs across the nation in which the majority of the teaching occurs in the laboratory rather than the classroom. Students will complete 20 hours of core neuroscience courses, 11 hours of statistics and research design, 9 hours of general electives, 12 hours of advanced electives in one of three focus areas, a minimum of 2 lab rotations, qualifying exams, and 12 hours of dissertation credits, for a total of 64 credits post bachelor's. The total credit requirement is similar to Boston University and the University of Utah. This credit requirement exceeds that of many doctoral programs in the neurosciences, including the University of Colorado at Boulder, Georgetown University, and the University of Montana. The proposed program requires fewer credits than Colorado State University, the University of Wyoming, and the University of Idaho, primarily because in the proposed program students earn fewer graduate credits for their lab experiences and will be required to take fewer dissertation credits.

External Review and Accreditation

There are currently no agencies or associations that accredit programs such as this one. No external consultants were involved in the development of the proposed program.

Projected Program Enrollment and Graduates; Projected Faculty/Students

Data Category	Current – Prior to New Program Implementation*	PROJ YR 1	PROJ YR 2	PROJ YR 3	PROJ YR 4	PROJ YR 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	0	0	0	0	3
Total # of Declared Majors in Proposed Program	X	3	6	9	12	15
Program Data						
Total Program Faculty FTE (<i>as reported in Faculty table above</i>)	19	19	19	19	19	19
Total Program Student FTE (<i>Based on Fall Third Week</i>)	N/A	3	6	9	12	15
Student FTE per Faculty FTE** (<i>ratio of Total Program Faculty FTE and Total Program Student FTE above</i>)	N/A	0.16	0.32	0.47	0.63	0.79
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: _____ N/A _____)						

*Because this program is new and across different departments, data prior to program implementation cannot be calculated. Projected data reflect student numbers only in this program. It is acknowledged that

faculty within this program will also be working with other undergraduate and graduate students outside this program.

** Because a given full-time faculty member's workload will not be devoted 100% to the PhD in Neuroscience, the student-to-faculty FTE ratio for the program will be far more favorable than is represented in the table above.

Consistent with lab-based graduate programs, entering classes for this program will be small, especially in initial years. It is anticipated 3-4 new students will enroll each fall. Students entering with bachelor's degrees should be able to complete all requirements for the PhD within 5 years.

Expansion of Existing Program

This program is a new interdisciplinary PhD program and not an expansion or extension of an existing program.

Section III: Need

Program Need

Neuroscience is one of the fastest-growing areas of research around the world, resulting in an increased demand for doctoral-level graduates to fill research and teaching positions. As reported by the Society for Neuroscience in the 2011 survey of graduate programs, only 2% of neuroscience program graduates were not employed after graduation, and all of those who were employed were in a neuroscience field. Neuroscience research covers a broad spectrum, including biophysics, molecular and cellular neurobiology, neuronal development, neuronal degeneration, integrative neuroscience, brain imaging, and neurological and neurodevelopmental disorders. As a result, the scope of neuroscience and the demand for neuroscience education have grown exponentially. As reported by the Society for Neuroscience in its 2011 survey, applicant numbers per neuroscience program averaged 88 (with programs admitting less than a quarter of these students), a significant increase from the average of approximately 22 in 1986.

In a recent paper that appeared in *Nature Neuroscience*, Paul Howard-Jones (2014) pointed out that there are numerous disconnects between current findings in neuroscience and educational beliefs and practices. Howard-Jones recognized a need for increased communication between educators and neuroscientists and called for a new field of inquiry that is dedicated to bridging the gaps between education and neuroscience in order to inform our understanding of teaching and learning. Neuroscience has much to offer educational attitudes and approaches, and this proposed program is poised to be at the forefront of this exciting new movement.

There is a strong student demand for neuroscience doctoral programs. Within the intermountain region, there are PhD neuroscience programs at the University of Colorado-Denver, the University of Colorado-Boulder, Colorado State University, the University of Montana, the University of Idaho, the University of Wyoming, and the University of Utah. Student demand and the desire to provide programs that students are interested in make neuroscience programs common in research universities like USU. However, none of the existing programs in the intermountain region are housed in a College of Education and Human Services with a focus on making neuroscience discoveries relevant to educators and human services

professionals. The three foci in the proposed program, bridging basic and applied neuroscience across the lifespan, are unique to this proposed program.

As one of Utah's two state-supported research universities, Utah State University has focused on hiring strong faculty who conduct cutting-edge research. The proposed PhD in Neuroscience, in addition to adding research strength to the University with a new PhD, will also complement and strengthen current University programs in the Emma Eccles Jones College of Education and Human Services and the College of Science. Faculty and students across departments in these colleges are already collaborating on research in the area of neuroscience. The PhD in Neuroscience will bring these faculty and students together into one program, increasing opportunities for cross-disciplinary learning and collaboration.

Labor Market Demand

In November 2014, Indeed.com listed 598 neuroscience jobs that were available in the US. The Society for Neuroscience listed 341 available jobs in neuroscience. These were largely tenure-track openings in university departments of medicine, biology, bioengineering, neuroscience, or psychology, but they are also in private industry and research institutes. According to Indeed.com, 205 openings in neuroscience pay between \$80,000 and \$99,000; 128 openings pay between \$100,000 and \$119,000; and 97 openings pay \$120,000 or above. The Neuroscience PhD graduation rate at the University of Utah is approximately 75%. Between 2006 and 2012, 51% of their graduates went on to postdoctoral positions or other post graduate school studies, 18% went into Law or Medicine, 10% went into academia as faculty, 8% entered academia as research associates, 3% went into industry, and 3% took non-science positions.

The proposed PhD in Neuroscience will respond to the growing need for neuroscientists, especially those with expertise in applying basic neuroscience discoveries to clinical, behavioral, and educational topics and questions. Given the current job market demand, as well as the placement rates from the University of Utah's program, it is expected that graduates of USU's program will be well-positioned to move into postdoctoral and other professional positions.

Student Demand

Utah lags other states in the region with regard to providing student access to neuroscience education. For example, the state of Colorado has 97,687 students in 14 universities (<http://higher.ed.colorado.gov/Data/Reports.aspx>) with three Neuroscience PhD programs in the state (the University of Colorado-Denver, the University of Colorado-Boulder, and Colorado State University). In Utah, there are 92,882 students in the six public universities that compose the Utah System of Higher Education, but there is only one Neuroscience PhD program (the University of Utah). That program only admits 12 students per year out the more than 200 applicants. Clearly, students in Colorado have much more access to neuroscience education than students in Utah, and the demand for a neuroscience education in Utah cannot be met by the University of Utah alone.

The labs of faculty participating in this proposed neuroscience program contain undergraduate and graduate students who are interested in obtaining knowledge and research skills in neuroscience. There is a need for a doctoral degree that will enable these students to receive research and academic experiences that focus on molecular, cognitive, behavioral, or educational neuroscience. More students wanting a PhD degree in neuroscience will be able to stay in Utah rather than go out of state. This change will help to keep more talented students in Utah for their doctoral degrees.

Similar Programs

There is an interdepartmental graduate program in neuroscience at the University of Utah. Neuroscience faculty are housed in the departments of Ophthalmology/Visual Science, Neurobiology and Anatomy, Bioengineering, Biology, Pharmacy, Physiology, Pediatrics, Psychiatry, Neurology, and Psychology. Students complete a basic neuroscience program core curriculum that includes Frontiers in Neuroscience, Cellular and Molecular Neuroscience, Systems Neuroscience, Neuroanatomy for Biomedical Scientists, Neurophysiology Laboratory, Molecular Biology Laboratory, Neuroscience Rotations, and Developmental Neurobiology. Neuroscience PhD students are required to take a quantitative science/statistics course, an ethics course, a grant writing course, three graded elective graduate-level courses, and 3 credit hours of ungraded, departmental journal club courses beyond the core curriculum. The faculty and students are divided into five areas of research: Developmental Neuroscience, Molecular Neuroscience, Neurobiology of Disease, Brain and Behavior, and Cellular Neuroscience.

The main difference between the program at the University of Utah and the proposed program at Utah State University is that the curriculum and research experiences at the University of Utah are focused primarily on basic cellular and molecular neuroscience. The program at USU will focus primarily on applied clinical neuroscience. USU faculty and students are studying such issues as how the human nervous system learns and executes motor skills, how people with Parkinson's Disease plan and execute sequential actions, how neural processing differs among children who are developing typically and children with developmental language disorders, and how neural activation changes in response to memory or language training.

The state of Utah already has one neuroscience program that focuses on basic neurophysiology. There is a need for another program that focuses on translating basic discoveries in neuroscience into clinical knowledge of human development, education, aging, and neurodevelopmental and neurogenic disorders.

Collaboration with and Impact on Other USHE Institutions

On September 29, 2014, Dr. Ron Gillam from USU met with Dr. Richard Dorsky, the head of the interdisciplinary neuroscience program at the University of Utah. Dr. Dorsky and Dr. Gillam discussed the neuroscience program at the University of Utah and the planned program at Utah State University. Dr. Dorsky noted that the two programs would have a different focus. He said there is a strong need for another neuroscience doctoral program in the state, noting there are many more students who apply for the doctoral program in neuroscience at the University of Utah than they can accept. In addition, there are students who are primarily interested in translational or clinical neuroscience who decide to leave the state for other programs. Dr. Dorsky indicated that a cohort of doctoral students at Utah State University who focus on different aspects of neuroscience would increase the participation of students in the intermountain chapter of the Society for Neuroscience. The program at USU would provide collaborative opportunities for students and it would increase the number of potential postdoctoral applicants. Dr. Dorsky did not believe that the addition of a neuroscience program at USU would have any negative impacts on the program at the University of Utah.

Dr. Gillam is currently collaborating on neuroimaging research with Dr. Richard Wiggins, director of Imaging Informatics and Medical Administrator for the Picture Archiving Communication System at the University of Utah. They are working on a project that compares fMRI imaging and fNIRS imaging during memory and attention tasks.

Benefits

The proposed program will benefit the institution by adding to the doctoral program offerings. Given that USU is focused on increasing graduate enrollments, specifically doctoral enrollments, this program will benefit USU. In addition, the focus on interdisciplinary training will benefit programs at USU that are engaged in similar research and training. In terms of benefits to USHE and the state, as noted in the section above, there is a need for additional neuroscience programs in the state to better meet the needs of students interested in studying neuroscience, and especially the more applied aspects of neuroscience.

Consistency with Institutional Mission

This proposed program is consistent with USU's mission to be a premier university with a focus on graduate (as well as undergraduate) education. USU's graduate education goals and objectives include a strengthening of graduate education, which this program will address. In addition, the goals of discovery and promotion of excellence and research and scholarship are consistent with this program's focus on producing strong researchers in the neuroscience area. The doctoral program in neuroscience will serve the public need for increased information about neuroscience.

Section IV: Program and Student Assessment

Program Assessment

The overall goal of this program is to produce neuroscience PhD graduates who will be successful in research and academic settings post-graduation. Data on placement rates of students will be an important metric of success. While in the program, students will be expected to meet certain standards (as described below). Outcomes on these standards will also be used to judge program success.

Expected Standards of Performance

All students will complete a group of core neuroscience courses, as specified below, as well as a variety of specialty courses in their focus area. In addition to coursework, students are also required to engage in applied learning experiences and to produce finished products illustrating their understanding and capability to apply key concepts and skills. These experiences must include involvement in research above and beyond the required Second Year Project and Dissertation project. Students must also complete a series of Professional Milestones, including presenting research at a professional meeting, writing and submitting a grant, and publishing a paper.

Students entering with a baccalaureate degree are expected to complete a Second Year Project within two years and the PhD within five years. Students entering with a master's degree are expected to complete the requirements for the PhD within four years. These students would be expected to take the required courses and electives in the PhD program or have equivalent courses in their MS program. Neuroscience faculty will evaluate the student's MS program to determine which courses will be required to complete the PhD.

All students are required to pass a comprehensive exam before advancement to candidacy for the PhD degree. Students entering with a baccalaureate must pass the comprehensive exam prior to the beginning of their fourth academic year in the program. Students entering with a master's degree must complete the

comprehensive exam prior to the beginning of their second academic year in the program.

Section V: Finance

Department Budget

No additional funding is being requested for this program. Current budget figures below are for the Psychology department only as this is where the program will be housed.

Three-Year Budget Projection							
Departmental Data	Current Departmental Budget – Prior to New Program Implementation	Departmental Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	\$2,022,789		\$2,022,789		\$2,022,789		\$2,022,789
Benefits	\$869,799		\$869,799		\$869,799		\$869,799
Total Personnel Expense	\$2,892,588		\$2,892,588		\$2,892,588		\$2,892,588
Non-Personnel Expense							
Travel							
Capital							
Library							
Current Expense	\$72,982		\$72,982		\$72,982		\$72,982
Total Non-Personnel Expense	\$72,982		\$72,982		\$72,982		\$72,982
Total Expense (Personnel + Current)	\$2,965,570		\$2,965,570		\$2,965,570		\$2,965,570
Departmental Funding							
Appropriated Fund	\$2,965,570		\$2,965,570		\$2,965,570		\$2,965,570
Other:							
Special Legislative Appropriation							
Grants and Contracts							
Special Fees /							

Differential Tuition							
Total Revenue	\$2,965,570		\$2,965,570		\$2,965,570		\$2,965,570
Difference							
Revenue-Expense	\$0		\$0		\$0		\$0
Departmental Instructional Cost / Student Credit Hour* <i>(as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")</i>	\$228		\$228		\$228		\$228

* *Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.*

Funding Sources

The Neuroscience PhD program will utilize existing faculty and courses at USU. No additional funding is required for this program.

Reallocation

No reallocation of funds will be needed to support this program.

Impact on Existing Budgets

Budgets in other programs will not be impacted. Many of the classes taught in this program are already being offered in existing programs, and there is capacity for additional students. Although faculty engaged in the neuroscience program may have additional advisees, this load will be spread out over multiple faculty members, with little or no implications for budgets. Several additional courses will be added for this program, but these courses will be incorporated into teaching loads of existing faculty.

Section VI: Program Curriculum

All Program Courses (with New Courses in Bold)

Note that a variety of elective courses across departments are listed. These are examples of courses that could be taken. It is not expected that a large number of students will take any one of these listed classes.

Course Prefix and Number	Title	Credit Hours
Required Courses	BIOL 6100: Neurobiology or PSY 6200: Fundamentals of Neuroscience I	3
	PSY 6210: Fundamentals of Neuroscience II	3
	PSY 7110: Cognitive Neuroscience	3
	PSY 7830: Mechanisms of Neuropsychiatric Diseases	3
	PSYC 7090: Program Seminar	8: 1 per semester
	PSY / EDUC 6570: Introduction to Educational and Psychological Research or STAT5200: Design of Experiments	3
	PSY / EDUC 6600: Research Design and Analysis 1 or STAT 5710: Intro to Probability	3
	PSY / EDUC 7610: Measurement, Design and Analysis 2 or STAT 5720: Intro to Mathematical Statistics	3
	USU 6900: Research Integrity	2
	PSY 7970/FCHD 7970/PEP 7970/BIOL 7970 (or other 7970): Dissertation	12
	Sub-Total	43
Elective Courses		
(9 credits from the following)	PSY 7900/COMD 6900/PEP 7900/: Independent Study	Var
	PSY 7910/COMD 7910/PEP 7910/FCHD 7060/ BIOL 6910: Independent/Advanced Research	Var
	PSY 7140: Methods in Neuroscience	3
	BIOL 5210: Cell Biology	3
	FCHD 7033: Research Methods 3: Dyadic and Longitudinal Data Analysis	3
	PSY 7670: Literature Reviews in Education and Psychology	3
	PSY 7700/PEP 7070: Grant Writing	
	PSY 7780: Multivariate Statistical Analysis I	3
	PSY 7790: Multivariate Statistical Analysis II	3
	STAT 5100: Linear Regression	3
	STAT 6100: Advanced Regression	3
	Sub-Total	9
Focus area options		

Course Prefix and Number	Title	Credit Hours
Translational Neuroscience (12 credits from the following)		
	PSY 7100: Biological Basis of Behavior	3
	COMD 7420: Electrophysiology	3
	PSY 6670: Neuropsychopharmacology	3
	PSY 6680: Neuroeconomics	3
	PSY 7820: Neuropsychology: Principles and Assessment	3
	SPED 7820: Research Instrumentation in Neuroimaging	3
	PSY 6650: Theories of Learning	3
	PSY 7740: Behavioral Pharmacology	3
Educational Neuroscience (12 credits from the following)		3
	PSY 6530: Developmental Psychology	3
	FCHD 7520: Development in Childhood	3
	PSY 6650: Theories of Learning	3
	PSY 6600: Cognition and Instruction	3
	PSY 7110: Advanced Theories of Cognitive Psychology	3
	PSY 7820: Neuropsychology: Principles and Assessment	3
	SPED 7820: Multidisciplinary Seminar on Language and Literacy	3
	SPED 7820: Research Instrumentation in Neuroimaging	3
Lifespan Neuroscience (12 credits from the following)		
	FCHD 7920: Aging Mind – Aging Brain	
	PSY 7270: Lifespan Psychopathology	3
	PSY 7820: Neuropsychology: Principles and Assessment	3
	COMD 6130: Neural Bases of Cognition and Motor Speech Disorders	3
	COMD 6120: Adult Language Disorders	3
	COMD 6140: Dysphagia	3
	PEP 6850: Neural Aspects of Rehabilitation I and II	3
	PEP 6860: Motor Development	3
	PEP 6840: Fundamentals of Motor Behavior	3
	PEP 7870: Advanced Motor Behavior Seminar	3
	PEP 7820: Variability and Dynamical Systems	3
	Sub-Total	12
	Total Number of Credits	64

Program Schedule - Example

Year 1

Fall Semester – 7 credits

- BIOL 6100 Neurobiology or PSY 6200 Fundamentals of Neuroscience I – 3
- PSY / EDUC 6570 Introduction to Educational and Psychological Research or STAT 5200 Design of Experiments – 3
- Neuroscience Program Seminar – 1
- Lab Rotation #1

Spring Semester – 7 credits

- PSY 6210 Fundamentals of Neuroscience II – 3
- PSY / EDUC 6600 Research Design and Analysis 1 or STAT 5710: Introduction to Probability – 3
- Neuroscience Program Seminar – 1
- Lab Rotation #1

Year 2

Fall Semester – 7 credits

- PSY 7110 Cognitive Neuroscience – 3
- PSY / EDUC 7610 Research Design and Analysis 2 or STAT 5100 Linear Regression – 3
- Neuroscience Program Seminar – 1
- Lab Rotation #2

Spring Semester – 6 credits

- PSY 7830 Mechanisms of Neuropsychiatric Diseases – 3
- General Elective – 2
- Neuroscience Program Seminar – 1
- Lab Rotation #2

Year 3

Fall Semester – 6 credits

- Research Integrity – 2
- Emphasis Area Advanced Elective - 3
- Neuroscience Program Seminar – 1

Spring Semester – 7 credits

- General Elective – 3
- Emphasis Area Advanced Elective – 3
- Neuroscience Program Seminar - 1

Year 4

Fall Semester – 6 credits

- General Elective – 2
- Emphasis Area Advanced Elective – 3
- Neuroscience Program Seminar – 1

Spring Semester – 6 credits

- Emphasis Area Advanced Elective - 3
- General Elective – 2
- Neuroscience Program Seminar – 1

Year 5

Fall Semester – 6 credits

- Dissertation

Spring Semester – 6 credits

- Dissertation

Section VII: Faculty

Psychology

Tim Shahan, PhD – Dr. Shahan's research focuses on fundamental behavioral processes with an emphasis on quantitative theoretical models of conditioning, learning, and behavioral regulation. His research examines how processing of information about rewards and reward-related cues contributes to decision-making, attention, and the persistence goal-directed behavior. Translation of insights from this basic research to problems of human health (e.g., drug addiction, developmental disabilities, mental illness) is a core feature of Dr. Shahan's research program.

Catalin Buhusi, PhD – Dr. Catalin Buhusi uses rodent models to manipulate, visualize, and examine the involvement of the dopaminergic system in normal and abnormal behavior. Current work includes behavioral studies, pharmacological manipulations, and multiple electrode recordings in behaving mice and rats. Computational models are used to integrate the growing body of data relative to the role of the

dopamine system in learning, memory, and attention. Research is relevant to psychopathology ranging from Intellectual Disabilities, to Schizophrenia, Parkinson's disease, and Huntington's disease.

Mona Buhusi, PhD – Dr. Mona Buhusi's research aims at (a) understanding how neuronal connectivity relates to normal and abnormal behavior and neuropsychopathology (from neurodevelopmental disorders such as autism and schizophrenia to age-related cognitive and motor deficits), (b) identifying molecules and mechanisms involved in the formation of specific neuronal circuits, and (c) identifying mechanisms of synapse formation, plasticity or maintenance.

JoAnn Tschanz, PhD – Dr. Tschanz's research interests involve the study of severe cognitive deficits in the elderly. For the past 12 years, she has examined genetic and environmental factors that appear to influence the risk of developing severe cognitive impairments such as dementia of the Alzheimer's type. Recently, Dr. Tschanz has studied diverse topics of aging, such as the cognitive correlates of late-life depression, the influence of cardiovascular and cerebrovascular disease on memory and other cognitive abilities, the role of various medications in reducing the risk for Alzheimer's disease, neuroimaging correlates of cognitive impairment, behavioral disturbances in dementia, and the influence of family history of Alzheimer's disease and other genetic factors on an individual's cognitive performance.

Kerry Jordan, PhD – Dr. Jordan directs the Multisensory Cognition Lab. Using various behavioral paradigms and a mobile EEG setup, research in the lab melds cognitive neuroscience, developmental psychology, and education approaches to investigate the brain's representation of number through multiple senses (e.g., vision, audition) in both adults and children. Dr. Jordan researches both what typically developing children know about mathematics behaviorally and also how they process this information in the brain. By mapping early neural processing of mathematics in children, Dr. Jordan and her collaborators ultimately aim to help identify atypical learners who may benefit from early intervention.

Communication Disorders and Deaf Education

Ron Gillam, PhD – Dr. Gillam directs the Language, Education, and Auditory Processing (LEAP) Brain Imaging Lab in the Emma Eccles Jones Early Childhood Education and Research Center. He conducts research on neural processing in children with developmental language disorders, autism, phonological disorders, and academic disorders. His research team uses functional Near Infrared Spectroscopy (NIRS) to assess the extent and variability of neural processing as children engage in information processing, language comprehension, and language production tasks.

Lisa Milman, PhD – Dr. Milman conducts translational research in the area of adult language neuro-rehabilitation. Her research explores how basic theories and discoveries from the fields of neuroscience, psychology, and linguistics can be used to develop innovative assessment and interventions that improve communication and quality of life for individuals affected by aphasia and other neurogenic communication disorders.

Sandra Laing Gillam, PhD – Dr. Laing Gillam conducts research on neural processing in children and adults with neurodevelopmental, speech and language, and phonological processing disorders. She specializes in the development and analysis of tasks that compare the behavioral and neuroimaging data obtained from Near Infrared Spectroscopy (NIRS).

Stephanie Borrie, PhD – Dr. Borrie is the director of the Human Interaction Lab. In this lab she explores how speech disorders arising from neurological origins (e.g., dysarthria) interfere with the mechanisms that underpin speech production, perception, and interpersonal coordination. Her work emphasizes the role of rhythm in communication and draws from a breadth of disciplines, including speech science, neuroscience, cognitive science, psychology, sociolinguistics, and tools from the field of engineering.

Kim Corbin-Lewis, PhD – Dr. Corbin-Lewis specializes in the applied science of dysphagia (swallowing disorders) diagnosis and management using a physiology-based model. She focuses on quantitative and qualitative methods of fluoroscopic imaging interpretation of swallow with the goal of improving clinical decision-making. She teaches undergraduate and graduate courses in speech science, dysphagia, and disorders of voice.

Health, Physical Education, and Recreation (Pathokinesiology Specialization)

Eadric Bressel, PhD – Dr. Bressel's research examines neuromechanical adaptations to therapeutic exercise in healthy and special populations. He has specific interest spine stabilization exercises, determinants of balance, and rehabilitation of chronic conditions such as osteoarthritis using an aquatic environment.

Breanna Studenka, PhD – Dr. Studenka specializes in pathokinesiology. She conducts research on how humans plan for and control movements that occur in sequence, including rhythmic timing, planning of grasping for object manipulation and joint-action, and continuous sensory-motor coupling. Her current research includes movement timing related to visual control and stuttering, the role of social/contextual factors on characteristics of movement variability, and potential therapeutic interventions for persons with movement disorders specifically related to control of sequential, timed movement (Parkinson's disease).

Sydney Schaefer, PhD – Dr. Schaefer's research focuses on how the human nervous system learns and executes motor skills, and relearns existing ones during motor recovery following neural damage. Dr. Schaefer and her team use noninvasive, behavioral techniques to study the control and learning of functional upper extremity movements, such as reaching, grasping, and object manipulation, as well as balance and posture. Findings from this research provide much-needed evidence for neurorehabilitation in geriatric populations with a number of movement disorders.

Family, Consumer, and Human Development

Beth Fauth, PhD – Dr. Fauth conducts research on Alzheimer's disease and other dementias; stress processes for caregivers of older adults; and the physical, cognitive, and psychosocial components of late life disability. She teaches undergraduate and graduate courses in aging, including the cognitive and neural changes associated with normative and non-normative aging (e.g., dementia and mild cognitive impairment).

Maria Norton, PhD – Dr. Norton's research program focuses on geriatric mental health and the psychosocial factors that affect risk for depression and dementia in late-life, including lifestyle choices, stressful life events, social support networks, personality, religiosity, and the extent to which these factors might alter genetic influences. Her current work examines psychosocial stressors across the entire lifespan (e.g., family member deaths, poverty, divorce, teen or unwed pregnancy, widowhood, premature offspring birth) and their association with late-life cognitive health, and the moderating effects of depression and

genes. Dr. Norton is also engaged in the development and testing of evidence-based lifestyle behavioral interventions with a multi-disciplinary team (health educator, neuropsychologist, sports educator, nutritionist, therapist, human developmentalist, and gerontologist) to encourage and support middle-aged persons in making and sustaining healthy lifestyle changes towards the goal of lowering risk for Alzheimer's disease.

Biology

Tim Gilbertson, PhD – The main goal of Dr. Gilbertson's research is to understand how information is processed by the nervous system. To accomplish this broad objective, he has focused on investigating the processing of taste stimuli by the peripheral gustatory system. He investigates the mechanisms the body uses to recognize nutrients and how this process is regulated by nutritional need. Current research focuses on the way nutrients, including fats, carbohydrates, and minerals, are detected by chemosensory cells in the oral cavity and in several nutrient-sensitive, post-ingestive organs. The research in his laboratory spans from genes through behavior with expertise in molecular biology, proteomics, electrophysiology, imaging, biochemistry, and analysis of behavior.

Brett Adams, PhD – Dr. Adams' research concerns the molecular underpinnings of cell signaling processes. Currently, his laboratory investigates signaling by two small GTPases, Dexas1 and Rhes.

Biological Engineering

Anhong Zhou, PhD – Dr. Zhou is the principal investigator of the Molecular and Cellular Sensing and Imaging Research Laboratory (MCSIRL) in the Department of Biological Engineering. Laboratory research is mainly focused on the integration of state-of-the-art instrumentation methods and new chemo/bio-sensing technologies for biomolecular surface engineering applications.

Mathematics and Statistics

Guifang Fu, PhD – Dr. Fu conducts research on statistical genetics, statistical shape analysis, statistical neural analysis, functional data analysis, and high-dimensional big data modeling. She develops advanced statistical models to analyze data with different background applications such as whole genome association studies, morphological data, Near Infrared Spectroscopy data, and EEG data.

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Weber State University – Bachelor of Science and Master of Science in Computer Engineering

Issue

Weber State University (WSU) requests approval to offer a Bachelor of Science (BS) and a Master of Science (MS) in Computer Engineering that can be combined into a five-year BS/MS program, effective Fall Semester 2015. These programs were approved by the institutional Board of Trustees on March 24, 2015.

Background

The proposed BS and MS programs in Computer Engineering will be supported by WSU's Department of Computer Science and the Department of Engineering. Both of these departments reside within WSU's College of Applied Science and Technology. The Computer Science and Engineering programs currently offer both undergraduate associate and baccalaureate degrees, including existing BS programs in computer science and electrical engineering. These two existing programs are accredited by the Accreditation Board for Engineering and Technology (ABET). The institution plans to seek ABET accreditation for the new BS Computer Engineering program.

The proposed programs have been designed so that no new undergraduate courses will need to be developed. The BS program combines existing courses from the computer science and electrical engineering programs that provide the necessary preparation for baccalaureate degree requirements. The MS program will require development of five required courses and 11 elective courses. It is anticipated that existing labs and institutional infrastructure will be sufficient to support both programs. Students enrolled in the BS program may apply for the MS program prior to completion of the BS degree and complete both BS and MS degrees within five years.

To support the development and instruction of the programs, WSU intends to hire two additional full-time faculty members in the first three years to add to the current 10 full-time faculty in the computer science and engineering departments. Funding for these two faculty members will come from the Engineering and Computer Science Initiative with matching funds provided by the institution. Current faculty in these two

departments possess relevant doctoral degrees and associated academic and industry experience such that all graduate courses listed in the BS and MS programs can be taught upon program implementation.

The new BS and MS programs will provide students the opportunity to receive credentials that are in demand in WSU's service region. Hill Air Force Base (HAFB) has need for computer engineers that are currently not being met with the local supply of qualified individuals. Hill Air Force Base often must recruit outside the state to fill its positions. In addition to HAFB staffing requirements, companies that supply engineering services to HAFB as well as other aerospace companies within WSU's service region need qualified computer engineers. It is anticipated that the need for program graduates will increase as HAFB prepares for and implements the new Falcon Hill National Aerospace Research Park and develops and implements support for the new F-35 fighter jet. Additionally, other regions within the state need more people prepared for computer engineering careers.

Data from the Utah Department of Workforce Services (Information Data Viewer available on-line at <http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do>) show the following state-wide wage and employment projection for occupations related to computer engineering.

SOC Code	Occupation	Percent Estimated Annual Growth Rate	Estimated Annual Openings	Median Annual Wages
11-3021	Computer and Information Systems Managers	3.1	120	\$111,930
15-1121	Computer Systems Analysts	3.8	180	\$70,960
15-1131	Computer Programmers	2.1	240	\$76,190
15-1132	Software Developers, Applications	4.1	350	\$85,090
15-1133	Software Developers, Systems Software	3.6	150	\$91,190
15-1142	Network and Computer Systems Administrators	2.5	130	\$69,220
15-1143	Computer Network Architects	2.3	20	\$85,100

Universities in other parts of the country offer combined BS/MS computer engineering programs that can be completed within a five-year time frame. Weber State University's option for a combined BS/MS Computer Engineering program was developed after reviewing similar programs offered by the University of Massachusetts, the University of Washington, and Villanova University.

Similar programs currently offered within USHE include:

- Utah State University: BS and MS degrees in Computer Engineering
- University of Utah: BS in Computer Engineering; Computer Engineering tracks for students enrolled in the MS in Computing and the Electrical and Computer Engineering programs
- Utah Valley University: BS in Computer Engineering

The WSU proposed programs have been reviewed by institutional stakeholders within USHE. Support for the program was expressed by Dixie State University and Southern Utah University. Academic leaders from the University of Utah and Utah State University expressed concerns centered on the following issues:

1. The University of Utah and Utah State University have capacity to add more students to existing Computer Engineering programs.

2. WSU's current and relatively new Electrical Engineering program needs time to mature before related programs are added.
3. The WSU MS program in Computer Engineering should be taught by faculty who are research-active.

Weber State University responded to these concerns as follows:

1. Capacity issue - While extra capacity is available within existing programs, employers in WSU's service area are not able to hire enough graduates to meet the demand. Students who reside and/or work in WSU's service region have not shown a tendency to travel to either Logan or Salt Lake City to enroll in programs that prepare them for computer engineering positions.
2. Maturity of WSU's Electrical Engineering program - This program has grown enrollments and graduates over the last couple of years. It is a viable and strong program. It is accredited by ABET and is taught by faculty with terminal degrees in the discipline. The institution plans to hire two new terminally qualified faculty members to support the program.
3. Research-active faculty for MS program - There is agreement by WSU that research-active faculty members add value to graduate-level programs. Weber State University offers a number of successful graduate programs. Graduate faculty members who teach in the Computer Engineering program will be active in research appropriate to the institution's mission as a regional university.

The University of Utah also raised an efficiency concern citing a number of states that have engineering program ratios considerably below 1.0 per one million population. Utah's ratio is over 1.0. There was a question whether or not Utah can afford to expand engineering programs at other institutions. It should be noted that most of the states cited have populations much larger than Utah. Further, Utah's engineering and computer technology initiative created by the legislature through Utah Code 53B-6-105 states: "The increase in program capacity...shall include funding for ...new engineering and computer science programs." Weber State University has developed a financial proposal contained within the attached document that shows the proposed programs can be added through the support of engineering initiative funds and internal funds of the institution without the need to seek additional funding from the legislature.

After considering the concerns expressed by academic leaders from the University of Utah and Utah State University, as well as WSU's responses, the merits of WSU's proposal, and the current and anticipated labor market demand in WSU's service region, the Program Review Committee recommended that WSU's proposal move forward to the full Board for approval.

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. There are no additional policy issues that need to be addressed relative to approval of the program.

Commissioner's Recommendation

The Commissioner recommends the Board of Regents approve the Bachelor of Science and Master of Science in Computer Engineering.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Program Description – Full Template
Weber State University
Bachelor of Science in Computer Engineering and
Master of Science in Computer Engineering

Section I: The Request

Weber State University requests approval to offer a Bachelor of Science (BS) and a Master of Science (MS) in Computer Engineering that can be combined into a five-year BS/MS program, effective Fall Semester 2015. This program was approved by the institutional Board of Trustees on March 24, 2015.

Section II: Program Description

Complete Program Description

An increasing number of colleges and universities offer programs that permit students to obtain a combined BS/MS degree in Computer Engineering within a five-year time frame. These combined five-year programs provide students with the opportunity to obtain these degrees in less time than would be required when pursuing two degrees independently. In addition, these five-year programs typically offer a simplified process for admission to graduate coursework.

Weber State University proposes to offer a BS and a MS in Computer Engineering that can be combined into a five-year BS/MS program. The proposed program was developed after reviewing similar programs offered by:

The University of Massachusetts
The University of Washington
Villanova University

A broad variety of industries require individuals who have this degree. Weber State University's proposed BS/MS degree in Computer Engineering provides the basic fundamentals and depth of knowledge its graduates will be required to possess in order to meet the needs of these industries.

Purpose of Degree

The new BS/MS programs will provide students with the opportunity to receive a comprehensive degree in Computer Engineering designed to fill the looming need for engineers at Hill Air Force Base (HAFB) as well as to meet the staffing requirements for companies that supply engineering services to HAFB, particularly those companies that will be involved in the new Falcon Hill development. Additionally, this degree prepares graduates to meet many of the needs of local aerospace companies for engineers with a broad knowledge of computer engineering topics. These new programs will enhance the depth and breadth of the institution's undergraduate offerings while meeting the growing demands of the current student body.

In an effort to serve practicing professionals in the local Weber/Davis counties and to advance the Weber State core themes of Learning, Access, and Community, the proposed programs seek to offer high-demand undergraduate and graduate level degrees in close proximity to a workforce that would not otherwise consider pursuing these degrees due to time and distance considerations in attending the currently available programs. Since the courses included in the proposed degrees will be offered at night at the

Weber State Davis Campus, working professionals from the local community will have direct access to classes that would lead to an advanced high-tech degree.

Institutional Readiness

The administration of the new BS/MS program will be supported by two existing departments, Computer Science and Engineering, in conjunction with the College of Applied Science and Technology (COAST), which houses both departments. The Computer Science (CS) and Engineering programs currently offer both undergraduate associate and baccalaureate degree programs.

The existing Computer Science BS degree and the Electrical Engineering BS degree are ABET (Accreditation Board for Engineering and Technology) accredited. With only minor faculty reassignments and personnel enhancements as indicated in the following section, the new programs will not impact the undergraduate degrees offered by either the Computer Science or Electrical Engineering programs.

Departmental Faculty

At least ten current full-time WSU faculty are able to support the inception and continuation of the programs in an instructional and/or administrative capacity. Each of these faculty possess related degrees and associated academic and industry experience such that all graduate courses listed in the BS/MS program can be taught immediately. Initially, these faculty will rotate through graduate course assignments each semester as needed. Typical semester load requirements for faculty teaching graduate courses would include a single graduate course with undergraduate courses filling the remainder. Therefore, of the ten faculty, an equivalent of two FTE will be devoted toward teaching courses specific to the Computer Engineering program. The other eight FTE will teach Computer Science and Engineering courses, many of which will be cross-listed and will meet Computer Engineering undergraduate requirements.

To account for program growth, it is projected that a new hire in either Computer Science or Electrical Engineering would be required by the end of year one. By the end of year three, it is expected that an additional hire would be necessary. By the end of year five it is anticipated that a third new faculty member will be hired. All new hires will have sufficient credentials to teach undergraduate and graduate courses in the program and to work with and support graduate-level students.

Program Faculty Category	Program Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Program Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	10	3	13
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
With Master’s Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor’s Degrees			
Full-time Tenured			

Program Faculty Category	Program Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Program Faculty Headcount at Full Program Implementation
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Total Headcount Faculty in the Program			
Full-time Tenured	10	3	13
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Total Program Faculty FTE <i>(As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")</i>	2	3	5

Staff

The College of Applied Science and Technology currently employs a full-time advisor who will be available to counsel students on admissions, financial aid and tuition, course scheduling and registration, and other inquiries. Secretarial support for the program will be shared between current full-time administrative specialists in Computer Science and Engineering. Until substantial program growth is realized on the order of 250 student enrollments per year, a dedicated part- or full-time secretary position will not be necessary. Lab support will be provided by current COAST professional IT staff. No additional staff will be required.

Library and Information Resources

The WSU Stewart Library already has an extensive list of books, journals, and electronic media that supplies supporting material for Computer Science and Engineering, primarily through ongoing collaborations related to the associated undergraduate degree programs. The Stewart Library has also developed access to most of the electronic journals essential for following the latest developments in the discipline.

A dedicated library official, assigned to COAST, reviews the offerings regularly and solicits faculty for updates to available content. The expectation is that only a few more recommended journals or research tracts appropriate to a Master's level program in computer engineering would be needed to complete the library/electronic resources available to students.

Admission Requirements

Students will be required to complete a core of engineering, science, and computer science courses with a grade of C + or better before being allowed to take upper division courses.

Senior undergraduate students will be allowed to take up to two graduate core courses provided they meet the aforementioned standard. In order to take further graduate course work, students must apply for the graduate program, provide GRE scores, and demonstrate academic ability as expressed by their undergraduate grade point average; professional experience will also be considered. While students in the combined BS/MS program will be allowed to pursue the degrees concurrently, students may also pursue the degrees in sequence (i.e., complete all undergraduate course work before applying for graduate study).

Student Advisement

Academic advising will be provided through existing college and university advising services at Weber State University. Each student will receive individual advisement in planning his or her program of study.

Justification for Graduation Standards and Number of Credits

The BS program requires 124 credits graduate and is within the guidelines for baccalaureate degrees set by the University and the Board of Regents.

The MS in Computer Engineering program will require a minimum of 30 graduate semester credit hours beyond the 124 undergraduate credits. Given the program design and schedule, it is extremely unlikely that a graduating student will accrue more than 36 credit hours to earn the degree. A survey of similar programs indicated that the 30 credit hour minimum is a reasonable requirement for the MS degree.

External Review and Accreditation

The BS program in Computer Science and the BS program in Electrical Engineering are both accredited by ABET. Faculty members in each department are experienced in the program review process, including the importance of maintaining proper assessment instruments. The BS program will seek ABET accreditation as soon as it has graduates. Because of the departments' experience with ABET accreditation for its engineering and computer science programs, they are familiar with the ABET process and should be able to obtain accreditation upon application.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

The enrollment estimates come from surveys given to the current undergraduate students in Electrical Engineering and Computer Science. From these surveys it is projected that the BS/MS program will start with 25 declared majors in year 1, mainly from students who change their major to the new program, increasing to 80 by year 5.

Data Category	Current – Prior to BS/MS Program Implementation	PROJ YR 1	PROJ YR 2	PROJ YR 3	PROJ YR 4	PROJ YR 5
Data for Proposed Program						
Number of Graduates in BS/MS Program	X	0	15/5	25/10	35/15	45/20
Total # of Declared Majors in BS/MS Program	X	25	35	60	85	110
<p><i>Given the nature of the program, it is anticipated that most students will declare this major at the end of their sophomore year. Of the 110 majors in year 5, it is anticipated that 45 will be juniors, 45 seniors, and 20 in the fifth year of the program.</i></p>						

Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (as reported in Faculty table above)	X	2	3	4	4	5
Total Department Student FTE (Based on Fall Third Week)	X	25	35	60	85	110
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)	X	12.5	11.67	15	21.25	22
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: <u> N/A </u>)						

Expansion of Existing Program
N/A

Section III: Need

Program Need

Local and global economic and labor demands make it critical that Weber State expand its degree offerings with BS and MS degrees in Computer Engineering. Key regional players like Hill Air Force Base (Hill AFB) have indicated a strong need for a local computer engineering master’s degree both to meet current and projected labor demands at the base and to retain current base employees.

With recent talks of Boeing relocating jobs to Northern Utah and initiatives to build the regional aerospace cluster, the importance of having a well-educated workforce as a competitive advantage over other states and countries becomes integral to economic development in Utah. National trends project a growth of STEM jobs of 17% from 2008 to 2018. Currently, the United States meets its labor demands in the computer industry via foreign-born workers who comprise 18% of the total computer workforce. As globalization continues and wages increase in other countries, the practice of importing expert professionals may not be a viable long-term strategy, especially with foreign-born workers electing to stay in their respective countries.¹

Labor Market Demand

It is important to note several facts about the demand for engineers in Utah.

- Numerous studies document the shortage of engineers in Utah. While these studies may differ with regard to the precise size of the engineering shortage, there is no disagreement regarding the critical need for engineers in the state of Utah.

¹ Carnevale, Smith & Melton, 2011, STEM, Georgetown University Center on Education and the Workforce

- Depending upon the particular study and the region, computer engineers are near the top of the list of needed engineers.
- A survey by the Utah Technology Council finds that 24 percent of respondents' engineering openings in the state require a master's degree.
- A 2014 report by *USA Today*² concluded "Computer engineers . . . are expected to become the most lucrative and highest demand professions in the next three years, according to a *USA Today* analysis of workforce projections by Economic Modeling Specialists Intl., a division of CareerBuilder." The *USA Today* report further identified Ogden, Utah as a region with a significant gap between educational attainment and job openings in engineering.
- Hill Air Force Base, one of the state's largest employers, indicates a critical need for computer engineers.
- The proposed program will graduate 30 BS/MS students each year. Labor market demand should be more than sufficient to provide job openings for these students.

Regional Labor Demand

Hill Air Force Base personnel are concerned about its ability to recruit qualified candidates and has recently been able to meet its current labor demand for engineers and scientists because of layoffs in high-tech companies. This trend is not likely to continue. As the economy improves, HAFB needs Weber State and other higher education institutions to produce more computer engineers so that it can meet its workforce demand. To do so, it reports the need to hire 755 Electrical and Computer Engineers over the next five years. Further, the base may need an additional 120 to 150 computer engineers per year should it be assigned parts of the F-35 software development project (Hill Air Force Base, 2014).³ This hiring surge associated with the F-35 project could begin in two to three years and is expected to last between five to eight years.

Hill Air Force Base has indicated that BS and MS degrees in Computer Engineering from WSU would be strategic to recruit and retain employees. As HAFB competes with private industry, it has needed to provide its employees with incentives to stay at the base, including support for continued education among its employees. Weber State University's proximity to HAFB and its close collaboration with base officials are expected to enable it to successfully provide the required BS and MS programs.

State Labor Demand

Data from the Utah Department of Workforce Services (Information Data Viewer available on-line at <http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do>) show the following state-wide wage and employment projection for occupations related to computer engineering.

SOC Code	Occupation	Percent Estimated Annual Growth Rate	Estimated Annual Openings	Median Annual Wages
11-3021	Computer and Information Systems Managers	3.1	120	\$111,930
15-1121	Computer Systems Analysts	3.8	180	\$70,960

² *USA Today*, "Where the jobs are: Hot prospects for college grads" Hadley Malcolm and MaryJo Webster, 2014

³ Hill Air Force Base. (2014, September 9). Electronic Communication. *Rough Projections for Engineers and Scientists at Hill AFB Next 5-8 Yrs.* Layton, Utah, United States: Electronic Communication.

15-1131	Computer Programmers	2.1	240	\$76,190
15-1132	Software Developers, Applications	4.1	350	\$85,090
15-1133	Software Developers, Systems Software	3.6	150	\$91,190
15-1142	Network and Computer Systems Administrators	2.5	130	\$69,220
15-1143	Computer Network Architects	2.3	20	\$85,100

National Labor Demand

The Georgetown Center on Education and the Workforce published a comprehensive review of STEM that considered national trends in the labor market and graduation rates in STEM degrees. According to this study, STEM occupations are expected to grow at a rate of 17% in comparison to the total number of jobs that are expected to grow at a rate of 10% between 2008 and 2018. The only occupation cluster that is expected to grow at a faster rate than STEM occupations during this period of time is healthcare (Carnevale, Smith & Melton).

In 2018, computer occupations are expected to account for 51% of the total STEM occupations. The new and replacement computer occupations will require higher levels of education in 2018 than before. It is projected that 21% of the total new and replacement computer occupations will require graduate degrees, accounting for 255,200 of 1,219,700 new and replacement computer occupations. On average workers in computer occupations make \$73,000 a year, and STEM majors in general make more than \$500,000 over a lifetime than other majors, based on 2009 currency values (Carnevale, Smith & Melton).

The United States Bureau of Labor Statistics (BLS) Occupational Outlook Handbook provides projections for occupations related to the proposed computer engineering programs. These include Computer Network Architects, Computer Programmers, Computer Systems Analysts, Network and Computer Systems Administrators, and Software Developers. Estimated ten year job growth from 2012 – 2022 ranges from 8% (Computer Programmers) to 25% (Computer Systems Analysts) with 2012 median earnings ranging from \$74,280 (Computer Programmers) to \$93,350 (Software Developers).⁴

Student Demand

Enrollment in both WSU's Computer Science and Electrical Engineering programs has shown strong student demand in recent years. Since 2010 enrollment in these two programs has grown by more than 300 students, representing a 46 percent increase.

	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014
Computer Science	575	645	765	754	774
Electrical Engineering	84	122	143	157	187
	659	767	908	911	961

These increasing enrollments have created a demand for expanded curricular and degree options. Enrollment projections contained in this proposal indicate that 80 students will be enrolled in the program at

⁴ <http://www.bls.gov/ooh/computer-and-information-technology/home.htm>

full implementation. This figure represents less than 10 percent of the current undergraduate Computer Science and Electrical Engineering majors. A survey of these undergraduate majors found that 57 percent of the students would be interesting in changing their major to the combined BS/MS in Computer Engineering.

Similar Programs

The following three universities offer similar master's-level programs as the proposed WSU computer engineering program: University of Utah; Utah State University; and Brigham Young University. At the University of Utah, the School of Computing (SOC) and the Department of Electrical and Computer Engineering (ECE) jointly offer a Bachelor of Science degree in computer engineering and a computer engineering track for students in SOC and ECE master's degree programs (University of Utah, 2014). Utah State University has both bachelor's and master's degrees in computer engineering (Utah State University, 2014). Brigham Young University has bachelor's degrees in electrical engineering and in computer engineering, but like the University of Utah offers a dedicated track in computer engineering for its master's and PhD programs. In addition, Utah Valley University offers a bachelor's in Computer Engineering.

The proposed program is designed to serve the educational needs of students, professionals, and local industry. The program seeks to address concerns from local technology organizations that qualified individuals in Weber and Davis Counties are deciding to not pursue an advanced computing degree because of the significant time and distance considerations in attending currently available programs. Given the substantial growth in the demand for computing professionals and managers, it is important to the state's economy that qualified individuals be provided a convenient, affordable opportunity to achieve their career goals in this field.

Collaboration with and Impact on Other USHE Institutions

Students with an Associate's Degree in Pre-Engineering with an emphasis in electrical and/or computer engineering from any USHE institution will be able to seamlessly transfer into the program and begin with the 3000-level courses. In addition, students with relevant course work in computer science will be able to transfer their courses into the program.

Benefits

The degree will help to address the severe shortage of engineers in Northern Utah and throughout the state.

Consistency with Institutional Mission

The BS and MS degrees in Computer Engineering fit within the mission of Weber State University wherein the following statement is made: "Weber State University provides associate, baccalaureate and master degree programs in liberal arts, sciences, technical and professional fields." The mission statement further adds: "Through academic programs, research, artistic expression, public service and community-based learning, the university serves as an educational, cultural and economic leader for the region." The BS and MS degrees in Computer Engineering are intended to meet the institution's ongoing commitment to the educational needs of businesses and industries in Northern Utah.

Program Assessment

The proposed programs are designed to prepare students for positions in advanced engineering analysis and design. The program consists of core and elective courses in computer engineering and a defense of a

formal extensive design project report. The program is designed to address the computer engineering staffing needs of both large and moderate-sized industries in Northern Utah and throughout the state including many of the computer engineering staffing needs at Hill Air Force Base. The institution plans to assess whether or not the programs meet this goal using several different methods of evaluation. The first method will involve surveying the students that are currently in the program to determine if the desired goals and the expectations of students are being met. The second method will consist of surveys of both graduates from the program and employers of those graduates. The graduates will be evaluated to determine whether or not the program met the needs of their current employer or other past employers and how the program might be improved. The employers themselves will be asked whether or not the program is meeting their needs for engineers. It is also planned to use the Senior Project courses to determine if students have gained the knowledge and skills they were to have acquired in their core courses. The results from these three sources of information will be analyzed and necessary changes will be implemented.

Expected Standards of Performance

As previously stated, it is planned to seek EAC of ABET accreditation for the undergraduate component of the degree as soon as possible. The specific outcomes that students will be required to meet are clearly specified by ABET. These include requiring a program seeking accreditation to demonstrate that its students have achieved various outcomes including such things as the ability to apply their knowledge of math, science and engineering, the ability to design a system, component or process, and the ability to identify, formulate and solve engineering problems.

In addition to meeting ABET requirements, students will be required to have a grade of C or better in all of their engineering courses as well as in all of their math and science courses. Furthermore, students may not repeat more than three lower division engineering courses and three upper division engineering courses at WSU in order to improve their grades.

One of the goals of this program is that students will acquire the knowledge needed to successfully complete the Fundamentals of Engineering (FE) exam. To assure that this goal has been met all students will be required to pass the FE exam prior to graduation.

Section V: Finance

The institution's Computer Science and Electrical Engineering programs are currently supported by a combined budget of \$2,353,225. By the third year of the proposed programs, the total additional budget to support the programs is estimated to be \$543,893. The information below provides details regarding anticipated expenses and sources of revenue to support the programs.

Program Budget

Three-Year Budget Projection							
Program Data	Current Program Budget – Prior to New Program Implementation	Program Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages		193,770	193,770	83,813	277,583	86,327	363,911
Benefits		83,321	83,321	36,040	119,361	37,121	156,482
Total Personnel Expense	\$	277,091	277,091	119,853	396,944	123,448	520,393
Non-Personnel Expense							
Travel						1,000	1,000
Capital				12,000	12,000	0	12,000
Library		4,000	4,000	0	4,000	0	4,000
Current Expense		4,500	4,500	0	4,500	2,000	6,500
Total Non-Personnel Expense		8,500	8,500	12,000	20,500	3,000	23,500
Total Expense <i>(Personnel + Current)</i>	\$	285,591	285,591	131,853	417,444	126,448	543,893
Program Funding							
Appropriated Fund (Tax + Tuition)		285,591	285,591	97,424	383,015	56,214	439,229
Other:							
Special Legislative Appropriation							

Grants and Contracts	see note						
Special Fees / Differential Tuition				34,429	34,429	70,235	104,664
Total Revenue	\$	285,591	285,591	131,853	417,444	126,449	543,893
Difference							
Revenue-Expense	\$	\$		\$		\$	
Program Instructional Cost / Student Credit Hour* <i>(as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")</i>			\$380.79	\$	\$386.52	\$	\$380.35

Note: The institution has a number of ongoing grants that will provide opportunities for the faculty and students involved in the program; however, the grants do not increase the "direct instructional expenses" of the program.

Reallocation

As previously noted, there will be no additional courses needed for the BS program. There will be an additional four new graduate courses per semester for the first year of the program. Starting in year two, an addition new course, CENG 6010, will be added so that five graduate courses per semester will be taught consistently to support the MS program for each subsequent year.

At least ten full-time current WSU faculty are able to support the inception and continuation of the programs in instructional and/or administrative capacities. Each of these faculty possess related degrees and associated academic and industry experience such that all undergraduate and graduate courses can be taught immediately. Thus, resources will not be reallocated as resources are currently in place to launch.

Impact on Existing Budgets

The current Computer Science and Electrical Engineering faculty will teach the courses required for the program. Since all the undergraduate courses are already taught the institution plans to manage initial growth by increasing class size rather than adding additional sections at the undergraduate level. Weber State has planned Engineering Initiative matching funds that will be used for the two new faculty hires anticipated in the first three years.

Section VI: Program Curriculum

All Program Courses (with New Courses in Bold)

Combined BS/MS Program

Course Prefix and Number	Title	Credit Hours
Required Courses		
<i>Computer Science and Electrical Engineering Required Courses (83 credit hours)</i>		
CS/CENG 1400	Fundamentals of Programming	4
CS/CENG 1410	Object-Oriented Programming	4
CS/CENG 2130	Computer Structures/Discrete Math	4

Course Prefix and Number	Title	Credit Hours
CS/CENG 2420	Intro to Data Structures & Algorithms	4
CS/CENG 2810	Computer Architecture/Organization	4
CS/CENG 3100	Operating Systems	4
CENG 6430	Advanced Algorithms	3
CENG 6610	Computer Architecture	3
EE/ENGR 1000	Intro to Engineering	2
EE/CENG 1270	Introduction to Electric Circuits	4
EE/CENG 2260	Fundamentals of Electric Circuits	4
EE/CENG 2700	Digital Circuits	4
EE/CENG 3000	Engineering Seminar	1
EE/CENG 3110	Microelectronics I	4
EE/CENG 3210	Signals and Systems	4
EE/CENG 3610	Digital Systems	4
EE/CENG 3710	Embedded Systems	4
EE/CENG 3890	Internship	2
EE/CENG 4010	Senior Project I	2
EE/CENG 4020	Senior Project II	2
EE/CENG 4100	Control Systems	4
CENG 6210	Digital Signal Processing	3
CENG 6010	Design Project	6
CENG 6110	Digital VLSI	3
<i>Support Courses Required (19 credit hours)</i>		
MATH 1220	Calculus II	4
MATH 2250	Linear Algebra/Differential Equations	4
MATH 3410	Probability and Statistics	3
PHYS 2220	Physics for Scientists/Engineers II	5
ENGL 3100	Professional and Technical Writing	3
Sub-Total		102
Elective Courses		
<i>Select 18 credit hours from the following (no more than 6 credits from 4xxx)</i>		
CS/CENG 4110	Concepts of Formal Languages	4
CS/CENG 4280	Computer Graphics	4
CS/CENG 4750	Advanced Software Engineering Methods	4
EE/CENG 4800	Special Topics	1-4
EE/CENG 4900	Individual Studies	1-4
CENG 6100	Distributed Operating Systems	3
CENG 6500	Artificial Intelligence and Neural Networks	4
CENG 6600	Machine Learning	3
CENG 6820	Compiler Design	4
CENG 6840	Formal System Design	3
CENG 6850	Parallel Programming and Architecture	3
CENG 6130	Advanced Semiconductor Devices	3
CENG 6220	Image Processing	3
CENG 6410	Communication Circuits and Systems	3
CENG 6420	Digital Communication	3
CENG 6710	Real-time Embedded Systems	3

Course Prefix and Number	Title	Credit Hours
	Sub-Total	18
	General Education Sub-Total	34
	Total Number of Credits (124 undergraduate + 30 graduate)	154

Program Schedule (combined BS/MS)

Year	Fall	Spring
1	EE/ENGR 1000 – Intro to Electronics Engineering MATH 1210 – Calculus I (satisfies QL Gen Ed) PHYS PS2210 – Physics for Scientists/Engineers I (Gen Ed) CS/CENG 1400 – Fundamentals of Programming Computer & Information Literacy Exams (Gen Ed)	EE/CENG 2700 – Digital Circuits MATH 1220 Calculus II PHYS 2220 – Physics for Scientists/Engineers II CS/CENG 1410 – Object-Oriented Programming
2	EE/CENG 1270 – Intro to Electric Circuits CS/CENG 2130 – Comp Structures (or Discrete Math) CS/CENG 2420 – Intro Data Structures & Algorithms ENGL EN2010 – Intermediate Writing (Gen Ed)	EE/CENG 2260 – Fundamentals of Electric Circuits MATH 2250 – Linear Algebra/Differential Equations ENGL 3100 – Professional & Technical Writing CS/CENG 2810 – Computer Architecture/Organization Gen Ed
3	EE/CENG 3110 -- Microelectronics I EE/CENG 3210 – Signals & Systems EE/CENG 3610 – Digital Systems EE/CENG 3000 – Engineering Seminar MATH 3410 – Probability And Statistics	EE/CENG 3710 – Embedded Systems CS/CENG 3100 – Operating Systems EE/CENG 3890 – Internship COMM HU2110 -- Interpersonal Communication (Gen Ed) Gen Ed
4	EE/CENG 4010 – Senior Project I EE/CENG 4100 Control Systems CS/CENG 4110 – Concepts of Formal Languages/Algorithms * CENG 6210 – Digital Signal Processing ECON SS2010 – Macroeconomics (Gen Ed)	EE/CENG 4020 – Senior Project II ** CENG 6710 – Real Time Embedded Systems * CENG 6610 – Computer Architecture (combined BS/MS) GenEd GenEd GenEd
5	CENG 6850 -- Parallel Programming and Architecture CENG 6410 – Communications Circuits and Systems CENG 6110 – Digital VLSI CENG 6010 – Design Project	CENG 6840 – Formal System Design CENG 6420 -- Digital Communications CENG 6430 – Advanced Algorithms CENG 6010 – Design Project

* The 5-year BS/MS degree will allow for students entering their senior year to take 2 graduate courses, with instructor or departmental consent that will count toward the MS degree. Students doing so will take an additional 24 credits the following year for completion of the MS degree. Students must apply and be accepted into the graduate program to select this track.

** Students may also take a graduate elective in lieu of an undergraduate elective in their senior year, with instructor or departmental consent, which will count toward the BS degree, not the MS degree. Students will have the option of completing all undergraduate coursework before beginning graduate coursework.

BS Only Program

Course Prefix and Number	Title	Credit Hours
Required Courses		
<i>Computer Science and Electrical Engineering Required Courses (65 credit hours)</i>		
CS/CENG 1400	Fundamentals of Programming	4
CS/CENG 1410	Object-Oriented Programming	4
CS/CENG 2130	Computer Structures/Discrete Math	4
CS/CENG 2420	Intro to Data Structures & Algorithms	4
CS/CENG 2810	Computer Architecture/Organization	4
CS/CENG 3100	Operating Systems	4
EE/ENGR 1000	Intro to Engineering	2
EE/CENG 1270	Introduction to Electric Circuits	4
EE/CENG 2260	Fundamentals of Electric Circuits	4
EE/CENG 2700	Digital Circuits	4
EE/CENG 3000	Engineering Seminar	1
EE/CENG 3110	Microelectronics I	4
EE/CENG 3210	Signals and Systems	4
EE/CENG 3610	Digital Systems	4
EE/CENG 3710	Embedded Systems	4
EE/CENG 3890	Internship	2
EE/CENG 4010	Senior Project I	2
EE/CENG 4020	Senior Project II	2
EE/CENG 4100	Control Systems	4
<i>Support Courses Required (19 credit hours)</i>		
MATH 1220	Calculus II	4
MATH 2250	Linear Algebra/Differential Equations	4
MATH 3410	Probability and Statistics	3
PHYS 2220	Physics for Scientists/Engineers II	5
ENGL 3100	Professional and Technical Writing	3
Sub-Total		84
Elective Courses		
<i>Select 6 credit hours from the following (6xxx courses may be taken with instructor approval)</i>		
CS/CENG 4110	Concepts of Formal Languages	4
CS/CENG 4280	Computer Graphics	4
CS/CENG 4750	Advanced Software Engineering Methods	4
EE/CENG 4800	Special Topics	1-4
EE/CENG 4900	Individual Studies	1-4
CENG 6100	Distributed Operating Systems	3
CENG 6500	Artificial Intelligence and Neural Networks	4
CENG 6600	Machine Learning	3
CENG 6820	Compiler Design	4
CENG 6840	Formal System Design	3
CENG 6850	Parallel Programming and Architecture	3
CENG 6130	Advanced Semiconductor Devices	3
CENG 6220	Image Processing	3
CENG 6410	Communication Circuits and Systems	3
CENG 6420	Digital Communication	3
CENG 6710	Real-time Embedded Systems	3

Course Prefix and Number	Title	Credit Hours
Sub-Total		6
General Education Sub-Total		34
Total Number of Credits		124

Program Schedule (BS only)

Year	Fall	Spring
1	EE/ENGR 1000 – Intro to Electronics Engineering MATH 1210 – Calculus I (satisfies QL Gen Ed) PHYS PS2210 – Physics for Scientists/Engineers I (Gen Ed) CS/CENG 1400 – Fundamentals of Programming Computer & Information Literacy Exams (Gen Ed)	EE/CENG 2700 – Digital Circuits MATH 1220 Calculus II PHYS 2220 – Physics for Scientists/Engineers II CS/CENG 1410 – Object-Oriented Programming
2	EE/CENG 1270 – Intro to Electric Circuits CS/CENG 2130 – Comp Structures (or Discrete Math) CS/CENG 2420 – Intro Data Structures & Algorithms ENGL EN2010 – Intermediate Writing (Gen Ed)	EE/CENG 2260 – Fundamentals of Electric Circuits MATH 2250 – Linear Algebra/Differential Equations ENGL 3100 – Professional & Technical Writing CS/CENG 2810 – Computer Architecture/Organization
3	EE/CENG 3110 -- Microelectronics I EE/CENG 3210 – Signals & Systems EE/CENG 3610 – Digital Systems EE/CENG 3000 – Engineering Seminar MATH 3410 – Probability And Statistics	EE/CENG 3710 – Embedded Systems CS/CENG 3100 – Operating Systems EE/CENG 3890 – Internship COMM HU2110 -- Interpersonal Communication (Gen Ed) Gen Ed
4	EE/CENG 4010 – Senior Project I EE/CENG 4100 - Control Systems CS/CENG 4110 – Concepts of Formal Languages/Algorithms ECON SS2010 – Macroeconomics (Gen Ed) Gen Ed	EE/CENG 4020 – Senior Project II CENG 6710 – Real Time Embedded Systems GenEd GenEd GenEd

MS Only Program

Course Prefix and Number	Title	Credit Hours
Required Courses		
<i>Computer Engineering Required Courses</i>		
CENG 6430	Advanced Algorithms	3
CENG 6610	Computer Architecture	3
CENG 6210	Digital Signal Processing	3
CENG 6010	Design Project	6
CENG 6110	Digital VLSI	3
Sub-Total		18
Elective Courses		
<i>Select 12 credit hours from the following</i>		
CENG 6100	Distributed Operating Systems	3
CENG 6500	Artificial Intelligence and Neural Networks	4
CENG 6600	Machine Learning	3
CENG 6820	Compiler Design	4
CENG 6840	Formal System Design	3
CENG 6850	Parallel Programming and Architecture	3

Course Prefix and Number	Title	Credit Hours
CENG 6130	Advanced Semiconductor Devices	3
CENG 6220	Image Processing	3
CENG 6410	Communication Circuits and Systems	3
CENG 6420	Digital Communication	3
CENG 6710	Real-time Embedded Systems	3
	Sub-Total	12
	Total Number of Credits	30

Program Schedule (MS Only)

Year	Fall	Spring
1	CENG 6430 – Advanced Algorithms CENG 6210 – Digital Signal Processing CENG 6110 – Digital VLSI	CENG 6420 -- Digital Communications CENG 6710 – Real Time Embedded Systems CENG 6610 – Computer Architecture
2	CENG 6410 – Communications Circuits and Systems CENG 6010 – Design Project	CENG 6840 – Formal System Design CENG 6010 – Design Project

Section VII: Faculty

Existing Faculty

Fon Brown, PhD, Electrical Engineering, Utah State University, 1998, Associate Professor

Kyle Feuz, PhD, Computer Science, Washington State University, 2014, Assistant Professor

Kirk Hagen, PhD, Mechanical Engineering, University of Utah, 1989, Professor

Justin Jackson, PhD, Electrical Engineering, University of Utah, 2008, Associate Professor

Suketu Naik, PhD, Electrical Engineering, Kyoto University, 2011, Assistant Professor

Brian Rague, PhD, Computer Science, University of Utah, 2010, Professor

Christopher Trampel, PhD, Electrical Engineering, Iowa State University, 2012, Assistant Professor

Hugo Valle, PhD, Physics, Vanderbilt University, 2008, Assistant Professor

Larry Zeng, PhD, Electrical Engineering, University of New Mexico, 1988, Associate Professor

Yong Zhang, PhD, Electrical Engineering, West Virginia University, 2006, Assistant Professor

New Hires

Year 2: PhD in either Electrical Engineering or Computer Science

Year 3: PhD in either Electrical Engineering or Computer Science

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Weber State University – Master of Science in Nursing – Nurse Practitioner

Issue

Weber State University (WSU) requests approval to offer a Master of Science in Nursing - Nurse Practitioner (MSN-NP) effective Fall Semester 2016. The institutional Board of Trustees approved the degree on May 5, 2015.

Background

According to U.S. Department of Labor statistics, the need and opportunities for nurse practitioners are increasing across the country. As the number of family/general practice physicians graduating from medical schools has decreased, nurse practitioners are filling a void by providing primary health and illness care for all ages, especially in rural and medically-underserved areas. WSU nursing graduates and healthcare organizations in Utah have requested an MSN-NP program so that community needs might be better met. Accordingly, the proposed Nurse Practitioner program has wide support and is projected to graduate 15 students per year at full program implementation.

The Nursing program at WSU was founded in 1953 and currently offers an Associate of Science in Nursing, a Bachelor of Science in Nursing, and a Master of Science in Nursing (MSN) with Nurse Administrator and Nurse Educator tracks. The proposed MSN-NP is a new program, but would align with selected courses in the current MSN; additional courses for the MSN-NP would be consistent with standards set by the Accreditation Commission for Education in Nursing (ACEN). The program would require 50 credits in nursing, plus a pre-requisite or co-requisite 3-credit advanced college writing course, to be completed over a span of five semesters (fall-spring-summer-fall-spring). While the University of Utah offers a Doctor of Nursing Practice (DNP) program for nurse practitioners, the master's program for nurse practitioners proposed by WSU would be the first offered by an institution in the Utah System of Higher Education.

Given its long history and high number of graduates each year, the WSU School of Nursing currently has 12 faculty members who hold either a PhD or DNP degree. Four current faculty members are family nurse practitioners, and two more are pediatric nurse practitioners. Three doctorate-level faculty members (nurse practitioners) would be added to meet MSN-NP program needs upon acceptance of a second student

cohort and full program implementation in the second year. Equipment, facilities, and other resources developed by the WSU School of Nursing to support its current degrees provide the necessary elements to support a successful Nurse Practitioner program.

Policy Issues

The proposed degree has been developed and reviewed in accordance with processes established by Weber State University and the Board of Regents. The USHE Chief Academic Officers, with input from appropriate faculty at their institutions, are supportive of WSU's request to offer a Master of Science in Nursing - Nursing Practitioner. There are no additional policy issues relative to approval of this program.

Commissioner's Recommendation

The Commissioner recommends the Regents approve the request by Weber State University to offer a Master of Science in Nursing - Nurse Practitioner.

David L. Buhler
Commissioner of Higher Education

DLB/GVB
Attachment

Program Description
Weber State University
Master of Science in Nursing - Nurse Practitioner

Section I: The Request

Weber State University (WSU) requests approval to offer a Master of Science in Nursing - Nurse Practitioner (MSN-NP) effective Fall Semester 2016. The institutional Board of Trustees approved the degree on May 5, 2015.

Section II: Program Description

Complete Program Description

Family nurse practitioners provide primary health and illness care to individual patients across the lifespan, families, and communities. The Weber State University School of Nursing Master of Science in Nursing - Nurse Practitioner program would prepare registered nurses to diagnose and manage acute and chronic health problems, prescribe medications, plan treatments, and teach patients to promote and maintain health.

Purpose of Degree

Workforce demand and job opportunities for nurse practitioners are increasing across the country. One factor noted in the literature and health care statistics is a national decrease in interest in family medicine, which has led to a decrease in the number of primary care, or general practice, physicians graduating from medical schools. This fact coupled with health care legislation (i.e., more people with health insurance) has increased the need and opportunities for nurse practitioners. Nurse practitioners work in a multitude of community settings, such as clinics, private practice, schools, businesses, and specialty offices, to increase access to health and illness care for patients of all ages. Because of a wide range of job opportunities, even in rural and medically-underserved areas, qualified local Bachelor of Science in Nursing (BSN) prepared registered nurses may become nurse practitioners and practice in their own community.

Institutional Readiness

The WSU School of Nursing has an existing Master of Science in Nursing (MSN) program. The current program has a core curriculum with Nurse Educator and Nurse Administrator tracks. Although the proposed Family Nurse Practitioner program is new, it is aligned with selected courses in the current MSN core coursework and will continue to align with the MSN core coursework. The current MSN core courses are foundational for advanced nursing education and are taught by faculty experts. The additional coursework required as core by Accreditation Commission for Education in Nursing (ACEN) standards for the proposed MSN-NP program is being developed in concert with the current MSN coursework to ensure that all accreditation mandates are met for all programs.

Clinical placement recruitment, educating precepting physicians and nurse practitioners, monitoring student performance, legal logistics, and evaluating the effectiveness of placements is beyond the usual clinical placement and preceptor placement of students in the WSU School of Nursing. These tasks may require a 25-50% administrative role.

In anticipation and preparation for these placement challenges, Intermountain Healthcare, as part of the support it has expressed for the proposed program, has offered local and rural placements for students.

Departmental Faculty

School of Nursing Faculty Teaching Graduate Courses Category	Dpt Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Dpt Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	13	3	16
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured	1		1
With Master's Degrees			
Full-time Tenured	2		2
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor's Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Total Headcount Faculty in the Department			
Full-time Tenured	15	3	18
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured	1		1
Total Department Faculty FTE* (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")	4	3	7
*Headcount indicates full-time faculty who teach part-time in the graduate program, with the rest of their class load taught at the undergraduate level; 4.0 FTE faculty currently teach in the MSN program, and 3 new faculty hires will provide the additional 3.0 FTE faculty needed to teach required courses in the MSN-NP program.			

Staff

MSN secretarial staff will have to increase by 25-50% to manage the increased students and clinical placements. Hourly staff will need to be budgeted to support the second and fourth semester labs, along with open labs for practice, at a projected 10-20 hours a week.

Library and Information Resources

Current access to *Medline*, *CINAHL*, *Access Pro*, and *Eric* through WSU's Stewart Library will be the major resource for this program.

Admission Requirements

The proposed Nurse Practitioner program will adhere to the current admission policies of the MSN program; the following reflect the currently-approved policies.

Policies Related to MSN-NP Program Admission: Nurse Practitioner Program Admission Policies

Nurse Practitioner program candidates must meet the general admission requirements of the University as outlined in the current Weber State University Catalog (<http://weber.edu/admissions/>). In addition, Family Nurse Practitioner program candidates must meet the specific admission requirements of the School of Nursing MSN-NP Family Nurse Practitioner program. Below are the URLs for admissions, applications, and checklists.

http://www.weber.edu/Nursing/degrees_and_programs/master/admissions.html

Application Process

The MSN-NP Family Nurse Practitioner program utilizes an online application process. It is critical that all parts of the application process be completed and submitted. Incomplete applications will not be considered. Please go to this page: Applications & Checklists to access the information related to the application process. MSN-NP applications are reviewed by the School of Nursing Admissions and Advancement Committee.

Deadlines

Applications become available in October the year prior to the program start date. For the Family Nurse Practitioner program, applications will be available October 2015 for Fall 2016 admission. Applications will be ready in October for the next academic year admission.

Priority application deadline is March 1 of each academic year.

Checklist for Applicants

http://www.weber.edu/Nursing/degrees_and_programs/master/checklist.html

Fifteen positions are available for each program of study. Applicants will be ranked according to a selection point system established by the School of Nursing Admissions and Advancement Committee. Applicant ranking will include: GPA, Advanced Writing course completed, work experience as an RN, recommendations, vita/resume, writing ability, personal interview (not all applicants may be interviewed),

veteran status, preceptor for the WSU School of Nursing Associate Degree (RN) program during the last year (March 1 to March 1), and potential for scholarly work/leadership.

Application Requirements

1. Cumulative GPA of 3.0 or higher (on a 4.0 scale): includes all college-level coursework.
2. Transfer courses must be from a "Regionally Accredited College or University that transfers to Weber State University."
3. Earned BS Degree with a major in nursing from an accredited baccalaureate program (ACEN or CCNE). Please note: Students who speak English as a second language must have a Minimum TOEFL score of 600.
4. Current Utah unencumbered license to practice as a registered nurse or eligible to obtain licensure without restrictions to practice as a registered nurse in Utah.
5. Preferred one year of current work experience as an RN. The graduate admissions committee will evaluate applicants work experience on an individual basis.
6. Submission of all documents, letters of recommendation, curriculum vitae/resume, and goal statement per request in the application packet.
7. Completion of an Advanced College Writing course with a "C" or better grade. Strongly encouraged to be done by the Priority Application deadline or during the summer prior to starting the program. (At WSU English 3210 or English 3100. Must gain approval from the MSN Enrollment Director or the MSN Director for approval of courses taken at other schools - other than the ones listed on the "transfer guide" before taking a course. Applicants that have an advanced writing course completed by the March 1 "Priority Application" deadline will be awarded extra points in the applicant ranking process.

The application process is competitive.

Students seeking admission to the MSN-NP Family Nurse Practitioner program apply to both the University and the MSN-NP program. Application and MSN-NP program brochures are available electronically, as well as through the School of Nursing (SON) Student Admissions office. Program information is provided by the SON Enrollment Director who is available by phone, e-mail, or face-to-face on the WSU Campus, located in the Marriott Allied Health Building.

The MSN-NP Family Nurse Practitioner program faculty and staff implement admission and progression policies and procedures to ensure that size and academic qualifications of the MSN-NP Family Nurse Practitioner program student cohort are consistent with both the SON resources and program outcomes. WSU School of Nursing Family Nurse Practitioner program has selective admissions and therefore has the flexibility to maintain admission standards deemed acceptable and necessary for the achievement of program outcomes. Admission to the MSN-NP program is competitive.

Selection Notification

Students are notified of acceptance into the program by May 1 for Fall admission.

Student Advisement

1. Students will be assigned a graduate program advisor upon entry into the program. The MSN department secretary will provide the name of the assigned advisor to students.
2. Students will access the graduation evaluation through the e-Weber portal, student area. Guidelines are provided to access personal degree evaluation and/or transcripts

3. Students will print two copies of the Degree Evaluation from Cat tracks. They will keep one copy for their personal records and will give one copy to their academic advisor. Students will sign the copy that they will give to their advisor.
4. On or before week three of the semester, students will email their advisor stating that they have completed the review and detailing any identified problems. Each student will make an appointment to meet with an advisor on campus or by phone each semester.
5. When attending the assigned face-to-face class meeting on campus each semester, students will leave a signed copy of their graduation evaluation form with their advisor. Students may also give the advisement form to the department secretary (room 420b). Faculty will compare the completed form to the records in the student file. The faculty advisor will then contact students by phone or email regarding any issues.
6. For any consultation, students should make an appointment to meet in person, by phone, or virtual interview, with their advisor.
7. Students are strongly encouraged to complete a "Degree Evaluation" each semester until graduation.
8. The MSN-NP student is ultimately responsible to ensure that all MSN-NP program requirements are fulfilled.

Justification for Graduation Standards and Number of Credits

Nurse Practitioner Education, like Weber State's current School of Nursing programs, will be accredited by Accreditation Commission for Education in Nursing (ACEN) (the other accreditation option is Commission on Collegiate Nursing Education, CCNE). Both accrediting bodies have worked with the Nurse Practitioner credentialing organizations, American Nurses Credentialing Center (ANCC) and American Academy of Nurse Practitioners (AANP), and the National Organization of Nurse Practitioner Faculty (NONPF) to set education standards that meet all of the criteria of these separate organizations.

The clinical hour requirement is very high, with a minimum of 500 hours required. The average number of hours for Family Nurse Practitioner programs across the country varies, but averages around 700 hours. The WSU MSN-NP program proposal has 660 clinical hours. The program length is 5 semesters and 53 credit hours.

External Review and Accreditation

Weber State University School of Nursing will be seeking accreditation of the MSN-NP program by the Accreditation Commission for Education in Nursing (ACEN). Within the standards of this accrediting body, they will make a site visit for accreditation purposes during the last semester of the first graduating class. This visit will be scheduled for Spring Semester 2018. The preparation for the planned accreditation visit has already started with the alignment of all aspects of the program development with the ACEN criteria for accreditation. The formal self-study will be submitted in summer 2017. The cost of the accreditation process and visit will depend on the number of reviewers and if the decision is made (by the School of Nursing) to have this accreditation visit encompass all of the MSN programs, or even the whole School of Nursing. A projection of \$5,000-7,500 would be a conservative estimate of the cost of the accreditation process, including an accreditation visit to just the review the proposed Family Nurse Practitioner program.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	PROJ YR 1	PROJ YR 2	PROJ YR 3	PROJ YR 4	PROJ YR 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	X	X	15	15	15
Total # of Declared Majors in Proposed Program	X	15	30	30	30	30
Departmental Data – For All Graduate Programs Within the Department						
Total Department Graduate Faculty FTE <i>(as reported in Faculty table above)</i>	4	6	7	7	7	7
Total Department Graduate Student FTE <i>(Based on Fall Third Week)</i>	40	55	70	70	70	70
Student FTE per Faculty FTE <i>(ratio of Total Department Graduate Faculty FTE and Total Department Graduate Student FTE above)</i>	10	9.17	10	10	10	10
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: 10:1 for clinical)						

Expansion of Existing Program

Weber State University currently has an MSN program that has been successful, graduating 99 students over the past five years. The MSN-NP is a separate degree program that focuses more on clinical education to give another option to meet student and community needs.

Section III: Need

Program Need

Career opportunities for family nurse practitioners are expected to increase. Family nurse practitioners work in a multitude of community settings, such as clinics, private practice, schools, businesses, and specialty offices, to increase access for patients of all ages. Qualified local BSN prepared registered nurses may become nurse practitioners in their own community.

Labor Market Demand

Workforce demand and job opportunities for nurse practitioners are increasing across the country. One factor noted in the literature and health care statistics is a national decrease in interest in family medicine, which has led to a decrease in the number of primary care, or general practice, physicians graduating from medical schools. This fact coupled with health care legislation (i.e., more people with health insurance) has increased the need and opportunities for nurse practitioners. Nurse practitioners work in a multitude of community settings such as clinics, private practice, schools businesses, and specialty offices, to increase

access to health and illness care for patients of all ages. Because of a wide range of job opportunities even in rural and medically underserved areas, qualified local BSN prepared registered nurses may become nurse practitioners and practice in their own community.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15 Edition*, Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners, <http://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm>

Student Demand

The WSU School of Nursing graduates approximately 400 baccalaureate-prepared nursing students from across the state of Utah every year. Students have been requesting that Weber State offer a Master of Science-Nurse Practitioner option. Historically, the WSU School of Nursing has been educating nurses in rural Utah through onsite and online associate and baccalaureate degree offerings. These nurse alumni are also asking the School of Nursing to offer a nurse practitioner program so they can practice in the advanced role in their rural communities. In anticipation and preparation for rural placement challenges, Intermountain Healthcare, as part of the support it has expressed for a nurse practitioner program at Weber State University, has offered assistance with local and rural placements for students.

Similar Programs

The University of Utah's College of Nursing offers a Doctor of Nursing Practice (DNP) for nurse practitioners. Currently, the only master's prepared nurse practitioner programs in the state are private universities.

Collaboration with and Impact on Other USHE Institutions

WSU Nurse Practitioner program graduates would align with USHE MS-DNP degree program guidelines at the University of Utah's College of Nursing.

Benefits

Weber State University's proposed Nurse Practitioner program provides more opportunity for placement of students seeking graduate-level nursing education, in addition to meeting the needs of community partners.

Consistency with Institutional Mission

The WSU School of Nursing has an existing MSN program. The current program has a core curriculum with Nurse Educator and Nurse Administrator tracks. Although the Nurse Practitioner program is a new, it is aligned with selected courses in the current MSN core coursework and will continue to align with the MSN core coursework. The current MSN core courses are foundational for advanced nursing education and are developed and taught by faculty experts. The additional coursework required as core for the MSNP is being developed in concert with the current MSN coursework to ensure that all accreditation mandates are met for all programs.

Weber State University School of Nursing MSN-NP program is a clinically-focused, master-level program of study that is being proposed as a complement to the existing Master of Science in Nursing program. The design of the MSN-NP is to prepare registered nurses to diagnose and manage acute and chronic health problems, prescribe medications, plan treatments, and teach patients to promote and maintain health.

Career opportunities for family nurse practitioners are expected to increase across the country. There has been a decreased interest nationally in family medicine, which has led to a decrease in the number of primary care physicians, or general practice physicians graduating from medical schools. This fact, coupled with health care reform, has increased the need and opportunities for family nurse practitioners. Family nurse practitioners work in a multitude of community settings such as clinics, private practice, schools businesses, and specialty offices, and work to increase health care access for patients of all ages. Weber State University School of Nursing graduates across the state look to Weber State University to meet future education goals. Nursing students have been asking for a Nurse Practitioner option at Weber State University School of Nursing to provide opportunities to meet their graduate education goals. Community partners approached Weber State University School of Nursing to prepare Family Nursing Practitioners. Community partners are seeking practitioners prepared to practice in rural Utah.

The Mission Core Themes for Weber State University are access, learning, and community. The Nurse Practitioner program will offer the bachelor-prepared nursing student the pathway to succeed as an educated person in their program of study. This program will provide access to higher educational opportunities that will benefit the student and the community. The Nurse Practitioner program at WSU will improve and support the local community and provide these same offerings to rural portions of Utah through an engaging hybrid learning environment.

Section IV: Program and Student Assessment

Program Assessment

The WSU School of Nursing (SON) has adopted the following competencies for its undergraduate and graduate programs. These competencies are adopted from the Quality and Safety Education for Nurses Initiative (QSEN). Under each competency is the MSN Core Competencies, then the MSN-NP Family Nurse Practitioner Competencies.

1. Patient-centered Care

- SON: Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values, and needs.
- MSN Core: Create and direct collaborative patient care environments that promote the development of nursing expertise that includes the patient perspective.
- MSN-NP: Patient-Direct primary patient care focused on the holistic needs of patients and families within communities across the lifespan.

2. Teamwork and Collaboration

- SON: Function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.
- MSN Core: Apply advanced communication strategies to support high functioning interdisciplinary teams that support high quality, safe patient care.
- MSN-NP: Collaborate with diverse health care providers to support best outcomes for patients and families.

3. Evidence-based Practice

- SON: Integrate best current evidence with clinical expertise and patient/family preferences and values for delivery of optimal health care.

- MSN Core: Evaluate available evidence, expert opinion, and patient preferences to determine best practice. Evaluate the feasibility and appropriate evaluation methods for planned EBP interventions.
- MSN-NP: Operationalizes practice guidelines supported by evidence.

4. Quality Improvement

- SON: Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems, including participating in healthcare policy.
- MS Core: Develop policies and processes based on identification of best practice that improve the quality and safety of nursing care provided by health care systems.
- MSN-NP: Anticipate clinical variables and adjust practice to assure quality and safety.

5. Safety

- SON: Minimize risk of harm to patients and providers through both system effectiveness and individual performance.
- MSN Core: Incorporate patient safety principles into the development of comprehensive patient safety goals and safety education for nurses.
- MSN-NP: Develop a culture of safety by incorporating national patient safety guidelines in advanced practice environments.

6. Informatics

- SON: Use information and technology to communicate, manage knowledge, mitigate error, and support decision-making.
- MSN Core: Formulate policies, processes, and/or educational plans that leverage information technology to optimize information management, reduce errors, and support clinical decision-making.
- MSN-NO: Use information technology to manage documentation, reduce error, support clinical decision-making, and improve health care delivery.

Purpose for Systematically Evaluating the MSNP Program

Currently, the evaluation activities of the Master of Science in Nursing (MSN) faculty are undertaken for the purpose of continuous program improvement. This purpose is accomplished by: (1) ascertaining the extent to which the faculty, administrators, staff, and students / alumni are achieving the ACEN standards and criteria; (2) monitoring the program's ability to support the achievement of both the program outcomes and student learning outcomes / competencies; (3) providing a mechanism for faculty, students, administrators, alumni, and employers to have input into the program; and (4) to ensure a systematic and timely process for revisions of curriculum, educational processes, and operational processes.

The current School of Nursing and MSN-Systematic Plan for Evaluation (MSN-SPE) reflects, for each component of the ACEN standards and criteria, the expected level of achievement (ELA), frequency of assessment, assessment methods, results of the most recent academic year, and the program's response and/or actions for program development /maintenance/revision for the upcoming academic year (MSN-SPE). Included in the SPE are the data related to program outcomes, program competencies, and role-specific residency competencies which will be the practicum competencies for MSN-NP Family Nurse Practitioner students.

The School of Nursing (SON) and the specific MSN-SPE is a living document shared with the SON Chair, MSN Program Director, SON faculty, and SON Curriculum and Evaluation committees; and through the SON Annual Report, shared with the nursing advisory board and the college Dean.

Current MSN Program Evaluation

The purpose of the MSN program evaluation process is to oversee the development and implementation of the MSN-SPE as well as review and participate in entire SON evaluation activities. All members of the MSN program faculty team serve as contributors to the MSN program evaluation process. Every monthly MSN faculty meeting has a section of time devoted to evaluation. The meetings include reports and updates from the SON Evaluation Committee, review of MSN program evaluation surveys and forms, and discussions on data returned to the program.

Aggregation and Trending of Data Supports Program Decision-Making

In support of the MSN-SPE assessment and program improvement processes, the MSN program faculty currently employs several evaluative processes. These include the administration of formal evaluation tools, the tracking and trending of program outcomes, the students' final course grades as they progress through the program, and the students' achievement of the core and program competencies. These same processes will apply to the MSN-NP Family Nurse Practitioner program.

Formal Evaluation Tools

The administration of formal evaluation tools occurs during a two-week period at the end of each semester. These documents are available electronically and require a student password to access. Faculty do not receive the aggregated report of the quantitative and qualitative evaluation data until course grades have been posted. Using this aggregate data, the MSN faculty makes decisions relative to the program's development, maintenance, and/or revision. The tools gather the following types of information:

- Student achievement of core program competencies
- The student achievement of the Nurse Administrator Track / Nurse Educator track competencies
- The students' perceived effectiveness of the course
- The students' perceived effectiveness of the course faculty
- The students' perceived overall quality of the MSN program curriculum to prepare the student to perform the advanced role of a nurse administrator or nurse educator

Current tools used in the MSN program will be applied or adapted for use with the MSN-NP Family Nurse Practitioner program.

The current formal evaluation tools used throughout the MSN program of study are as follows:

- MSN Course Evaluation: Core courses and individual track
 - MSN Course Evaluation: Residency
- MSN Faculty Performance
 - MSN Faculty Performance
 - MSN Faculty Performance: Residency Handbook
- Residency Course Evaluation
 - Student Evaluation of Residency Preceptor

- MSN Faculty Evaluation of Residency Preceptor
- Residency Preceptor Evaluation of MSN Faculty
- MSN 6400 Nurse Administrator Residency: Student Performance Evaluation
- MSN 6700 Nurse Educator Residency: Student Performance Evaluation
- End of Program
 - Final Evaluation of MSN Nurse Administrator Program of Study
 - Final Evaluation of MSN Nurse Educator Program of Study
- MSN Program Alumni Survey six months post-graduation
- MSN Program Employer Satisfaction Survey 6-12 months post-graduation
 - Survey Monkey (established 2013)
 - Survey of Advisory Board (paper/pencil, established 2013)

All formal evaluation tools have been administered to the students and graduates. The data derived from these evaluation tools reflect that the students not only perceive that the MSN courses are supporting their achievement of the program's learning outcomes / competencies, they judge the MSN faculty as being effective in facilitating their learning experience.

Tracking and Trending of Final Course Grades

The Family Nurse Practitioner program has been designed as the current MSN program curriculum and coursework to support the student achievement of the accreditation and certification standards. Upon completion of the existing MSN Nurse Educator and Administrator track curriculum, the successful student has demonstrated mastery of the knowledge and skills required to function in the advanced roles. The MSN faculty evaluate each student's mastery of the course learning outcomes/competencies through a variety of learning strategies and associated evaluation methods. One metric that is considered is course grades. In order to advance in the MSN program, the student must achieve, in each course, a minimum final grade of a B-minus. When the program was being developed, the faculty decided that a B- grade demonstrated above average work and that this would be the standard indicating that the student meets acceptable preparation for education and healthcare service. This is the standard grading policy throughout the SON. To date, all MSN students have earned a final course grade of a B-minus or higher. The Family Nurse Practitioner program will follow this same standard.

Tracking and Trending of Student Satisfaction Outcomes

The following two tables, 1 and 2, outline the current competencies associated with the Nurse Administrator and Nurse Educator program tracks for 2011-2012 and 2012-2013. These serve as examples of how the School of Nursing and the MSN Program evaluated competencies and outcomes and trend these over time. MSN Core Competencies (differentiated from the ADN and RN-BSN level competencies) and new role-specific track competencies (educator and administrator) were developed by the MSN faculty in 2013. The Family Nurse Practitioner program role specific competencies have been developed and approved by the School of Nursing curriculum committee.

Table 1: Student Achievement of Educator Track Competencies

End of Program Survey	2013 N=11	2012 N=10
1. Facilitate student learning in an interdisciplinary environment, across multiple settings and with diverse populations.	4.40/5.0	4.6/5.0
2. Facilitate learner development and socialization into professional nursing.	4.56/5.0	4.6/5.0
3. Apply educational theories and evidence-based concepts and strategies to facilitate student learning	4.30/5.0	4.5/5.0
4. Design nursing curriculum that reflects contemporary healthcare trends and environment.	4.20/5.0	4.2/5.0
3. Assess and evaluate program and student outcomes.	4.44/5.0	4.6/5.0
6. Engage in continuous self-evaluation and role enhancement	4.70/5.0	4.6/5.0
8. Function within the educational environment	4.30/5.0	4.2/5.0
7. Engage in scholarly activities.	4.30/5.0	4.6/5.0
5. Function as a professional change agent and leader	4.50/5.0	4.6/5.0
Average	4.41	4.61

Table 2: Student Achievement of Administrator Track Competencies

End of Program Survey	2013 N=9	2012 N=6
1. Perform a scholarly and reflective system-wide assessment of quality and	4.11	3.4

End of Program Survey	2013 N=9	2012 N=6
effectiveness of nursing services, nursing practice, and the safe delivery of care.		
3. Seek ongoing professional development and quality improvement in advanced role.	4.22	3.4
4. Apply leadership / management theories to analyze, interpret, and determine relevant problems and evidence-based solutions.	3.89	3.4
5. Establish a professional practice environment that promotes desired professional and organizational outcomes within an interdisciplinary context.	4.11	3.4
6. Develop, maintain, and evaluate organizational systems to facilitate planning, implementation, and evaluation of the delivery of safe and quality nursing care across the continuum.	4.11	3.4
8. Facilitate ethical, legal, and evidence-based practices across multiple settings and with diverse populations.	4.11	3.4
10. Facilitate the conduct of research and establishment of an evidence-based practice environment.	4.0	3.4
Average	4.66	3.4

The revised competencies were introduced in 2013. Tables 3, 4, and 5 show these results.

Table 3: Student Achievement of New Core Competencies 2014

Core competencies	Educators N=9 100%	Administrators N=11 100%
1. Patient-centered Care:	4.78/5.0	5.0/5.0
<u>Competency Definition:</u> Create and direct collaborative patient care environments that promote the		

Core competencies	Educators N=9 100%	Administrators N=11 100%
development of nursing expertise that includes the patient perspective.		
2. Teamwork and Collaboration: <u>Competency Definition:</u> Apply advanced communication strategies to support high-functioning interdisciplinary teams that support high quality, safe patient care.	4.78/5.0	5.0/5.0
3. Evidence-based Practice: <u>Competency Definition:</u> Evaluate available evidence, expert opinion, and patient preferences to determine best practice. Evaluate the feasibility and appropriate evaluation methods for planned EBP interventions.	4.78/5.0	5.0/5.0
4. Quality Improvement: <u>Competency Definition:</u> Promote development of policies and processes based on identification of best practice that improve the quality and safety of nursing care provided by health care.	4.78/5.0	4.91/5.0
5. Patient Safety: <u>Competency Definition:</u> Incorporate patient safety principles into the development of comprehensive patient safety goals and safety education for nurses.	4.78/5.0	4.82/5.0
6. Informatics: <u>Competency Definition:</u> Formulate policies, processes, and/or educational plans that leverage information technology to optimize information management, reduce errors, and support clinical decision-making.	4.78/5.0	4.82/5.0

Table 4: 2014 MSN 6400 Administrator Core Competencies

MSN 6400 Residency Evaluation			
Questions 7-12	Mean	ELA	N
Patient-centered Care	4.8	3.0	10
Teamwork and Collaboration	4.8	3.0	10
Evidence-based Practice	4.7	3.0	10
Quality Improvement	4.8	3.0	10
Patient Safety	4.7	3.0	10
Informatics	4.7	3.0	10

Table 5: 2014 MSN 6700 Educator Core Competencies

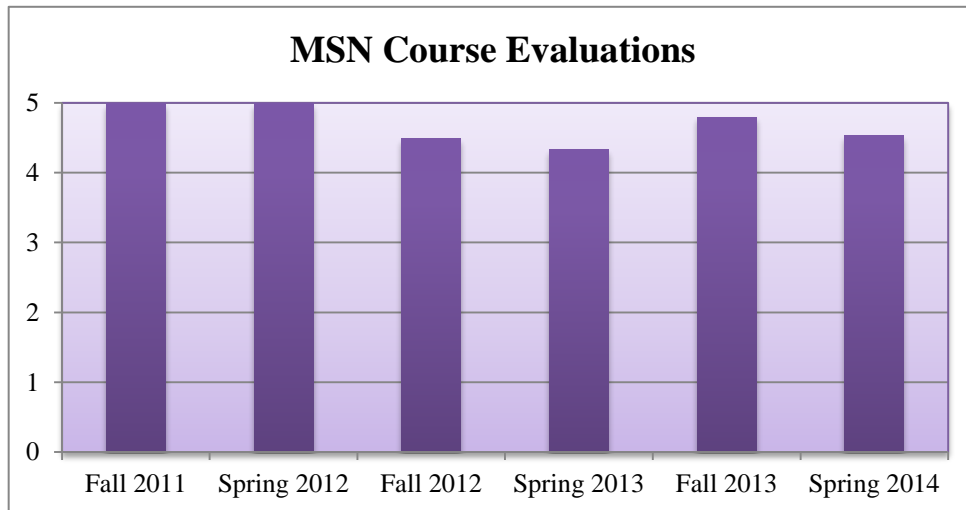
MSN 6700 Residency Evaluation			
Questions 7-12	Mean	ELA	N
Patient-centered Care	4.75	3.0	8
Teamwork and Collaboration	4.88	3.0	8
Evidence-based Practice	4.78	3.0	9
Quality Improvement	4.78	3.0	9
Patient Safety	4.78	3.0	9
Informatics	4.78	3.0	9

Another example of aggregated data, "Overall effectiveness of the course to support achievement of course learning outcomes in MSN courses," measured as a question on the End of Program (EOP) surveys, demonstrates a high level of perceived achievement with all MSN courses as reported for each semester.

Table 6: MSN Course Evaluations: Achievement of Course Learning Outcomes

All MSN Courses	Fall 2011		Spring 2012		Fall 2012		Spring 2013		Fall 2013		Spring 2014	
	Combined score (CS)	Percent Response	CS	Percent Response	CS	Percent Response	CS	Percent Response	CS	Percent Response	CS	Percent Response
	5.0	73.6%	5.0	73%	4.49	94%	4.34	99%	4.80	84.8%	4.54	100%

Figure 1 : MSN Course Evaluation Graph: Achievement of Course Learning Outcomes



Summary of Criterion

The MSN faculty are cognizant of the value of program evaluation and continue to adapt to changes in the SON that affect the MSN program and adopt innovative ways to evaluate those changes. The aggregation and trending of program data will continue to be a valuable source of program growth.

Expected Standards of Performance

WSU School of Nursing Competencies, as outlined above, address the standards set by the Accreditation Commission for Education in Nursing (ACEN), the Nurse Practitioner credentialing organizations, American Nurses Credentialing Center (ANCC) and American Academy of Nurse Practitioners (AANP), and the National Organization of Nurse Practitioner Faculty (NONPF).

The individual courses address these national competencies:

Family Nurse Practitioner Program Competency Map

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
Scientific Foundation Competencies	<ol style="list-style-type: none"> 1. Critically analyzes data and evidence for improving advanced nursing practice. 2. Integrates knowledge from the humanities and sciences within the context of nursing science. 3. Translates research and other forms of knowledge to improve practice processes and outcomes. 4. 4. Develops new practice approaches based on the integration of research, theory, and practice knowledge. 	
Leadership Competencies	<ol style="list-style-type: none"> 1. Assumes complex and advanced leadership roles to initiate and guide change. 2. Provides leadership to foster collaboration with multiple stakeholders (e.g. patients, community, integrated health care teams, and policy makers) to improve health care. 3. Demonstrates leadership that uses critical and reflective thinking. 4. Advocates for improved access, quality and cost effective health care. 5. Advances practice through the 	<ol style="list-style-type: none"> 1. Works with individuals of other professions to maintain a climate of mutual respect and shared values. 2. Engages diverse health care professionals who complement one's own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs. 3. Engages in continuous professional and interprofessional development to enhance team performance. 4. Assumes leadership in interprofessional groups to facilitate the development, implementation and evaluation of care

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
	<p>development and implementation of innovations incorporating principles of change.</p> <p>6. Communicates practice knowledge effectively, both orally and in writing.</p> <p>7. Participates in professional organizations and activities that influence advanced practice nursing and/or health outcomes of a population focus.</p>	<p>provided in complex systems.</p>
Quality Competencies	<ol style="list-style-type: none"> 1. Uses best available evidence to continuously improve quality of clinical practice. 2. Evaluates the relationships among access, cost, quality, and safety and their influence on health care. 3. Evaluates how organizational structure, care processes, financing, marketing and policy decisions impact the quality of health care. 4. Applies skills in peer review to promote a culture of excellence. 5. Anticipates variations in practice and is proactive in implementing interventions to ensure quality. 	
Practice Inquiry Competencies	<ol style="list-style-type: none"> 1. Provides leadership in the translation of new knowledge into practice. 2. Generates knowledge from clinical practice to improve practice and patient outcomes. 3. Applies clinical investigative skills to improve health outcomes. 4. Leads practice inquiry, individually or in partnership with others. 5. Disseminates evidence from inquiry to diverse audiences using multiple modalities. 6. Analyzes clinical guidelines for individualized application into practice. 7. Collaborates in planning for 	

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
	transitions across the continuum of care.	
Ethics Competencies	<ol style="list-style-type: none"> 1. Integrates ethical principles in decision making. 2. Evaluates the ethical consequences of decisions. 3. Applies ethically sound solutions to complex issues related to individuals, populations and systems of care. 	
Independent Practice Competencies	<ol style="list-style-type: none"> 1. Functions as a licensed independent practitioner. 2. Demonstrates the highest level of accountability for professional practice. 3. Practices independently managing previously diagnosed and undiagnosed patients. <ol style="list-style-type: none"> a. Provides the full spectrum of health care services to include health promotion, disease prevention, health protection, anticipatory guidance, counseling, disease management, palliative, and end-of-life care. b. Uses advanced health assessment skills to differentiate between normal, variations of normal and abnormal findings. c. Employs screening and diagnostic strategies in the development of diagnoses. d. Prescribes medications within scope of practice. e. Manages the health/illness status of patients and families over time. 4. Works to establish a relationship with the patient characterized by mutual respect, empathy, and collaboration. 	<ol style="list-style-type: none"> 1. Obtains and accurately documents a relevant health history for patients of all ages and in all phases of the individual and family life cycle using collateral information, as needed. 2. Performs and accurately documents appropriate comprehensive or symptom-focused physical examinations on patients of all ages (including developmental and behavioral screening, physical exam and mental health evaluations). 3. Identifies health and psychosocial risk factors of patients of all ages and families in all stages of the family life cycle. <ol style="list-style-type: none"> a. Identifies and plans interventions to promote health with families at risk. b. Assesses the impact of an acute and/or chronic illness or common injuries on the family as a whole. c. Distinguishes between normal and abnormal change across the lifespan. d. Assesses decision-making ability and consults and refers, appropriately. e. Synthesizes data from a variety of sources to make clinical decisions regarding appropriate management, consultation, or referral. f. Plans diagnostic strategies and

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
	<ul style="list-style-type: none"> a b. Creates a climate of patient-centered care to include confidentiality, privacy, comfort, emotional support, mutual trust, and respect. b c. Incorporates the patient's cultural and spiritual preferences, values, and beliefs into health care. c d. Preserves the patient's control over decision making by negotiating a mutually acceptable plan of care. 	<ul style="list-style-type: none"> g. Formulates comprehensive differential diagnoses. h. Manages common acute and chronic physical and mental illnesses, including acute exacerbations and injuries across the lifespan to minimize the development of complications, and promote function and quality of living. 4. Prescribes medications with knowledge of altered pharmacodynamics and pharmacokinetics with special populations, such as infants and children, pregnant and lactating women, and older adults. 5. Prescribes therapeutic devices. 6. Adapts interventions to meet the complex needs of individuals and families arising from aging, developmental/life transitions, co-morbidities, psychosocial, and financial issues. 7. Assesses and promotes self-care in patients with disabilities. 8. Plans and orders palliative care and end-of life care, as appropriate. 9. Performs primary care procedures. 10. Uses knowledge of family theories and development stages to individualize care provided to individuals and families. 11. Facilitates family decision-making about health. 12. Analyzes the impact of aging and age- and disease-related changes in sensory/perceptual function, cognition, confidence with technology, and health literacy and numeracy on the ability and

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
		<p>readiness to learn and tailor interventions accordingly.</p> <ol style="list-style-type: none"> 13. Demonstrates knowledge of the similarities and differences in roles of various health professionals providing mental health services, e.g., psychotherapists, psychologist, psychiatric social worker, psychiatrist, and advanced practice psychiatric nurse. 14. Evaluates the impact of life transitions on the health/illness status of patients and the impact of health and illness on patients (individuals, families, and communities). 15. Applies principles of self-efficacy/empowerment in promoting behavior change. 16. Develops patient-appropriate educational materials that address the language and cultural beliefs of the patient. 17. Monitors specialized care coordination to enhance effectiveness of outcomes for individuals and families
Policy Competencies	<ol style="list-style-type: none"> 1. Demonstrates an understanding of the interdependence of policy and practice. 2. Advocates for ethical policies that promote access, equity, quality, and cost. 3. Analyzes ethical, legal, and social factors influencing policy development. 4. Contributes in the development of health policy. 5. Analyzes the implications of health policy across disciplines. 6. Evaluates the impact of globalization on health care policy development. 	

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
Health Delivery System Competencies	<ol style="list-style-type: none"> 1. Applies knowledge of organizational practices and complex systems to improve health care delivery. 2. Affects health care change using broad based skills including negotiating, consensus-building, and partnering. 3. Minimizes risk to patients and providers at the individual and systems level. 4. Facilitates the development of health care systems that address the needs of culturally diverse populations, providers, and other stakeholders. 5. Disseminates evidence from inquiry to diverse audiences using multiple modalities. 6. Analyzes clinical guidelines for individualized application into practice. 	

Competency Area	NP Core Competencies	Family/Across Lifespan NP Competencies
Technology and Information Literacy Competencies	<ol style="list-style-type: none"> 1. Integrates appropriate technologies for knowledge management to improve health care. 2. Translates technical and scientific health information appropriate for various users' needs. <ol style="list-style-type: none"> a. Assesses the patient's and caregiver's educational needs to provide effective, personalized health care. b. Coaches the patient and caregiver for positive behavioral change. 3. Demonstrates information literacy skills in complex decision making. 4. Contributes to the design of clinical information systems that promote safe, quality and cost effective care. 5. Uses technology systems that capture data on variables for the evaluation of nursing care. 	

Population-Focused Nurse Practitioner Competencies Task Force (2013) Population-focused nurse practitioner competencies: Family/across the lifespan. Retrieved from the NONPF.ORG website navigate to Education and NP Competencies <http://c.ymcdn.com/sites/www.nonpf.org/resource/resmgr/Competencies/CompilationPopFocusComps2013.pdf>

Section V: Finance

Three-Year Budget Projection							
Departmental Data	Current Graduate Budget – Prior to New Program Implementation	Graduate Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	295,581	112,666	408,247	78,838	487,085	9,742	496,827
Benefits	120,779	48,446	169,225	33,901	203,126	4,063	207,189
Total Personnel Expense	\$416,360	\$161,112	\$577,472	\$112,739	\$690,211	\$13,805	\$704,016
Non-Personnel Expense							
Travel	2,100	1,000	3,100	2,000	5,100		5,100
Capital		1,800	1,800	0	1,800		1,800
Library	3,000		3,000	2,000	5,000		5,000
Current Expense	6,000	200	6,200	1,000	7,200		7,200
Total Non-Personnel Expense	11,100	3,000	14,100	5,000	19,100		19,100
Total Expense	\$427,460	\$164,112	\$591,572	\$117,739	\$709,311	\$13,805	\$723,116
Departmental Funding							
Appropriated Fund	276,876	106,299	383,174	76,262	459,436	8,942	468,378
Other:							
Special Appropriation							
Grants and Contracts							
Special Fees / Differential Tuition	150,585	57,813	208,398	41,477	249,875	4,863	254,738
Total Revenue	\$427,460	\$164,112	\$591,572	\$117,739	\$709,311	\$13,805	\$723,116
Difference							
Revenue-Expense	\$0		\$0		\$0		\$0
Departmental Instructional Cost / Student	\$481.92		\$442.46		\$433.30		\$441.73

Credit Hour* same Cost Study Definition for "projected")							
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** Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.*

Funding Sources

Budget is in place to support the MSN-NP program. The MSN-NP program will follow the same tuition and differential schedule as the MSN program. The additional funding from the MSN-NP enrollment will provide the budget necessary for 2 new faculty, initially, plus 1 additional faculty in year 2 and the increase in staff FTE.

In addition, through strategic planning and alignment with the School of Nursing, Dumke College of Health Professions, and Weber State University mission, Weber State University School of Nursing has developed the infrastructure necessary to sustain a successful Nurse Practitioner Program.

1. Graduating over 400 BSN nurses across the state of Utah.
2. New lab at the Davis campus with a 5-bed simulation suite and two 5-bed nursing practice labs.
3. Plans to renovate the existing Ogden campus lab to support simulation and advanced nursing education.
4. \$500,000 purchase of equipment and software to support student accessible recording of student performance in lab and simulation. These performance recordings are accessible to students and faculty off campus and at home for personal review and critique.
5. Implementation of the Cerner Electronic Medical Record System (EMR) in all of the School of Nursing labs across the state.
6. Segue Grant and More Nurses Now monies used to support faculty in pursuing EdD, PhD, and DNP education.
7. Segue Grant funding for the purchase of lab equipment to enhance nursing simulation.
8. Assignment of full-time simulation coordinator for nursing labs.
9. Assignment of 2 full-time faculty for development and coordination of Nurse Practitioner program curriculum, lab, and clinical support.
10. Support and professional expertise from departments within the Dumke College of Health Professions.

Reallocation

The School of Nursing currently has 12 faculty prepared with either a PhD or DNP. Four faculty members are Family Nurse Practitioners, 3 are DNPs and one will complete the DNP in May. Two faculty members are Pediatric Nurse Practitioners, one with a DNP and one with a MS. One faculty member is a Gerontological Nurse Practitioner with MS preparation. These faculty resources, along with community support and the resources listed above, demonstrate that the School of Nursing has the resources to support the MSN-NP program. Thus, while resources will not be reallocated, significant resources are currently in place.

Impact on Existing Budgets

Budgets for existing programs will not be impacted.

Section VI: Program Curriculum

All Program Courses (with New Courses in Bold)

Course Prefix & Number	Title	Credit Hours
Required Courses		
Pre- or Co-requisite	*Pre- or Co-requisite Advanced College Writing	3 credits either pre or in first two semesters
MSN 6100	Research Methods	3
MSN 6120	Research and Statistics	3
MSN 6180	Improving Patient Care and Nursing Practice through Information Systems and Technology	3
MSN 6205	Transition to Advanced Practice	1
MSN 6210	Advanced Pathophysiology	3
MSN 6215	Advanced Pharmacology	3
MSN 6220	Physical Assessment and Diagnostic Reasoning	3
MSN 6225	Adult Skills Practicum	1
MSN 6230	Women's Health and Pediatric Skills Practicum	2
MSN 6235	Advanced Practice Nursing: Adult (3)	3
MSN 6236	Advanced Practice Nursing Clinical: Adult	3
MSN 6240	Advanced Practice Nursing: Older Adult	2

Course Prefix & Number	Title	Credit Hours
MSN 6241	Advanced Practice Nursing Clinical: Adult and Older Adult Clinical	1
MSN 6245	Advanced Practice Nursing Newborn - Adolescent	3
MSN 6246	Advanced Practice Nursing Clinical: Newborn-Adolescent	2
MSN 6250	Advanced Practice Nursing: Women's Health	2
MSN 6251	Advanced Practice Nursing Clinical: Women's Health	1
MSN 6255	Complex Accountabilities of Advanced Nursing Practice	3
MSN 6260	Advanced Practice Nursing Clinical Practicum	4
MSN 6800	MSN Project Development and Implementation	4
	Sub-Total	53
	Total Number of Credits	53

Program Schedule

Weber State University School of Nursing Family Nurse Practitioner Program of Study			
First Semester Fall 2016	Second Semester Spring 2017	Third Semester Summer 2017	First Year Totals
MSN 6100 Research Methods (3) MSN Core	MSN 6220 Physical Assess & Diagnostic Reasoning (3) NP Core	MSN 6235 Advanced Practice Nursing: Adult (3)	30 Credits 240 Direct Patient Care Clinical Hours 120 Hours Lab/Simulation
MSN 6210 Advanced Pathophysiology (3) NP Core	MSN 6215 Advanced Pharmacology (3) NP Core	MSN 6236 Advanced Practice Clinical: Adult (3) 180 hours	
MSN 6180 Improving Patient Care and Nursing Practice through Information Systems	MSN 6120 Research and Statistics (3) MSN Core	MSN 6240 Advanced Practice Nursing: Older Adult (2)	
MSN 6205 Transition to Advanced Practice I (1) NP Core	MSN 6225 Adult Skills Practicum (1) 60 hours	MSN 6241 Advanced Practice Nursing: Adult & Older Adult Clinical (1) 60 hours	
		MSN 6800 MSN Project Development and Implementation (1)	
10 Credits	10 Credits	10 Credits	

Fourth Semester Fall 2017	Fifth Semester Spring 2018	Second Year Totals	Program Totals:
MSN 6245 Advanced Practice Nursing Newborn - Adolescent (3)	MSN 6260 Advanced Practice Nursing Clinical Practicum (4) 240 hours	20 Credits	50 Credit Hours
MSN 6246 Advanced Practice Nursing: Newborn-Adolescent (2) 120 hours	MSN 6255 Transition to Advanced Practice II (3) NP Core	420 Direct Patient Care Clinical Hours	660 Direct Patient Care Clinical Hours
MSN 6250 Advanced Practice Nursing Women's Health (2)	MSN 6800 MSN Project Development and Implementation (2)	120 Hours Lab/Simulation	240 Hours Lab/Simulation
MSN 6251 Advanced Practice Nursing Clinical: Women's Health (1) 60 hours			
MSN 6230 Women's Health/Peds Skills Practicum (2) 120 hours			
MSN 6800 MSN Project Development and Implementation (1)			
11 Credits	9 Credits		

Section VII: Faculty

Susan Thornock, EdD, RN
 Sally Cantwell, PhD, RN
 Melissa NeVile, DNP, APRN, CPNP-PC
 Kristy Baron, PhD, RN
 Suzanne Ballingham-Tebbs, MSN, APRN, FNP-C
 Joyce Barra, PhD, RN
 Jill Daly, EdD(c), RN
 Valerie Gooder, PhD, RN
 Debra Huber, PhD, APRN
 Deborah Judd, DNP, APRN
 Diane Leggett-Fife, PhD, RN
 Collette Renstrom, DNP, APRN, FNP-C
 Monte Roberts, DNP, RN
 Carol Volante, DNP, APRN-C
 Kristiann Williams, DNP, APRN, FNP-C
 Kathleen Culliton, MS, GNP

Three doctoral-prepared nurse practitioners will be added to the faculty.

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Southern Utah University – Master of Science in Cyber Security and Information Assurance

Issue

Southern Utah University (SUU) requests approval to offer a new Master of Science in Cyber Security and Information Assurance effective Fall Semester 2015. The proposed program was approved by the SUU Board of Trustees on December 5, 2014.

Background

The proposed Master of Science in Cyber Security and Information Assurance is designed to be offered entirely online. Students will not be place-bound and the institution intends to draw students from broad geographical locations. The program focuses on the design, planning and management of systems and procedures for protecting cyber infrastructure from external threats, including terrorism. The program includes instruction in security and cyber infrastructure, policy, information, vulnerability, threat assessment, contingency, redundancy, emergency, and disaster planning, as well as physical, personnel, and operational security.

Local, regional, and national law enforcement agencies are working to improve response capabilities to cybercrime. Likewise, protection against cyber threats is essential to ensure the security of digital information, including public, private, and personal information. The ability to manage cyber infrastructure enables professionals to address many of these information security challenges. Southern Utah University seeks to provide professionals with the appropriate skills to respond to this pressing industry need. The institution plans to seek accreditation through the Accreditation Board for Engineering and Technology (ABET) for the program.

According to the U.S. Bureau of Labor Statistics (BLS), those who work in information security will see rapid job growth and greater demand for skilled technicians at a 10 year total projected growth rate of 37%. The BLS reported a 2012 median hourly wage of \$41.43.

Graduate degrees in fields relating to information security are increasing for executive and management

level positions and can complement information technology certifications like CISSP (Certified Information Systems Security Professional) and CISM (Certified Information Security Manager).

The program was reviewed by legal counsel at the Utah State Attorney General's office to assess whether or not SUU should be required to implement criminal background checks prior to admission into the proposed program. Based on feedback from counsel, it is understood by staff that there is no federal or state statute that requires or prohibits SUU from conducting background checks as part of its admissions policy. This would be a policy decision. If the institution were to implement such a policy, the selectiveness of the process must not be arbitrary or capricious and it must not discriminate against protected classes. That being said, it should be noted that SUU could face lawsuits from students or third parties whether or not it conducts criminal background checks. A student applicant may claim that he/she was improperly denied admission as a result of a background check. On the other hand, an injured third party may claim that SUU was negligent in admitting a dangerous student if a background check is not implemented (or implemented and not followed). Although few courts have addressed the issue of requiring background checks, courts have generally ruled in favor of those colleges and universities that followed policies that are in compliance with federal laws.

Southern Utah University has suggested a solution that would not require background checks but would require screening of applicants to include the following items as well as meeting all other requirements for admission to SUU graduate programs:

- Written letter of intent
- Three letters of recommendation
- Completion of baccalaureate degree in computer science, information systems, computer programming, or related degree
- Depth of related professional experience

International students would be required to submit the following:

- Demonstrated proficiency in English
- Documentation of current residency status
- Proof of identity

A complete statement of admissions criteria was provided by SUU and is included within the body of the proposal.

In addition to legal review regarding background checks, the Commissioner's office contacted the Utah System of Higher Education (USHE) Chief Information Officer (CIO) with a request to review the program and provide guidance relative to IT security issues. This review yielded the following two recommendations that SUU:

1. Conduct an independent penetration test on SUU's student IT system.
2. Conduct an annual risk analysis on the student IT system.

Southern Utah University has committed to adhere to these two recommendations.

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. There are no additional policy issues that need to be addressed relative to approval of the program.

Commissioner's Recommendation

The Commissioner recommends the Board of Regents approve the Master of Science in Cyber Security and Information Assurance to move to the full Board for approval with recommendation that Southern Utah University: 1) coordinate with USHE's Chief Information Officer, or his designee, to develop and implement the graduate student IT system; 2) conduct an independent penetration test on the student IT system prior to enrolling students in the program; 3) conduct annual risk analyses on the student IT system; and 4) provide a status report of the program to the Board of Regents' Academic and Student Affairs Committee during the November, 2017 meeting (following the first year of program implementation) that provides an accounting of enrollments, risk analysis, results of the IT penetration test, assessment of the student admissions process, future direction for the program, and overall strengths and opportunities for improvement of the program.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Program Description – Full Template
Southern Utah University
Master of Science in Cyber Security and Information Assurance (online)

Section I: The Request

Southern Utah University (SUU) requests approval to offer an online Master of Science in Cyber Security and Information Assurance (CSIA) effective Fall Semester, 2016. This proposed program would be administered by SUU's Department of Computer Science and Information Systems (CSIS). The proposal for the program received approval by the SUU Board of Trustees on December 4, 2013. That proposal was revised and the revised proposal (included herein) received approval from the SUU Board of Trustees on December 5, 2014.

Section II: Program Description

Complete Program Description

The proposed Master of Science in Cyber Security and Information Assurance program focuses on the design, planning and management of systems and procedures for protecting cyber systems and infrastructure from external threats, including terrorism. The program will be delivered online and includes instruction in: 1) cyber security and IT policy; 2) information, vulnerability, and threat assessment; 3) physical, personnel, and operational security; and 4) contingency, redundancy, emergency, and disaster planning.

Purpose of Degree

Cyber Security and Information Assurance are areas of growing concern in the nation and in the world. Local, regional, and national law enforcement agencies are currently trying to improve their response capabilities to cybercrime. Likewise, protection of cyber infrastructure against such threats is essential to ensure the security of digital information, including public, private, and personal information. The ability to manage cyber infrastructure enables professionals to address many of these information security challenges, and by offering a Master's of Science degree in Cyber Security and Information Assurance, SUU will be able to provide professionals with the appropriate skills to respond to a growing industry need. In addition to addressing industry need for these types of professionals, there currently is no master's level offering of a degree like this in the Utah System of Higher Education. Due to the market demand for these professionals, graduates of the proposed program will have many doors opened to them in both private industry and government sectors.

Institutional Readiness

Six CSIS faculty members are already qualified to teach graduate courses for the proposed program. As the program grows, additional full-time faculty will be added as demand warrants. The Department Chair and faculty members will work with SUU student support systems and the Dean of Graduate Studies to provide orientation of the program, its admissions criterion, and markets for recruitment.

Departmental Faculty

Department Faculty Category	Department Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Department Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	6		6
Full-time Non-Tenured	2	2	4
Part-time Tenured			
Part-time Non-Tenured			
With Master’s Degrees			
Full-time Tenured	1		1
Full-time Non-Tenured	2		2
Part-time Tenured			
Part-time Non-Tenured			
With Bachelor’s Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Other			
Full-time Tenured			
Full-time Non-Tenured			
Part-time Tenured			
Part-time Non-Tenured			
Total Headcount Faculty in the Department			
Full-time Tenured	7		7
Full-time Non-Tenured	4		6
Part-time Tenured			
Part-time Non-Tenured			
Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for “prior to program implementation” and using the A-1/S-11 Cost Study Definition for the projected “at full program implementation.”)	11	2	13

Staff

The proposed program requires one part-time administrative assistant who will work on managing the secretarial, clerical, and administrative needs of the program. This could develop into a full-time position as the program grows. Academically qualified instructors from the information technology industry will be utilized as needed.

Library and Information Resources

Current library and online resources (including both online databases and current holdings) are sufficient to support success of the program. There are currently 62 items listed in the SUU holdings related specifically to Cyber Security and SUU is able to access additional electronic resources including the *International Journal on Cyber Security and Digital Forensics*.

Admission Requirements

All students applying to the proposed Cyber Security program must meet all of the requirements for graduate admissions at SUU, including:

1. An earned bachelor's degree from an accredited institution
2. Copies of official transcripts from all previous institutions attended
3. Minimum 3.0 GPA for the last 60 credits of undergraduate coursework
4. Official copy of a recent GRE score
5. Application fee
6. Letter of intent
7. Three letters of recommendation

The letter of intent must include a detailed description of the applicant's academic background, relevant work experience, career goals, and desired emphasis area (cyber and web security *or* government regulation and compliance).

The three letters of recommendation must be from current or recent employers, faculty mentors, or other professionals in the field who can attest to the student's academic preparation and promise, as well as the student's character.

Southern Utah University will screen applicants (using the admissions requirements noted above) to ensure students will be successful in the proposed program (i.e., to ensure that they are reasonably well prepared to achieve success in the program, to contribute meaningfully to the learning environment, and to participate in group work and related activities). The institution will accomplish this by looking for one or both of the following:

Academic Preparation -- prior baccalaureate degree in computer science, information systems, computer programming, or related degree. This academic preparation provides some assurance that students entering the program will be successful, and that they will be capable of developing the knowledge, skills, and dispositions to complete the requirements and compete for professional employment.

Professional Experience -- some applicants may have significant professional experience that will lead to success in the program. Even if they might not have the typical academic preparation in computer science, the institution recognizes that applicants with professional experience and on-the-job training would also be successful in the program. In this way, professional experience can provide assurance that students entering the program will be successful, and that they are capable of working hard, that they are mature, and motivated by real-world desires to advance their careers.

Faculty members from the CSIS Department will screen all complete applications received by the deadlines established by the institution. Admission to the program is selective and cohort-based, and therefore not all students who apply will be admitted. Employment history (including current employment) will be confirmed directly with employers and supervisors. Likewise, those writing letters of recommendation will be contacted directly to verify the academic aptitude of the applicant.

International students will have a separate application process. In addition to all of the above admissions requirements (including directly confirming details of their employment history and personally contacting the people who have written letters of recommendation), international applicants must also provide documentation regarding minimum English proficiency (TOEFL score of 550 for paper-based test, a score of 213 on the computer-based test, or a score of 79 on the internet-based test), documentation related to current residency status, and proof of identity (current passport with photo). International students who do not hold the required degree from an accredited institution in the United States must submit translated transcripts along with a letter from a qualified foreign transcript evaluation service certifying equivalency to a degree meeting standards of higher education institutions in the United States.

It is anticipated the program will attract undergraduate students seeking to further their education in Cyber Security and Information Assurance at the graduate level and professionals in the information security field seeking to obtain an advanced degree to further their career and advance to higher-level positions.

Students who do not have an IT background or related degree will be handled on a case-by-case basis. Additional coursework may be required before formal admission to the program is granted.

Given the nature of this program and the prevalence of cybercrimes, SUU will require students admitted to this program to sign and adhere to "White Hat" agreements where appropriate in the curriculum. The term "White Hat" is an industry-specific term that refers to a strict professional code of conduct (overarching ethical framework) and is used in contexts when the work involves identifying security vulnerabilities. Adherence to these White Hat agreements will be essential especially in courses that provide the tools that could be used to gain access to sensitive information, such as those in the field of penetration (or "pen") testing. In these cases, students will be provided with clear expectations regarding ethical and responsible conduct and will be required to adhere to White Hat professional standards. Violation of such White Hat agreements will be grounds for dismissal from the program. (A sample White Hat agreement is provided as an attachment to the end of this proposal.) Finally, SUU will develop ways to regulate the sharing of intellectual property with individuals residing outside of the United States in accordance with United States export control laws. Similar to White Hat agreements, students in the program will sign and adhere to these rules.

Student Advisement

Students will be advised by the CSIS Department faculty members and the Department Chair.

Justification for Graduation Standards and Number of Credits

This program will require 33 credit hours. This falls within the expected number of credits required for master degree programs.

External Review and Accreditation

Future plans for accreditation include the designation from the National Security Agency (NSA) for a Center of Academic Excellence in Information Assurance and Cyber-Defense (CAE-IA/CD). That designation includes standards regarding knowledge units the program must deliver and a site visit by an evaluation team. It is projected that SUU would have a site visit no earlier than 18 months from the time of application, as that is the timeframe given by NSA. Application for this designation is projected to be submitted during the second year of the program (Fall 2017 or Spring 2018).

The Accreditation Board for Engineering and Technology (ABET) currently accredits SUU's undergraduate programs in CSIS and would be petitioned to accredit the proposed online Master's degree. The ABET accreditation process requires that the program have at least one graduating class. Therefore, accreditation will be sought after the third year of the program. Within ABET, several accrediting Commissions exist to serve different educational programs. A determination will be made as to which ABET Commission will be used to accredit the proposed graduate program. The Commission that accredits the CSIS undergraduate programs (the Computing Accreditation Commission) does not list Master level programs; however, the Applied Science Accreditation Commission (ASAC) does list Master level programs. Further discussions have been initiated with ABET to clarify which Commission will be used to seek accreditation for the proposed graduate program.

The program will host a Program Advisory Committee (PAC) that will include CSIS faculty as well as experts from the security industry, and members from CSIS's Industrial Advisory Board (which includes many local employers in Southern Utah). The PAC will ensure that course content and curriculum design is in accordance with Utah, CAE-IA/CD, and ABET Educational Standards and will work with program faculty to maintain currency of program content.

Program courses will adhere to the quality standards consistent with SUU's other graduate programs. The same requirements associated with current SUU graduate degrees, as well as the tools and support used to create and ensure quality for their delivery, will be applied to support this program. The tools and support for these programs include an instructional technology team that provides best practices for online delivery of courses.

Faculty developing the courses will have the opportunity to participate in structured curriculum development workshops offered by SUU Online (<http://suu.edu/scps/distance>). Likewise, when using the online course management system (Canvas), SUU faculty and students will be supported through the SUU Help Center (<https://help.suu.edu/suuonline>) as well as the faculty and student resources page (<http://suu.edu/scps/distance/resources.html>).

When the individual courses were identified for the program, research and evaluation of other similar graduate level programs was conducted. It was determined that the courses that will be offered are in line with other programs across the state and the nation. Additionally, discussions with graduate faculty at other

USHE institutions indicate that these courses are appropriate to the subject matter of such a degree, and complementary to (and build upon) other existing programs. All faculty teaching in this program have terminal degrees (Ph.D.) and have experience teaching at the graduate level.

Ongoing quality and rigor will be maintained in accordance with existing department processes and reviews. For example, the CSIS Department currently maintains ABET accredited undergraduate programs and is therefore required to have formal review structures in place. These same review structures will be employed to ensure quality and rigor of the proposed graduate program.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	Projected Year 1	Projected Year 2	Projected Year 3	Projected Year 4	Projected Year 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	0	0	15	15	25
Total # of Declared Majors in Proposed Program	X	15	30	40	55	80
Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (as reported in Faculty table above)	11	11	12	12	13	13
Total Department Student FTE (Based on Fall Third Week)	310	325	350	375	400	400
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)	28.18	29.54	29.16	31.25	30.76	30.76
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: N/A	N/A	N/A	N/A	N/A	N/A	N/A

Expansion of Existing Program - N/A

Section III: Need

Program Need

Today's information society is driven by "big data," personal information, and the transfer, storage, and security of that information. The Bureau of Labor Statistics has estimated the creation of almost 629,000 jobs in the information technology industry from 2010 to 2020. Individuals looking to advance in the industry will have a competitive advantage through the skills obtained in the proposed graduate degree in Cyber Security and Information Assurance.

Labor Market Demand

According to the International Information Systems Security Certification Consortium otherwise known as (ISC)² (note: the number 2 is part of the trade name of the organization and does not reference a footnote), careers associated with information security skill sets is on a rapid increase. (ISC)² is the world's largest body of information security professionals with a membership of nearly 90,000 certified security professionals in 135 countries. The (ISC)²'s 2015 *Global Information Security Workforce Study* reported that the shortfall of IT security professionals worldwide will reach 1.5 million in five years.¹

According to the U.S. Bureau of Labor Statistics (BLS), those who work in information security will see rapid job growth and greater demand for skilled technicians at a 10 year total projected growth rate of 37%. This projected growth will generate a greater demand for information security experts which will lead to increases in the expected earnings of those working within the field. The BLS indicated that as of May 2012 the median salary for an Information Security Analyst was \$86,170.²

According to Burning Glass Technologies, in 2013 there were more than 209,000 postings for Cyber Security-related jobs in the United States alone, ranging across multiple business sectors including defense, financial services, retail, healthcare and professional services. The 2013 total is 74% higher than the number of security jobs posted in 2007.³

There are a number of online job boards that currently list information security (cyber security) type positions. Depending on where jobs are searched for (online job boards) will determine the range of jobs available or advertised currently in this field in Utah. For example, the institution reported a recent search at Usajobs.gov listed 182 information security jobs in Utah (4900+ nationwide), 54 openings in Utah through Indeed.com, 68 Utah job openings through Monster.com, and 108 Utah job openings through LinkedIn. ClearanceJobs.com identified Salt Lake City (and the surrounding area) as one of the top five cities in the country for employment in cyber security⁴.

Graduate degrees in the fields relating to information security, while relatively a new trend, are increasing for executive and management-level positions, often complementing current advanced information technology certifications like CISSP (Certified Information Systems Security Professional) and CISM (Certified Information Security Manager).

¹ <https://www.isc2cares.org/uploadedFiles/wwwisc2caresorg/Content/GISWS/FrostSullivan-%28ISC%29%C2%B2-Global-Information-Security-Workforce-Study-2015.pdf>

² <http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>

³ <http://www.burning-glass.com/research/cybersecurity/>

⁴ <http://news.clearancejobs.com/2013/05/23/top-5-cities-for-cyber-security-jobs/>

The Federal Emergency Management Association (FEMA) has developed a dedicated Emergency Management Institute to provide information about a variety of educational opportunities. Specifically, the Emergency Management Institute publishes "The College List" which provides information on emergency management programs offered by accredited institutions of higher education within the United States.⁵ Emergency management programs listed on The College List include:

- 67 certificates, minors, diplomas, tracks, or focus areas
- 50 associate degrees
- 47 bachelor degrees
- 87 master's-level programs
- 9 doctoral-level programs

Given the rapid increase in employment and career opportunities in the field of Cyber Security, the rate by which higher education is developing graduate-level programs in this field is well below the current and projected employment demands. It is anticipated that prospective students be drawn to the educational opportunity provided by the program and that the fully online delivery mode will accommodate students throughout the country who are currently employed in the information technology sector.

Student Demand

A preliminary survey was administered by SUU during the opening weeks of Fall Semester 2013. The survey was distributed to current SUU students, members of the CSIS Industrial Advisory Board, local industry professionals, and international participants (total surveyed, N = 376). Results indicated that 84% of respondents were "Definitely interested" (45%) or "Somewhat interested" (39%), in the proposed online graduate degree in Cyber Security and Information Assurance.

Similar Programs

There are currently no online master degrees offered in the Utah System of Higher Education that specifically address Cyber Security and Information Assurance, although there are some related offerings. These are mentioned below.

Through its School of Computing, the University of Utah currently provides undergraduate and graduate programs in Information Systems that focus on a traditional Information Systems curriculum (i.e., creating and managing information systems within a business setting/environment). The Master's program in Information Systems is "designed to provide advanced IT training for individuals seeking the skills necessary to manage the technology of business."⁶ The School of Computing also offers a graduate program in Computer Science that includes ancillary topics in security that would provide an avenue to articulate students between the programs depending on the focus the student wishes to pursue in their Master's education.

Utah Valley University (UVU) offers undergraduate degrees in Information Systems and Technology, including a program in Emergency Service Administration that prepares graduates for careers in many state, federal, and private industries. Graduates from this degree program could easily articulate into the proposed graduate degree in Cyber Security and Information Assurance. Recently, UVU developed a graduate certificate program in Cyber Security that is funded through a national grant. Conversations have taken place with UVU to create pathways between UVU and SUU.

⁵ <http://www.training.fema.gov/EMIWeb/edu/collegelist/>

⁶ <http://msis.business.utah.edu/page/msis-program-overview>

Utah State University (USU) currently offers a traditional Management Information Systems degree, both at the undergraduate and graduate levels. However, these programs do not include a security component. The proposed graduate program in Cyber Security and Information Assurance at SUU includes a digital forensics component, which was very appealing to those at USU.

Finally, Dixie State University (DSU) offers an undergraduate degree in Information Technology with an emphasis in Computer and Information Technology. Much like the other undergraduate programs within USHE, graduates from DSU's program would be prepared to pursue graduate work in the proposed degree program.

Nationally, there are a number of graduate programs in Cyber Security, which are being created in response to the growing demand of these types of professionals. Carnegie Mellon, George Washington University, and University of South Florida (online program) are a few institutions that have created these types of advanced degrees. The tuition and fee structure of SUU is very competitive with respect to these other institutions.

Collaboration with and Impact on Other USHE Institutions

Utah institutions of higher education recognize the importance of providing continued education and training for professionals in cyber security. This emerging field provides new opportunities for USHE institutions to collaborate in a number of different ways. As mentioned above, Utah Valley University recently created a graduate certificate in Cyber Security. SUU is willing to work closely with UVU to articulate those students into the proposed graduate degree program. SUU will also work with the other USHE institutions to advise students into the appropriate graduate program in USHE to best fit their career goals.

Benefits

According to a global survey of senior risk decision-makers assembled by KPMG, 50 percent of U.S. boards and 41 percent of boards globally are increasing their focus on solutions relating to Government, Risk, and Compliance (GRC), compared with just 13 percent in the United States and 10 percent globally (among those polled prior to the recent financial crisis). The survey findings also suggested that respondents identified executive management (42 percent in the United States and 48 percent globally) and regulators (27 percent in the United States and 43 percent globally) as the stakeholders exerting the most pressure on organizations to improve convergence of their GRC activities.⁷ Support for these executives stem in large part by added expertise offered by formally trained mid-level managers who possess a combination of experience and postgraduate and certification-based training in Cyber Security and Information Assurance. It is anticipated that this program will play a role to close the security gaps found in IT systems.

Consistency with Institutional Mission

Southern Utah University's mission states, "...SUU engages students in a personalized and rigorous experiential education, empowering them to be productive citizens, socially responsible leaders, high achievers and lifelong learners." This program embodies the "rigorous experiential education" that will

⁷ <http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Press-Releases/Pages/Boards-Raise-Focus-On-Risk-Senior-Execs-Demand-Convergence-With-Governance-Compliance-KPMG-Survey.aspx>

produce graduates with the skills to be “high achievers and lifelong learners” and to enter the Cyber Security and Information Assurance workforce as responsible and ethical leaders in their field.

Section IV: Program and Student Assessment

Program Assessment - The goals of the program will include:

Program Goal	Measurement
Provide a high-quality, applied-learning experience in Information Security Risk Management and IT Infrastructure Policy Development.	<ul style="list-style-type: none"> - SUU will track internships and applied-learning activities. - Apply ABET standards to the program, currently used in the Undergraduate programs.
Produce professionals with in-depth understanding of current as well as emerging cyber security and information assurance issues, who can fill the growing need in this field.	<ul style="list-style-type: none"> - Produce 20 or more graduates on an annual basis. - Employers/Advisory board members will be surveyed to evaluate graduate performance/understanding/skills.
Produce industry-ready CSIA-graduate/professionals to meet the long-term, growing demand for placement in cyber security positions in a variety of industries and government agencies.	<ul style="list-style-type: none"> - Student out-placement is expected to exceed 80 percent within 90 days of graduation. - Employers/Advisory board members will be surveyed to evaluate graduate readiness for the industry.

Expected Standards of Performance

The expected learning outcomes include the following:

LO1:	Students will be able to identify, apply, and analyze concepts and practices governing the creation and maintenance of cyber technology infrastructures, including policy development, integrated controls, and web architecture risk mitigation.
Rationale:	Skills in policy development, integrated controls, and web architecture risk mitigation are a growing need in organizations. Industry analysts support this growing need and according to industry trends as reported by several leading organizations including the SANS Institute.
Formative Assessment:	Student performance on quizzes/exams will be analyzed for the purpose of making changes in instruction/curriculum as needed. Instructors will review student work along the process of project completions for the purposes of providing students with ongoing feedback and for making changes in instruction/curriculum as needed.
Summative Assessment:	Eighty percent of students will pass each project, exam or quiz associated with this outcome with a grade of “B” or higher.
LO2:	Students will design, plan, and establish Government, Regulatory, and Compliance (GRC), security, and cyber infrastructure frameworks.

Rationale:	Cyber systems have become the target of many cyber criminals to disrupt national economic progress and financial institutions, it is necessary to have individuals who can design, plan and secure those systems.
Formative Assessment:	Instructors will review student work along the process of project completions for the purposes of providing students with ongoing feedback and for making changes in instruction/curriculum as needed.
Summative Assessment:	Eighty percent of students will pass each project associated with this outcome with a grade of "B" or higher.
LO3:	Students will be able to critically gather, analyze, evaluate, communicate and translate technology-driven data for a variety of audiences, with an emphasis on how to articulate risk mitigation issues to executive and board leadership.
Rationale:	Due to the rapid change in the information technology field, and the rapid change in the nature, scope, and source of the threats to information security, graduates of the program must possess transferable skills to respond to new threats, challenges, and opportunities. Beyond merely knowing such things, graduates will be expected to work in teams and to communicate key findings succinctly to stakeholders at a variety of levels of management.
Formative Assessment:	Instructors will review student work along the process of project completions for the purposes of providing students with ongoing feedback and for making changes in instruction/curriculum as needed.
Summative Assessment:	Eighty percent of students will pass each project associated with this outcome with a grade of "B" or higher.
LO4:	Students will be able to identify, analyze, and apply ethical reasoning relating to cyber security and information assurance issues.
Rationale:	Personal, private, and confidential information is central to cyber security issues. Professionals in this industry need to exercise and maintain ethical behavior and reasoning relating to this sensitive information.
Formative Assessment:	Instructors will review student work along the process of project completions for the purposes of providing students with ongoing feedback and for making changes in instruction/curriculum as needed.
Summative Assessment:	Eighty percent of students will pass each project associated with this outcome with a grade of "B" or higher.

In addition to the above listed learning outcomes, assessment will be accomplished in classes by instructors through the use of projects to assess student learning of the course objectives and to improve both teaching and learning in the online or virtual classroom. Additional assessment will be used in the form of exams, include both in-class and external industry certification exams, to evaluate student competency of the given coursework completed in the program. The external exams were chosen because they measure minimum industry competency standards for the security field in which this proposed program educates.

Section V: Finance

Department Budget

5-Year Budget Projection							
Departmental Data	Current Departmental Budget – Prior to New Program Implementation	Departmental Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	631,836	59,760	691,596	95,155	786,752	24,683	811,435
Benefits	231,925	35,399	267,325	34,501	301,826	13,026	314,853
Total Personnel Expense	\$863,762	\$95,160	\$958,922	\$129,656	\$1,088,578	\$37,709	\$1,126,288
Non-Personnel Expense							
Travel	9,080	3,000	12,080	0	12,080	0	12,080
Capital	0	0	0	0		0	
Library	0	0	0	0		0	
Current Expense	52,987	2,000	54,987	0	54,987	0	54,987
Total Non-personnel Expense	62,067	5,000	67,067	0	67,067	0	67,067
Total Expense (Personnel + Current)	\$925,828	\$100,160	\$1,025,988	\$129,656	\$1,155,645	\$37,709	\$1,193,355
Departmental Funding							
Appropriated Fund	884,596	100,159	984,756	129,657	1,114,413	37,710	1,152,123
Other:							
Special Legislative Appropriation	25,000		25,000		25,000		25,000
Grants and Contracts	3,879		3,879		3,879		3,879
Special Fees / Differential Tuition	12,354		12,354		12,354		12,354
Total Revenue	\$925,828	\$100,159	\$1,025,988	\$129,656	\$ 1,155,645	37,709	\$1,193,355
Difference							
Revenue -	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Expense							
Departmental Instructional Cost/Student Credit Hour*	\$184.48		\$211.69		\$227.55		\$248.69
* Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.							

Funding Sources

Initial funding of the program will come through the reallocation of existing resources and tuition generated through increased graduate student enrollment. Current faculty schedules will be restructured to accommodate the teaching of courses in the program. As the program grows, additional external funding will be sought (e.g., grants, etc.), to enable students the opportunity for research in the program's areas of study. It is important to note that the seeking of external funding is not meant to help sustain the program, but rather to provide research opportunities to students and faculty. The special legislative appropriation is the continuing support to the College of Science and Engineering from the state's Engineering and Computer Technology Initiative. Contracts and grants are also funds currently allocated to CSIS. The Special Fees/Differential Tuition shows the current amount of program fees going to CSIS and the new amount is based on fees generated by the estimated enrollment in the program.

Reallocation

Current faculty will service courses up to a full course load, according to approved SUU policy. Faculty loads will be adjusted in the undergraduate program to accommodate this shift. CSIS 1000 is being dropped as a University GE requirement and will become an elective GE class. The adjustment would come through offering fewer sections of this course thereby freeing faculty to participate in servicing the graduate level courses.

Impact on Existing Budgets

Based on the ability to adjust current faculty workloads, the only impact would be the hiring of qualified contingent instructors, as needed. Tuition dollars generated by the program will be sufficient to accommodate the hiring of these instructors.

Section VI: Program Curriculum

All courses were reviewed and approved by the College of Science and Engineering Curriculum Committee and the University Graduate Curriculum Committee according to SUU academic policy.

All Program Courses (with New Courses in Bold)

Course Prefix and Number	Title	Credit Hours
Required Courses		
CSIA 6000	Network Security	2
CSIA 6010	Communication, Critical Thinking, Problem Solving and Decision Making	3
CSIA 6020	IT Policy Compliance and Disaster recovery	3
CSIA 6030	Advance Persistent Threats	2
CSIA 6040	Project Management (Cyber Infrastructure)	3

Course Prefix and Number	Title	Credit Hours
CSIA 6060	Cyber Infrastructure Risk Management	2
Sub-Total		15
Emphasis #1	<i>Cyber and Web Security Emphasis</i>	
	<i>(Select 12 Credits from the following courses)</i>	
CSIA 6200	Hacking and Security Vulnerability Management	3
CSIA 6210	Penetration Testing	3
CSIA 6220	Mobile Hacking and Web Application Security	3
CSIA 6230	Cryptography Fundamentals	3
CSIA 6240	Digital Forensics	3
CSIA 6250	Network and Internet Forensics	3
CSIA 6260	BYOD & Mobile Computing Infrastructure	3
Sub-Total		12
Emphasis #2	<i>Government, Regulation, and Compliance (GRC) and IS Controls Emphasis</i>	
	<i>(Select 12 Credits from the following courses)</i>	
CSIA 6300	e-Business Security and Cyber Investigations	3
CSIA 6310	HIPAA-based Business Modeling and Policy Development	2
CSIA 6320	ISO/IEC 27001 ISMS Security Frameworks	2
CSIA 6330	Technology Frameworks and Corporate Governance	2
CSIA 6340	FISMA & Government Infrastructure Mandates	3
CSIA 6350	PCI / DSS / GLBA (Harvard Business Review)	3
CSIA 6360	Basel III – Impact on Bank Risk Management	3
Sub-Total		12
CSIA 6500	Capstone Experience (Thesis and/or approved Internship)	6
Total Number of Credits		33

Program Schedule of Courses

Sample Course Sequence: Emphasis #1 - Cyber and Web Security

First Semester

CSIA 6000 - Network Security	2
CSIA 6010 - Communication, Critical Thinking, Problem Solving and Decision Making	3
CSIA 6020 - IT Policy Compliance and Disaster Recovery	3
CSIA 6030- Advance Persistent Threats	2

Maximum Semester Credits: 10

Second Semester

CSIA 6040 - Project Management (Cyber Infrastructure)	3
CSIA 6060 - Cyber Infrastructure Risk Management	2
CSIA 6200 - Hacking and Security Vulnerability Management <i>or</i>	3

CSIA 6210 - Penetration Testing	
Maximum Semester Credits: 8	

Third Semester

CSIA 6220 - Mobile Hacking and Web Application Security	3
CSIA 6230 - Cryptography Fundamentals	3
CSIA 6240 - Digital Forensics <i>or</i>	3
CSIA 6250 - Network & Internet Forensics <i>or</i>	
CSIA 6260 - BYOD & Mobile Computing Infrastructure	
Maximum Semester Credits: 9	

Fourth Semester

CSIA 6500 -Capstone Experience (Thesis and/or approved internship)	6
Maximum Semester Credits: 6	

Sample Course Sequence: Emphasis #2 - GRC and IS Controls Emphasis

First Semester

CSIA 6000 - Network Security	2
CSIA 6010 - Communication, Critical Thinking, Problem Solving and Decision Making	3
CSIA 6020 - IT Policy Compliance and Disaster Recovery	3
CSIA 6030 - Advance Persistent Threats	2
Maximum Semester Credits: 10	

Second Semester

CSIA 6040 - Project Management (Cyber Infrastructure)	3
CSIA 6060- Cyber Infrastructure Risk Management	2
CSIA 6300 - e-Business Security and Cyber Investigations <i>or</i>	3
CSIA 6310 - HIPAA-based Business Modeling and Policy Development	2
Maximum Semester Credits: 7-8	

Third Semester

CSIA 6320 - ISO/IEC 27001 ISMS Security Frameworks	2
CSIA 6330 - Technology Frameworks and Corporate Governance	2
CSIA 6340 - FISMA & Government Infrastructure Mandates	3
CSIA 6350 - PCI / DSS / GLBA (Harvard Business Review Case Study) <i>or</i>	3
CSIA 6360 - Basel III - Impact on Bank Risk Management / Sarbanes Oxley	
Maximum Semester Credits: 10	

Fourth Semester

CSIA 6500 - Capstone Experience (Thesis and/or approved Internship)	6
Maximum Semester Credits: 6	

Section VII: Faculty

The following faculty are in the Department of Computer Science and Information Systems:

Dr. Robert A. Robertson (Department Chair)

- Ph.D. in Information Systems, Security Emphasis (Nova Southeastern University)
- Master's in Business Administration
- Certified Ethical Hacker Certification
- GIAC Certified Forensic Examiner
- GIAC Certified Forensic Analyst

Dr. Shalini Kesar

- Ph.D. in Information Systems (University of Salford, UK)
- Master and Doctoral degrees have been in the area of information security: focused on computer crime.
- Research has also included the following:
 - Ethical, legal, and policy issues associated with computer crime.
 - Cybercrime and electronic government
 - Electronic Government: The Weakest Link in Cybercrime

Dr. Nathan Barker

- Ph.D. in Computer Science (University of Utah)
- Computer Hacking Forensic Investigator (CHFI)
- Certified Computer Forensics Examiner (CCFE)

Dr. Michael Grady

- Ph.D. in Mathematics (University of California, Santa Barbara)
- Will be teaching the Cryptography course
- Expertise areas - computational number theory, computational combinatorics and abstract algebra.

Dr. Nasser Tadayon

- Ph.D. in Computer Science (University of Louisiana in Lafayette)
- Research areas include:
 - Software Engineering, Data Mining and Neural Networks
 - Computing Education, Design and Analysis of Combinatorial and Geometric Algorithms
 - Graph Theory, Numerical Analysis, Discrete Structures

Dr. Dezhi Wu

- Ph.D. in Information Systems (New Jersey Institute of Technology)
- Research areas include:
 - Human Computer Interaction
 - Information Systems Security
 - Mobile Computing
 - Project Management (Currently PMP Certified)

SAMPLE WHITE HAT AGREEMENT

White Hat Agreement

As part of this course, you will be exposed to systems, tools and techniques related to Information Security. With proper use, these components allow a security or network administrator to better understand the vulnerabilities on the network and the security precautions in effect. Misused, intentionally or accidentally, these components can result in breaches of security, damage to data or other undesirable results.

Since these lab experiments will be carried out in part on a public network that is used by people for real work, you must agree to the following before you can participate. If you are unwilling to sign this form, then you cannot participate in the lab exercises.

Student Agreement Form

I agree to:

- Examine only the special course accounts for privacy vulnerabilities.
- Report any security vulnerabilities discovered to the course instructor immediately, and not disclose them to anyone else.
- Maintain the confidentiality of any private information I learn of through the course exercises.
- Actively use my course account with the understanding that its contents and actions may be discovered by others.
- Hold harmless the course instructor and Southern Utah University for any consequences associated with my own misuse of course software or hardware.
- Abide by the computing policies of Southern Utah University and by all laws governing use of computer resources on campus.

I agree NOT to:

- Attempt to gain root access or any other increase in privilege on any University workstation other than those authorized in this classroom (ELC306).
- Disclose or use for my own purposes, any private information that I discover as a direct or indirect result of the course exercises.
- Take actions that will modify or deny access to any data or service not owned by me.
- Attempt to perform any actions or use utilities presented in the class outside the confines and structure of the classroom (ELC306).
- Utilize any security vulnerabilities or exploits beyond the target accounts in the course or beyond the duration of the course exercises.
- Pursue any legal action against the course instructor or Southern Utah University for consequences related to misuse of materials used in this course.

Moreover, I consent for my course accounts and systems to be examined for security and privacy vulnerabilities by other students in the course, with the understanding that this may result in information about me being disclosed.

This agreement has been explained to me to my satisfaction. I agree to abide by the conditions of the White Hat Oath and Code of Ethics found in the preface to the Lab Manual text.

Student Signature: _____ Date: _____

Student Printed Name: _____

E-mail Address: _____

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Dixie State University – Bachelor of Science in Exercise Science

Issue

Dixie State University (DSU) requests approval to offer a Bachelor of Science (BS) in Exercise Science effective Fall Semester 2015. The institutional Board of Trustees approved the degree on March 20, 2015.

Background

The BS in Exercise Science is proposed by a newly-created Department of Health and Human Performance (formerly the Physical Education, Health, and Recreation program) in the School of Health Sciences to expand DSU degree offerings in the growing areas of preventative health and wellness. The proposed BS includes 39 general education credits, 73-76 required credits in the major, and 9-10 elective credits, for a total of 121-125 credits. The proposed curriculum was reviewed and endorsed by an external expert who is a Regents Professor in the Texas A&M University System and a Fellow in the American College of Sports Medicine.

Exercise Science is a popular field of study at other four-year USHE institutions, and DSU is poised to offer the proposed BS in response to what it has determined is strong student and labor market demand. If approved, it is expected the BS in Exercise Science will be popular with DSU student athletes, as well as others who might be attracted to the geography and culture of St. George, which promotes the outdoors, physical activity, and athletic competition. In terms of labor market demand, U.S. Bureau of Labor Statistics provided in the DSU proposal indicate double-digit percentage job growth over the next decade in fields related to Exercise Science.

DSU will be increasing the number of Exercise Science faculty as the program is implemented and grows. A second Ph.D. faculty member in kinesiology/exercise physiology has recently been hired, and there are currently some adjunct faculty members with Exercise Science-related master's degrees. A third full-time, doctoral-level and two additional part-time, master-level faculty will be added in the first two years of program implementation. In addition to its current inventory of lab equipment, DSU will be investing approximately \$35,000 for additional equipment to launch the program. Funding and construction of a new

Human Performance Building, which would support the proposed BS in Exercise Science, is also a high priority at DSU.

Policy Issues

The proposed degree has been developed and reviewed in accordance with processes established by Dixie State University and the Board of Regents. In response to the initial proposal, colleagues at other USHE institutions offered substantive comments and suggestions, resulting in revisions that clarified and strengthened several sections of the DSU proposal. The USHE Chief Academic Officers, with input from appropriate faculty, have reviewed and have expressed support for DSU's request to offer a BS in Exercise Science. There are no additional policy issues relative to approval of this program.

Commissioner's Recommendation

The Commissioner recommends the Regents approve the request by Dixie State University to offer a Bachelor of Science in Exercise Science.

David L. Buhler
Commissioner of Higher Education

DLB/GVB
Attachment

**Program Description
Dixie State University
Bachelor of Science in Exercise Science**

Section I: The Request

Dixie State University (DSU) requests approval to offer a Bachelor of Science (BS) in Exercise Science effective Fall Semester 2015. The institutional Board of Trustees approved the degree on March 20, 2015.

Section II: Program Description

Complete Program Description

The Bachelor of Science in Exercise Science is a science-based undergraduate curriculum that provides a firm foundation in the STEM areas of anatomy, physiology, nutrition, psychology, biomechanics, motor learning and development, and measurement and evaluation for a full understanding of factors associated with exercise, fitness, sport performance, and physical/mental health. Students with this degree will have the knowledge and skills necessary to develop an exercise plan for individuals of all ages and abilities for improvement of particular areas of the body, as well as develop programs to improve specific health and/or performance issues. Student majors will understand the fundamentals of physiological responses to physical exercise. Application of this knowledge can be used in a variety of ways, including: (1) optimizing exercise sessions; (2) increasing ease and productivity in everyday endeavors; (3) preventing and fighting disease; (4) preventing and rehabilitating injury; (5) training for specific sport/skill performance.

The Exercise Science curriculum provides for many application/hands-on experiences through laboratory courses, civic engagement opportunities, and a required internship experience. The curriculum will also provide students with a solid preparation for credentialing examinations, such as the National Strength and Conditioning Association (NSCA) Certification Exam and the American College of Sports Medicine (ACSM) Health/Fitness Instructor Exam, as well as the Exercise Specialist Exam. These credentials increase career options for students with this degree.

For students wishing to attend graduate school, the curriculum is designed to meet the prerequisite requirements for many graduate programs within the state and surrounding areas. Elective courses have been carefully worked into the curriculum, allowing students to tailor their program to meet specific requirements for the graduate school/program of their choice.

Purpose of the Degree

With the growing concern over health and wellness in the United States, as well as Centers of Disease Control predictions related to obesity, cardiovascular disease, diabetes, cancer, etc., the job market in the health care industry, as well as preventative health care careers, has remained solid. In addition, graduates in this field often go on to pursue graduate degrees and entry-level clinical doctorates in some of the fastest-growing professional fields in Utah, as well as in the United States.

U.S. Bureau of Labor Statistics reports the following job projections for careers related to the proposed undergraduate degree program:

- **Fitness Trainers and Instructors:** Employment of fitness trainers and instructors is projected to grow 13 percent from 2012 to 2022, about as fast as the average for all occupations. As businesses, government, and insurance organizations continue to recognize the benefits of health and fitness

programs for their employees, incentives to join gyms or other types of health clubs are expected to increase the need for fitness trainers and instructors. <http://www.bls.gov/ooh/personal-care-and-service/fitness-trainers-and-instructors.htm>

- Athletic Trainers & Exercise Physiologists: Employment of athletic trainers and exercise physiologists is projected to grow 19 percent from 2012 to 2022, faster than the average for all occupations. As people become more aware of sports-related injuries at a young age, demand for athletic trainers is expected to increase, most significantly in colleges, universities, and youth leagues. <http://www.bls.gov/ooh/healthcare/athletic-trainers-and-exercise-physiologists.htm>

The U.S. Bureau of Labor Statistics reports the following job projections for careers requiring a master's degree or clinical doctorate in a field related to an exercise science undergraduate foundational degree program:

- Physical Therapists: Employment of physical therapists is projected to grow 36 percent from 2012 to 2022, much faster than the average for all occupations. Demand for physical therapy services will come from the aging baby boomers, who are staying active later in life. In addition, physical therapists will be needed to treat people with mobility issues stemming from chronic conditions, such as diabetes or obesity. <http://www.bls.gov/ooh/healthcare/physical-therapists.htm>
- Occupational Therapists: Employment of occupational therapists is projected to grow 29 percent from 2012 to 2022, much faster than the average for all occupations. Occupational therapy will continue to be an important part of treatment for people with various illnesses and disabilities, such as Alzheimer's disease, cerebral palsy, autism, or the loss of a limb. <http://www.bls.gov/ooh/healthcare/occupational-therapists.htm>
- Chiropractors: Employment of chiropractors is projected to grow 15 percent from 2012 to 2022, faster than the average for all occupations. People across all age groups are increasingly becoming interested in chiropractic care, because chiropractors use nonsurgical methods of treatment and do not prescribe drugs. <http://www.bls.gov/ooh/healthcare/chiropractors.htm>

Further, Southern Utah, especially the St. George area, has become a mecca for sport enthusiasts of all kinds, ranging from the Huntsman Senior Games to Ironman competitions. The popularity of fitness facilities and the Intermountain Health Live Well Program in St. George may be indicative of the interest of the community in matters of health, wellness, and physical performance. These facilities also present job opportunities for professions within the field of Exercise Science. Annual projected growth rate in Washington County for the areas of Healthcare Practitioners and Healthcare Support are both some of the highest in the county at 4% each. However, currently Dixie State students who are interested in Exercise Science or related fields must transfer to other institutions within, as well as outside of, Utah to pursue their degree. <http://jobs.utah.gov/wi/pubs/outlooks/washington/index.html>

The proposed degree in Exercise Science presents a unique contribution to the degree programs offered at Dixie State. The program will provide a STEM-based degree for entrance into graduate programs in health-related/clinical fields like cardiac rehabilitation, exercise physiology, and physical and occupational therapy, while preparing students for immediate credentialing by the American College of Sport Medicine (ACSM) and National Strength and Conditioning Association (NSCA) upon graduation with a bachelor's degree. This will allow them to pursue dreams of graduate school, as well as to get a job upon completion of their bachelor degree.

Institutional Readiness

The development of a degree program in Exercise Science has strong support from all levels of the DSU administration and faculty. The program will be located within the new Department of Health and Human Performance in the School of Health Sciences. One of the highest priorities of the DSU administration is the construction of a new building, currently referred to as the Human Performance Building. There is adequate space to support the new department, but it is anticipated the new department will eventually be housed in this Human Performance Building, along with many other campus priorities, as well as potential new and related academic programs. Although the current Physical Education, Health, and Recreation (PEHR) program currently has some basic lab equipment, the DSU faculty estimates that approximately \$32,000 to \$35,000 will be required for basic laboratory equipment for the initiation of the program.

Departmental Faculty

Department Faculty Category	Department Faculty Headcount – Prior to Program Implementation	Faculty Additions to Support Program	Department Faculty Headcount at Full Program Implementation
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	2	1	3
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
With Master's Degrees			
Full-time Tenured	0	0	0
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	2	2	4
With Bachelor's Degrees			
Full-time Tenured	1	0	1
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	25	0	25
Other			
Full-time Tenured	0	0	0
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	0	0	0
Total Headcount Faculty in the Department			
Full-time Tenured	3	1	4
Full-time Non-Tenured	0	0	0
Part-time Tenured	0	0	0
Part-time Non-Tenured	27	2	29
Total Department Faculty FTE (As reported in the most recent A-1/S-11 Institutional Cost Study for "prior to program implementation" and using the A-1/S-11 Cost Study Definition for the projected "at full program implementation.")	10.75	2	12.75

The DSU Department of Health and Human Performance currently has two full-time faculty members with doctoral degrees in the field of Exercise Science, two part-time faculty members with Exercise Science-related master's degrees, and one full-time tenured faculty member with a bachelor's degree (teaching primarily activity courses in the Physical Education program). The need for the addition of one full-time tenure-track doctoral faculty member, as well as two part-time faculty with master's degrees, is anticipated as the program develops. Accordingly, DSU anticipates adding one part-time faculty during the first year, with the full-time doctoral faculty and the second part-time faculty being added in the second year.

Staff

Secretarial staff is currently shared between Family and Consumer Sciences, Education, and PEHR. With the anticipated rapid growth of the proposed Exercise Science program, a secretary and an academic advisor will be needed. An individual serving at 0.5 workload for secretarial duties and 0.5 workload for advisement duties will be sufficient for the initiation of the program. DSU anticipates this individual will be hired within the first year.

Library and Information Resources

Basic materials are available in the Dixie State University Library, including over 110,000 print monographs, 240 print periodicals titles, 9,219 audio-visual materials, 69 CD-ROMs, and 10,524 microforms. In addition, from the library website, users can search the public access catalog; locate periodical indexes and databases; access direct links to online journals, magazines, and newspapers; and submit online request forms. Users requiring research assistance and reference support have several options, including email, chat, and telephone. In addition, the Library offers a wide range of services for the University's distance learners.

The Library subscribes to over 120 electronic databases, which supplement its print collection and offer convenient, uninterrupted, remote access to scholarly resources. Included are not only periodical articles, but also other text e-sources, 3-D imagery, audio streaming, and video streaming. From these databases, the Library has available over 108,000 full-text e-books and over 33,800 full-text periodical titles. All materials are available to all DSU faculty, staff, and students 24/7/365 via the library website, wherever they can find access to the internet.

The DSU Library subscribes to several health and human performance and exercise science-related databases and online journals:

- ScienceDirect Elsevier Science Journals: A database of over 2,500 journals and hundreds of books published by Elsevier, including high impact publications
- Pubmed journals: Comprises approximately 20 million citations for biomedical literature from MEDLINE, life science journals, and online books; PubMed citations and abstracts include the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and preclinical sciences. PubMed also provides access to additional relevant Web sites and links to the other NCBI molecular biology resources
- Web of Knowledge journals, including the Web of Science Core Collection, MEDLINE, and SciELO Citation Index: Consolidated searching of citation search engines and multidisciplinary listings of articles in 8,500 major scholarly journals; limited full text access; clusters results in subject areas and document types

- OvidSP journals: Provides indexes and backfiles for hundreds of clinical journals that cover a wide variety of health topics
- Health Source-Nursing/Academic Edition: This database provides nearly 550 scholarly full text journals focusing on many medical disciplines; also features the *Lexi-PAL Drug Guide*, which covers 1,300 generic drug patient education sheets with more than 4,700 brand names
- Health Source-Consumer Edition: A collection of consumer health information, providing information on many health topics including the medical sciences, food sciences and nutrition, childcare, sports medicine and general health; Health Source-Consumer Edition provides access to nearly 80 full text, consumer health magazines
- CINAHL with Full-text: Provides full-text articles from more than 600 journals related to nursing and allied health research; indexes over 3,000 journals
- Access Medicine (Harrison's Online): Authoritative online medical reference, especially useful for students in Allied Health Sciences
- Alt HealthWatch: A database providing indexing, abstracts and full text (selected) of articles in periodicals, journals, and other publications focused on alternative approaches to health and wellness from more than 180 international and often peer-reviewed journals, reports and proceedings
- An@tomy.tv: An interactive visual database that allows the user to explore human anatomy as overall structure and in depth; each section includes MRI views and provides content and quiz structure for individual study; there are anatomy sections for specific needs including dentistry and exercise
- ProQuest Nursing & Allied Health Source: This database provides full text journals, evidence based resources, and dissertations to support the study of the many aspects of nursing or the allied health professions including physical therapy, radiography, dietetics, dental hygiene, and the clinical laboratory sciences
- R2 Digital Library: Provides a selection of e-books focused on the health sciences
- Salem Health: Reference resource for psychology and health; provides access to *Cancer and Psychology & Mental Health*

In addition to these databases, the University subscribes to other interdisciplinary databases of direct pertinence to the Exercise Science program. They include:

- Academic Search Premier: A scholarly, multi-disciplinary, database; with full text coverage of 4,600 journals in a range of subjects
- EBSCO EJS: EBSCOhost Electronic Journals Service (EJS) is a gateway to thousands of e-journals
- Ebrary: A large e-book collection spanning all academic subject areas
- EBSCOhost eBook Collection: Provides online access to more than 3,500 academic books to browse or to read
- JSTOR: A scholarly journal archive that provides image and full text access to archival (more than 5 years old) scholarly journals in a wide variety of subject areas
- LexisNexis Academic: Indexing and full text documents for over 5600 news, business, legal, medical and reference publications with a variety of flexible search options
- Newspaper Source: Provides full text for more than 40 U.S. and international newspapers; the database also contains selective full text for 389 regional U.S. newspapers. In addition, full text television and radio news transcripts are also provided

- ProQuest Newsstand: Full-text of 300+ U.S. and international news sources. Includes coverage of 150+ major U.S. and international newspapers such as the *New York Times* and the *Wall Street Journal*, plus hundreds of other news sources and news wires
- PsycArticles: From the American Psychological Association (APA), is a definitive source of full-text, peer-reviewed scholarly and scientific articles in psychology; the database contains approximately 150,000 articles from over 70 journals published by the APA, and its imprint the Educational Publishing Foundation (EPF), and from allied organizations including the Canadian Psychology Association and Hogrefe Publishing Group
- PsycBooks: From the American Psychological Association (APA), is a database of over 30,000 chapters from nearly 2,000 books published by the APA and others; it also includes close to 1,500 classic books of landmark historical impact in psychology dating from the 1600s and the exclusive electronic release of more than 1,500 authored entries from APA/Oxford University Press *Encyclopedia of Psychology*
- Psychology & Behavioral Sciences Collection: This database covers topics in emotional and behavioral characteristics, psychiatry & psychology, mental processes, anthropology, and observational & experimental methods; offers full text coverage for nearly 400 journals
- PsycINFO: This database is a resource for abstracts of scholarly journal articles, book chapters, books, and dissertations and is the largest resource devoted to peer-reviewed literature in behavioral science and mental health; it contains approximately 3 million citations and summaries dating as far back as the 1600s with DOIs for over 1.4 million records. Journal coverage, which spans from the 1800s to present, includes international material selected from around 2,400 periodicals in dozens of languages
- Sage eReference Encyclopedias and Handbooks: Offers access to selected reference encyclopedias and handbooks with coverage mostly in the areas of social sciences and health care
- Sage Journals Online: General purpose database for scholarly articles

Admission Requirements

The admission requirements for the degree in Exercise Science are established by the University standards. Prerequisites are set by different courses to ensure students are properly prepared for their coursework in specific courses. Students will need to maintain a cumulative 2.5 or higher GPA for graduation, with no D credit in the program classes.

Student Advisement

Consistent with University policies, an advisor familiar with the program, as well as careers in Exercise Science and related fields, will advise students about completion requirements, curriculum planning, and post-baccalaureate options. This will require the addition of a program-specific advisor.

Justification for Graduation Standards and Number of Credits

The graduation standards are consistent with other STEM-related degree programs at Dixie State and are required for external review and accreditation.

1. Completion of a minimum of 120 semester credits with a minimum of 53 upper-division credits.
2. Overall GPA of 2.5 or above, with a minimum of 2.0 in the major.
3. Residency hours – minimum of 30 credit hours through course attendance at DSU, with at least 15 credits earned in last 45 credits.
4. Completion of GE and specified department requirements.

5. A minimum of 69 credit hours must be in the major, with a minimum of 20 taken at DSU.
6. Complete all Exercise Science Core courses with a minimum of a C- or better.

External Review and Accreditation

In the preparation of this degree proposal, external review was sought and attained by an expert in the field. The reviewer – Nestor Sherman, EdD, FACSM – is a Texas A&M University System Regents Professor, a Fellow of the American College of Sports Medicine (ACSM), and a member of the Research Consortium of ACSM. He has worked as an exercise physiologist for a large multi-specialty cardiac clinic in Houston, Texas. Currently, he is a professor in the Department of Health & Kinesiology at Texas A&M University-Kingsville (an institution of similar size to Dixie State), where he serves as the Director of the Pre-Physical Therapy Program. The summary of his review included the following notable remarks:

- “With proper instruction, the proposed coursework should enable students to pass certification exams, which is necessary in the field of Exercise Science. Since there is no licensure in Exercise Science, reputable employers will demand quality certifications for any potential employee. Although there are many certifications in Exercise Science, your degree proposal has identified the well-respected certifications in a variety of areas (rehabilitation, personal training, fitness, strength & conditioning).”
- “The proposed curriculum and course map were provided to me and in my opinion the proposed curriculum has the academic rigor that would be expected for any student seeking admission to a physical therapy or occupational therapy professional program.”
- “The proposed curriculum also contains some unique courses that may make graduates attractive in rehabilitative settings.”

Dr. Sherman warned about the utilization of adjuncts or part-time faculty. He stated, “The proposal includes an increase in full-time faculty. Many universities have a difficult time covering certain Exercise Science courses with qualified part-time faculty. This will need to be closely monitored to ensure quality control. With increases in enrollment should also come increased need for full-time faculty.”

Although only excerpts of Dr. Sherman’s review have been provided for the purposes of this proposal, his full review is available upon request.

Once the program is established, the proposed degree is structured to meet most of the accrediting organizations’ requirements and will seek accreditation from one of the following accrediting organizations: American Society of Exercise Physiologists (ASEP), American College of Sports Medicine, or Commission on Accreditation of Allied Health Education Programs (CAAHEP). The plan is to start the accreditation process within the first year and obtain the accreditation within three years.

Projected Program Enrollment and Graduates; Projected Departmental Faculty/Students

Data Category	Current – Prior to New Program Implementation	Projected Year 1	Projected Year 2	Projected Year 3	Projected Year 4	Projected Year 5
Data for Proposed Program						
Number of Graduates in Proposed Program	X	0	0	0	75	120

Total # of Declared Majors in Proposed Program	X	150	200	250	300	300
Departmental Data – For All Programs Within the Department						
Total Department Faculty FTE (as reported in Faculty table above)	10.75	11.25	12.75	12.75	12.75	12.75
Total Department Student FTE (Based on Fall Third Week)	87.86	140	160	180	200	210
Student FTE per Faculty FTE (ratio of Total Department Faculty FTE and Total Department Student FTE above)	8.17	12.44	12.55	14.12	15.69	16.47
Program accreditation-required ratio of Student FTE/Faculty FTE, if applicable: (Provide ratio here: NA)	NA	NA	NA	NA	NA	NA

Section III: Need

Program Need

Exercise Science is a rapidly growing field of study, with promising job potential, and a variety of career options. In addition, Exercise Science has become a popular and respected undergraduate degree for students seeking acceptance into graduate programs within the medical field. It is a very popular degree offered by many comprehensive regional universities, as well as each one of the USHE peer institutions. Currently, DSU has no degree program that compares to the proposed program. A degree in Exercise Science would attract a variety of students ranging from those wishing to procure a bachelor's degree for immediate employment as a coach, fitness trainer, community recreation leader, or fitness equipment sales representative, to students seeking a graduate degree for a profession in the medical field. The cutting-edge curriculum is designed to provide a skill set that optimizes the marketability of Dixie State Exercise Science graduates in the ever-competitive job market.

Labor Market Demand

A degree in Exercise Science prepares students for careers in health, fitness, athletics, and rehabilitation, leading to many career options. Students with a degree in Exercise Science from DSU will be prepared for positions with community programs, personal training, entry-level medical programs, corporate fitness/wellness facilities, sports management and marketing, and intercollegiate or professional sports teams. Students with this degree often work in community activity/fitness centers, health clubs, athletic fitness programs, YMCAs, hospitals, schools, and universities. Students with this degree are also prepared for employment in the sales or marketing division of exercise equipment manufacturers. Further, the

curriculum within the proposed program is designed to prepare students for the National Strength and Conditioning Association (NSCA) Certification Exam and the American College of Sports Medicine (ACSM) Health/Fitness Instructor Exam and Exercise Specialist Exam. These credentials increase career options for students with this degree. In addition, Exercise Science has become a fundamental field for students seeking acceptance into fields within the medical science profession, including physical therapy, occupational therapy, athletic training, and clinical exercise physiology. One of the FAQs for entrance into the Doctor of Physical Therapy program at the University of Utah is, "What is the best undergraduate major for students seeking admission to the program." The answer provided is, "A potential major that includes most of the prerequisite courses is either an Exercise Science or Exercise Physiology major."

The U.S. Bureau of Labor Statistics (<http://www.bls.gov/>) job projections for individuals with an education in Exercise Science are very positive. In most fields, overall employment growth is projected to be grow at a rate that is faster than the national average, or at least comparable with the national average.

- The overall employment of fitness trainers is expected to grow by 13% between 2012 and 2022, which is comparable to the national average of 11% for all occupations. As businesses, government, and insurance organizations continue to recognize the benefits of health and fitness programs for their employees, incentives to join gyms or other types of health clubs are expected to increase the need for fitness trainers and instructors.
- Recreation workers should see a growth of 14%, and nutritionists by 21%. The anticipated growth is due to aging populations and to an increased emphasis on fitness in society.
- Employment of exercise physiologists and athletic trainers is projected to grow 19 percent from 2012 to 2022, faster than the average for all occupations.
- There were about 225,700 coaches and scouts in 2008, and it is reported that the number of jobs is expected to grow much faster than the average for all occupations between 2008 and 2018.
- In addition, for students using the Exercise Science degree as a foundation for graduate work, the job market appears to be very healthy for students with master's and clinical doctoral degrees related to exercise science. The BLS projects an employment growth of 36 percent and 29 percent in the fields of physical therapy and occupational therapy, respectively. This growth is much faster than the average for all occupations.

Student Demand

Across the nation as well as across Utah, Exercise Science has become a very popular degree program. Each of Dixie's five peer institutions offers a similar program, and in each university the program is thriving.

Some examples:

- The University of Utah boasts 840 majors within the field, 795 of which have declared specifically an Exercise Science major.
- Weber State University has 795 declared majors within the field, 235 specifically within two fields very similar to the proposed DSU program.
- Southern Utah University recently reported its degree program has recently grown from 71 to 212 students within the past five years with the implementation of the Exercise Science degree.

As Dixie State grows as a university, the selection of new academic degree program offerings should be responsive to student interest, as well as current and future job market projections. The decision to develop

an Exercise Science degree was initially chosen in response to student and community interest in such a program. An Academic Program Demand Survey, completed in fall 2014, validated the interest of currently-enrolled Dixie State freshmen. Sixty percent of the students enrolled in the First Year Experience course for students with an undeclared major indicated that they would be interested in majoring in Exercise Science if the degree was offered at Dixie State. In addition, conversations with faculty who teach the current Exercise Science-related courses, as well as conversations with athletic coaches, indicate that many students, as well as student-athletes, transfer their junior year to pursue an Exercise Science degree at other institutions within the Utah, as well as out-of-state. The attrition rate of DSU student-athletes is now being actively tracked and monitored for a clearer picture.

This degree program is often very popular with student athletes who enter the program with an athletic skill set that augments their educational experience. DSU currently boasts 300 student athletes, for whom a degree program in Kinesiology, Physical Education, or Exercise Science is not currently available. It has been mentioned by many coaches and administrators that much of the student athlete early attrition experienced at DSU may be attributed to the lack of a degree program in an area of interest to many athletes. The two academic courses that are currently offered on a Fall and Spring semester basis at DSU, Exercise Science and Sport Performance and Behaviors, fill and are often wait-listed each semester.

In addition, this year the athletic department was proud to announce that DSU athletes have earned the highest GPA since becoming a member of the NCAA. DSU currently has 147 athletes who have the prestigious distinction of being named "scholar athletes" by the NCAA. The last review of GPAs among DSU athletes (Spring 2014) revealed that 188 student athletes (almost 63%) had GPAs of 3.0 or higher. It is important that the institution provide these student athlete-scholars with degree programs that interest them, so they can continue their education here at DSU and not have to transfer elsewhere to pursue their academics.

Finally, recruitment of students into the STEM fields is valuable to the local economy, as well as to the welfare of St. George, and an Exercise Science program at Dixie State would allow students to pursue a unique, highly marketable STEM-based degree while attending a local, open-access university.

Similar Programs

The following institutions offer similar degree programs; however, a review of the coursework requirements within the major for the DSU degree reveals a unique approach to the study of exercise science. In addition to the traditional foundational courses common to many exercise science programs (providing the pre-requisite courses for entrance into graduate programs), the DSU curriculum includes coursework requisite of a well-informed fitness and wellness specialist, providing students with the knowledge and skills to pass the credentialing exams for immediate employment as a nationally-certified Strength and Conditioning Coach through the NSCA and/or a certified Health/Fitness instructor through the ACSM. The curriculum includes many unique courses, often sought by wellness centers like the Intermountain Live Well program, optimizing students' success in a competitive job market. A program at Dixie State would allow students to pursue a unique, highly-marketable degree while attending a local, open-access university.

- University of Utah
 - Exercise & Sport Science with emphases in Fitness & Wellness Specialist and Sport Pedagogy
 - Athletic Training Education Program (ATEP)

- Utah State University
 - BS in Human Movement with emphases in Pre-Physical Therapy and Exercise Science
- Southern Utah University
 - Exercise Science
 - Physical Education Teaching
- Utah Valley University
 - BA/BS in Exercise Science
 - BS in Physical Education Teacher Education
- Weber State University
 - Health Promotion
 - Physical Education

Collaboration with and Impact on Other USHE Institutions

In light of the rapid growth of Exercise Science at institutions across the state, impact on other state university programs is not anticipated. The demand of currently-enrolled DSU students presents enough interest to predict a popular program offering without drawing students from other regional institutions. Therefore, minimal impact is predicted regarding exercise science programs at other regional institutions. In addition, the DSU program will have a unique emphasis compared to nearby institutions. Finally, St. George offers numerous opportunities for internships, civic engagement, collaborative research, and employment. Because of these factors, collaboration with other Utah regional institutions presents exciting possibilities.

Benefits

The new Bachelor of Science degree in Exercise Science will provide USHE a new open-enrollment STEM-based program to offer local and regional students. In addition, Dixie State is now a regional university and, as such, has become more attractive to local and regional students, as well as students nationwide. The geographical, as well as cultural, atmosphere of St. George naturally attracts individuals who enjoy the outdoors, physical activity, and athletic competition. A degree program which focuses on health, wellness, and human performance is a natural fit for this growing institution.

Consistency with Institutional Mission

Dixie State is committed to prepare students for careers in high-demand areas in the state and region, and to prepare knowledgeable and competent students who can achieve their educational goals. A degree program in Exercise Science will provide regional and local students with another STEM-based option for careers in a job market that is currently thriving, with expected growth for years to come. In addition, curriculum and activities associated with this particular degree program naturally engage students with community activities and events, fostering civic engagement, including volunteerism, internship experiences, and collaborative research. These activities facilitate strong public relations with civic entities, local businesses, and schools in the public and private sector. These opportunities pose to highlight Dixie State's commitment to service, citizenship, and the community.

Section IV: Program and Student Assessment

Program Assessment

The goal of the Exercise Science program at Dixie State University is to provide student majors with a comprehensive understanding of factors associated with exercise, fitness, sport performance, and physical/mental health, as well as fitness/wellness facility management. This will be accomplished through a science-based undergraduate curriculum rooted in the STEM areas of anatomy, physiology, nutrition, psychology, biomechanics, motor learning and development, and measurement and evaluation.

Assessment strategies have been identified and incorporated into the program to ensure that the goal is met. These strategies will be applied annually as the program is implemented.

Seven Program Learning Outcomes (PLOs) have been identified. Graduates of this program will be able to:

- I. Demonstrate foundational knowledge of the biological, physiological, psychological, and developmental factors associated with exercise, fitness, health, and skill acquisition.
- II. Implement, conduct, and interpret fitness assessment protocols for healthy and at-risk populations that maximizes participants' safety and minimizes risk.
- III. Determine and implement safe, effective, goal oriented exercise programs for healthy individuals, as well as for clinical populations with controlled conditions/diseases.
- IV. Select and apply effective behavioral and motivational strategies for the optimization of student/client adoption and adherence to exercise programs, and maintenance of healthy lifestyle behaviors.
- V. Create risk management guidelines, and an injury prevention program, for a health/fitness facility or organization.
- VI. Market and manage a sport, exercise, or community recreation facility based on accepted legal guidelines, standards, and regulations, as well as demonstrate leadership and professionalism required by health/sport/recreation professionals.
- VII. Optimize teaching and coaching methodology, focused on fitness and or skill development, for group fitness settings, athletic and recreational teams, as well as physical education classroom environments.

Student learning will be assessed at the program level using indirect and direct measures.

The *Indirect Measures* will include, but are not limited to:

1. Performance on national credentialing examinations including, but not limited to specific licensure through: The American College of Sports Medicine (ACSM); National Academy of Sports Medicine (NASM); National Strength and Conditioning Association (NSCA); National Council on Strength & Fitness (NCSF); American Council on Exercise (ACE)
2. Internship supervisor ratings of students' performance
3. Graduation exit surveys
4. Alumni surveys administered at one-, three-, and five-year anniversaries of graduation;
5. Job and graduate school placement rates
6. Programmatic retention/attrition rates

The *Direct Measures* will include, but are not limited to:

1. Course examinations and comprehensive final examinations provided in the courses within the major
2. Major Course Papers and Presentations
3. Projects and Assignments
4. Civic engagement experiences with specific learning outcomes
5. Internship performance(s)
6. Research projects

Expected Standards of Performance

The Exercise Science program will be assessed through rubrics designed to measure each of the stated learning outcomes. Courses that demonstrate rigor consistent with a "mastery" level for student development will be used for rubric data extraction. Two learning outcomes per year will be assessed, resulting in complete program assessment each four-year cycle.

The following scoring scheme indicates the level at which each PLO is presented in each course:

I = Introduction	PLOs are Introduced at the basic level
D = Developed	PLOs are Practiced, more sophisticated knowledge developed
M = Mastery	Work is appropriate for graduation from the program

Course Prefix & Number	Course Title	PLO I Foundational Knowledge	PLO II Health & Fitness Assessment	PLO III Exer. Prescript & Implementation	PLO IV Exer. Counsel & Behav.	PLO V Legal & Prof. Behavior	PLO VI Manag. of Sport & Exer. Facilities	PLO VII Teach. & Coach. Methodology
PEHR 1543	First Aid/Resp Emergencies	I / D	D			D		
PEHR 1020	Introduction to Exercise Science	I	I	I			I	
PEHR 2000	Foundational Anatomy & Phys.	I						
PEHR 2005	Founational Anatomy & Phy. - Lab	I / D						
PEHR 2100	Principles of Fitness and Lifestyle Management			I / D	I			
PEHR 2200	Nutrition for Sport and Exercise	I / D						

PEHR 2070 or 2080	Sprts Manag or Manag in Health Prom					I / D	D	
PEHR 3000	Psychophys. Of Fitness and Nutrition	D						
PEHR 3700	Physiology of Ex. & Human Perform.	D	I / D	D				
PEHR 3705	Physiology of Ex. & Human Perform. - Lab	D	D	D				
PEHR 3370	Exercise Testing & Prescription	D	D	D				
PEHR 3705	Exercise Testing & Prescrip - Lab	D	D	D				
PEHR 3750	Sport & Exercise Psychology	I / D			I / D			I
PEHR 3350	Mot Learning & Development	D	D					
PEHR 3400	Activity Programming for Spec Pops	D	D	D		D	D	I / D
PEHR 3500	Theories & Tech For Teaching Fitn & Mot Skills	D						D
PEHR 3730	Biomechanics	D	D					
PEHR 3800	Meas & Eval in Phys Exer & Sprts		D					
PEHR 4100	Physiology and Tech. of Strength & Power	D	D	D				
PEHR 4200	Healthy Aging	D						
PEHR 4230	Applied Fitness Development for Geriatric &	D		D	D	D	D	D

	At-Risk Populations							
PEHR 4400	Pediatric & Adol Fitness and Nutrition	D	D	D				
PEHR 4500	Motivation & Coaching	D			D			D
PEHR 4600	Theories of Behavioral Change				D			D
PEHR 4600	Exercise Science Internship	M	M	M	M	M	M	M
PEHR 4650	Capstone Experience	M	M	M	M	M	M	M

Section V: Finance

Department Budget

3-Year Budget Projection							
Departmental Data	Current Departmental Budget – Prior to New Program Implementation	Departmental Budget					
		Year 1		Year 2		Year 3	
		Addition to Budget	Total Budget	Addition to Budget	Total Budget	Addition to Budget	Total Budget
Personnel Expense							
Salaries and Wages	\$244,950	\$29,000	\$273,950	\$64,000	\$337,950	\$10,000	\$347,950
Benefits	\$89,719	\$5,000	\$94,719	\$15,000	\$109,719	\$3,000	\$112,719
Total Personnel Expense	\$334,669	\$34,000	\$368,669	\$79,000	\$447,669	\$13,000	\$460,669
Non-Personnel Expense							
Travel	\$0	\$1,500	\$1,500	\$0	\$1,500	\$500	\$2,000
Capital	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500	\$5,000
Library	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Current Expense	\$16,556	\$3,000	\$19,556	\$1,000	\$20,556	\$1,000	\$21,556
Total Non-personnel Expense	\$0	\$4,500	\$21,056	\$3,500	\$24,556	\$4,000	\$28,556
Total Expense	\$351,225	\$38,500	\$389,725	\$82,500	\$472,225	\$17,000	\$489,225

(Personnel + Current)							
Departmental Funding							
Appropriated Fund	\$340,212	\$38,000	\$378,212	\$81,500	\$459,712	\$16,000	\$475,712
Other:							
Special Legislative Appropriation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants and Contracts	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Fees/Differential Tuition	\$11,013	\$500	\$11,513	\$1,000	\$12,513	\$1,000	\$13,513
Total Revenue	\$351,225	\$38,500	\$389,725	\$82,500	\$472,225	\$17,000	\$489,225
Difference							
Revenue – Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Departmental Instructional Cost/Student Credit Hour* <i>(as reported in institutional Cost Study for "current" and using the same Cost Study Definition for "projected")</i>	\$133		\$93		\$98		\$91
* Projected Instructional Cost/Student Credit Hour data contained in this chart are to be used in the Third-Year Follow-Up Report and Cyclical Reviews required by R411.							

Funding Sources

The funding for the proposed degrees will come from institutional funds, state allocations, and new tuition revenue. External funding sources will be vigorously pursued as conditions allow.

Reallocation

No current reallocation of program funds is planned.

Impact on Existing Budgets

There is no anticipation of other programs being significantly impacted by this new program.

Section VI: Program Curriculum

All Program Courses (with New Courses in Bold)

Course Prefix and Number	Title	Credit Hours
Required Courses		
<i>General Education (Example Courses)</i>		
CIS 1200	Computer Literacy	3
ENGL 1010	Introduction to Writing	3
BIOL 1010	General Biology	3
HIST 1700	American Civilization	3
MATH 1040	Introduction to Statistics	3
PSY 1010	General Psychology	3
CHEM 1110 & CHEM 1115	Elementary General/Organic Chemistry & Lab	5
PSY 1100	Human Dev. Through Lifespan	3
DANCE 2110	Introduction to Dance	3
ENGL 2010	Intermediate Writing	3
PHIL 1250	Reasoning & Rational Decision-Making	3
SOC 1010	Introduction to Sociology	3
LIB 1000	Information Literacy	1
Sub-Total		39
<i>Required Courses</i>		
PEHR 1300	Beg. Swimming	1
PEHR 1543	First Aid / Response to Emergencies	3
PEHR 1020	Introduction to Exercise Science	3
PEHR 2000 & 2005	Anatomy & Physiology for Ex. Sci. & Lab <i>(Can substitute BIOL 2320 or BIOL 2420)</i>	4-5
PEHR 2100	Principles of Fitness and Lifestyle Manag	3
PEHR 2200	Nutrition for Sport and Exercise	3
PEHR 2070 or PEHR 2080	Sports Manag or Manag in Exer & Health Prom	3
PEHR 3000	Psychophysiology of Fitness & Nutrition	3
PEHR 3700 & 3705	Phys of Exer. & Human Perform & Lab	4
PEHR 3370 & 3375	Exercise Testing & Prescription & Lab	4
PEHR 3750	Sport & Exercise Psychology	3
PEHR 3350	Motor Learning & Development	3
PEHR 3400	Activity Programming for Special Populations	3
PEHR 3500	Theories & Tech for Teach Fit & Motor Skills	3
PEHR 3730	Biomechanics	3

Course Prefix and Number	Title	Credit Hours
PEHR 3800	Meas. & Evaluation in Physical Exer & Sports	3
PEHR 4100	Physiology and Tech of Strength & Power	3
PEHR 4200	Healthy Aging	3
PEHR 4300	Clinical Ex. Phys.	3
PEHR 4230	Applied Fit. Dev. for Geriatric & At-Risk Pop.	3
PEHR 4400	Pediatric & Adolescent Fitness & Nutrition	3
PEHR 4500	Motivation & Coaching	3
PEHR 4600	Theories of Behavioral Change	3
PEHR 4700	Exercise Science Internship	3-5
Sub-Total		73-76
<i>Elective Courses (Examples of anticipated popular courses are provided below)</i>		
DANCE 3510	Physics/Kinesiology of Dancers	2
PHYS 2010 & PHYS 2015	College Physics & Lab	5
HLOC 1000 or HLOC 1020	Medical Terminology or Intro to Sports Medicine	2-3
Sub-Total		9-10
Total Number of Credits		121-125

Program Schedule – Example

Freshman Year

Fall Semester

CIS 1200	Computer Literacy	3 (GE -Comp Lit)
ENGL 1010	Introduction to Writing	3 (GE -English)
PEHR 1020	Introduction to Ex. Science	3 (Major Core)
BIOL 1010	General Biology	3 (GE -Life Science)
PEHR 1300	Beginning Swimming	1 (Major Core)
LIB 1010	Information Literacy	1 (GE – Inform Lit)
Total Hours		14

Spring Semester

General Education	American Institutions (Choice)	3 (GE -American Institutions)
ENGL 2010	Intern Writing	3 (GE -English)
MATH 1040	Introduction to Statistics	3 (GE -Math)
PSY 1010	General Psychology	3 (GE -Soc. & Behav. Sci.)
CHEM 1110/1115	Chemistry / Lab	5 (GE –Sci. with Lab)
Total Hours		17

Sophomore Year

Fall Semester

PSY 1100	Human Dev. Through Lifespan	3 (GE –Glob.& Cult. Pers.)
PEHR 2000/2005	Anat & Phys for Ex. Sci. / Lab	4 (Major Core)
PEHR 2200	Nutrition for Sport & Exercise	3 (Major Core)
DANCE 2110	Introduction to Dance	3 (GE -Fine Art)
PEHR 1543	First Aid / Resp. Emergencies	3 (Major Core)
Total Hours		16

Spring Semester

PEHR 2100	Principles of Fit. & Lifestyle Man.	3 (Major Core)
PEHR 2080	Manag. In Ex. & Hlth. Prom.	3 (Major Core)
PEHR 3700/3705	Physiology of Exercise / Lab	4 (Major Core)
PEHR 3350	Motor Learning & Development	3 (Major Core)
PHIL 1250	Reasoning & Rational Decision-Making	3 (GE -Lit/Hum)
Total Hours		16

Junior Year

Fall Semester

PEHR 3370/3375	Ex. Testing & Presc. / Lab	4 (Major Core)
PEHR 3500	Theor. & Tech. of Teach. Fit./Mot. Skills	3 (Major Core)
PEHR 3000	Psychophysiology of Fit. & Nut.	3 (Major Core)
PEHR 3730	Biomechanics	3 (Major Core)
PEHR 3750	Sport & Ex. Psychology	3 (Major Core)
Total Hours		16

Spring Semester

PEHR 3800	Meas. & Eval. Phys. Ex. & Sport	3 (Major Core)
PEHR 4100	Physiol. & Tech. of Str. & Power	3 (Major Core)
PEHR 3400	Activity Programming for Spec. Pops.	3 (Major Core)
PHYS 2010/2015	College Physics & Lab	5 (Elective)
Total Hours		14

Senior Year

Fall Semester

PEHR 4400	Pediatric/Adolescent Fit. & Nut.	3 (Major Core)
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SOC 1010	Global & Cultural Perspectives	3 (<i>GE –Glob & Cult. Pers.</i>)
PEHR 4500	Motivation & Coaching	3 (<i>Major Core</i>)
PEHR 4300	Clinical Exercise Physiology	3 (<i>Major Core</i>)
DANCE 3510	Physics/Kinesiology of Dancers	2 (<i>Elective</i>)
Total Hours		14

Spring Semester

PEHR 4600	Theories of Behavioral Change	3 (<i>Major Core</i>)
PEHR 4230	Applied Fit. Dev. for Ger. & At-Risk Pop.	3 (<i>Major Core</i>)
PEHR 4700	Internship	3 (<i>Major Core</i>)
PEHR 4200	Healthy Aging	3 (<i>Major Core</i>)
HLOC 1020	Intro to Sports Medicine	3 (<i>Elective</i>)
Total Hours		15

Grand Total Hours 122

Section VII: Faculty

*Faculty currently teaching Exercise Science courses
in the Department of Health and Human Performance*

Name: Dr. Susan Hart
Hire Date: July 2013
Status: Full-time
Degrees and Institutions <ul style="list-style-type: none"> • PhD, Kinesiology, Texas A&M University (1996) • MEd, Physical Education, Tarleton State University (1990) • BS, Psychology, Southwestern University (1984)
Rank and Tenure <ul style="list-style-type: none"> • Associate Professor, tenure-track • Department chair beginning July 2015
Subjects Taught <ul style="list-style-type: none"> • Sport & Exercise Psychology, Perceptual Motor Development, Lifespan Fitness and Nutrition, Adapted Physical Education, Motor Learning & Development, Biomechanics, Human Anatomy, Complex Psychomotor Skills for Children, Principles of Wellness & Fitness, Theory & Technique of Athletics, Contemporary Wellness, Lifespan Fitness & Human Performance, etc.
Professional Experience and Memberships (for complete list see vita on DSU website) <ul style="list-style-type: none"> • Professional License <ul style="list-style-type: none"> ○ Lifetime Teaching Certificate, State of Texas: Physical Education, Psychology, Math • Professional Experience <ul style="list-style-type: none"> ○ Taught for 5 years in the Texas public school system • University Faculty <ul style="list-style-type: none"> ○ Dixie State University: current position since 2013

- Associate Professor, Physical Education, Health & Recreation (PEHR) program within the Department of Family and Consumer Sciences, College of Education
 - University of Texas at Brownsville: 2001-13
 - Associate Professor, Department of Health and Human Performance
 - New Mexico State University: 1998-2001
 - Assistant Professor, Department of Physical Education, Recreation, and Dance
 - Texas A&M University Kingsville: 1995-97
 - Assistant Professor, Department of Health and Kinesiology
 - Texas A&M University College Station: 1991-95
 - Graduate Assistant
- University Coaching
 - Tarleton State University: 1988-89
 - Head Women's Volleyball Coach, named Texas Intercollegiate Athletic Association (TIAA) Coach of the Year
- Journal Articles
 - 20 Peer Reviewed Published Articles, 14 Published Research Abstracts
 - Research Articles have been published in the following Journals: *Journal of Orthopedic and Sport Physical Therapy; Applied Research in Coaching and Athletics Annual; Laterality; International Journal of Neuroscience; The Journal of General Psychology; Brain and Cognition; Journal of Genetic Psychology; Perceptual and Motor Skills; Cortex; JOPERD The Journal of Physical Education, Recreation & Dance; Strategies; Texas Association HPERD Journal*
 - Research Abstracts have been published primarily in: *Research Quarterly for Exercise and Sport (Supplement); Medicine and Science in Sports and Exercise (Supplement)*
- Presentations
 - Over 45 Peer Reviewed Professional Presentations at International, National, and State Conferences.
- Sample Honors & Awards
 - Named "Fellow" in the Research Consortium of the American Alliance of Health, Physical Education, Recreation and Dance (AAHPERD)
 - Recipient of the Lolos Halverson Award for the Outstanding Young Investigator in Motor Development; award presented by the Motor Development Academy of the National Association for Sport and Physical Education (NASPE)

Name: Dr. Steve Bui
Hire Date: May 2015
Status: Full-time
Degrees and Institutions <ul style="list-style-type: none"> ● PhD, Kinesiology/Exercise Physiology, Texas A&M University (2015) ● MS, Nutrition, Kent State University (2008) ● BS, Life Science, Kent State University
Rank and Tenure <ul style="list-style-type: none"> ● Assistant Professor, tenure-track
Subjects Taught <ul style="list-style-type: none"> ● Exercise Physiology, Anatomy & Physiology, Sports Nutrition, Scientific Inquiry of Health, Health & Fitness, etc.

Professional Experience <ul style="list-style-type: none"> • Graduate Instructor at Texas A&M University • Instructor at Blinn College • Experience with many laboratory techniques, as well as research techniques • Currently has 12 data-based peer-reviewed publications.

Name: Luke Wilkins
Hire Date: September 2007
Status: Adjunct Instructor
Degrees and Institutions <ul style="list-style-type: none"> • PhD candidate, Rocky Mountain University of Health Professions • MS, Exercise Science /Sports Conditioning & Performance, Southern Utah University (2011) • BS, Fitness & Wellness, Brigham Young University (2007)
Subjects Taught at DSU <ul style="list-style-type: none"> • Fitness, cycling, and triathlon, and outdoor adventure courses in activity program • Anticipate moving to academic courses as the program grows
Professional Experience <ul style="list-style-type: none"> • Assistant Director, Department of Campus Recreation, Dixie State University: 2007-present • Adjunct Faculty, Department of Physical Education Health and Recreation, Dixie State University: 2008-present • Bio-Feedback/Stress Management Lab Technician, Brigham Young University: 2007 • Internship in Exercise and Fitness, Department of Campus Recreation, Dixie State University: 2006 • Fitness Instructor, Department of Campus Recreation, Dixie State College: 2002-2004

Name: Christian Hildebrandt
Hire Date: January 2004
Status: Adjunct Instructor
Degrees and Institutions <ul style="list-style-type: none"> • PhD candidate, Rocky Mountain University of Health Professions • MS, Sports Conditioning & Human Performance • BS, Exercise Physiology, Arizona State University
Subjects Taught at DSU <ul style="list-style-type: none"> • Fitness Center Course, Exercise Science, Anatomy (lecture & lab), Human Physiology (lecture & lab), Lifespan Fitness & Nutrition, Introduction to Rock Climbing
Professional Experience <ul style="list-style-type: none"> • DSU Director of Campus Recreation: 2007-present • DSU Fitness Center Director: 1995-present • Tucson, AZ Accident Diagnostic Center, Manager of muscular rehabilitation clinic: 1993-95 • Tempe, AZ Western Reserve Athletic Club: 1990-93

Name: Mo Eckroth
Hire Date: August 2006
Status: Adjunct Instructor
Degree and Institution <ul style="list-style-type: none"> MS, Sports Administration, University of New Mexico
Subjects Taught <ul style="list-style-type: none"> First Year Experience (FYE) classes Degree and position at DSU potentiates opportunities for Exercise Science student internship experiences
Professional Experience <ul style="list-style-type: none"> DSU Senior Associate Athletic Director & Compliance Officer: current

Name: Derek Dawes
Status: Adjunct Instructor
Degree and Institution <ul style="list-style-type: none"> MS, Sports & Athletic Administration, Gonzaga University
Rank and Tenure: N/A
Subjects Taught <ul style="list-style-type: none"> Teaching in activity program Anticipate moving him to academic courses (primarily Sports Management) as the program grows
Professional Experience and Memberships <ul style="list-style-type: none"> DSU Assistant Athletic Director: current

Potential hire as adjunct instructor with a terminal degree (has expressed interest in being considered for course coverage as the program grows)

Name: Dr. James Manning
Degrees and Institutions <ul style="list-style-type: none"> PhD, Exercise Physiology, University of Maryland MS, Athletic Training, Indiana State University
Professional Experience <ul style="list-style-type: none"> Recently retired from William Patterson University, served as coordinator of Exercise Science program and director of Human Performance Laboratory for over 30 years

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Revision to Policy R411, Cyclical Institutional Program Reviews

Background

Cyclical reviews of academic programs have long been conducted by Utah System of Higher Education (USHE) institutions in accordance with Policy R411 to foster improvement and assure quality. In numerous instances, institutions also pursue and receive specialized accreditation for academic programs where such recognition is available and is deemed to be beneficial, vital, or necessary.

Issue

Under accrediting organizations recognized by the Council for Higher Education Accreditation or the U.S. Department of Education, the process by which an academic program is granted specialized accreditation is comprehensive and rigorous. Accordingly, the USHE Chief Academic Officers and the Commissioner's Academic Affairs staff have developed revisions to Policy R411 that would allow an institution to submit evidence of an academic program's specialized accreditation in lieu of submitting separate program review documentation as currently required by Policy R411. Specialized accreditation is such that academic program improvement and quality standards in Policy R411 would be met, and efficiencies in terms of effort and expense would be realized.

Summary of changes:

- Section 3—Responsibility
 - Minor edits
- Section 4—Review Procedure
 - Moved current Section 6 (Review Committees) to revised Section 4.1
 - Clarified minimum number and qualifications of external and internal reviewers in revised Section 4.1
 - Moved current Section 4.4 to Section 4.3

- Inserted new Section 4.4: “If a program holds specialized accreditation from an organization recognized by the Council for Higher Education Accreditation or the U.S. Department of Education (as advised by the National Advisory Committee on Institutional Quality), an institution may choose to submit the specialized accreditation letter(s) and report(s) in lieu of conducting and submitting a program review as described herein.”
- Other minor edits throughout section
- Section 5—Review Schedule
 - Deleted sentence in introduction recommending coordination of cyclical program reviews and specialized accreditation (since specialized accreditation would be accepted in lieu of cyclical program reviews)
 - Clarified that the standard program review schedule (at least once every seven years for doctorate-granting and master’s universities, and at least once every five years for all other institutions) may differ for academic programs that undergo specialized accreditation
 - Inserted provision from Policy R401 that a list of scheduled program reviews is to be submitted annually to the Commissioner’s Academic Affairs staff
- Section 6—Program Review Template (currently Section 7)
 - Deleted current instructions and inserted new instructions similar in content and format to instructions for proposal templates in Policy R401
 - Inserted Cover/Signature Page (not included in current Policy R411)

Commissioner’s Recommendation

The Commissioner recommends the Regents approve the revision to Policy R411, *Cyclical Institutional Program Reviews*.

David L. Buhler
Commissioner of Higher Education

DLB/GVB
Attachment

R411-1. Purpose: To provide policy and procedures for the review of existing programs in the Utah System of Higher Education (USHE). The primary purpose for conducting institutional program reviews is to improve the quality of education.

R411-2. References:

2.1. Utah Code §53B-16-102, Changes in Curriculum

2.2. Policy and Procedures R220, Delegation of Responsibilities to the President and Board of Trustees

2.3. Policy and Procedures R401, Approval of New Programs, Program Changes, Discontinued Programs, and Program Reports

R411-3. Responsibility: The chief responsibility for reviewing existing programs is assigned to institutional faculty and administrators, and to institutional Boards of Trustees (Trustees) with accompanying Board of Regents (Regents) oversight. Program review is accomplished through the combined efforts of presidents, vice presidents, provosts, deans, department chairs, and ~~individual~~ faculty so that meaningful change can occur.

R411-4. Review Procedure: Program reviews will be evaluated first by the institutional ~~B~~board of ~~T~~rustees, and then forwarded to the Commissioner of Higher Education and Commissioner's Academic Affairs staff for review and recommendation to ~~by~~ the Regents as a General Consent Calendar item ~~an Information Item~~.

4.1~~R411-6. Review Committees:~~ Program reviews will be conducted in accordance with procedures developed by each institution consistent with its respective faculty governance system. Departments whose programs are under review shall prepare detailed written materials for review committees based on system and institutional criteria. Review committees for each program shall ~~should be established that include~~ a the minimum of one ~~(1) two external reviewers with expertise in the discipline, or consultant.~~ (2) one external reviewer and one internal reviewer ~~consultant (not affiliated with the program).~~ External and internal reviewers shall be individuals holding positions as academic administrators and/or faculty. Additionally, Program Advisory Committee members and/or other external industry experts may be used.

4.21. Submissions: Institutional Chief Academic Officers (CAOs) shall provide summaries of completed d program reviews to the Commissioner's Academic Affairs staff. The summaries shall ~~should~~ include the reviewers, a program description, five-year ~~faculty/and student staff~~ data, five

¹ Approved July 15, 1980; amended September 13, 1983, March 20, 1984, April 11, 1986, November 17, 1989, July 27, 1990, May 29, 1998, October 27, 2005, March 24, 2009, and September 16, 2011.

~~year enrollment data, a five-year financial data analysis, a program assessment, and the institution's response (see Program Review Template, Section 6). See 0 for the template.~~

~~4.32. Evaluations:~~ Program review summaries will be evaluated by the Commissioner's staff, who may ask for further information. In addition to the completed program review template, institutional CAOs shall provide to the Commissioner's Academic Affairs staff copies of regional and specialized accreditation reports, including focused and interim reports, and other reports upon request. The staff will prepare program reviews as ~~information~~ items for the Regents' General Consent Calendar agendas.

~~4.4. Programs with Specialized Accreditation:~~ If a program holds specialized accreditation from an organization recognized by the Council for Higher Education Accreditation or the U.S. Department of Education (as advised by the National Advisory Committee on Institutional Quality and Integrity), an institution may choose to submit the specialized accreditation letter(s) and report(s) in lieu of conducting and submitting a program review as described herein. ~~3. Other Information:~~ In addition to the completed program review template, institutional CAOs shall provide to the Commissioner's Academic Affairs staff copies of regional and specialized accreditation reports, including focused and interim reports, and other reports as requested.

~~R411-5. Review Schedule:~~ To ensure a thoughtful and careful examination of each program in the USHE, the following review schedule should be followed as closely as possible. ~~It is recommended that the timing of these reviews should be coordinated with regional and/or specialized accreditation review schedules whenever possible to avoid duplication of effort and/or expense.~~

~~5.1. Doctorate-Granting and Master's Universities:~~ All programs will be reviewed at least once every seven years, except where the specialized accreditation cycle for a program may be different.

~~5.2. All Other Institutions:~~ All programs will be reviewed at least once every five years, except where the specialized accreditation cycle for a program may be different.

~~5.3. List of Scheduled Program Reviews:~~ An annual list of scheduled program reviews is due to the Commissioner's Academic Affairs staff at the beginning of each September.

~~R411-6. Review Committees:~~ Program reviews will be conducted in accordance with procedures developed by each institution consistent with its respective faculty governance system. Departments whose programs are under review shall prepare detailed written materials for review committees based on system and institutional criteria. Review committees for each program should be established that include the minimum of one external consultant, one internal consultant (not affiliated with the program). Additionally, Program Advisory Committee members may be used.

~~R411-67. Program Review Template:~~ The template specifies the information to be supplied and provides the format to be used when submitting the review for the Regents.

~~6.1. General Formatting for Submissions.~~

~~7.1.1. All submissions must be written in a formal style, using third person.~~

~~7.1.2. All submissions must be sent to the Commissioner's Academic Affairs staff as an electronic document in Microsoft Word format.~~

~~7.1.3. All submissions must use Arial Narrow 12 point font, single spaced. Remove italics when using templates.~~

~~7.1.4. All submissions must have 1" margins.~~

~~7.2. Template. Information provided should be concise and cover the last five academic years.~~

Instructions:

- The Program Review Template should be used for those items identified as needing the Report Template in R411 and listed as possible items to check on the Cover/Signature Page below.
- A Report Template consists of a Cover/Signature Page and a Five- or Seven-Year Program Review.
- Prepare the Five- or Seven-Year Follow-Up Report per R411 instructions as a Word document (no PDF formats). When *descriptions of the content required for each section appear in this font color, the descriptive italics are to be removed and replaced with the institutional content before the institution submits the proposal to the OCHE.*
- Institutions providing evidence of specialized accreditation in lieu of conducting a Five- or Seven-Year Program Review should submit the Cover/Signature Page with the appropriate specialized accreditation letter(s) and report(s) attached.
- The CAO or his/her designated representatives should e-mail the completed Program Review material (including electronic signature) to academicaffairs@ushe.edu.
- The institution is responsible for maintaining a record of the submission as the OCHE Academic and Student Affairs office is not responsible for storing electronic copies of submitted reviews.

Cover/Signature Page – Program Review Template

Institution Submitting Review: Name of Institution

Program Title: Name of Program

School or Division or Location: Name of School/Division Location

Department(s) or Area(s) Location: Name of Department/Area Location

Institutional Board of Trustees' Approval Date: MM/DD/YEAR

Review Type (check one):

<u>Regents' General Consent Calendar Items</u>		
<u>R411 Cyclical Institutional Program Reviews</u>		
<u>SECTION NO.</u>		<u>ITEM</u>
<u>4.4</u>	<input type="checkbox"/>	<u>Programs with Specialized Accreditation</u>
<u>5.1</u>	<input type="checkbox"/>	<u>Seven-Year Program Review</u>
<u>5.2</u>	<input type="checkbox"/>	<u>Five-Year Program Review</u>

Chief Academic Officer (or Designee) Signature:

I certify that all required institutional approvals have been obtained prior to submitting this review to the Office of the Commissioner.

Signature

Date: MM/DD/YEAR

Printed Name: Name of CAO or Designee

Five- or Seven-Year Program Review
Higher Education Institution
Program
MM/DD/YEAR

Reviewers: (Add bullets as needed. Remove italics when using template)

- External Reviewer(s), Affiliation
- Internal Reviewer(s), Affiliation

Program Description: One- to three-paragraph description of the program. (Remove italics when using template).

Data Form: Faculty, student, and financial data for the past five years.

The following table in R 411 is designed to gather data about the institutional unit being reviewed. The table has been designed to present consistent data to Trustees and Regents who will receive the report. Institutions decide on the configuration of the unit to be reviewed, and in most cases, the review is at the department level. However, in some instances, the unit being reviewed provides services that are different from those provided by traditional academic departments. When providing data on such units, please offer an explanation that clarifies the purpose of the unit, preparation of faculty or staff who provide the service, attendance data on participants, cost of providing services, and any credential that may be offered to completers if this applies. With sufficient explanation, the data table can be adjusted for that purpose. Use this template and make appropriate changes to present a full picture of the unit that was reviewed.

R411 Data Table					
Department or Unit--					
	Year	Year	Year	Year	Year
	2XXX	2XXX	2XXX	2XXX	2XXX
Faculty					
Headcount					
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
With Master's Degrees					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
With Bachelor's Degrees					
Full-time Tenured					

Full-time Non-Tenured					
Part-time					
Other					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
Total Headcount Faculty					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
FTE (A-1/S-11/Cost Study Definition)					
Full-time (Salaried)					
Teaching Assistants					
Part-time (May include TAs)					
Total Faculty FTE					
Number of Graduates					
Certificates					
Associate Degrees					
Bachelor's Degrees					
Master's Degrees					
Doctoral Degrees					
Number of Students—(Data Based on Fall Third Week)					
Total # of Declared Majors					
Total Department FTE*					
Total Department SCH*					
*Per Department Designator Prefix					
Student FTE per Total Faculty FTE					
Cost (Cost Study Definitions)					
Direct Instructional Expenditures					
Cost Per Student FTE					
Funding					
Appropriated Fund					
Other:					
Special Legislative Appropriation					
Grants of Contracts					
Special Fees/Differential Tuition					
Total					

Program Assessment: *Strengths, weaknesses, and recommendations from the reviewers. (Remove italics when using template.)*

Institution's Response: *Responses to review committee findings and recommendations. (Remove italics when using template.)*

R411-1. Purpose: To provide policy and procedures for the review of existing programs in the Utah System of Higher Education (USHE). The primary purpose for conducting institutional program reviews is to improve the quality of education.

R411-2. References:

2.1. Utah Code §53B-16-102, Changes in Curriculum

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R411-3. Responsibility: The chief responsibility for reviewing existing programs is assigned to institutional faculty and administrators, and to institutional Boards of Trustees (Trustees) with accompanying Board of Regents (Regents) oversight. Program review is accomplished through the combined efforts of presidents, vice presidents, provosts, deans, department chairs, and faculty so that meaningful change can occur.

R411-4. Review Procedure: Program reviews will be evaluated first by the institutional Board of Trustees, and then forwarded to the Commissioner of Higher Education and Commissioner's Academic Affairs staff for review and recommendation to the Regents as a General Consent Calendar item.

4.1. Review Committees: Program reviews will be conducted in accordance with procedures developed by each institution consistent with its respective faculty governance system. Departments whose programs are under review shall prepare detailed written materials for review committees based on system and institutional criteria. Review committees for each program shall be established that include a minimum of (1) two external reviewers with expertise in the discipline, or (2) one external reviewer and one internal reviewer not affiliated with the program. External and internal reviewers shall be individuals holding positions as academic administrators and/or faculty. Additionally, Program Advisory Committee members and/or other external industry experts may be used.

4.2. Submissions: Institutional Chief Academic Officers (CAOs) shall provide summaries of completed program reviews to the Commissioner's Academic Affairs staff. The summaries shall include the reviewers, a program description, five-year faculty/student data, five-year financial data, a program assessment, and the institution's response (see Program Review Template, Section 6).

¹ Approved July 15, 1980; amended September 13, 1983, March 20, 1984, April 11, 1986, November 17, 1989, July 27, 1990, May 29, 1998, October 27, 2005, March 24, 2009, and September 16, 2011.

4.3. Evaluations: Program review summaries will be evaluated by the Commissioner's staff, who may ask for further information. In addition to the completed program review template, institutional CAOs shall provide to the Commissioner's Academic Affairs staff copies of regional and specialized accreditation reports, including focused and interim reports, and other reports upon request. The staff will prepare program reviews as items for the Regents' General Consent Calendar.

4.4. Programs with Specialized Accreditation: If a program holds specialized accreditation from an organization recognized by the Council for Higher Education Accreditation or the U.S. Department of Education (as advised by the National Advisory Committee on Institutional Quality and Integrity), an institution may choose to submit the specialized accreditation letter(s) and report(s) in lieu of conducting and submitting a program review as described herein.

R411-5. Review Schedule: To ensure a thoughtful and careful examination of each program in the USHE, the following review schedule should be followed as closely as possible.

5.1. Doctorate-granting and Master's Universities: All programs will be reviewed at least once every seven years, except where the specialized accreditation cycle for a program may be different.

5.2. All Other Institutions: All programs will be reviewed at least once every five years, except where the specialized accreditation cycle for a program may be different.

5.3. List of Scheduled Program Reviews: An annual list of scheduled program reviews is due to the Commissioner's Academic Affairs staff at the beginning of each September.

R411-6. Program Review Template: The template specifies the information to be supplied and provides the format to be used when submitting the review for the Regents.

Instructions:

- The Program Review Template should be used for those items identified as needing the Report Template in R411 and listed as possible items to check on the Cover/Signature Page below.
- A Report Template consists of a **Cover/Signature Page** and a **Five- or Seven-Year Program Review**.
- Prepare the Five- or Seven-Year Follow-Up Report per R411 instructions as a **Word document** (no PDF formats). When *descriptions of the content required for each section appear in this font color*, the descriptive italics are to be removed and replaced with the institutional content before the institution submits the proposal to the OCHE.
- Institutions providing evidence of specialized accreditation in lieu of conducting a Five- or Seven-Year Program Review should submit the Cover/Signature Page with the appropriate specialized accreditation letter(s) and report(s) attached.

- The CAO or his/her designated representatives should e-mail the completed Program Review material (including electronic signature) to academicaffairs@ushe.edu.
- The institution is responsible for maintaining a record of the submission as the OCHE Academic and Student Affairs office is not responsible for storing electronic copies of submitted reviews.

Cover/Signature Page – Program Review Template

Institution Submitting Review: *Name of Institution*

Program Title: *Name of Program*

School or Division or Location: *Name of School/Division Location*

Department(s) or Area(s) Location: *Name of Department/Area Location*

Institutional Board of Trustees' Approval Date: *MM/DD/YEAR*

Review Type (check one):

Regents' General Consent Calendar Items		
<i>R411 Cyclical Institutional Program Reviews</i>		
SECTION NO.		ITEM
4.4	<input type="checkbox"/>	Programs with Specialized Accreditation
5.1	<input type="checkbox"/>	Seven-Year Program Review
5.2	<input type="checkbox"/>	Five-Year Program Review

Chief Academic Officer (or Designee) Signature:

I certify that all required institutional approvals have been obtained prior to submitting this review to the Office of the Commissioner.

Signature

Date: *MM/DD/YEAR*

Printed Name: *Name of CAO or Designee*

Five- or Seven-Year Program Review
Higher Education Institution
Program
MM/DD/YEAR

Reviewers: (Add bullets as needed. Remove italics when using template)

- External Reviewer(s), Affiliation
- Internal Reviewer(s), Affiliation

Program Description: One- to three-paragraph description of the program. (Remove italics when using template).

Data Form: Faculty, student, and financial data for the past five years.

The following table in R 411 is designed to gather data about the institutional unit being reviewed. The table has been designed to present consistent data to Trustees and Regents who will receive the report. Institutions decide on the configuration of the unit to be reviewed, and in most cases, the review is at the department level. However, in some instances, the unit being reviewed provides services that are different from those provided by traditional academic departments. When providing data on such units, please offer an explanation that clarifies the purpose of the unit, preparation of faculty or staff who provide the service, attendance data on participants, cost of providing services, and any credential that may be offered to completers if this applies. With sufficient explanation, the data table can be adjusted for that purpose. Use this template and make appropriate changes to present a full picture of the unit that was reviewed.

R411 Data Table					
Department or Unit--					
	Year	Year	Year	Year	Year
	2XXX	2XXX	2XXX	2XXX	2XXX
Faculty					
Headcount					
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
With Master's Degrees					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
With Bachelor's Degrees					
Full-time Tenured					

Full-time Non-Tenured					
Part-time					
Other					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
Total Headcount Faculty					
Full-time Tenured					
Full-time Non-Tenured					
Part-time					
FTE (A-1/S-11/Cost Study Definition)					
Full-time (Salaried)					
Teaching Assistants					
Part-time (May include TAs)					
Total Faculty FTE					
Number of Graduates					
Certificates					
Associate Degrees					
Bachelor's Degrees					
Master's Degrees					
Doctoral Degrees					
Number of Students—(Data Based on Fall Third Week)					
Total # of Declared Majors					
Total Department FTE*					
Total Department SCH*					
*Per Department Designator Prefix					
Student FTE per Total Faculty FTE					
Cost (Cost Study Definitions)					
Direct Instructional Expenditures					
Cost Per Student FTE					
Funding					
Appropriated Fund					
Other:					
Special Legislative Appropriation					
Grants of Contracts					
Special Fees/Differential Tuition					
Total					

Program Assessment: *Strengths, weaknesses, and recommendations from the reviewers. (Remove italics when using template.)*

Institution's Response: *Responses to review committee findings and recommendations. (Remove italics when using template.)*

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Technology Initiative Advisory Board – Funding Allocations from the 2015 Legislative Session

Issue

This item requests the endorsement of the allocation of Utah's Engineering and Computer Technology Initiative funding that was appropriated by the 2015 Legislature. In accordance with state statute, institutional allocations of new Engineering and Computer Technology Initiative appropriations are recommended by the Technology Initiative Advisory Board (TIAB) to the Board of Regents.

Background

The 2001 legislature approved SB61: *Enhancements to the State Systems of Public and Higher Education*. This legislation established an Engineering and Computer Technology Initiative within the Utah System of Higher Education (USHE) to increase the number of students graduating from engineering, computer science, and related technology programs. During the last 14 years, the Engineering and Computer Technology Initiative has been successful in increasing the number of graduates in these areas within USHE. Key provisions of SB61 and a list of the TIAB members are included in the attachment.

The TIAB, appointed by the Governor, was established to recommend funding allocations to the Board of Regents. During the 2015 legislative session, \$3,500,000 of on-going funds and \$1,000,000 of one-time funds were appropriated to the initiative for distribution to USHE institutions commencing with the 2015-2016 fiscal year (FY16).

The following table gives a summary of funding over the life of the initiative (FY02 through FY16):

Engineering and Computer Technology Initiative Funding History FY 02 – FY16			
	Funds Appropriated		
Year	Ongoing	One time	Loan Forgiveness*
2001-02	1,000,000	2,500,000	500,000
2002-03	2,000,000	1,000,000	0
2003-04	500,000	0	50,000
2004-05	500,000	500,000	0
2005-06	1,500,000	500,000	0
2006-07	500,000	700,000	0
2007-08	3,000,000	2,000,000	0
2008-09	0	250,000	0
2009-10	0	2,000,000	0
2010-11	0	0	0
2011-12	0	0	0
2012-13	2,500,000	0	0
2013-14	0	0	0
2014-15	0	0	0
2015-16	3,500,000	1,000,000	0
Total	15,000,000	10,450,000	550,000

**In 2001, SB 61 established a loan forgiveness fund to assist students in obtaining degrees in engineering and computer science. In 2009, SB105 changed the loan forgiveness program to a scholarship program for the purpose of recruiting, retaining, and training engineering and computer science and related technology students. Scholarship funds were part of the \$2,500,000 appropriation during the 2012 legislative session.*

Since inception, nearly 27,000 degrees targeted by the initiative have been awarded by institutions within USHE. It is believed that this initiative has made a significant difference for Utah. According to the most recent data available the following degree completions show growth at key points in time.

Degree Category	FY00- Prior to Initiative	FY11- Last Funding Appropriation (effective FY12)	FY14- Latest Year Graduation Data Available
Engineering	862	1338	1321
Computer Science	513	755	958
Total	1375	2093	2279

Note: Data does not include University of Utah College of Mines that was added to the FY16 TIAB funding recommendation below.

The TIAB has considered proposals from the USHE institutions and recommends that funding from the 2015 Legislature be allocated and distributed to the institutions effective FY16 as follows:

Institution	Graduation Growth Increase FY11 – FY14	On-going Funds	One-time Funds
University of Utah- College of Engineering	116	\$1,800,000	\$ 500,000
University of Utah- College of Mines	22		40,000
Utah State University	-22	515,000	140,000
Weber State University	28	440,000	130,000
Southern Utah University	-4	25,000	
Snow College	4	113,000	50,000
Dixie State University	7	175,000	45,000
Utah Valley University	38	375,000	75,000
Salt Lake Community College	19	57,000	20,000
Total	208	\$3,500,000	\$1,000,000

Policy Issues

State statute requires the TIAB to recommend funding allocations to the Board of Regents. The process to recommend funding allocations has been followed consistent with state statute.

Commissioner's Recommendation

The Commissioner recommends the Board of Regents endorse the allocation of Engineering and Computer Technology Initiative funds appropriated by the 2015 Legislature as recommended by the Technology Initiative Advisory Board and that these funds be distributed to institutions effective with the 2015-2016 fiscal year.

David L. Buhler
Commissioner of Higher Education

DLB/BKC
Attachment

Attachment

Key provisions of SB61:

1. Established a goal to triple the number of graduates from USHE institutions in engineering, computer science, and related technology.
2. Directed the Regents to establish rules providing the criteria for those fields of study that qualify as “related technology.”
3. Provided supplemental funds for equipment purchases to improve the quality of instructional programs in engineering, computer science, and related technologies.
4. Established a student scholarship to encourage enrollment in programs included in the initiative.
5. Provided funding for USHE institutions to hire and retain qualified faculty to teach in initiative programs.
6. Increased program capacity by funding new and renovated capital facilities, and funding for new engineering and computer science programs.
7. Created a Technology Initiative Advisory Board to make recommendations to the Regents in its administration of the initiative. Required that the advisory board be composed of individuals appointed by the Governor from business and industry who have expertise in the areas of engineering, computer science, and related technologies.

Technology Initiative Advisory Board Members

- John Sutherland (Chair) Brigham Young University
- Susan Johnson (Co-Chair) Futura Industries
- Richard Anderson Hewlett Packard, Retired
- Reed Brown Local Digital Insider
- Roland Christensen Applied Composite Technology
- Ed Ekstrom Yorke Capital
- Chuck Taylor SyberJet Aircraft
- J. Howard VanBoerum VanBoerum & Frank
- Vance Checketts EMC
- Mark Ripke Boeing

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Institutional Completion Update: Southern Utah University

Background

In July 2013, the Board of Regents unanimously passed a resolution to “Implement Strategies to Increase Completion Rates in Support of the 66% Goal.” This resolution acknowledged that the Utah State Board of Regents is committed to improving the completion rates of students who enroll in an institution within the Utah System of Higher Education by ensuring a quality, cost-effective educational experience and awarding meaningful education credentials that will help students find gainful employment and life-long success. The Presidents and their administrations and faculty have taken seriously the Board’s charge and have been implementing these strategies.

In 2014, the Utah System of Higher Education provided *USHE Completion Grants* to support and scale projects that the institutions had developed to help them meet the implicit goals in the 2013 Board of Regents’ Completion Resolution.

In January 2015, institutions reported their three- and five-year goals regarding college completion overall and the specific initiatives in the Resolution to the Board of Regents.

Briefly, the five specific recommendations in the resolution are:

1. *Establish 15 credits hours per semester as the normal full-time course load for students.*
2. *Set plateau tuition levels with a focus on 12 to 15 credit hours to help students maximize their tuition dollars and their time.*
3. *Create semester-by-semester degree program maps with specific recommended courses each semester and make them available to current and potential students.*
4. *Encourage students to enroll in an appropriate mathematics course in their first year of college.*
5. *Explore the feasibility of implementing reverse transfer/stackable credentials.*

Issue

As a follow-up to these efforts, the members of the Academic and Student Affairs Committee requested at their January 2015 meeting that institutions report in more depth on their practices and policies that are having the most impact regarding college completion.

Institutions have been asked to highlight two areas:

- one of the five strategies outlined in the resolution for which they have gained momentum, and
- one institution-led area for which they are demonstrating impact in retention or completion.

The host institution, Southern Utah University, will present the July 2015 report.

Next Steps

Over the next six months, all institutions will have a chance to report on their successful strategies to the Committee.

Commissioner's Recommendation

This is an information item only; no formal action by the Board is required. However, the Board is encouraged to congratulate the institutions on the progress they are making toward meeting their institutional completion goals.

David L. Buhler
Commissioner of Higher Education

DLB/CF

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Student Fee and Housing System Series 2015 Revenue Bond Issue

Issue

Utah State University (USU) has requested authorization to issue the \$23,100,000 revenue bond that was authorized by the 2015 Legislature to finance construction of a student housing complex. The complex will replace the existing Valley View Residence Hall which is scheduled to be razed.

Background

This project was authorized by the Regents at the September 26, 2014 Board Meeting. The new facilities will include approximately 390 beds in suite/apartment style units to meet the current trends in housing demand.

The relevant parameters of the requested issue are:

- Principal amount not to exceed \$25,500,000 including costs of issuance and capitalized interest
- Interest rate not to exceed 5%
- Discount from par not to exceed 2%
- Final maturity not to exceed 23 years from the date of issue

A copy of the request letter from USU, a financing summary from the University's financial advisor, and a draft of the Approving Resolution that provide additional detail about this request are attached for your review. Representatives from the University, Bond Counsel from Ballard Spahr; and the Financial Advisor from Zions Bank will be in attendance to provide additional information and answer questions from the Board.

Commissioner's Recommendation

The Commissioner recommends approval of the proposed Authorizing Resolution for issuance of this Series 2015 Student Fee & Housing System Revenue Bond to be used to finance replacement of the Valley View Residence Hall as proposed.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachments

July 10, 2015

Commissioner David L. Buhler
Utah State Board of Regents
Board of Regents Building The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Dear Commissioner Buhler:

Utah State University requests that the Board of Regents approve issuing revenue bonds totaling \$23,100,000, together with other amounts necessary to pay costs of issuance, pay capitalized interest, and fund any debt service reserve requirement to finance the Valley View Residence Hall replacement project (see the attached Preliminary Summary Sheet). Bonds will be repaid by funds received from on-campus housing rental revenue. The residence hall replacement project was previously approved by the Board of Trustees, Board of Regents, State Building Board, and the Legislature. This item will be presented to the Board of Trustees during the July 17, 2015 meeting.

We appreciate your support and ask that you present this item for Regents approval.

Sincerely,



David T. Cowley
Vice President for
Business and Finance

C: Greg Stauffer, Associate Commissioner for Finance and Facilities
Stan Albrecht, President
Dan Christensen, Controller
Dwight Davis, Associate Vice President for Business and Finance

Utah State University
Student Fee and Housing System Revenue Bonds, Series 2015
Preliminary Summary Sheet

Proposed Issue: Student Fee and Housing System Revenue Bonds

Total Approximate Issue Size: \$24,470,000

Use of Funds: To provide up to \$23,100,000 to finance the cost of constructing a new student residence hall to replace Valley View Residence Hall; satisfy any reserve fund requirements; fund any capitalized interest amount; and pay associated costs of issuance.

Detail of Proposed Series 2015 Bonds:

Principal Amount: Not to exceed \$25,500,000

Interest Rate: Not to exceed 5.0%

Maturity Date: Not to exceed 23 years

Aggregate Discount: Not to exceed 2%

Underwriter's Discount: Not to exceed 2%

Bond Rating: AA from S&P

Source of Repayment: Student Fees and Housing System Revenues

Timetable Considerations: Regent approval will be sought at the July 31 meeting. The University is proceeding with plans to sell bonds soon after Regent approval is received, with a tentative sale date planned for August 13, 2015. The University anticipates selling bonds by competitive sale, and the underwriter will be whichever bidder provides the lowest borrowing cost (as a combination of interest rates and fees) to the University. The University may also sell its Research Revenue Bonds on the same day. The anticipated closing date is Thursday, August 27.

APPROVING RESOLUTION
UTAH STATE UNIVERSITY
STUDENT FEE AND HOUSING
SYSTEM BONDS

Cedar City, Utah
July 31, 2015

The State Board of Regents of the State of Utah met in regular session at Southern Utah University in Cedar City, Utah on Friday, July 31, 2015, commencing at [9:30 a.m.] The following members were present:

Daniel W. Campbell	Chair
France A. Davis	Vice Chair
Jessellie B. Anderson	Member
Nina Barnes	Member
Bonnie Jean Beesley	Member
Leslie Castle*	Member
Wilford W. Clyde	Member
James T. Evans**	Member
Brady Harris	Student Regent
Marlin K. Jensen	Member
Robert S. Marquardt	Member
Jefferson Moss*	Member
Jed H. Pitcher	Member
Robert W. Prince	Member
Harris H. Simmons	Member
Mark R. Stoddard	Member
Teresa L. Theurer	Member
Joyce P. Valdez	Member
John H. Zenger	Member

Absent:

Also Present:

David L. Buhler	Commissioner of Higher Education
Loreen Olney	Secretary

After the meeting had been duly convened and called to order by the Chair, the roll had been called with the above result, the Chair announced that one of the purposes of the meeting was the consideration of various matters with respect to the issuance and sale of the State Board of Regents of the State of Utah, Utah State University Student Fee and Housing System Revenue Bonds, Series 2015.

* Non-voting member from State Board of Education.

** Student Regent.

The following resolution was introduced in written form by Regent _____, and after full discussion, pursuant to motion made by Regent _____ and seconded by Regent _____, was adopted by the following vote:

YEA:

NAY:

The resolution is as follows:

STATE BOARD OF REGENTS
OF THE STATE OF UTAH

SUPPLEMENTAL RESOLUTION
AUTHORIZING THE ISSUANCE AND SALE OF

UP TO \$25,500,000
UTAH STATE UNIVERSITY
STUDENT FEE AND HOUSING SYSTEM
REVENUE BONDS, SERIES 2015

Adopted July 31, 2015

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SUPPLEMENTAL RESOLUTION AUTHORIZING THE ISSUANCE AND SALE OF UP TO \$25,500,000 AGGREGATE PRINCIPAL AMOUNT OF UTAH STATE UNIVERSITY STUDENT FEE AND HOUSING SYSTEM REVENUE BONDS, SERIES 2015, OF THE STATE BOARD OF REGENTS OF THE STATE OF UTAH; AND PROVIDING FOR RELATED MATTERS.

WHEREAS, pursuant to the provisions of Section 53B-1-103, Utah Code Annotated 1953, as amended (the "Utah Code"), the State Board of Regents of the State of Utah (the "Board") is authorized to act as the governing authority of Utah State University (the "University");

WHEREAS, on March 25, 1994, the Board adopted its Resolution Providing for the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, as heretofore amended and supplemented (the "Master Resolution");

WHEREAS, pursuant to Title 53B, Chapter 2, of the Utah Code and Section 63B-24-102(2) of the Utah Code, the Board is authorized to issue bonds for the purpose of constructing the Valley View Residence Hall Replacement (the "Series 2015 Project") in an amount not to exceed \$23,100,000, together with other amounts necessary to pay costs of issuance, to pay capitalized interest and fund any debt service reserve requirements; and

WHEREAS, the Board deems it advisable and in the interests of the University to adopt a resolution supplementing the Master Resolution for the purpose, among other things, of authorizing the issuance and sale of the Series 2015 Bonds (defined below) for the purposes described above.

NOW, THEREFORE, BE IT RESOLVED by the State Board of Regents of the State of Utah as follows:

ARTICLE I

DEFINITIONS

Section 101. Definitions. (a) Except as provided in subsection (b) of this Section, all defined terms contained in the Master Resolution when used in this Series 2015 Supplemental Resolution shall have the same meanings as set forth in the Master Resolution.

(b) As used in this Series 2015 Supplemental Resolution, unless the context shall otherwise require, the following terms shall have the following meanings:

“Cede” means Cede & Co., the nominee of DTC, and any successor nominee of DTC with respect to the Series 2015 Bonds pursuant to Section 211 hereof.

“Designated Officer” means (i) with respect to the Board, its Chair, Vice Chair, or, in the absence of the Chair and the Vice Chair, the Chair of its Finance, Facilities and Accountability Committee, and (ii) with respect to the University, its President, Vice President for Business and Finance or its Associate Vice President for Business and Finance.

“DTC” means The Depository Trust Company, New York, New York, and its successors and assigns.

“Financial Advisor” means, initially, Zions Bank Public Finance, as financial advisor to the Board and the University and any successor thereto.

“Letter of Representations” means the Blanket Issuer Letter of Representations from the Board to DTC.

“Master Resolution” means that certain Resolution Providing for the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, adopted by the Board on March 25, 1994, as heretofore amended and supplemented.

“Official Statement” means an official statement relating to the Series 2015 Bonds, in substantially the form of the Preliminary Official Statement which was before the Board at the time of adoption of this Series 2015 Supplemental Resolution with information established upon the sale of the Series 2015 Bonds.

“Participants” means those broker-dealers, banks and other financial institutions from time to time for which DTC holds Series 2015 Bonds as securities depository.

“Person” means natural persons, firms, partnerships, associations, corporations, trusts, public bodies and other entities.

"Preliminary Official Statement" means a preliminary official statement relating to the Series 2015 Bonds, in substantially the form was before the Board at the time of adoption of this Series 2015 Supplemental Resolution as revised prior to sale of the Series 2015 Bonds.

"Record Date" means, with respect to the Series 2015 Bonds, the fifteenth day of the month next preceding each respective interest payment date.

"Redemption Price" means, with respect to the Series 2015 Bonds, the principal amount payable upon redemption thereof pursuant to this Series 2015 Supplemental Resolution.

"Resolution" means the Master Resolution as supplemented by this Series 2015 Supplemental Resolution.

"Series 2007 Bonds" means the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Refunding Bonds, Series 2007.

"Series 2015 Bonds" means the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015, authorized by this Series 2015 Supplemental Indenture.

"Series 2015 Debt Service Reserve Requirement" means the amount, if any, set forth in the Terms Certificate.

"Series 2015 Debt Service Reserve Subaccount" means, if provided for in the Terms Certificate, the Series Subaccount established in the Debt Service Reserve Account in the Principal and Interest Fund pursuant to Section 5.07(a) of the Master Resolution and Section 304 hereof.

"Series 2015 Debt Service Subaccount" means the Series Subaccount established in the Debt Service Account in the Principal and Interest Fund pursuant to Section 5.06(a) of the Master Resolution and Section 303 hereof.

"Series 2015 Project" means constructing the Valley View Residence Hall Replacement.

"Series 2015 Supplemental Resolution" means this resolution, adopted by the Board on July 31, 2015, authorizing the issuance of the Series 2015 Bonds.

"Tax Certificate" means any agreement or certificate of the Board and the University that they, or either of them, may execute in order to assure the excludability of interest on the Series 2015 Bonds from gross income of the owners thereof for federal income tax purposes.

"Terms Certificate" shall mean the certificate of the Board setting forth the final terms for the Series 2015 Bonds (within the parameters set forth herein) to be executed

by the Chair or Vice Chair of the Board or the Chair of the Finance, Facilities and Accountability Committee of the Board.

“Trustee” means Wells Fargo Bank, N.A., of Salt Lake City, Utah, and its successors and permitted assigns under the Master Resolution.

“Underwriters” means, the underwriter[s] for the Series 2015 Bonds pursuant to the Terms Certificate.

The terms “hereby”, “hereof”, “hereto”, “herein”, “hereunder”, and any similar terms as used in this Series 2015 Supplemental Resolution, refer to this Series 2015 Supplemental Resolution.

Section 102. Authority for Series 2015 Supplemental Resolution. This Series 2015 Supplemental Resolution is adopted pursuant to the provisions of the Act and the Master Resolution.

ARTICLE II

AUTHORIZATION, TERMS AND ISSUANCE OF SERIES 2015 BONDS

Section 201. Authorization of Series 2015 Bonds, Principal Amount, Designation and Series. For the purposes specified in Section 202 hereof and in accordance with and subject to the terms, conditions and limitations established in the Master Resolution and this Series 2015 Supplemental Resolution, the Board hereby authorizes to be issued a series of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, in the aggregate principal amount of up to Twenty-Five Million Five Hundred Thousand Dollars (\$25,500,000), to be designated “Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015.”

Section 202. Purpose. (a) The Series 2015 Bonds are being issued to (i) to provide funds to finance the Series 2015 Project, (ii) to provide necessary reserves, and (iii) to pay the costs incident to the issuance of the Series 2015 Bonds.

(b) Except for the Series 2007 Bonds and the Series 2015 Bonds, the Board, on behalf of the University, has not issued any bonds, notes or other obligations currently outstanding pursuant to the Master Resolution or that are payable from or secured by a pledge of the Revenues or any portion thereof.

(c) The Board hereby finds and determines that (i) the principal amount of the Series 2015 Bonds issued pursuant to the Resolution is reasonable and necessary to accomplish the purposes set forth in this Section 202 and (ii) the parameters set forth in this Series 2015 Supplemental Resolution with respect to the principal amount, interest rates, purchase price and other terms for the Series 2015 Bonds are reasonable.

Section 203. Issue Date. The Issue Date of the Series 2015 Bonds shall be the date of issuance and delivery thereof (the “Issue Date”).

Section 204. Series 2015 Bonds. The Series 2015 Bonds shall mature on such dates and in such amounts as shall be determined pursuant to the authority delegated under Section 211(a) hereof and set forth in the Terms Certificate and shall bear interest (calculated on the basis of a year of 360 days consisting of twelve 30-day months) from their Issue Date, payable semiannually on April 1 and October 1 in each year, commencing as set forth in the Terms Certificate, or on such other dates and at the rates per annum as shall be determined pursuant to the authority delegated under Section 211(a) hereof.

Section 205. Denomination and Numbers. The Series 2015 Bonds shall be issued only as fully registered Bonds, without coupons, in the denominations of \$5,000 and any whole multiple thereof. The Series 2015 Bonds shall be numbered from one (1) consecutively upwards with the prefix “R-” preceding each number.

Section 206. Trustee and Paying Agent. Wells Fargo Bank, N.A. is hereby appointed the Trustee and Paying Agent for the Series 2015 Bonds, subject to Section 7.02 of the Master Resolution. Principal and Redemption Price of the Series 2015 Bonds shall be payable at the principal corporate trust office of the Paying Agent or of its successor as Paying Agent. Payment of interest on any Series 2015 Bonds shall be made to the Owner thereof and shall be paid by check or draft mailed to the Owner thereof as of the close of business on the Record Date at such Owner's address as it appears on the registration books of the Board maintained by the Trustee or at such other address as is furnished to the Trustee in writing by such Owner as provided in the Master Resolution. The Trustee shall signify acceptance of the duties and obligations imposed upon it by the Resolution and provide its address for purposes of notices delivered pursuant to the Resolution by executing and delivering to the Board and the University a written acceptance thereof prior to the delivery of any Series 2015 Bonds.

Section 207. Redemption. (a) The Series 2015 Bonds may be subject to redemption, including optional, extraordinary optional or sinking fund redemption if so specified in the Terms Certificate.

(b) In the event any Series 2015 Bonds are called for redemption, in addition to the notice described in Section 4.03 of the Master Resolution, the Trustee shall give further notice of such redemption by posting notice to the Municipal Securities Rulemaking Board's EMMA website.

Section 208. Sale of Series 2015 Bonds. The Board hereby authorizes, approves and directs the use and distribution of the Preliminary Official Statements substantially in the form of the Preliminary Official Statement presented to the Board at this meeting in connection with the offering and sale of the Series 2015 Bonds, in the event the Series 2015 Bonds are publicly sold. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board and the President, Vice President or Associate Vice President for Business and Finance of the University are hereby authorized to execute and deliver on behalf of the Board and the University final Official Statements in substantially the same form and with substantially the same content as the form of the Preliminary Official Statement presented to this meeting with any such alterations, changes or additions as may be necessary to finalize each Official Statement. The preparation, use and distribution of the Official Statement is hereby authorized. The Board and the University may elect to directly place the Series 2015 Bonds with or without the use of an Official Statement.

Section 209. Approval of Parameters. The Series 2015 Bonds shall mature on such date or dates, be subject to redemption, and bear interest at the rates as shall be approved by the Chair or Vice Chair of the Board or the Chair of the Finance, Facilities and Accountability Committee, all within the parameters set forth on Exhibit A attached hereto and incorporated herein by reference.

Section 210. Delivery of Series 2015 Bonds. The Series 2015 Bonds shall be delivered to the Underwriters upon compliance with the provisions of Section 3.02 of the Master Resolution.

Section 211. Delegation Pursuant to Section 53B-21-102(3)(m) of the Utah Code; Further Authority. (a) As authorized by Section 53B-21-102(3)(m) of the Utah Code, the Board hereby delegates to the Designated Officers of the Board and the University the authority for and on behalf of the Board and the University to approve, prior to the original issuance of the Series 2015 Bonds, the following terms for the Series 2015 Bonds within the applicable parameters for such terms as set forth in Exhibit A:

- (i) the final principal amount of the Series 2015 Bonds;
- (ii) the maturity dates (whether by term or serial maturities), principal amount maturing on each such date, the interest payment dates, and interest rates for the Series 2015 Bonds;
- (iii) any redemption provisions;
- (iv) the aggregate price to be paid for the Series 2015 Bonds;
- (v) the manner of sale of the Series 2015 Bonds (public sale or direct purchase and using an official notice of sale or bond purchase contract);
- (vi) the type of credit enhancement, if any, for the Series 2015 Bonds; and
- (vii) such other terms and provisions for the Series 2015 Bonds as the Designated Officers of the Board, as appropriate, shall determine are necessary or advisable in connection with the issuance, sale and delivery of the Series 2015 Bonds and as are consistent with the terms and provisions of this Series 2015 Supplemental Resolution.

(b) As authorized by Section 53B-21-102(3)(m) of the Utah Code, the Board hereby further delegates to the Designated Officers of the Board the authority for and on behalf of the Board to (i) approve the amounts of the proceeds of sale of the Series 2015 Bonds and certain other moneys to be used and deposited as provided in Section 302 and (ii) determine the Series 2015 Debt Service Reserve Requirement, if any.

(c) The Designated Officers, the Secretary of the Board, and all other officers of the Board and the University are, and each of them is, hereby authorized to do or perform all such acts and to execute all such certificates, documents and other instruments as may be necessary or advisable to provide for the issuance, sale and delivery of the Series 2015 Bonds.

Section 212. Book-Entry System.

(a) Except as provided in paragraphs (b) and (c) of this Section 212 the Registered Owner of all Series 2015 Bonds and the Series 2015 Bonds shall be registered in the name of Cede & Co. (“Cede”), as nominee of The Depository

Trust Company, New York, New York (together with any substitute securities depository appointed pursuant to paragraph (c)(ii) of this Section 212, "DTC"). Payment of the interest on any Series 2015 Bonds shall be made in accordance with the provisions of this Supplemental Resolution to the account of Cede on the Interest Payment Dates for the Series 2015 Bonds at the address indicated for Cede in the registration books of the Bond Registrar.

(b) The Series 2015 Bonds shall be initially issued in the form of a separate single fully registered Bond in the amount of each separate stated maturity and interest rate of the Series 2015 Bonds. Upon initial issuance, the ownership of each such Series 2015 Bond shall be registered in the registration books of the Board kept by the Registrar, in the name of Cede, as nominee of DTC. With respect to Series 2015 Bonds so registered in the name of Cede, the Board, Registrar and any Paying Agent shall have no responsibility or obligation to any DTC participant or to any beneficial owner of any of such Series 2015 Bonds. Without limiting the immediately preceding sentence, the Board, Registrar and any Paying Agent shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede or any DTC participant with respect to any beneficial ownership interest in the Series 2015 Bonds, (ii) the delivery to any DTC participant, beneficial owner or other person, other than DTC, of any notice with respect to the Series 2015 Bonds, including any notice of redemption, or (iii) the payment to any DTC participant, beneficial owner or other person, other than DTC, of any amount with respect to the principal or redemption price of, or interest on, any of the Series 2015 Bonds. The Board, the Bond Registrar and any Paying Agent may treat DTC as, and deem DTC to be, absolute owner of each Series 2015 Bond for all purposes whatsoever, including (but not limited to) (1) payment of the principal or redemption price of, and interest on, each Series 2015 Bond, (2) giving notices of redemption and other matters with respect to such Series 2015 Bonds and (3) registering transfers with respect to such Bonds. So long as the Series 2015 Bonds are registered in the name of Cede & Co., the Paying Agent shall pay the principal or redemption price of, and interest on, all Series 2015 Bonds only to or upon the order of DTC, and all such payments shall be valid and effective to satisfy fully and discharge the Board's obligations with respect to such principal or redemption price, and interest, to the extent of the sum or sums so paid. Except as provided in paragraph (c) of this Section 212, no person other than DTC shall receive a Bond evidencing the obligation of the Board to make payments of principal or redemption price of, and interest on, any such Bond pursuant to this Supplemental Resolution. Upon delivery by DTC to the Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede, and subject to the transfer provisions of this Supplemental Resolution, the word "Cede" in this Supplemental Resolution shall refer to such new nominee of DTC.

Except as provided in paragraph (c)(iii) of this Section 212, and notwithstanding any other provisions of this Supplemental Resolution, the Series 2015 Bonds may be transferred, in whole but not in part, only to a nominee of

DTC, or by a nominee of DTC to DTC or a nominee of DTC, or by DTC or a nominee of DTC to any successor securities depository or any nominee thereof.

(c) (i) DTC may determine to discontinue providing its services with respect to the Series 2015 Bonds at any time by giving written notice to the Board, the Registrar, and the Paying Agent, which notice shall certify that DTC has discharged its responsibilities with respect to the Series 2015 Bonds under applicable law.

(ii) The Board, in its sole discretion and without the consent of any other person, may, by notice to the Registrar, terminate the services of DTC with respect to the Series 2015 Bonds if the Board determines that the continuation of the system of book-entry-only transfers through DTC is not in the best interests of the beneficial owners of the Series 2015 Bonds or the Board; and the Board shall, by notice to the Registrar, terminate the services of DTC with respect to the Series 2015 Bonds upon receipt by the Board, the Registrar, and the Paying Agent of written notice from DTC to the effect that DTC has received written notice from DTC participants having interests, as shown in the records of DTC, in an aggregate principal amount of not less than fifty percent (50%) of the aggregate principal amount of the then outstanding Series 2015 Bonds to the effect that: (1) DTC is unable to discharge its responsibilities with respect to the Series 2015 Bonds; or (2) a continuation of the requirement that all of the outstanding Series 2015 Bonds be registered in the registration books kept by the Registrar in the name of Cede, as nominee of DTC, is not in the best interests of the beneficial owners of the Series 2015 Bonds.

(iii) Upon the termination of the services of DTC with respect to the Series 2015 Bonds pursuant to subsection (c)(ii)(2) hereof, or upon the discontinuance or termination of the services of DTC with respect to the Series 2015 Bonds pursuant to subsection (c)(i) or subsection (c)(ii)(1) hereof the Board may within 90 days thereafter appoint a substitute securities depository which, in the opinion of the Board, is willing and able to undertake the functions of DTC hereunder upon reasonable and customary terms. If no such successor can be found within such period, the Series 2015 Bonds shall no longer be restricted to being registered in the registration books kept by the Registrar in the name of Cede, as nominee of DTC. In such event, the Board shall execute and the Registrar shall authenticate Series 2015 Bond certificates as requested by DTC of like principal amount, maturity and Series, in authorized denominations to the identifiable beneficial owners in replacement of such beneficial owners' beneficial interest in the Series 2015 Bonds.

Section 213. Letter of Representations. The Letter of Representations has been executed and delivered by the Board to DTC. The execution and delivery of the Letter of Representations shall not in any way limit the provisions of Section 212 hereof or in any

other way impose upon the Board or the University any obligation whatsoever with respect to Persons having interests in the Series 2015 Bonds other than the Bondowners, as shown on the registration books kept by the Trustee. In the written acceptance of each Paying Agent and Trustee, such Paying Agent and Trustee, respectively, shall agree to take all action necessary for all representations of the Board in the Letter of Representations with respect to the Paying Agent and Trustee, respectively, to at all times be complied with.

Section 214. Notices. In connection with any notice or other communication to be provided to Holders of Series 2015 Bonds registered in the name of Cede pursuant to this Supplemental Resolution by the Board or the Registrar with respect to any consent or other action to be taken by such Holders, the Board shall establish a record date for such consent or other action by such Holders and give DTC notice of such record date not less than fifteen (15) days in advance of such record date to the extent possible.

Section 215. Payments to Cede. Notwithstanding any other provision of this Series 2015 Supplemental Resolution to the contrary, so long as any Series 2015 Bond is registered in the name of Cede, as nominee of DTC, all payments with respect to principal of and premium, if any, and interest on such Series 2015 Bond and all notices with respect to such Series 2015 Bond shall be made and given, respectively, in the manner provided in the appropriate Letter of Representations.

Section 216. Legislative Appropriation. In order to (a) assure the maintenance of the Series 2015 Debt Service Reserve Subaccount in an amount equal to the Series 2015 Debt Service Reserve Requirement or pay Reserve Instrument Repayment Obligations and (b) assure the payment of principal and interest on the Series 2015 Bonds, the Board shall cause the Chair, not later than the first day of December in each year, to certify to the Governor and Director of Finance of the State, the amount, if any, required to (i) restore the Series 2015 Debt Service Reserve Subaccount to the Series 2015 Debt Service Reserve Requirement or pay Reserve Instrument Repayment Obligations or (ii) meet any projected shortfalls of payment of principal or interest or both for the following year on any Series 2015 Bonds issued hereunder. A copy of such Certificate shall be promptly delivered by the Chair to the Trustee. The Governor may request from the Legislature an appropriation of the amount so certified in the second preceding sentence. All sums appropriated by the Legislature, if any, and paid to the Board pursuant to the foregoing procedure shall be deposited respectively in the Series 2015 Debt Service Reserve Subaccount or in the Series 2015 Debt Service Subaccount or to repay Reserve Instrument Repayment Obligations, as applicable.

ARTICLE III

ESTABLISHMENT OF ACCOUNTS AND SUBACCOUNTS AND APPLICATION OF SERIES 2015 BOND PROCEEDS AND OTHER MONEYS

Section 301. Series 2015 Project Account and Series 2015 Cost of Issuance Account. (a) There is hereby established in the Construction Fund a Series 2015 Project Account which shall be held by the Trustee and used as provided in Section 5.03 of the Master Resolution to pay cost of the Series 2015 Project.

(b) There is hereby established a separate account designated as the “Series 2015 Cost of Issuance Account” to be held by the Trustee, moneys in which shall be used for the purpose of paying costs of issuance of the Series 2015 Bonds. Any moneys remaining in the Series 2015 Cost of Issuance Account on the date of the full and final payment of all costs of issuance of the Series 2015 Bonds, shall be transferred promptly to the Series 2015 Project Account.

Section 302. Application of Proceeds of Series 2015 Bonds and Other Moneys. From the proceeds of sale of the Series 2015 Bonds, together with other available money of the University, if any, there shall be paid to the Trustee for use and deposited as follows:

(a) Into the Series 2015 Debt Service Reserve Subaccount, the amount specified in the Terms Certificate or a surety bond in the amount of the Series 2015 Debt Service Reserve Requirement determined pursuant to the authority delegated under Section 211(b) hereof;

(b) Into the Series 2015 Project Account, the amount specified in the Terms Certificate; and

(c) Into the Series 2015 Cost of Issuance Account, the amount specified in the Terms Certificate.

Section 303. Establishment of Series 2015 Debt Service Subaccount. Pursuant to Section 5.06(a) of the Master Resolution, there is hereby established a Series Subaccount in the Debt Service Account in the Principal and Interest Fund designated as the “Series 2015 Debt Service Subaccount.” Moneys shall be deposited into and paid from the Series 2015 Debt Service Subaccount in accordance with Sections 5.05(a)(i)(A) and 5.06(b), respectively, of the Master Resolution to pay Debt Service on the Series 2015 Bonds.

Section 304. Establishment of Series 2015 Debt Service Reserve Subaccount. Pursuant to Section 5.07(a) of the Master Resolution, there may be established a Series Subaccount in the Debt Service Reserve Account in the Principal and Interest Fund designated as the “Series 2015 Debt Service Reserve Subaccount.” Moneys shall be deposited into and paid from the Series 2015 Debt Service Reserve Subaccount if, when and as required by the Master Resolution, to remedy deficiencies in the Series 2015 Debt Service Subaccount in accordance with Section 5.07 of the Master Resolution. The Series 2015 Debt Service Reserve Requirement shall be an amount determined pursuant

to the authority delegated under Section 211(b) hereof and may be funded with a reserve surety if provided in the Terms Certificate.

ARTICLE IV

FORM OF SERIES 2015 BOND

Section 401. Form of Series 2015 Bonds. Subject to the provisions of the Master Resolution, each Series 2015 Bond shall be in substantially the following form, with such insertions or variations as to any redemption or amortization provisions and such other insertions or omissions, endorsements and variations as may be required or permitted by the Resolution (including, but not limited to, such changes as may be necessary if the Series 2015 Bonds at any time are no longer held in book-entry form as permitted by Section 214 hereof):

[FORM OF BOND]

Registered

Registered

Number R-

\$ _____

**UNITED STATES OF AMERICA
STATE OF UTAH
STATE BOARD OF REGENTS OF THE STATE OF UTAH
UTAH STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE
STUDENT FEE AND HOUSING SYSTEM IMPROVEMENT REVENUE BOND,
SERIES 2015**

Interest Rate Maturity Date Dated Date CUSIP
_____ % _____ _____, 2015

Registered Owner:

Principal Amount: _____
Dollars*****

KNOW ALL MEN BY THESE PRESENTS that Utah State University of Agriculture and Applied Science, a body politic and corporate of the State of Utah (the "University") acting by and through the State Board of Regents of the State of Utah, its governing body (the "Board"), acknowledges itself indebted and for value received hereby promises to pay, in the manner and from the sources hereinafter provided, to the registered owner identified above or registered assigns, on the maturity date specified above, upon presentation and surrender hereof, the principal amount identified above (the "Principal Amount"), and to pay to the registered owner hereof interest on the balance of the Principal Amount from time to time remaining unpaid from the interest payment date next preceding the date of registration and authentication of this Bond, unless this Bond is registered and authenticated as of an interest payment date, in which event this Bond shall bear interest from such interest payment date, or unless this Bond is registered and authenticated prior to the first interest payment date, in which event this Bond shall bear interest from the dated date identified above (the "Dated Date"), or unless, as shown by the records of the hereinafter referred to Trustee, interest on the hereinafter referred to Bonds shall be in default, in which event this Bond shall bear interest from the date to which interest has been paid in full, or unless no interest has been paid on this Bond, in which event it shall bear interest from the Dated Date, at the interest rate per annum (calculated on the basis of a year of 360 days consisting of twelve 30-day months) specified above (the "Interest Rate"), payable semiannually on [_____ 1] and [_____ 1] of each year, beginning [_____ 1, 201__], until payment in full of the Principal Amount. This Bond shall bear interest on overdue principal at the Interest Rate.

Principal of and premium, if any, on this Bond shall be payable at the corporate trust office of Wells Fargo Bank, N.A., the paying agent of the Board, or its successor as such paying agent, in any coin or currency of the United States of America that at the time of payment is legal tender for the payment of public and private debts. Payment of the semiannual interest hereon shall be made to the registered owner hereof and shall be paid by check or draft mailed to the person who is the registered owner of record as of the close of business on the fifteenth (15) day of the month next preceding each interest payment date at the address of such registered owner as it appears on the registration books of the Board maintained by the Trustee (as hereinafter defined), or at such other address as is furnished in writing by such registered owner to the Trustee as provided in the Bond Resolution (as hereinafter defined).

This Bond is a special obligation of the University and is one of the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds (the "Bonds") issued under and by virtue of the provisions of Chapter 21 of Title 53B of the Utah Code Annotated 1953, as amended, 63B-24-102(2) of the Utah Code Annotated 1953, as amended, and the Registered Public Obligations Act, Chapter 7 of Title 15 of the Utah Code Annotated 1953, as amended (collectively, the "Act"), and under and pursuant to the Resolution Providing For the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, adopted on March 25, 1994 (the "Master Resolution"), as the same from time to time may be amended or supplemented by further resolutions of the Board, including the Supplemental Resolution authorizing the issuance of this Series of Bonds, adopted on July 31, 2015 (such Master Resolution and Supplemental Resolution and any and all such further resolutions being herein collectively called the "Bond Resolution"), for the purpose of providing funds (a) to finance housing improvements for the University, (b) to provide necessary reserves and (c) to pay expenses incident thereto and to the issuance of the Series 2015 Bonds (as defined below).

THE UNIVERSITY IS OBLIGATED TO PAY PRINCIPAL AND REDEMPTION PRICE OF AND INTEREST ON THIS BOND SOLELY FROM THE REVENUES AND OTHER FUNDS OF THE UNIVERSITY PLEDGED THEREFOR UNDER THE TERMS OF THE BOND RESOLUTION. THIS BOND IS NOT A DEBT OF THE STATE OF UTAH, THE BOARD OR THE UNIVERSITY WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY LIMITATION OF INDEBTEDNESS. PURSUANT TO THE BOND RESOLUTION, SUFFICIENT REVENUES HAVE BEEN PLEDGED AND WILL BE SET ASIDE INTO SPECIAL FUNDS BY THE UNIVERSITY TO PROVIDE FOR THE PROMPT PAYMENT OF THE PRINCIPAL OF AND INTEREST ON THIS BOND AND ALL BONDS OF THE SERIES OF WHICH IT IS A PART.

As provided in the Bond Resolution, bonds, notes and other obligations may be issued from time to time in one or more series in various principal amounts, may mature at different times, may bear interest at different rates and may otherwise vary as provided in the Bond Resolution, and the aggregate principal amount of such bonds, notes and other obligations that may be issued is not limited. In addition to bonds, notes and other obligations issued pursuant to the Bond Resolution, the University may execute Contracts

and incur Security Instrument Repayment Obligations as provided in the Bond Resolution. All bonds, notes and other obligations issued and to be issued under the Bond Resolution (including, but not limited to, the Series 2015 Bonds), all Contracts and all Security Instrument Repayment Obligations are and will be equally and ratably secured by the pledge and covenants made in the Bond Resolution, except as otherwise expressly provided or permitted in or pursuant to the Bond Resolution.

This Bond is one of a Series of Bonds designated as “Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015” (herein called the “Series 2015 Bonds”), limited to the aggregate principal amount of _____ Dollars (\$_____), and duly issued under and by virtue of the Act and under and pursuant to the Bond Resolution. Copies of the Bond Resolution are on file at the office of the Secretary of the Board, in Salt Lake City, Utah, at the office of the Vice President for Business and Finance of the University, in Logan, Utah, and at the respective corporate trust office of Wells Fargo Bank, N.A., as trustee under the Bond Resolution (said trustee and any successors thereto under the Bond Resolution being herein called the “Trustee”). Reference to the Bond Resolution and to the Act is made for a description of the pledge and covenants securing the Series 2015 Bonds, the nature, manner and extent of enforcement of such pledge and covenants, the terms and conditions upon which the Series 2015 Bonds are issued, and upon which additional Bonds, notes and other obligations may be issued thereunder, Contracts may be executed thereunder and Security Instrument Repayment Obligations may be incurred thereunder, and a statement of the rights, duties, immunities and obligations of the Board, the University and the Trustee. Such pledge and other obligations of the Board and the University under the Bond Resolution may be discharged at or prior to the maturity or redemption of the Series 2015 Bonds upon the making of provision for the payment thereof on the terms and conditions set forth in the Bond Resolution.

To the extent and in the respects permitted by the Bond Resolution, the Bond Resolution may be modified or amended by action on behalf of the Board taken in the manner and subject to the conditions and exceptions prescribed in the Bond Resolution. The owner of this Bond shall have no right to enforce the provisions of the Bond Resolution or to institute action to enforce the pledge or covenants made therein or to take any action with respect to an event of default under the Bond Resolution or to institute, appear in or defend any suit or other proceeding with respect thereto, except as provided in the Bond Resolution.

This Bond is transferable, as provided in the Bond Resolution, only upon the books of the University kept for that purpose at the principal corporate trust office of the Trustee, by the registered owner hereof in person or by such owner’s attorney duly authorized in writing, upon surrender hereof to the Trustee together with a written instrument of transfer satisfactory to the Trustee, duly executed by the registered owner or such duly authorized attorney. Thereupon, the Board and the University shall issue in the name of the transferee a new Series 2015 Bond of the same aggregate principal amount and Series, designation, maturity and interest rate as the surrendered Series 2015 Bond, all as provided in the Bond Resolution and upon the payment of the charges therein prescribed. The Board, the University, the Trustee and any paying agent may

treat and consider the person in whose name this Series 2015 Bond is registered as the holder and absolute owner hereof for the purpose of receiving payment of, or on account of, the principal or Redemption Price hereof and interest due hereon and for all other purposes whatsoever, and neither the Board, the University, the Trustee nor any paying agent shall be affected by any notice to the contrary.

The Series 2015 Bonds are issuable solely in the form of fully registered Bonds, without coupons, in denominations of \$5,000 and any whole multiple thereof.

The Series 2015 Bonds are subject to redemption prior to maturity as follows:

[to be inserted from Terms Certificate]

Except as otherwise provided herein and unless the context clearly indicates otherwise, words and phrases used herein shall have the same meanings as such words and phrases in the Bond Resolution.

This Bond shall not be valid until the Certificate of Authentication hereon shall have been manually signed by the Trustee.

This Bond is one of a Series of Bonds which were certified as legal obligations by the Attorney General of the State of Utah on July 31, 2015.

(Signature page follows.)

IN WITNESS WHEREOF, THE STATE BOARD OF REGENTS OF THE STATE OF UTAH has caused this Bond to be executed on behalf of the University by the Chair of the Board, countersigned by the Vice President for Business and Finance of the University and attested by the Secretary of the Board and has caused the official seal of the Board to be impressed hereon, all as of the Dated Date.

STATE BOARD OF REGENTS OF
THE STATE OF UTAH

(SEAL)

By _____ /s/ (Do Not Sign)
Chair

COUNTERSIGNED:

By _____ /s/ (Do Not Sign)
Vice President for Business and Finance
of Utah State University of Agriculture
and Applied Science

ATTEST:

_____/s/ (Do Not Sign)
Secretary

[FORM OF TRUSTEE'S CERTIFICATE OF AUTHENTICATION]

This Bond is one of the Bonds described in the within mentioned Bond Resolution and is one of the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015.

WELLS FARGO BANK, N.A., as Trustee

By _____
Authorized Officer

Date of registration and authentication: _____

[FORM OF ASSIGNMENT]

The following abbreviations, when used in the inscription on the face of the within Bond, shall be construed as though they were written out in full according to applicable laws or regulations.

TEN COM – as tenants in common
TEN ENT – as tenants by the entirety
JT TEN – as joint tenants with right of survivorship and not as tenants in common

UNIF GIFT MIN ACT _____
(Cust.)

Custodian for _____
(Minor)

under Uniform Gifts to Minors Act of _____
(State)

Additional abbreviations may also be used though not in the above list.

ASSIGNMENT

FOR VALUE RECEIVED, _____ the undersigned hereby sells, assigns and transfers unto:

(Social Security or Other Identifying Number of Assignee)

(Please Print or Typewrite Name and Address of Transferee)

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____ attorney for registration thereof, with full power of substitution in the premises.

DATED:

Signature: _____

NOTICE: The signature to this assignment must correspond with the name of the Registered Owner as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatever.

Signature Guaranteed:

NOTICE: The signature(s) should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program), pursuant to S.E.C. Rule 17Ad-15.

ARTICLE V

MISCELLANEOUS

Section 501. Arbitrage Covenant for Series 2015 Bonds; Covenant to Maintain Tax Exemption. (a) The Designated Officers and other appropriate officials of the Board and the University are hereby authorized and directed to execute such Tax Certificates as shall be necessary to establish that (i) the Series 2015 Bonds are not “arbitrage bonds” within the meaning of Section 148 of the Code and the regulations promulgated or proposed thereunder, (ii) the Series 2015 Bonds are not and will not become “private activity bonds” within the meaning of Section 141 of the Code, (iii) all applicable requirements of Section 149 of the Code are and will be met, (iv) the covenants of the Board and the University contained in this Section will be complied with and (v) interest on the Series 2015 Bonds is not and will not become includible in gross income of the Owners thereof for federal income tax purposes under the Code and applicable regulations promulgated or proposed thereunder.

Section 502. Ratification. All proceedings, resolutions and actions of the Board, the University and their respective officers taken in connection with the sale and issuance of the Series 2015 Bonds are hereby ratified, confirmed and approved.

Section 503. Severability. It is hereby declared that all parts of this Series 2015 Supplemental Resolution are severable, and if any section, paragraph, clause or provision of this Series 2015 Supplemental Resolution shall, for any reason, be held to be invalid or unenforceable, the invalidity or unenforceability of any such section, paragraph, clause or provision shall not affect the remaining sections, paragraphs, clauses or provisions of this Series 2015 Supplemental Resolution.

Section 504. Conflict. All resolutions, orders and regulations or parts thereof heretofore adopted or passed that are in conflict with any of the provisions of this Series 2015 Supplemental Resolution are, to the extent of such conflict, hereby repealed.

Section 505. Captions. The table of contents and captions or headings herein are for convenience of reference only and in no way define, limit or describe the scope or intent of any provisions or sections of this Series 2015 Supplemental Resolution.

Section 506. Effective Date. This Series 2015 Supplemental Resolution shall take effect immediately upon its adoption and approval.

(Signature page follows.)

ADOPTED AND APPROVED this 31st day of July, 2015.

STATE BOARD OF REGENTS OF THE
STATE OF UTAH

(SEAL)

By _____
Chair

ATTEST:

Secretary

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Loreen Olney, the undersigned, the duly qualified and acting Secretary of the State Board of Regents of the State of Utah, do hereby certify, according to the records of said State Board of Regents in my official possession, and upon my own knowledge and belief, that:

(a) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended I gave public notice of the agenda, date, time and place of the July 31, 2015 public meeting held by the Members of the State Board of Regents by (i) causing a Notice of Public Meeting to be posted at the principal office of the State Board of Regents at 60 South 400 West, in Salt Lake City, Utah, on _____, 2015, and (ii) published on the Utah Public Notice Website (<http://pmn.utah.gov>), at least twenty-four (24) hours prior to the convening of such meeting, in the form attached hereto as Schedule 1; said Notice of Public Meeting having continuously remained so posted and available for public inspection during the regular office hours of the State Board of Regents until the convening of the meeting; and causing a copy of said Notice of Public Meeting in the form attached hereto as Schedule 1 to be provided on _____, at least twenty-four (24) hours prior to the convening of such meeting, to the Deseret News and The Salt Lake Tribune, newspapers of general circulation within the geographic jurisdiction of the State Board of Regents, and to each local media correspondent, newspaper, radio station or television station which has requested notification of meetings of the State Board of Regents; and

(b) that in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice of the 2015-2016 Annual Meeting Schedule of the State Board of Regents was given specifying the date, time and place of the regular meetings of the State Board of Regents scheduled to be held during the year, by causing a Notice of Annual Meeting Schedule for the State Board of Regents (in the form attached as Schedule 2) to be (i) posted in November 2014 at the principal office of the State Board of Regents in Salt Lake City, Utah and causing a copy of such Notice of Annual Meeting Schedule to be provided in November 2014 to a newspaper of general circulation within the geographic jurisdiction of Salt Lake City, Utah and (ii) published on the Utah Public Notice Website (<http://pmn.utah.gov>) during each of the applicable calendar years.

(c) the State Board of Regents has adopted written procedures governing the holding of electronic meetings in accordance with Section 52-4-207 Utah Code Annotated 1953, as amended (a copy of which is attached hereto as Schedule 3). In accordance with said Section and the aforementioned procedures, notice was given to each member of the State Board of Regents and to members of the public at least 24 hours before the meeting to allow members of the State Board of Regents and the public to participate in the meeting, including a

description of how they could be connected to the meeting. The State Board of Regents held the meeting (the anchor location) in the building where it normally meets and provided space and facilities at the anchor location so that interested persons and the public could attend and participate.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the State Board of Regents of the State of Utah, this 31st day of July, 2015.

(SEAL)

Secretary

EXHIBIT A

PARAMETERS OF THE BONDS

Principal amount not to exceed:	\$25,500,000 (providing a net project amount of not to exceed \$23,100,000)
Interest rate not to exceed:	5.00%
Discount from par not to exceed: (underwriters and original issue discount)	2.0%
Final maturity not to exceed:	Twenty Three (23) years from the date thereof
May be non-callable or callable at the option of University as determined at the time of sale	

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Space Dynamics Laboratory Series 2015 Revenue Bond Issue

Issue

Utah State University (USU) has requested authorization to issue an \$18,000,000 million revenue bond, authorized by the 2013 Legislature, to finance construction of a Space Dynamics Laboratory at the Innovation Campus in Logan, Utah.

Background

The Regents approved this project, including a request to seek bonding authorization from the Legislature, at the January 25, 2013 meeting. The facility to be built will house the C4ISR Systems Division that develops advanced intelligence, surveillance, and reconnaissance (ISR) technologies to support a wide variety of command, control, communications, and computer (C4) system needs.

The relevant parameters of the requested issue are:

- Principal amount not to exceed \$19,500,000 including costs of issuance and capitalized interest
- Interest rate not to exceed 5%
- Discount from par not to exceed 2%
- Final maturity not to exceed 32 years from the date of issue
- Reimbursed overhead from research projects is the primary revenue source for defeasance of the bonds

A copy of the request letter from USU, a financing summary from the University's financial advisor, and a draft of the Approving Resolution that provide additional detail about this request are attached for your review. Representatives from the University, Bond Counsel from Ballard Spahr; and the Financial Advisor from Zions Bank will be in attendance to provide additional information and answer questions from the Board.

Commissioner's Recommendation

The Commissioner recommends approval of the proposed Authorizing Resolution for issuance of this Series 2015 Revenue Bond to finance the construction of the Space Dynamics Lab as proposed.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachments

July 10, 2015

Commissioner David L. Buhler
Utah State Board of Regents
Board of Regents Building The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Dear Commissioner Buhler:

Utah State University requests that the Board of Regents approve issuing revenue bonds totaling \$18,000,000, together with other amounts necessary to pay costs of issuance, pay capitalized interest, and fund any debt service reserve requirement to finance the C4ISR building project for the Space Dynamics Laboratory located on the Innovation Campus (see the attached Preliminary Summary Sheet). Bonds will be repaid with funds received for reimbursements from research projects. The building project was previously approved by the Board of Trustees, Board of Regents, State Building Board, and the Legislature. This item will be presented to the Board of Trustees during the July 17, 2015 meeting.

We appreciate your support and ask that you present this item for Regents approval.

Sincerely,



David T. Cowley
Vice President for
Business and Finance

C: Greg Stauffer, Associate Commissioner for Finance and Facilities
Stan Albrecht, President
Dan Christensen, Controller
Dwight Davis, Associate Vice President for Business and Finance

**Utah State University
Research Revenue Bonds, Series 2015
Preliminary Summary Sheet**

Proposed Issue: Research Revenue Bonds

Total Approximate Issue Size: \$18,915,000

Use of Funds: To provide up to \$18,000,000 to finance the cost of constructing a new building for the Space Dynamics Laboratory; satisfy any reserve fund requirements; fund any capitalized interest amount; and pay associated costs of issuance.

Detail of Proposed Series 2015 Bonds:

Principal Amount: Not to exceed \$19,500,000

Interest Rate: Not to exceed 5.0%

Maturity Date: Not to exceed 32 years

Aggregate Discount: Not to exceed 2%

Underwriter's Discount: Not to exceed 2%

Bond Rating: AA from S&P

Source of Repayment: Research (Indirect Cost Recovery)
Revenues

Timetable Considerations: Regent approval will be sought at the July 31 meeting. The University is proceeding with plans to sell bonds soon after Regent approval is received, with a tentative sale date planned for August 13, 2015. The University anticipates selling bonds by competitive sale, and the underwriter will be whichever bidder provides the lowest borrowing cost (as a combination of interest rates and fees) to the University. The University may also sell its Student Fee and Housing System Revenue Bonds on the same day. The anticipated closing date is Thursday, August 27.

APPROVING RESOLUTION
UTAH STATE UNIVERSITY
STUDENT FEE AND HOUSING
SYSTEM BONDS

Cedar City, Utah
July 31, 2015

The State Board of Regents of the State of Utah met in regular session at Southern Utah University in Cedar City, Utah on Friday, July 31, 2015, commencing at [9:30 a.m.] The following members were present:

Daniel W. Campbell	Chair
France A. Davis	Vice Chair
Jessellie B. Anderson	Member
Nina Barnes	Member
Bonnie Jean Beesley	Member
Leslie Castle*	Member
Wilford W. Clyde	Member
James T. Evans**	Member
Brady Harris	Student Regent
Marlin K. Jensen	Member
Robert S. Marquardt	Member
Jefferson Moss*	Member
Jed H. Pitcher	Member
Robert W. Prince	Member
Harris H. Simmons	Member
Mark R. Stoddard	Member
Teresa L. Theurer	Member
Joyce P. Valdez	Member
John H. Zenger	Member

Absent:

Also Present:

David L. Buhler	Commissioner of Higher Education
Loreen Olney	Secretary

After the meeting had been duly convened and called to order by the Chair, the roll had been called with the above result, the Chair announced that one of the purposes of the meeting was the consideration of various matters with respect to the issuance and sale of the State Board of Regents of the State of Utah, Utah State University Student Fee and Housing System Revenue Bonds, Series 2015.

* Non-voting member from State Board of Education.

** Student Regent.

The following resolution was introduced in written form by Regent _____, and after full discussion, pursuant to motion made by Regent _____ and seconded by Regent _____, was adopted by the following vote:

YEA:

NAY:

The resolution is as follows:

STATE BOARD OF REGENTS
OF THE STATE OF UTAH

SUPPLEMENTAL RESOLUTION
AUTHORIZING THE ISSUANCE AND SALE OF

UP TO \$25,500,000
UTAH STATE UNIVERSITY
STUDENT FEE AND HOUSING SYSTEM
REVENUE BONDS, SERIES 2015

Adopted July 31, 2015

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SUPPLEMENTAL RESOLUTION AUTHORIZING THE ISSUANCE AND SALE OF UP TO \$25,500,000 AGGREGATE PRINCIPAL AMOUNT OF UTAH STATE UNIVERSITY STUDENT FEE AND HOUSING SYSTEM REVENUE BONDS, SERIES 2015, OF THE STATE BOARD OF REGENTS OF THE STATE OF UTAH; AND PROVIDING FOR RELATED MATTERS.

WHEREAS, pursuant to the provisions of Section 53B-1-103, Utah Code Annotated 1953, as amended (the "Utah Code"), the State Board of Regents of the State of Utah (the "Board") is authorized to act as the governing authority of Utah State University (the "University");

WHEREAS, on March 25, 1994, the Board adopted its Resolution Providing for the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, as heretofore amended and supplemented (the "Master Resolution");

WHEREAS, pursuant to Title 53B, Chapter 2, of the Utah Code and Section 63B-24-102(2) of the Utah Code, the Board is authorized to issue bonds for the purpose of constructing the Valley View Residence Hall Replacement (the "Series 2015 Project") in an amount not to exceed \$23,100,000, together with other amounts necessary to pay costs of issuance, to pay capitalized interest and fund any debt service reserve requirements; and

WHEREAS, the Board deems it advisable and in the interests of the University to adopt a resolution supplementing the Master Resolution for the purpose, among other things, of authorizing the issuance and sale of the Series 2015 Bonds (defined below) for the purposes described above.

NOW, THEREFORE, BE IT RESOLVED by the State Board of Regents of the State of Utah as follows:

ARTICLE I

DEFINITIONS

Section 101. Definitions. (a) Except as provided in subsection (b) of this Section, all defined terms contained in the Master Resolution when used in this Series 2015 Supplemental Resolution shall have the same meanings as set forth in the Master Resolution.

(b) As used in this Series 2015 Supplemental Resolution, unless the context shall otherwise require, the following terms shall have the following meanings:

“Cede” means Cede & Co., the nominee of DTC, and any successor nominee of DTC with respect to the Series 2015 Bonds pursuant to Section 211 hereof.

“Designated Officer” means (i) with respect to the Board, its Chair, Vice Chair, or, in the absence of the Chair and the Vice Chair, the Chair of its Finance, Facilities and Accountability Committee, and (ii) with respect to the University, its President, Vice President for Business and Finance or its Associate Vice President for Business and Finance.

“DTC” means The Depository Trust Company, New York, New York, and its successors and assigns.

“Financial Advisor” means, initially, Zions Bank Public Finance, as financial advisor to the Board and the University and any successor thereto.

“Letter of Representations” means the Blanket Issuer Letter of Representations from the Board to DTC.

“Master Resolution” means that certain Resolution Providing for the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, adopted by the Board on March 25, 1994, as heretofore amended and supplemented.

“Official Statement” means an official statement relating to the Series 2015 Bonds, in substantially the form of the Preliminary Official Statement which was before the Board at the time of adoption of this Series 2015 Supplemental Resolution with information established upon the sale of the Series 2015 Bonds.

“Participants” means those broker-dealers, banks and other financial institutions from time to time for which DTC holds Series 2015 Bonds as securities depository.

“Person” means natural persons, firms, partnerships, associations, corporations, trusts, public bodies and other entities.

"Preliminary Official Statement" means a preliminary official statement relating to the Series 2015 Bonds, in substantially the form was before the Board at the time of adoption of this Series 2015 Supplemental Resolution as revised prior to sale of the Series 2015 Bonds.

"Record Date" means, with respect to the Series 2015 Bonds, the fifteenth day of the month next preceding each respective interest payment date.

"Redemption Price" means, with respect to the Series 2015 Bonds, the principal amount payable upon redemption thereof pursuant to this Series 2015 Supplemental Resolution.

"Resolution" means the Master Resolution as supplemented by this Series 2015 Supplemental Resolution.

"Series 2007 Bonds" means the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Refunding Bonds, Series 2007.

"Series 2015 Bonds" means the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015, authorized by this Series 2015 Supplemental Indenture.

"Series 2015 Debt Service Reserve Requirement" means the amount, if any, set forth in the Terms Certificate.

"Series 2015 Debt Service Reserve Subaccount" means, if provided for in the Terms Certificate, the Series Subaccount established in the Debt Service Reserve Account in the Principal and Interest Fund pursuant to Section 5.07(a) of the Master Resolution and Section 304 hereof.

"Series 2015 Debt Service Subaccount" means the Series Subaccount established in the Debt Service Account in the Principal and Interest Fund pursuant to Section 5.06(a) of the Master Resolution and Section 303 hereof.

"Series 2015 Project" means constructing the Valley View Residence Hall Replacement.

"Series 2015 Supplemental Resolution" means this resolution, adopted by the Board on July 31, 2015, authorizing the issuance of the Series 2015 Bonds.

"Tax Certificate" means any agreement or certificate of the Board and the University that they, or either of them, may execute in order to assure the excludability of interest on the Series 2015 Bonds from gross income of the owners thereof for federal income tax purposes.

"Terms Certificate" shall mean the certificate of the Board setting forth the final terms for the Series 2015 Bonds (within the parameters set forth herein) to be executed

by the Chair or Vice Chair of the Board or the Chair of the Finance, Facilities and Accountability Committee of the Board.

“Trustee” means Wells Fargo Bank, N.A., of Salt Lake City, Utah, and its successors and permitted assigns under the Master Resolution.

“Underwriters” means, the underwriter[s] for the Series 2015 Bonds pursuant to the Terms Certificate.

The terms “hereby”, “hereof”, “hereto”, “herein”, “hereunder”, and any similar terms as used in this Series 2015 Supplemental Resolution, refer to this Series 2015 Supplemental Resolution.

Section 102. Authority for Series 2015 Supplemental Resolution. This Series 2015 Supplemental Resolution is adopted pursuant to the provisions of the Act and the Master Resolution.

ARTICLE II

AUTHORIZATION, TERMS AND ISSUANCE OF SERIES 2015 BONDS

Section 201. Authorization of Series 2015 Bonds, Principal Amount, Designation and Series. For the purposes specified in Section 202 hereof and in accordance with and subject to the terms, conditions and limitations established in the Master Resolution and this Series 2015 Supplemental Resolution, the Board hereby authorizes to be issued a series of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, in the aggregate principal amount of up to Twenty-Five Million Five Hundred Thousand Dollars (\$25,500,000), to be designated “Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015.”

Section 202. Purpose. (a) The Series 2015 Bonds are being issued to (i) to provide funds to finance the Series 2015 Project, (ii) to provide necessary reserves, and (iii) to pay the costs incident to the issuance of the Series 2015 Bonds.

(b) Except for the Series 2007 Bonds and the Series 2015 Bonds, the Board, on behalf of the University, has not issued any bonds, notes or other obligations currently outstanding pursuant to the Master Resolution or that are payable from or secured by a pledge of the Revenues or any portion thereof.

(c) The Board hereby finds and determines that (i) the principal amount of the Series 2015 Bonds issued pursuant to the Resolution is reasonable and necessary to accomplish the purposes set forth in this Section 202 and (ii) the parameters set forth in this Series 2015 Supplemental Resolution with respect to the principal amount, interest rates, purchase price and other terms for the Series 2015 Bonds are reasonable.

Section 203. Issue Date. The Issue Date of the Series 2015 Bonds shall be the date of issuance and delivery thereof (the “Issue Date”).

Section 204. Series 2015 Bonds. The Series 2015 Bonds shall mature on such dates and in such amounts as shall be determined pursuant to the authority delegated under Section 211(a) hereof and set forth in the Terms Certificate and shall bear interest (calculated on the basis of a year of 360 days consisting of twelve 30-day months) from their Issue Date, payable semiannually on April 1 and October 1 in each year, commencing as set forth in the Terms Certificate, or on such other dates and at the rates per annum as shall be determined pursuant to the authority delegated under Section 211(a) hereof.

Section 205. Denomination and Numbers. The Series 2015 Bonds shall be issued only as fully registered Bonds, without coupons, in the denominations of \$5,000 and any whole multiple thereof. The Series 2015 Bonds shall be numbered from one (1) consecutively upwards with the prefix “R-” preceding each number.

Section 206. Trustee and Paying Agent. Wells Fargo Bank, N.A. is hereby appointed the Trustee and Paying Agent for the Series 2015 Bonds, subject to Section 7.02 of the Master Resolution. Principal and Redemption Price of the Series 2015 Bonds shall be payable at the principal corporate trust office of the Paying Agent or of its successor as Paying Agent. Payment of interest on any Series 2015 Bonds shall be made to the Owner thereof and shall be paid by check or draft mailed to the Owner thereof as of the close of business on the Record Date at such Owner's address as it appears on the registration books of the Board maintained by the Trustee or at such other address as is furnished to the Trustee in writing by such Owner as provided in the Master Resolution. The Trustee shall signify acceptance of the duties and obligations imposed upon it by the Resolution and provide its address for purposes of notices delivered pursuant to the Resolution by executing and delivering to the Board and the University a written acceptance thereof prior to the delivery of any Series 2015 Bonds.

Section 207. Redemption. (a) The Series 2015 Bonds may be subject to redemption, including optional, extraordinary optional or sinking fund redemption if so specified in the Terms Certificate.

(b) In the event any Series 2015 Bonds are called for redemption, in addition to the notice described in Section 4.03 of the Master Resolution, the Trustee shall give further notice of such redemption by posting notice to the Municipal Securities Rulemaking Board's EMMA website.

Section 208. Sale of Series 2015 Bonds. The Board hereby authorizes, approves and directs the use and distribution of the Preliminary Official Statements substantially in the form of the Preliminary Official Statement presented to the Board at this meeting in connection with the offering and sale of the Series 2015 Bonds, in the event the Series 2015 Bonds are publicly sold. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board and the President, Vice President or Associate Vice President for Business and Finance of the University are hereby authorized to execute and deliver on behalf of the Board and the University final Official Statements in substantially the same form and with substantially the same content as the form of the Preliminary Official Statement presented to this meeting with any such alterations, changes or additions as may be necessary to finalize each Official Statement. The preparation, use and distribution of the Official Statement is hereby authorized. The Board and the University may elect to directly place the Series 2015 Bonds with or without the use of an Official Statement.

Section 209. Approval of Parameters. The Series 2015 Bonds shall mature on such date or dates, be subject to redemption, and bear interest at the rates as shall be approved by the Chair or Vice Chair of the Board or the Chair of the Finance, Facilities and Accountability Committee, all within the parameters set forth on Exhibit A attached hereto and incorporated herein by reference.

Section 210. Delivery of Series 2015 Bonds. The Series 2015 Bonds shall be delivered to the Underwriters upon compliance with the provisions of Section 3.02 of the Master Resolution.

Section 211. Delegation Pursuant to Section 53B-21-102(3)(m) of the Utah Code; Further Authority. (a) As authorized by Section 53B-21-102(3)(m) of the Utah Code, the Board hereby delegates to the Designated Officers of the Board and the University the authority for and on behalf of the Board and the University to approve, prior to the original issuance of the Series 2015 Bonds, the following terms for the Series 2015 Bonds within the applicable parameters for such terms as set forth in Exhibit A:

- (i) the final principal amount of the Series 2015 Bonds;
- (ii) the maturity dates (whether by term or serial maturities), principal amount maturing on each such date, the interest payment dates, and interest rates for the Series 2015 Bonds;
- (iii) any redemption provisions;
- (iv) the aggregate price to be paid for the Series 2015 Bonds;
- (v) the manner of sale of the Series 2015 Bonds (public sale or direct purchase and using an official notice of sale or bond purchase contract);
- (vi) the type of credit enhancement, if any, for the Series 2015 Bonds; and
- (vii) such other terms and provisions for the Series 2015 Bonds as the Designated Officers of the Board, as appropriate, shall determine are necessary or advisable in connection with the issuance, sale and delivery of the Series 2015 Bonds and as are consistent with the terms and provisions of this Series 2015 Supplemental Resolution.

(b) As authorized by Section 53B-21-102(3)(m) of the Utah Code, the Board hereby further delegates to the Designated Officers of the Board the authority for and on behalf of the Board to (i) approve the amounts of the proceeds of sale of the Series 2015 Bonds and certain other moneys to be used and deposited as provided in Section 302 and (ii) determine the Series 2015 Debt Service Reserve Requirement, if any.

(c) The Designated Officers, the Secretary of the Board, and all other officers of the Board and the University are, and each of them is, hereby authorized to do or perform all such acts and to execute all such certificates, documents and other instruments as may be necessary or advisable to provide for the issuance, sale and delivery of the Series 2015 Bonds.

Section 212. Book-Entry System.

(a) Except as provided in paragraphs (b) and (c) of this Section 212 the Registered Owner of all Series 2015 Bonds and the Series 2015 Bonds shall be registered in the name of Cede & Co. (“Cede”), as nominee of The Depository

Trust Company, New York, New York (together with any substitute securities depository appointed pursuant to paragraph (c)(ii) of this Section 212 , “DTC”). Payment of the interest on any Series 2015 Bonds shall be made in accordance with the provisions of this Supplemental Resolution to the account of Cede on the Interest Payment Dates for the Series 2015 Bonds at the address indicated for Cede in the registration books of the Bond Registrar.

(b) The Series 2015 Bonds shall be initially issued in the form of a separate single fully registered Bond in the amount of each separate stated maturity and interest rate of the Series 2015 Bonds. Upon initial issuance, the ownership of each such Series 2015 Bond shall be registered in the registration books of the Board kept by the Registrar, in the name of Cede, as nominee of DTC. With respect to Series 2015 Bonds so registered in the name of Cede, the Board, Registrar and any Paying Agent shall have no responsibility or obligation to any DTC participant or to any beneficial owner of any of such Series 2015 Bonds. Without limiting the immediately preceding sentence, the Board, Registrar and any Paying Agent shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede or any DTC participant with respect to any beneficial ownership interest in the Series 2015 Bonds, (ii) the delivery to any DTC participant, beneficial owner or other person, other than DTC, of any notice with respect to the Series 2015 Bonds, including any notice of redemption, or (iii) the payment to any DTC participant, beneficial owner or other person, other than DTC, of any amount with respect to the principal or redemption price of, or interest on, any of the Series 2015 Bonds. The Board, the Bond Registrar and any Paying Agent may treat DTC as, and deem DTC to be, absolute owner of each Series 2015 Bond for all purposes whatsoever, including (but not limited to) (1) payment of the principal or redemption price of, and interest on, each Series 2015 Bond, (2) giving notices of redemption and other matters with respect to such Series 2015 Bonds and (3) registering transfers with respect to such Bonds. So long as the Series 2015 Bonds are registered in the name of Cede & Co., the Paying Agent shall pay the principal or redemption price of, and interest on, all Series 2015 Bonds only to or upon the order of DTC, and all such payments shall be valid and effective to satisfy fully and discharge the Board's obligations with respect to such principal or redemption price, and interest, to the extent of the sum or sums so paid. Except as provided in paragraph (c) of this Section 212, no person other than DTC shall receive a Bond evidencing the obligation of the Board to make payments of principal or redemption price of, and interest on, any such Bond pursuant to this Supplemental Resolution. Upon delivery by DTC to the Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede, and subject to the transfer provisions of this Supplemental Resolution, the word “Cede” in this Supplemental Resolution shall refer to such new nominee of DTC.

Except as provided in paragraph (c)(iii) of this Section 212, and notwithstanding any other provisions of this Supplemental Resolution, the Series 2015 Bonds may be transferred, in whole but not in part, only to a nominee of

DTC, or by a nominee of DTC to DTC or a nominee of DTC, or by DTC or a nominee of DTC to any successor securities depository or any nominee thereof.

(c) (i) DTC may determine to discontinue providing its services with respect to the Series 2015 Bonds at any time by giving written notice to the Board, the Registrar, and the Paying Agent, which notice shall certify that DTC has discharged its responsibilities with respect to the Series 2015 Bonds under applicable law.

(ii) The Board, in its sole discretion and without the consent of any other person, may, by notice to the Registrar, terminate the services of DTC with respect to the Series 2015 Bonds if the Board determines that the continuation of the system of book-entry-only transfers through DTC is not in the best interests of the beneficial owners of the Series 2015 Bonds or the Board; and the Board shall, by notice to the Registrar, terminate the services of DTC with respect to the Series 2015 Bonds upon receipt by the Board, the Registrar, and the Paying Agent of written notice from DTC to the effect that DTC has received written notice from DTC participants having interests, as shown in the records of DTC, in an aggregate principal amount of not less than fifty percent (50%) of the aggregate principal amount of the then outstanding Series 2015 Bonds to the effect that: (1) DTC is unable to discharge its responsibilities with respect to the Series 2015 Bonds; or (2) a continuation of the requirement that all of the outstanding Series 2015 Bonds be registered in the registration books kept by the Registrar in the name of Cede, as nominee of DTC, is not in the best interests of the beneficial owners of the Series 2015 Bonds.

(iii) Upon the termination of the services of DTC with respect to the Series 2015 Bonds pursuant to subsection (c)(ii)(2) hereof, or upon the discontinuance or termination of the services of DTC with respect to the Series 2015 Bonds pursuant to subsection (c)(i) or subsection (c)(ii)(1) hereof the Board may within 90 days thereafter appoint a substitute securities depository which, in the opinion of the Board, is willing and able to undertake the functions of DTC hereunder upon reasonable and customary terms. If no such successor can be found within such period, the Series 2015 Bonds shall no longer be restricted to being registered in the registration books kept by the Registrar in the name of Cede, as nominee of DTC. In such event, the Board shall execute and the Registrar shall authenticate Series 2015 Bond certificates as requested by DTC of like principal amount, maturity and Series, in authorized denominations to the identifiable beneficial owners in replacement of such beneficial owners' beneficial interest in the Series 2015 Bonds.

Section 213. Letter of Representations. The Letter of Representations has been executed and delivered by the Board to DTC. The execution and delivery of the Letter of Representations shall not in any way limit the provisions of Section 212 hereof or in any

other way impose upon the Board or the University any obligation whatsoever with respect to Persons having interests in the Series 2015 Bonds other than the Bondowners, as shown on the registration books kept by the Trustee. In the written acceptance of each Paying Agent and Trustee, such Paying Agent and Trustee, respectively, shall agree to take all action necessary for all representations of the Board in the Letter of Representations with respect to the Paying Agent and Trustee, respectively, to at all times be complied with.

Section 214. Notices. In connection with any notice or other communication to be provided to Holders of Series 2015 Bonds registered in the name of Cede pursuant to this Supplemental Resolution by the Board or the Registrar with respect to any consent or other action to be taken by such Holders, the Board shall establish a record date for such consent or other action by such Holders and give DTC notice of such record date not less than fifteen (15) days in advance of such record date to the extent possible.

Section 215. Payments to Cede. Notwithstanding any other provision of this Series 2015 Supplemental Resolution to the contrary, so long as any Series 2015 Bond is registered in the name of Cede, as nominee of DTC, all payments with respect to principal of and premium, if any, and interest on such Series 2015 Bond and all notices with respect to such Series 2015 Bond shall be made and given, respectively, in the manner provided in the appropriate Letter of Representations.

Section 216. Legislative Appropriation. In order to (a) assure the maintenance of the Series 2015 Debt Service Reserve Subaccount in an amount equal to the Series 2015 Debt Service Reserve Requirement or pay Reserve Instrument Repayment Obligations and (b) assure the payment of principal and interest on the Series 2015 Bonds, the Board shall cause the Chair, not later than the first day of December in each year, to certify to the Governor and Director of Finance of the State, the amount, if any, required to (i) restore the Series 2015 Debt Service Reserve Subaccount to the Series 2015 Debt Service Reserve Requirement or pay Reserve Instrument Repayment Obligations or (ii) meet any projected shortfalls of payment of principal or interest or both for the following year on any Series 2015 Bonds issued hereunder. A copy of such Certificate shall be promptly delivered by the Chair to the Trustee. The Governor may request from the Legislature an appropriation of the amount so certified in the second preceding sentence. All sums appropriated by the Legislature, if any, and paid to the Board pursuant to the foregoing procedure shall be deposited respectively in the Series 2015 Debt Service Reserve Subaccount or in the Series 2015 Debt Service Subaccount or to repay Reserve Instrument Repayment Obligations, as applicable.

ARTICLE III

ESTABLISHMENT OF ACCOUNTS AND SUBACCOUNTS AND APPLICATION OF SERIES 2015 BOND PROCEEDS AND OTHER MONEYS

Section 301. Series 2015 Project Account and Series 2015 Cost of Issuance Account. (a) There is hereby established in the Construction Fund a Series 2015 Project Account which shall be held by the Trustee and used as provided in Section 5.03 of the Master Resolution to pay cost of the Series 2015 Project.

(b) There is hereby established a separate account designated as the “Series 2015 Cost of Issuance Account” to be held by the Trustee, moneys in which shall be used for the purpose of paying costs of issuance of the Series 2015 Bonds. Any moneys remaining in the Series 2015 Cost of Issuance Account on the date of the full and final payment of all costs of issuance of the Series 2015 Bonds, shall be transferred promptly to the Series 2015 Project Account.

Section 302. Application of Proceeds of Series 2015 Bonds and Other Moneys. From the proceeds of sale of the Series 2015 Bonds, together with other available money of the University, if any, there shall be paid to the Trustee for use and deposited as follows:

(a) Into the Series 2015 Debt Service Reserve Subaccount, the amount specified in the Terms Certificate or a surety bond in the amount of the Series 2015 Debt Service Reserve Requirement determined pursuant to the authority delegated under Section 211(b) hereof;

(b) Into the Series 2015 Project Account, the amount specified in the Terms Certificate; and

(c) Into the Series 2015 Cost of Issuance Account, the amount specified in the Terms Certificate.

Section 303. Establishment of Series 2015 Debt Service Subaccount. Pursuant to Section 5.06(a) of the Master Resolution, there is hereby established a Series Subaccount in the Debt Service Account in the Principal and Interest Fund designated as the “Series 2015 Debt Service Subaccount.” Moneys shall be deposited into and paid from the Series 2015 Debt Service Subaccount in accordance with Sections 5.05(a)(i)(A) and 5.06(b), respectively, of the Master Resolution to pay Debt Service on the Series 2015 Bonds.

Section 304. Establishment of Series 2015 Debt Service Reserve Subaccount. Pursuant to Section 5.07(a) of the Master Resolution, there may be established a Series Subaccount in the Debt Service Reserve Account in the Principal and Interest Fund designated as the “Series 2015 Debt Service Reserve Subaccount.” Moneys shall be deposited into and paid from the Series 2015 Debt Service Reserve Subaccount if, when and as required by the Master Resolution, to remedy deficiencies in the Series 2015 Debt Service Subaccount in accordance with Section 5.07 of the Master Resolution. The Series 2015 Debt Service Reserve Requirement shall be an amount determined pursuant

to the authority delegated under Section 211(b) hereof and may be funded with a reserve surety if provided in the Terms Certificate.

ARTICLE IV

FORM OF SERIES 2015 BOND

Section 401. Form of Series 2015 Bonds. Subject to the provisions of the Master Resolution, each Series 2015 Bond shall be in substantially the following form, with such insertions or variations as to any redemption or amortization provisions and such other insertions or omissions, endorsements and variations as may be required or permitted by the Resolution (including, but not limited to, such changes as may be necessary if the Series 2015 Bonds at any time are no longer held in book-entry form as permitted by Section 214 hereof):

[FORM OF BOND]

Registered

Registered

Number R-

\$ _____

**UNITED STATES OF AMERICA
STATE OF UTAH
STATE BOARD OF REGENTS OF THE STATE OF UTAH
UTAH STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE
STUDENT FEE AND HOUSING SYSTEM IMPROVEMENT REVENUE BOND,
SERIES 2015**

Interest Rate Maturity Date Dated Date CUSIP
_____ % _____ _____, 2015

Registered Owner:

Principal Amount: _____
Dollars*****

KNOW ALL MEN BY THESE PRESENTS that Utah State University of Agriculture and Applied Science, a body politic and corporate of the State of Utah (the "University") acting by and through the State Board of Regents of the State of Utah, its governing body (the "Board"), acknowledges itself indebted and for value received hereby promises to pay, in the manner and from the sources hereinafter provided, to the registered owner identified above or registered assigns, on the maturity date specified above, upon presentation and surrender hereof, the principal amount identified above (the "Principal Amount"), and to pay to the registered owner hereof interest on the balance of the Principal Amount from time to time remaining unpaid from the interest payment date next preceding the date of registration and authentication of this Bond, unless this Bond is registered and authenticated as of an interest payment date, in which event this Bond shall bear interest from such interest payment date, or unless this Bond is registered and authenticated prior to the first interest payment date, in which event this Bond shall bear interest from the dated date identified above (the "Dated Date"), or unless, as shown by the records of the hereinafter referred to Trustee, interest on the hereinafter referred to Bonds shall be in default, in which event this Bond shall bear interest from the date to which interest has been paid in full, or unless no interest has been paid on this Bond, in which event it shall bear interest from the Dated Date, at the interest rate per annum (calculated on the basis of a year of 360 days consisting of twelve 30-day months) specified above (the "Interest Rate"), payable semiannually on [_____ 1] and [_____ 1] of each year, beginning [_____ 1, 201__], until payment in full of the Principal Amount. This Bond shall bear interest on overdue principal at the Interest Rate.

Principal of and premium, if any, on this Bond shall be payable at the corporate trust office of Wells Fargo Bank, N.A., the paying agent of the Board, or its successor as such paying agent, in any coin or currency of the United States of America that at the time of payment is legal tender for the payment of public and private debts. Payment of the semiannual interest hereon shall be made to the registered owner hereof and shall be paid by check or draft mailed to the person who is the registered owner of record as of the close of business on the fifteenth (15) day of the month next preceding each interest payment date at the address of such registered owner as it appears on the registration books of the Board maintained by the Trustee (as hereinafter defined), or at such other address as is furnished in writing by such registered owner to the Trustee as provided in the Bond Resolution (as hereinafter defined).

This Bond is a special obligation of the University and is one of the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds (the "Bonds") issued under and by virtue of the provisions of Chapter 21 of Title 53B of the Utah Code Annotated 1953, as amended, 63B-24-102(2) of the Utah Code Annotated 1953, as amended, and the Registered Public Obligations Act, Chapter 7 of Title 15 of the Utah Code Annotated 1953, as amended (collectively, the "Act"), and under and pursuant to the Resolution Providing For the Issuance of Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, adopted on March 25, 1994 (the "Master Resolution"), as the same from time to time may be amended or supplemented by further resolutions of the Board, including the Supplemental Resolution authorizing the issuance of this Series of Bonds, adopted on July 31, 2015 (such Master Resolution and Supplemental Resolution and any and all such further resolutions being herein collectively called the "Bond Resolution"), for the purpose of providing funds (a) to finance housing improvements for the University, (b) to provide necessary reserves and (c) to pay expenses incident thereto and to the issuance of the Series 2015 Bonds (as defined below).

THE UNIVERSITY IS OBLIGATED TO PAY PRINCIPAL AND REDEMPTION PRICE OF AND INTEREST ON THIS BOND SOLELY FROM THE REVENUES AND OTHER FUNDS OF THE UNIVERSITY PLEDGED THEREFOR UNDER THE TERMS OF THE BOND RESOLUTION. THIS BOND IS NOT A DEBT OF THE STATE OF UTAH, THE BOARD OR THE UNIVERSITY WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY LIMITATION OF INDEBTEDNESS. PURSUANT TO THE BOND RESOLUTION, SUFFICIENT REVENUES HAVE BEEN PLEDGED AND WILL BE SET ASIDE INTO SPECIAL FUNDS BY THE UNIVERSITY TO PROVIDE FOR THE PROMPT PAYMENT OF THE PRINCIPAL OF AND INTEREST ON THIS BOND AND ALL BONDS OF THE SERIES OF WHICH IT IS A PART.

As provided in the Bond Resolution, bonds, notes and other obligations may be issued from time to time in one or more series in various principal amounts, may mature at different times, may bear interest at different rates and may otherwise vary as provided in the Bond Resolution, and the aggregate principal amount of such bonds, notes and other obligations that may be issued is not limited. In addition to bonds, notes and other obligations issued pursuant to the Bond Resolution, the University may execute Contracts

and incur Security Instrument Repayment Obligations as provided in the Bond Resolution. All bonds, notes and other obligations issued and to be issued under the Bond Resolution (including, but not limited to, the Series 2015 Bonds), all Contracts and all Security Instrument Repayment Obligations are and will be equally and ratably secured by the pledge and covenants made in the Bond Resolution, except as otherwise expressly provided or permitted in or pursuant to the Bond Resolution.

This Bond is one of a Series of Bonds designated as “Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015” (herein called the “Series 2015 Bonds”), limited to the aggregate principal amount of _____ Dollars (\$_____), and duly issued under and by virtue of the Act and under and pursuant to the Bond Resolution. Copies of the Bond Resolution are on file at the office of the Secretary of the Board, in Salt Lake City, Utah, at the office of the Vice President for Business and Finance of the University, in Logan, Utah, and at the respective corporate trust office of Wells Fargo Bank, N.A., as trustee under the Bond Resolution (said trustee and any successors thereto under the Bond Resolution being herein called the “Trustee”). Reference to the Bond Resolution and to the Act is made for a description of the pledge and covenants securing the Series 2015 Bonds, the nature, manner and extent of enforcement of such pledge and covenants, the terms and conditions upon which the Series 2015 Bonds are issued, and upon which additional Bonds, notes and other obligations may be issued thereunder, Contracts may be executed thereunder and Security Instrument Repayment Obligations may be incurred thereunder, and a statement of the rights, duties, immunities and obligations of the Board, the University and the Trustee. Such pledge and other obligations of the Board and the University under the Bond Resolution may be discharged at or prior to the maturity or redemption of the Series 2015 Bonds upon the making of provision for the payment thereof on the terms and conditions set forth in the Bond Resolution.

To the extent and in the respects permitted by the Bond Resolution, the Bond Resolution may be modified or amended by action on behalf of the Board taken in the manner and subject to the conditions and exceptions prescribed in the Bond Resolution. The owner of this Bond shall have no right to enforce the provisions of the Bond Resolution or to institute action to enforce the pledge or covenants made therein or to take any action with respect to an event of default under the Bond Resolution or to institute, appear in or defend any suit or other proceeding with respect thereto, except as provided in the Bond Resolution.

This Bond is transferable, as provided in the Bond Resolution, only upon the books of the University kept for that purpose at the principal corporate trust office of the Trustee, by the registered owner hereof in person or by such owner’s attorney duly authorized in writing, upon surrender hereof to the Trustee together with a written instrument of transfer satisfactory to the Trustee, duly executed by the registered owner or such duly authorized attorney. Thereupon, the Board and the University shall issue in the name of the transferee a new Series 2015 Bond of the same aggregate principal amount and Series, designation, maturity and interest rate as the surrendered Series 2015 Bond, all as provided in the Bond Resolution and upon the payment of the charges therein prescribed. The Board, the University, the Trustee and any paying agent may

treat and consider the person in whose name this Series 2015 Bond is registered as the holder and absolute owner hereof for the purpose of receiving payment of, or on account of, the principal or Redemption Price hereof and interest due hereon and for all other purposes whatsoever, and neither the Board, the University, the Trustee nor any paying agent shall be affected by any notice to the contrary.

The Series 2015 Bonds are issuable solely in the form of fully registered Bonds, without coupons, in denominations of \$5,000 and any whole multiple thereof.

The Series 2015 Bonds are subject to redemption prior to maturity as follows:

[to be inserted from Terms Certificate]

Except as otherwise provided herein and unless the context clearly indicates otherwise, words and phrases used herein shall have the same meanings as such words and phrases in the Bond Resolution.

This Bond shall not be valid until the Certificate of Authentication hereon shall have been manually signed by the Trustee.

This Bond is one of a Series of Bonds which were certified as legal obligations by the Attorney General of the State of Utah on July 31, 2015.

(Signature page follows.)

IN WITNESS WHEREOF, THE STATE BOARD OF REGENTS OF THE STATE OF UTAH has caused this Bond to be executed on behalf of the University by the Chair of the Board, countersigned by the Vice President for Business and Finance of the University and attested by the Secretary of the Board and has caused the official seal of the Board to be impressed hereon, all as of the Dated Date.

STATE BOARD OF REGENTS OF
THE STATE OF UTAH

(SEAL)

By _____ /s/ (Do Not Sign)
Chair

COUNTERSIGNED:

By _____ /s/ (Do Not Sign)
Vice President for Business and Finance
of Utah State University of Agriculture
and Applied Science

ATTEST:

_____/s/ (Do Not Sign)
Secretary

[FORM OF TRUSTEE'S CERTIFICATE OF AUTHENTICATION]

This Bond is one of the Bonds described in the within mentioned Bond Resolution and is one of the Utah State University of Agriculture and Applied Science Student Fee and Housing System Revenue Bonds, Series 2015.

WELLS FARGO BANK, N.A., as Trustee

By _____
Authorized Officer

Date of registration and authentication: _____

[FORM OF ASSIGNMENT]

The following abbreviations, when used in the inscription on the face of the within Bond, shall be construed as though they were written out in full according to applicable laws or regulations.

TEN COM – as tenants in common
TEN ENT – as tenants by the entirety
JT TEN – as joint tenants with right of survivorship and not as tenants in common

UNIF GIFT MIN ACT _____
(Cust.)

Custodian for _____
(Minor)

under Uniform Gifts to Minors Act of _____
(State)

Additional abbreviations may also be used though not in the above list.

ASSIGNMENT

FOR VALUE RECEIVED, _____ the undersigned hereby sells, assigns and transfers unto:

(Social Security or Other Identifying Number of Assignee)

(Please Print or Typewrite Name and Address of Transferee)

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____ attorney for registration thereof, with full power of substitution in the premises.

DATED:

Signature: _____

NOTICE: The signature to this assignment must correspond with the name of the Registered Owner as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatever.

Signature Guaranteed:

NOTICE: The signature(s) should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program), pursuant to S.E.C. Rule 17Ad-15.

ARTICLE V

MISCELLANEOUS

Section 501. Arbitrage Covenant for Series 2015 Bonds; Covenant to Maintain Tax Exemption. (a) The Designated Officers and other appropriate officials of the Board and the University are hereby authorized and directed to execute such Tax Certificates as shall be necessary to establish that (i) the Series 2015 Bonds are not “arbitrage bonds” within the meaning of Section 148 of the Code and the regulations promulgated or proposed thereunder, (ii) the Series 2015 Bonds are not and will not become “private activity bonds” within the meaning of Section 141 of the Code, (iii) all applicable requirements of Section 149 of the Code are and will be met, (iv) the covenants of the Board and the University contained in this Section will be complied with and (v) interest on the Series 2015 Bonds is not and will not become includible in gross income of the Owners thereof for federal income tax purposes under the Code and applicable regulations promulgated or proposed thereunder.

Section 502. Ratification. All proceedings, resolutions and actions of the Board, the University and their respective officers taken in connection with the sale and issuance of the Series 2015 Bonds are hereby ratified, confirmed and approved.

Section 503. Severability. It is hereby declared that all parts of this Series 2015 Supplemental Resolution are severable, and if any section, paragraph, clause or provision of this Series 2015 Supplemental Resolution shall, for any reason, be held to be invalid or unenforceable, the invalidity or unenforceability of any such section, paragraph, clause or provision shall not affect the remaining sections, paragraphs, clauses or provisions of this Series 2015 Supplemental Resolution.

Section 504. Conflict. All resolutions, orders and regulations or parts thereof heretofore adopted or passed that are in conflict with any of the provisions of this Series 2015 Supplemental Resolution are, to the extent of such conflict, hereby repealed.

Section 505. Captions. The table of contents and captions or headings herein are for convenience of reference only and in no way define, limit or describe the scope or intent of any provisions or sections of this Series 2015 Supplemental Resolution.

Section 506. Effective Date. This Series 2015 Supplemental Resolution shall take effect immediately upon its adoption and approval.

(Signature page follows.)

ADOPTED AND APPROVED this 31st day of July, 2015.

STATE BOARD OF REGENTS OF THE
STATE OF UTAH

(SEAL)

By _____
Chair

ATTEST:

Secretary

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Loreen Olney, the undersigned, the duly qualified and acting Secretary of the State Board of Regents of the State of Utah, do hereby certify, according to the records of said State Board of Regents in my official possession, and upon my own knowledge and belief, that:

(a) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended I gave public notice of the agenda, date, time and place of the July 31, 2015 public meeting held by the Members of the State Board of Regents by (i) causing a Notice of Public Meeting to be posted at the principal office of the State Board of Regents at 60 South 400 West, in Salt Lake City, Utah, on _____, 2015, and (ii) published on the Utah Public Notice Website (<http://pmn.utah.gov>), at least twenty-four (24) hours prior to the convening of such meeting, in the form attached hereto as Schedule 1; said Notice of Public Meeting having continuously remained so posted and available for public inspection during the regular office hours of the State Board of Regents until the convening of the meeting; and causing a copy of said Notice of Public Meeting in the form attached hereto as Schedule 1 to be provided on _____, at least twenty-four (24) hours prior to the convening of such meeting, to the Deseret News and The Salt Lake Tribune, newspapers of general circulation within the geographic jurisdiction of the State Board of Regents, and to each local media correspondent, newspaper, radio station or television station which has requested notification of meetings of the State Board of Regents; and

(b) that in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice of the 2015-2016 Annual Meeting Schedule of the State Board of Regents was given specifying the date, time and place of the regular meetings of the State Board of Regents scheduled to be held during the year, by causing a Notice of Annual Meeting Schedule for the State Board of Regents (in the form attached as Schedule 2) to be (i) posted in November 2014 at the principal office of the State Board of Regents in Salt Lake City, Utah and causing a copy of such Notice of Annual Meeting Schedule to be provided in November 2014 to a newspaper of general circulation within the geographic jurisdiction of Salt Lake City, Utah and (ii) published on the Utah Public Notice Website (<http://pmn.utah.gov>) during each of the applicable calendar years.

(c) the State Board of Regents has adopted written procedures governing the holding of electronic meetings in accordance with Section 52-4-207 Utah Code Annotated 1953, as amended (a copy of which is attached hereto as Schedule 3). In accordance with said Section and the aforementioned procedures, notice was given to each member of the State Board of Regents and to members of the public at least 24 hours before the meeting to allow members of the State Board of Regents and the public to participate in the meeting, including a

description of how they could be connected to the meeting. The State Board of Regents held the meeting (the anchor location) in the building where it normally meets and provided space and facilities at the anchor location so that interested persons and the public could attend and participate.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the State Board of Regents of the State of Utah, this 31st day of July, 2015.

(SEAL)

Secretary

EXHIBIT A

PARAMETERS OF THE BONDS

Principal amount not to exceed:	\$25,500,000 (providing a net project amount of not to exceed \$23,100,000)
Interest rate not to exceed:	5.00%
Discount from par not to exceed: (underwriters and original issue discount)	2.0%
Final maturity not to exceed:	Twenty Three (23) years from the date thereof
May be non-callable or callable at the option of University as determined at the time of sale	

July 22, 2015

MEMORANDUM

TO: State Board of Regents
FROM: David L. Buhler
SUBJECT: Utah State University – Property Purchase in Moab, Utah

Issue

Utah State University (USU) has requested authorization to purchase three parcels of developed commercial land totaling 1.21 acres. These properties are located at 119, 123, and 145 West 200 South in Moab, Utah.

Background

The proposed properties are contiguous to the existing USU Moab Education Center that consists of two buildings in downtown Moab. Most of the office and warehouse space in the proposed acquisition is currently leased to other parties. USU will assume the existing lease agreements and manage the property until it is needed for the expanding educational programs.

The current Education Center buildings are approaching full utilization, and while USU recently acquired 40 acres of undeveloped land for a future USU Moab Campus, the intent is to maintain a presence in downtown Moab as a site for Career and Technical Education (CTE) programs offered in partnership with the Utah Division of Workforce Services.

Approval of the purchase by the USU Trustees is anticipated at its July 17, 2015 meeting. Funding for the purchase at the \$750,000 appraised market value and the ongoing O&M costs will be provided from USU Regional Campus tuition and fees.

A copy of the USU letter requesting this purchase, an aerial map of the property, and an executive summary of the appraisal are attached for your information. USU representatives will be present at the meeting to provide additional information and respond to questions from the Board.

Commissioner's Recommendation

The Commissioner recommends that the Board carefully evaluate this proposal in the context of the long-term needs for USU in Moab and surrounding areas and authorize its purchase as they deem appropriate.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment



July 10, 2015

Commissioner David L. Buhler
Utah State Board of Regents
Board of Regents Building The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Dear Commissioner Buhler:

Utah State University desires to purchase 3 parcels of developed commercial land and improvements including an office building, warehouse, and parking located at 119, 123, and 145 West 200 South, Moab, Utah. The parcels shaded in red on the attached Exhibit A are approximately 1.21 acres in size and adjoin the current USU Moab Education Center.

Although USU has recently acquired 40 acres of undeveloped land in Moab for the long-term future of the USU Moab campus, that property will likely take years to develop considering all of the infrastructure that must be installed before the first facility can be constructed. This acquisition is for the purpose of addressing enrollment growth that is ongoing while USU is currently occupying space in two adjoining buildings in downtown Moab, which are approaching full utilization. In addition, even when the new campus location is developed, it is the desire of USU to keep the downtown Moab property for the Career and Technical Education (CTE) programs that are and will be offered by USU Moab in partnership with the Utah Division of Workforce Services. Most of the office and warehouse space in the buildings being proposed for purchase are currently leased to other parties. USU will assume the existing lease agreements and manage the property until it is needed for educational programs.

USU has arranged to purchase this property under a Real Estate Purchase Agreement for \$750,000, which is the current fair market "as is" value supported by the attached appraisal summary obtained by USU. Funding for the acquisition and for ongoing operation and maintenance costs will be paid from tuition and fees collected by USU Regional Campuses. This item will be presented to the Board of Trustees during the July 17, 2015 meeting.

We appreciate your support and ask that you present this item for Regents approval.

Sincerely,

David T. Cowley
Vice President for
Business and Finance

C: Greg Stauffer, Associate Commissioner for Finance and Facilities
Stan Albrecht, President

EXHBIT A



Utah State University is the client in this assignment. The intended user(s) of this report are Utah State University. The intended use is for purchasing considerations. The value opinions reported herein are subject to the definitions, assumptions and limiting conditions, and certification contained in this report.

If there are extraordinary assumptions and/or hypothetical conditions used in this report, the use of these extraordinary assumptions and hypothetical conditions might have affected the assignment results. The acceptance of this appraisal assignment and the completion of the appraisal report submitted herewith are contingent on the following extraordinary assumptions and/or hypothetical conditions:

Extraordinary Assumptions:

- It is assumed that the information provided to us by the owner and county officials is accurate. Any deviation from how this information was represented to us could result in a change in opinion of value.

Hypothetical Conditions:

- None

Based on the analysis contained in the following report, our value conclusions involving the subject property are summarized as follows:

Value Conclusions	
As Is	
Value Type	Market Value
Property Rights Appraised	Leased Fee
Effective Date of Value	April 21, 2015
Value Conclusion	\$750,000
	\$50.81 psf

Respectfully submitted,
 Valbridge Property Advisors | Free and Associates, Inc.



D. Randall Henderson
 Senior Appraiser

Utah State - Certified General Appraiser
 License # 7171277-CG00 (Exp. 3/30/16)



Stan C. Craft, MAI
 Managing Director

Utah State - Certified General Appraiser
 License # 5468268-CG00 (Exp. 11/30/16)

July 22, 2015

MEMORANDUM

TO: State Board of Regents
FROM: David L. Buhler
SUBJECT: Utah State University – Biological Science Building Design Approval

Issue

Utah State University (USU) requests authorization to use non-state funding to plan and design the Biological Science Building, the University's highest priority state funded project request for FY 2017.

Background

During the 2015 General Session, the Legislature passed intent language in Senate Bill 3, *Appropriations Adjustments* that permits "institutions of higher education to use donated or institutional funds for planning and design of proposed capital developments." Regent policy R710 requires Regent approval before institutions may request authorization of the State Building Board to use non-state sources for planning and design purposes. Designed facilities will not necessarily receive a higher priority for funding from either the Legislature or the State Building Board.

USU requests authorization to use donated funds to plan and design the Biological Science Building project, which will include the addition of a 110,000 gross square foot facility and the renovation of the adjacent Biology and Natural Resources Building. The project will provide new and updated teaching and research laboratories for the biological sciences. USU estimates programming costs of between \$500,000 and \$600,000 and design costs of approximately \$3,700,000.

Additional information may be found in the attached letter from the University. University officials will be present at the meeting to provide additional information and respond to questions from the Regents.

Commissioner's Recommendation

The Commissioner recommends Board authorization to allow USU to expend non-state resources to plan and design the Biological Science Building project.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/RPA
Attachment

July 10, 2015

Commissioner David L. Buhler
Utah State Board of Regents
Board of Regents Building The Gateway
60 South 400 West
Salt Lake City, Utah 84101-1284

Dear Commissioner Buhler:

Utah State University desires to begin the design phase of the Biological Science Building project which will be presented during the 2016 Legislative Session as the University's highest priority state funded project request. During the 2015 Legislative Session authorization was given to institutions of higher education to use donated or institutional funds for planning and design of proposed capital development projects. In order to expedite the project, design approval is being requested so that construction can begin as soon as possible following legislative approval.

This Biological Sciences Building project consists of a 110,000 gross square foot building on the site of the former Agricultural Sciences Building and renovation of the adjacent aging Biology and Natural Resources Building to serve the needs of nearly 600 undergraduate Biology majors. In addition the Biology Department serves thousands of additional students with general education requirements, as well as hundreds of non-majors who are preparing for careers in the health professions, agriculture, and natural resources. The new building will provide critical replacement and expansion space for the Biology Department, focusing on new teaching and research laboratories. The renovation will provide updated teaching/class laboratories, space for several collection-based teaching labs, and upgrades to the mechanical, structural, and energy systems that are required by code. This item will be presented to the Board of Trustees during the July 17, 2015 meeting.

We appreciate your support and ask that you present this item for Regents approval.

Sincerely,



David T. Cowley
Vice President for
Business and Finance

C: Greg Stauffer, Associate Commissioner for Finance and Facilities
Stan Albrecht, President

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Dixie State University – East Elementary School Block Property Purchase

Issue

Dixie State University has requested Board approval to purchase a residential property that is contiguous to the campus on the city block where the East Elementary School is located.

Background

The details of this request are described in the attached letter from Dixie State University (DSU). Since the property is contiguous to the existing campus and falls under the cap established in Regent policy, DSU would normally have been able to proceed with purchase of this property once Board of Trustee approval was secured. However, because the seller obtained a separate appraisal for the property, the price required to acquire it now exceeds the value identified in the DSU appraisal. As a result, Regent approval is required as an exception to policy.

Acquisition of such properties is a high priority for the university and it is important to acquire them when they come available. While the purchase price exceeds the appraisal obtained by DSU, the dollar amount is not large, and if it is not acquired now, it is likely that when it becomes available again it will be at a significantly higher price.

Commissioner's Recommendation

The Commissioner recommends approval of the DSU request to purchase this desirable property at the \$122,500 asking price.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachments

Paul C. Morris
Vice President for Administrative Services
Phone: 435-652-7504
Email: morris@dixie.edu

July 10, 2015

Dr. David L. Buhler
Commissioner of Higher Education
Board of Regents Building
60 South 400 West
Salt Lake City, Utah 84101

Dear Dr. Buhler,

Purpose

Dixie State University (DSU) is requesting Regent approval to purchase a residential home constructed on approximately $\frac{1}{4}$ acre of land located contiguous to campus on the East Elementary block.

Background

The property is located on the corner of University Avenue and 400 S. (West of Hansen Stadium). Currently, three homes are located along University Avenue on the East Elementary Block. Dixie State University already owns one of the homes and the other two are privately owned. The proposed property acquisition is one of the two remaining privately owned parcels on the East Elementary Block.

Dixie State University contracted with Johnson Appraisal, Inc. to help determine the value of the property. The appraisal completed by Johnson Appraisal valued the property at \$100,000. The property owner believes the value of the property to be higher than appraised by Johnson. As a result, the property owner hired Appco Appraisal Service to value the property. The Appco appraisal values the property at \$122,500. The disparity in the two appraised values is minimal and the property is strategically important to the future footprint of Dixie State University. As a result, Dixie State University requests Regent approval to purchase the property at \$122,500 as valued by Appco Appraisal Service.

The following attachments provide additional information and documentation to substantiate the purchase price and describe the location and importance of the property to Dixie State University.

- Attachment 1: Summary page of appraisal prepared by Johnson Appraisal, Inc.
- Attachment 2: Summary page of appraisal prepared by Appco Appraisal Service
- Attachment 3: Aerial and street view photographs of subject property

Sincerely,

Paul C. Morris

cc: Richard Williams, Sherry Ruesch

Attachment #1

JOHNSON APPRAISAL, INC.

REAL ESTATE APPRAISERS
784 S. RIVER ROAD, #104
ST. GEORGE, UTAH 84790

DANIEL JOHNSON, MAI, SRA
RYAN JOHNSON

TELEPHONE
(435) 674-2191
FAX (435) 674-2192

June 19, 2015

LETTER OF TRANSMITTAL

Jackie Freeman
Director of Purchasing Services
Dixie State University
225 South 700 East
St. George, Utah 84770

Dear Ms. Freeman:

We have completed an investigation and appraisal of the existing single family residence, with a legal address of 414 South 700 East, in the City of St. George, County of Washington, State of Utah, legally described on page 6 of this appraisal report.

This report has been prepared in conformity with and is subject to the Code of Professional Ethics of the Appraisal Institute, the 2014-2015 Edition of the Uniform Standards of Professional Appraisal Practice of the Appraisal Foundation.

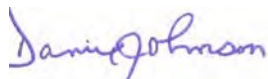
The subject property being appraised is a single family residence that was built in 1945. It contains a total of 1,136 square feet of area on a single level. It is divided into a living room, kitchen, family room, den, two bedrooms, and one bathroom. It is also improved with an attached carport.

Exposure time is the amount of time in retrospect necessary to achieve a sale by the appraisal date and is based on immediate past market trends from applicable market data. The market value of the property is an estimate assuming an exposure time of six months to one year prior to the hypothetical consummation of a sale based on the effective date of the appraisal. Based on an inspection of the property, and the analyses contained in this report, it is our opinion that the "As Is" Market Value of the subject property, with an effective date of June 18, 2015, is:

ONE HUNDRED THOUSAND DOLLARS
(\$100,000)

This report is subject to the Certification and Assumptions and Limiting Conditions, which are contained on pages 2 through 4 of this report, and govern the use and validity of this appraisal.

Sincerely,



Daniel Johnson, MAI, SRA
Utah State Certified General Appraiser
License No. 5452150-CG00
Expires July 31, 2015



Ryan Johnson
Utah State Certified General Appraiser
License No. 5791778-CG00
Expires November 30, 2016

	Client File #:	Appraisal File #:	15-149
	Summary Appraisal Report · Residential		
	Appraisal Company: Appco Appraisal Service		
	Address: 385 W Brigham Rd #23, St. George, UT 84790		
Phone: 801-690-6511	Fax:	Website:	
Appraiser: David W. Hunter		Co-Appraiser:	
AI Membership (if any): <input type="checkbox"/> SRA <input type="checkbox"/> MAI <input type="checkbox"/> SRPA		AI Membership (if any): <input type="checkbox"/> SRA <input type="checkbox"/> MAI <input type="checkbox"/> SRPA	
AI Status (if any): <input type="checkbox"/> Candidate for Designation <input type="checkbox"/> Practicing Affiliate		AI Status (if any): <input type="checkbox"/> Candidate for Designation <input type="checkbox"/> Practicing Affiliate	
Other Professional Affiliation:		Other Professional Affiliation:	
Email: dave4036@gmail.com		E-mail:	
Client: Laura Kay Cooper Trust		Contact: Laura Frei	
Address: 98 East 700 South, St. George, Utah 84770			
Phone: (435)703-8772		Fax:	Email: LauraFreisg@gmail.com
SUBJECT PROPERTY IDENTIFICATION			
Address: 414 S 700 E			
City: St. George		County: Washington	State: UT ZIP: 84770-3813
Legal Description: St. George City Survey Plat B Block 23 (SG) Lot: 8 North 82 Ft Lot 8 Block 23 Plat B of the St. George City Survey			
Tax Parcel #: SG-913		RE Taxes: 674	Tax Year: 2014
Use of the Real Estate As of the Date of Value: Single Family Residential Rental			
Use of the Real Estate Reflected in the Appraisal: Single Family Residential			
Opinion of highest and best use (if required): Single Family Residential			
SUBJECT PROPERTY HISTORY			
Owner of Record: Laura Kay Cooper Revocable Living Trust			
Description and analysis of sales within 3 years (minimum) prior to effective date of value: No title activity within the prior 3 years as of the effective date of this appraisal.			
Description and analysis of agreements of sale (contracts), listing, and options: No sales contract or listing of the subject property have been presented to this appraiser.			
RECONCILIATIONS AND CONCLUSIONS			
Indication of Value by Sales Comparison Approach		\$ 122,500	
Indication of Value by Cost Approach		\$ 124,500	
Indication of Value by Income Approach		\$ 0	
Final Reconciliation of the Methods and Approaches to Value: The income approach to value has been developed and considered as likewise the cost approach to value. Most emphasis has been placed on the market approach to value given its current use being that of a single family residential rental property. The other approaches to value were also considered in this evaluation.			
Opinion of Value as of: 07/03/2015		\$ 122,500	
Exposure Time: 60-120 days on market			
The above opinion is subject to: <input type="checkbox"/> Hypothetical Conditions and/or <input type="checkbox"/> Extraordinary Assumptions cited on the following page.			

* NOTICE: The Appraisal Institute publishes this form for use by appraisers where the appraiser deems use of the form appropriate. Depending on the assignment, the appraiser may need to provide additional data, analysis and work product not called for in this form. The Appraisal Institute plays no role in completing the form and disclaims any responsibility for the data, analysis or any other work product provided by the individual appraiser(s) in the specific contents of the AI Reports®. AI Reports® AI-100.04 Summary Appraisal



July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Orson Spencer Hall Replacement and Prior Lien Bond Refunding Series 2015C Revenue Bond Issue

Issue

The University of Utah has requested authorization to issue a Series 2015C General Revenue Bond (GRB) for the following:

- Orson Spencer Hall (OSH) Replacement – This project was approved by the 2015 legislature with an authorization to issue a revenue bond of up to \$45 million plus other amounts necessary to pay the costs of issuance, capitalized interest, and funding for any debt service reserve requirements.
- Prior Lien Revenue Bond and Commercial Paper Refunding – This is a request to authorize up to \$100 million for continuation of the process of looking for market opportunities to refund all or portions of currently outstanding bonds in the Auxiliary and Campus Facilities, Hospital, and Research Facilities revenue bond systems with GRB system revenue bonds; and also to refund portions of outstanding commercial paper where financially justified.

Background

Although construction of the project is not expected until 2016, the University desires to receive bonding approval now to have the flexibility to issue the debt while rates are still favorable. As a result, for the OSH Replacement portion of the bond, the University estimates a potential need to finance 2.5 to 3 years of capitalized interest plus the needing to insure that it has sufficient market pricing flexibility in an original issue discount-only environment.

The parameters of the proposed issue are:

- Principal amount not to exceed \$157 million of which \$57 million pertains to the OSH Replacement project
- Interest rate not to exceed 5.5%
- Discount from par not to exceed 2%
- Final maturity not to exceed 25 years

The best time to actually issue the bonds for the OSH project is currently being evaluated by the University and its Municipal Advisor. Regent approval at this time will enable an expedited issuance should market

conditions suddenly improve or avoid the downside of a surge in long-term interest rates. The University's Municipal Advisor has estimated that the University's cost of borrowing would only have to rise approximately 25 basis points in one year for it to reach a break-even position compared to today's interest rates.

Copies of the University's request, a Financing Summary, and the Approving Resolution are attached for your information. Representatives from the University and the University's Bond Counsel will be present at the meeting to address questions from the Board.

Commissioner's Recommendation

The Commissioner recommends approval of the proposed Authorizing Resolution for issuance of this Series 2015C Revenue Bond to finance replacement of Orson Spencer Hall and to refund existing debt as proposed.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachments

July 7, 2015

Mr. David Buhler
Commissioner, Utah System of Higher Education
Board of Regents Building
The Gateway
60 South 400 West
Salt Lake City, UT 84101-1284

Dear Commissioner Buhler:

The purpose of this letter is to inform you of the University of Utah's plans to submit a resolution (the "Resolution") to the State Board of Regents of the State of Utah (the "Regents" or the "Board"), to be considered during its July 2015 meeting at Southern Utah University, for the issuance of a General Revenue Bond on behalf of the University of Utah (the "University") for the financing of the redevelopment of Orson Spencer Hall.

Within the same Resolution, the University will also be asking the Regents for the approval of refunding of up to \$100 million of "Prior Lien Bonds" of the University where savings opportunities may exist.

Details of these issues are as follows:

Authorization to Bond up to \$45,000,000 for project costs associated with the Orson Spencer Hall Redevelopment Project - The current Orson Spencer Hall ("OSH") has well exceeded its useable life span. A myriad of issues exist that make its continued use inefficient and unpalatable. OSH is the most heavily used teaching and learning facility on the University campus. This project includes the demolition of the existing structure and the replacement with a new structure.

The University received bonding authorization for this project during the 2015 Legislative Session of up to \$45.0 million for project costs, together with other amounts necessary to pay costs of issuance, capitalized interest, and fund any debt service reserve requirements, if necessary. Because the timing of the bond issuance is uncertain, The University requires sufficient market pricing flexibility to allow for an original issue discount environment. This could potentially, although not likely, increase the par value of the total debt by several million dollars.

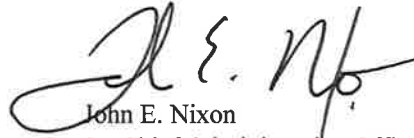
Although the demolition and construction of the project is not expected until 2016, the University desires to receive the bonding approval now to give it the flexibility to issue debt while interest rates are still favorable. The University is working with its Financial Advisor to determine the best time to issue the debt.

Authorization to Refund up to \$100,000,000 of 'Prior Lien' Revenue Bonds - The University is continually looking for market opportunities to refund—primarily for savings purposes—all or portions of its outstanding 'Prior Lien Bonds' which are defined as bonds currently outstanding in the following three systems: 1) Auxiliary and Campus Facilities; 2) Hospital Revenue Bond; and 3) Research Facilities Revenue Bond. Following an updated general plan of finance, which was articulated in 2013, as Prior Lien Bonds become refunding candidates, the University will refund them into its new General Revenue Bond ("GRB") system having closed the lien on each of the Prior Lien Bond indentures. In addition, the University will also be looking for opportunities to refund portions of its outstanding commercial paper.

Given interest rates in today's municipal market, the University is always reviewing refunding candidates that may exist among these outstanding Prior Lien Bonds or its outstanding commercial paper and which the University may consider as part of a refunding. Timing of these refunding opportunities is critical to achieving savings necessary.

Please feel free to call me should you or others have questions about the details of this funding request.

Sincerely,

A handwritten signature in black ink, appearing to read "J. E. Nixon". The signature is fluid and cursive, with a large initial "J" and "N".

John E. Nixon

Sr. Chief Administrative Officer & CFO

cc: David W. Pershing, President
Dr. Gregory Stauffer
Arnold B. Combe
Ralph Hardy
Kelly Murdock
Blake Wade
Robert Muir



RBC Capital Markets®

RBC Capital Markets, LLC
Municipal Finance
299 South Main Street, Suite 2000
Salt Lake City, Utah 84111

FINANCING SUMMARY

For

\$57,000,000*

**State Board of Regents of the State of Utah
UNIVERSITY OF UTAH
General Revenue Bonds
Series 2015C* Bonds**

Request for Approval

Purpose (OSH Project):

The purpose for the issuance of the Series 2015C Bonds is to finance \$45 million of bonding authorized by the Utah State Legislature in its 2015 Session for construction of the estimated \$60 million 'Orson Spencer Hall Redevelopment' Project (the 'OSH Project'). In addition to borrowing the legislatively-approved amount of \$45 million, the authorization allows the University to borrow sufficient amounts to finance capitalized interest and also pay costs of issuance. The University currently estimates needing approximately 2.5 to 3 years of capitalized interest, or approximately \$4 million, plus needing to assure that it has sufficient market pricing flexibility which could approach \$6 to \$7 million in an original issue discount-only environment. An additional \$500,000 could also be needed for necessary costs of issuance.

Purpose (Refunding):

As part of the University's request, Regent approval is also being sought to extend refunding authorization of up to \$100 million of 'Prior Lien' revenue bonds and Commercial Paper.

The University is constantly evaluating refunding opportunities for its outstanding debt and seeks the Regents' approval to extend this authorization for purposes of being able to respond more quickly to changing interest rate environments.

Not-to-Exceed Par Amount: \$57 million for the OSH Project

Not-to-Exceed Maturity: 25-years (The University's current plan is to amortize the OSH Project debt over a period of 10-years).

Security: The Series 2015C Bonds are payable from and secured by a General Revenue pledge which consists of substantially all of the income and revenues of the University authorized to be pledged.

Ratings: 'Aa1' and 'AA' ratings are expected to be reaffirmed by Moody's Investors Service and Standard and Poor's Corporation, respectively. The University also stands a chance of receiving an upgrade of its S&P rating to 'AA+' based upon improving enrollment trends and the continued strength of the University of Utah Hospitals and Clinics.

Method of Sale: Negotiated public offering using underwriters from the University's Underwriter Pool (TBD).

All-in True Interest Cost: **TBD (2.50% to 2.75% in today's market is estimate for OSH Project)**

Sale Date: The University is currently trying to gauge the best time for issuing bonds for the OSH Project. Regent approval is currently being sought at this time to allow an expedited issuance should market conditions suddenly improve or to avoid a surge in long-term interest rates. The University's Municipal Advisor has estimated that the University's cost of borrowing would only have to rise approximately 25 basis points in one year for it to reach a break-even position compared to today's interest rates.

Closing Date: TBD

Principal Payment Dates: August 1
Interest Payment Dates: August 1 and February 1
Interest Basis: 30/360
Optional Redemption: May be non-callable or subject to redemption as determined at the time of sale.

Other Not-to-Exceed Parameters:

Coupon: 5.50%
Discount from Par: 2.00% of par
Purchaser's Discount: 0.60% of par
Optional Redemption: May be non-callable or callable at the option of the University as determined at the time of the sale
Final Maturity: 25-years from the date thereof

University Contacts: Mr. Arnold Combe, Vice President for Administrative Services (801-581-6404)
Mr. John Nixon, Sr. Chief Administrative Officer/CFO (801-585-0806)
Bond Counsel: Mr. Blake Wade, Ballard Spahr LLP (801-531-3000)
Municipal Advisor: Mr. Kelly Murdock, RBC Capital Markets (801-656-2928)

*Preliminary, subject to change

APPROVING RESOLUTION
UNIVERSITY OF UTAH
GENERAL REVENUE AND REFUNDING BONDS

Cedar City, Utah

July 31, 2015

The State Board of Regents of the State of Utah (the "Board") met in regular session (including by electronic means) at Southern Utah University in Cedar City, Utah on July 31, 2015, commencing at 9:00 a.m. The following members were present:

Daniel W. Campbell	Chair
France A. Davis	Vice Chair
Jessie B. Anderson	Member
Nina Barnes	Member
Bonnie Jean Beesley	Member
Leslie Castle*	Member
Wilford W. Clyde	Member
James T. Evans**	Member
Brady Harris	Student Regent
Marlin K. Jensen	Member
Robert S. Marquardt	Member
Jefferson Moss*	Member
Jed H. Pitcher	Member
Robert W. Prince	Member
Harris H. Simmons	Member
Mark R. Stoddard	Member
Teresa L. Theurer	Member
Joyce P. Valdez	Member
John H. Zenger	Member

Absent:

Also Present:

David L. Buhler	Commissioner of Higher Education
Loreen Olney	Secretary

* Non-voting member from State Board of Education

** Non-voting member from Utah College of Applied Technology

After the meeting had been duly convened and called to order by the Chair, the roll had been called with the above result and after other matters not pertinent to this Resolution had been discussed, the Chair announced that one of the purposes of the meeting was the consideration of various matters with respect to the issuance and sale of the State Board of Regents of the State of Utah University of Utah General Revenue and Refunding Bonds.

The following resolution was introduced in written form and after full discussion, pursuant to motion made by Regent _____ and seconded by Regent _____, was adopted by the following vote:

AYE:

NAY:

The resolution is as follows:

RESOLUTION

A RESOLUTION OF THE STATE BOARD OF REGENTS OF THE STATE OF UTAH AUTHORIZING THE ISSUANCE AND SALE OF ITS UNIVERSITY OF UTAH GENERAL REVENUE AND REFUNDING BONDS, IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED \$157,000,000; AUTHORIZING THE EXECUTION OF SUPPLEMENTAL INDENTURES, BOND PURCHASE AGREEMENTS, OFFICIAL STATEMENTS, AND OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH; AUTHORIZING THE TAKING OF ALL OTHER ACTIONS NECESSARY TO THE CONSUMMATION OF THE TRANSACTIONS CONTEMPLATED BY THIS RESOLUTION; AND RELATED MATTERS.

WHEREAS, the State Board of Regents of the State of Utah (the "Board") is established and exists under and pursuant to Section 53B-1-103, Utah Code Annotated 1953, as amended (the "Utah Code"); and

WHEREAS, pursuant to the provisions of Title 53B, Chapter 1, Utah Code, the Board is authorized to act as the governing authority of University of Utah (the "University") for the purpose of exercising the powers contained in Title 53B, Chapter 21, Utah Code and Title 11, Chapter 27, Utah Code (collectively, the "Act"); and

WHEREAS, in 2013 and 2014, the Board adopted resolutions (collectively, the "Prior Resolutions") authorizing the issuance of general revenue and refunding bonds of the University for the purpose of financing and refinancing various projects and provided that the University could issue such bonds in multiple series and from time to time for a period through July 19, 2015; and

WHEREAS, pursuant to the Prior Resolutions and a General Indenture of Trust dated as of July 1, 2013, between the Board and Wells Fargo Bank, N.A., as trustee (the "Trustee"), as heretofore amended and supplemented (the "General Indenture"), the Board has issued, for and on behalf of the University, various series of its General Revenue and Refunding Bonds to finance the projects authorized by the Prior Resolutions and to refund bonds and commercial paper of the University resulting in significant savings to the University; and

WHEREAS, pursuant to Section 63B-24-102(1) of the Utah Code, the Board is authorized to issue bonds for the purpose of constructing Orson Spencer Hall Redevelopment (the "Project") in an amount not to exceed \$45,000,000, together with other amounts necessary to pay costs of issuance, to pay capitalized interest and fund any debt service reserve requirements; and

WHEREAS, the Board now desires to (i) authorize the issuance of the bonds authorized by 63B-24-102(1) of the Utah Code, in the amount of up to \$57,000,000 (providing a net project amount of not to exceed \$45,000,000) for the purpose of

financing the OSH Project (including capitalized interest), (ii) authorize the issuance of additional bonds for the purpose of refunding any bonds or commercial paper of the University in the amount of up to \$100,000,000 and (iii) pay costs of issuance related thereto; and

WHEREAS, to accomplish the purposes set forth in the preceding recital, the Board desires to authorize and approve the issuance and sale of its University of Utah General Revenue and Refunding Bonds (with such additional or other title and/or series designation(s) as may be determined by the officers of the Board) in one or more series and to be issued from time to time (the "Bonds") in an aggregate principal amount of not to exceed \$157,000,000 pursuant to the General Indenture and one or more Supplemental Indentures of Trust between the Board and the Trustee (each a "Supplemental Indenture" and collectively with the General Indenture, the "Indenture"); and

WHEREAS, the Bonds shall be payable solely from the University's revenues and other moneys pledged therefor in the Indenture and shall not constitute nor give rise to a general obligation or liability of the Board, the University or the State of Utah or constitute a charge against their general credit; and

WHEREAS, there has been presented to the Board at this meeting a form of a Bond Purchase Agreement (the "Bond Purchase Agreement") to be entered into among the Board, the University and the underwriters or purchasers for the Bonds (the "Purchaser"), a form of a Preliminary Official Statement relating to the Bonds, in the event the Bonds are publicly sold (the "Preliminary Official Statement"), and a form of Supplemental Indenture; and

WHEREAS, the Board desires to grant to the Chair and/or Vice Chair of the Board and/or the Chair of the Finance, Facilities and Accountability Committee of the Board, the authority to approve the interest rates, principal amount, terms, maturities, redemption features, and purchase prices at which the Bonds shall be sold and any changes with respect thereto from those terms which were before the Board at the time of adoption of this Resolution; provided such terms do not exceed the parameters set forth in this Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE STATE BOARD OF REGENTS OF THE STATE OF UTAH, AS FOLLOWS:

Section 1. All terms defined in the foregoing recitals hereto shall have the same meanings when used herein.

Section 2. All actions heretofore taken (not inconsistent with the provisions of this resolution) by the Board and the University and the officers of the Board or the University directed toward the issuance of the Bonds are hereby ratified, approved and confirmed.

Section 3. The Board hereby authorizes, approves and directs the use and distribution of the Preliminary Official Statements substantially in the form of the Preliminary Official Statement presented to the Board at this meeting in connection with

the offering and sale of the Bonds, in the event the Bonds are publicly sold. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee of the Board and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to execute and deliver on behalf of the Board and the University final Official Statements in substantially the same form and with substantially the same content as the form of the Preliminary Official Statement presented to this meeting with any such alterations, changes or additions as may be necessary to finalize each Official Statement. The preparation, use and distribution of the Official Statements are also hereby authorized. The Board and the University may elect to privately place the Bonds with or without the use of an Official Statement.

Section 4. Supplemental Indentures in substantially the form presented to this meeting are in all respects authorized, approved and confirmed. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee and Secretary of the Board and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to execute and deliver the Supplemental Indentures in substantially the same form and with substantially the same content as the form of such document presented to this meeting for and on behalf of the Board and the University with such alterations, changes or additions as may be authorized by Section 8 hereof.

Section 5. For the purpose of providing funds to be used for (i) financing the cost of the Project (including capitalized interest), (ii) refunding all or any portion of the outstanding bonds or commercial paper issued by the Board on behalf of the University and (iii) paying costs of issuance of the Bonds, the Board hereby authorizes the issuance of the Bonds, from time to time and in one or more series, in the aggregate principal amount of not to exceed \$157,000,000. The Bonds shall mature on such date or dates, be subject to redemption, and bear interest at the rates as shall be approved by the Chair or Vice Chair of the Board or the Chair of the Finance, Facilities and Accountability Committee, all within the parameters set forth on Exhibit A attached hereto and incorporated herein by reference. The issuance of the Bonds shall be subject to the final advice of Bond Counsel and to the approval of the office of the Attorney General of the State of Utah. The Bonds authorized herein may be issued at any time prior to January 31, 2017, with the option of the Board to extend this authorization in the future.

Section 6. The form, terms and provisions of the Bonds and the provisions for the signatures, authentication, payment, registration, transfer, exchange, interest rates, redemption and number shall be as set forth in the Indenture. The Chair, Vice Chair and/or Chair of the Finance, Facilities and Accountability Committee and the Secretary of the Board and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to execute and seal by manual or facsimile signature the Bonds and to deliver the Bonds to the Trustee for authentication. All terms and provisions of the Indenture and the Bonds are hereby incorporated in this Resolution. The appropriate officials of the Board and the University are hereby authorized to execute and deliver to the Trustee the written order of

the Board for authentication and delivery of the Bonds in accordance with the provisions of the Indenture.

Section 7. The Bonds shall be sold to the Purchasers with a Purchaser's discount of not to exceed 0.60% of the face amount of the Bonds. Bond Purchase Agreements in substantially the form presented to this meeting are hereby authorized, approved and confirmed. The Chair or Vice Chair of the Board and/or the Chair of the Finance, Facilities and Accountability Committee and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to execute and deliver the Bond Purchase Agreements in substantially the same form and with substantially the same content as the form of the Bond Purchase Agreement presented at this meeting for and on behalf of the Board with final terms as may be established for the Bonds within the parameters set forth herein and with such alterations, changes or additions as may be necessary or as may be authorized by Section 8 hereof. The Chair or Vice-Chair of the Board and/or the Chair of the Finance, Facilities and Accountability Committee and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to specify and agree as to the final principal amounts, terms, discounts, maturities, interest rates, redemption features and purchase price with respect to the Bonds for and on behalf of the Board and the University and any changes thereto from those terms which were before the Board at the time of adoption of this Resolution, provided such terms are within the parameters set by this Resolution, with such approval to be conclusively established by the execution of the related Bond Purchase Agreement and Supplemental Indenture. In the event that the foregoing officers determine that all or any portion of the Bonds should be privately placed, the Bond Purchase Agreements and Supplemental Indentures may be modified to conform to the agreement with such Purchasers, including agreement to pay breakage fees, default rates, taxable rates and other similar provisions customary in such placements, provided that such obligations are limited to the sources provided under the Indenture.

Section 8. The appropriate officials of the Board and the University, including without limitation the Chair or Vice Chair of the Board and/or the Chair of the Finance, Facilities and Accountability Committee and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are authorized to make any alterations, changes or additions to the Indenture, the Bonds, the Bond Purchase Agreement, the Preliminary Official Statement, the Official Statement, or any other document herein authorized and approved which may be necessary to correct errors or omissions therein, to complete the same, to remove ambiguities therefrom, to conform the same to other provisions of said instruments, to the provisions of this Resolution or any resolution adopted by the Board or the provisions of the laws of the State of Utah or the United States or to permit the private placement or public sale of the Bonds, to conform such documents to the terms established for the Bonds and to update such documents with current information and practices.

Section 9. The appropriate officials of the Board and the University, including without limitation the Chair, Vice Chair, the Chair of the Finance, Facilities and Accountability Committee, Commissioner of Higher Education and Secretary of the

Board and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University, are hereby authorized and directed to execute and deliver for and on behalf of the Board and the University any or all additional certificates, documents and other papers and to perform all other acts they may deem necessary or appropriate in order to implement and carry out the matters authorized in this Resolution and the documents authorized and approved herein.

Section 10. The appropriate officers of the Board and the University, including without limitation the Chair, Vice Chair, the Chair of the Finance, Facilities and Accountability Committee, Commissioner of Higher Education and Secretary of the Board and the President, Vice President for Administrative Services and/or Senior Chief Administrative Officer and CFO of the University are hereby authorized to take all action necessary or reasonably required by the Indenture, the Preliminary Official Statement, the Official Statement, or the Bond Purchase Agreement to carry out, give effect to and consummate the transactions as contemplated thereby and are authorized to take all action necessary in conformity with the Act.

Section 11. Upon their issuance, the Bonds will constitute special limited obligations of the Board payable solely from and to the extent of the sources set forth in the Indenture. No provision of this Resolution, the Bonds, the Bond Purchase Agreement, the Official Statement, the Indenture or any other instrument executed in connection with the issuance of the Bonds, shall be construed as creating a general obligation of the Board or the University, or of creating a general obligation of the State of Utah or any political subdivision thereof, nor as incurring or creating a charge upon the general credit of the Board, the University, the State of Utah or any political subdivision thereof.

Section 12. In accordance with the provisions of the Section 11-27-4, Utah Code, the Board shall cause the following "Notice of Bonds to be Issued" to be (i) published one (1) time in the Deseret News, a newspaper of general circulation in the State of Utah, (ii) posted on the Utah Public Notice Website (<http://pmn.utah.gov>) and (iii) posted on the Utah Legal Notices website (www.utahlegals.com) created under Section 45-1-101, Utah Code Annotated 1953, as amended, and shall cause a copy of this Resolution and the Indenture to be kept on file in the Board's office in Salt Lake City, Utah, for public examination during the regular business hours of the Board until at least thirty (30) days from and after the date of publication thereof. The "Notice of Bonds to be Issued" shall be in substantially the following form:

NOTICE OF BONDS TO BE ISSUED

NOTICE IS HEREBY GIVEN pursuant to the provisions of the Utah Refunding Bond Act, Title 11, Chapter 27, Utah Code Annotated 1953, as amended, that on July 31, 2015, the State Board of Regents of the State of Utah (the "Board") adopted a resolution (the "Resolution") in which it authorized the issuance of the Board's University of Utah General Revenue and Refunding Bonds (with such other or further designation as the officers of the Board may determine) (the "Bonds") in the aggregate principal amount of not to exceed One Hundred Fifty-Seven Million Dollars (\$157,000,000), to bear interest at a rate or rates of not to exceed five and one-half percent (5.50%) per annum, to mature not later than twenty-five (25) years from the date thereof and to be sold at a price or prices not less than 98% of the total principal amount thereof, for the purpose of refunding a portion of the Board's outstanding revenue bonds issued to finance facilities and improvements for the University of Utah (the "University"), funding the Orson Spencer Hall Redevelopment for the University and paying costs of issuance of the Bonds.

The Bonds are to be issued and sold by the Board pursuant to the Resolution, including as part of said Resolution a form of a General Indenture of Trust previously executed by the Board and the University and a Supplemental Indenture of Trust (collectively, the "Indenture").

The Bonds are secured by a pledge of revenues of the University auxiliary and campus facilities system, hospital system, research facilities and other legally available moneys of the University (as described in the Indenture).

A copy of the Resolution and the Indenture are on file in the office of the Board at 60 South 400 West, 5th Floor, Salt Lake City, Utah, where they may be examined during regular business hours of the Board from 8:00 a.m. to 5:00 p.m. for a period of at least thirty (30) days from and after the date of publication of this notice.

NOTICE IS FURTHER GIVEN that a period of thirty (30) days from and after the date of the publication of this notice is provided by law during which any person in interest shall have the right to contest the legality of the Resolution, the Indenture (but only as it relates to the Bonds), or the Bonds, or any provision made for the security and payment of the Bonds, and that after such time, no one shall have any cause of action to contest the regularity, formality or legality thereof for any cause whatsoever.

DATED this 31st day of July, 2015.

/s/ Loreen Olney
Secretary

Section 13. After the Bonds are delivered by the Trustee to or for the account of the Purchaser and upon receipt of payment therefor, this Resolution shall be and remain irrevocable until the principal of, premium, if any, and interest on the Bonds are deemed to have been fully discharged in accordance with the terms and provisions of the Indenture.

Section 14. If any provisions of this Resolution should be held invalid, the invalidity of such provisions shall not affect the validity of any of the other provisions of this Resolution.

Section 15. All resolutions of the Board or parts thereof inconsistent herewith, are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed as reviving any bylaw, order, resolution or ordinance or part thereof.

Section 16. This Resolution shall become effective immediately upon its adoption.

PASSED AND APPROVED BY THE STATE BOARD OF REGENTS OF THE
STATE OF UTAH THIS 31ST DAY OF JULY, 2015.

STATE BOARD OF REGENTS OF THE
STATE OF UTAH

Chair

ATTEST:

Secretary

After the conduct of other business not pertinent to the above, the meeting was, on motion duly made and seconded, adjourned.

Chair

ATTEST:

Secretary

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Loreen Olney, do hereby certify that I am the duly qualified and acting Secretary of the State Board of Regents of the State of Utah.

I further certify that the above and foregoing constitutes a true and correct copy of an excerpt of the minutes of a meeting of said Board held on July 31, 2015 and of a resolution adopted at said meeting, as said minutes and resolution are officially of record in my possession.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of said Board this 31st day of July, 2015.

Secretary

(SEAL)

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Loreen Olney, the undersigned, the duly qualified and acting Secretary of the State Board of Regents of the State of Utah, do hereby certify, according to the records of said State Board of Regents in my official possession, and upon my own knowledge and belief, that:

(a) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice was given of the agenda, date, time and place of the July 31, 2015 public meeting held by the Members of the State Board of Regents by causing a Notice of Public Meeting, in the form attached hereto as Schedule 1 to be: (i) posted at the principal office of the State Board of Regents at 60 South 400 West, Salt Lake City, Utah, on July ____, 2015, at least 24 hours prior to the convening of such meeting, said Notice of Public Meeting having continuously remained so posted and available for public inspection during the regular office hours of the State Board of Regents until the convening of the meeting; (ii) published on the Utah Public Notice Website (<http://pmn.utah.gov>), at least 24 hours prior to the convening of such meeting; and (iii) provided on July ____, 2015, at least 24 hours prior to the convening of such meeting, to the Deseret News and The Salt Lake Tribune, newspapers of general circulation within the geographic jurisdiction of the State Board of Regents, and to each local media correspondent, newspaper, radio station or television station which has requested notification of meetings of the State Board of Regents;

(b) in accordance with the requirements of Section 52-4-202, Utah Code Annotated 1953, as amended, public notice of the 2015-2016 Annual Meeting Schedule of the State Board of Regents was given, specifying the date, time and place of the regular meetings of the State Board of Regents scheduled to be held during the year, by causing a Notice of Annual Meeting Schedule for the State Board of Regents, in the form attached hereto as Schedule 2, to be (i) posted at the principal office of the State Board of Regents at 60 South 400 West, Salt Lake City, Utah in August 2014; (ii) provided in August 2014 to a newspaper of general circulation within the geographic jurisdiction of the State Board of Regents, and (iii) published on the Utah Public Notice Website (<http://pmn.utah.gov>) during the current calendar year; and

(c) the State Board of Regents has adopted written procedures governing the holding of electronic meetings in accordance with Section 52-4-207 Utah Code Annotated 1953, as amended (a copy of which is attached hereto as Schedule 3). In accordance with said Section and the aforementioned procedures, notice was given to each member of the State Board of Regents and to members of the public at least 24 hours before the meeting to allow members of the State Board of Regents and the public to participate in the meeting, including a description of how they could be connected to the meeting. The State Board of

Regents held the meeting (the anchor location) in the building where it normally meets and provided space and facilities at the anchor location so that interested persons and the public could attend and participate.

IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the State Board of Regents of the State of Utah, this 31st day of July, 2015.

(SEAL)

Secretary

SCHEDULE 1

NOTICE OF PUBLIC MEETING

(See Transcript Document No. ____)

SCHEDULE 2

NOTICE OF ANNUAL MEETING SCHEDULE

(See Transcript Document No. ____)

SCHEDULE 3

ELECTRONIC MEETING POLICY

EXHIBIT A

PARAMETERS OF THE BONDS

Principal amount not to exceed	\$157,000,000 – with \$57,000,000 for the OSH Project (providing a net project amount of not to exceed \$45,000,000) and up to \$100,000,000 for refunding purposes.
Interest rate not to exceed	5.50%
Discount from par not to exceed	2.0%
Final maturity not to exceed	Twenty-Five (25) years from the date thereof
May be non-callable or callable at the option of University as determined at the time of sale	

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: 2014-2015 USHE Performance Funding Allocations

Background

During the 2014 legislative session, \$1.5M in one-time funding was allocated for performance funding, to be focused on efforts to improve retention, increase completion rates, fulfill developmental and general education math requirements, and participation in graduate education. The Board of Regents has approved guidelines, time-lines, and group allocation amounts.

Issue

According to the adopted time-line, each institution has submitted specific measures, metrics, current data, benchmarks, and results. Institutions that have completed or made significant progress toward achieving one or more of the specified measures have been awarded amounts based on the percentage of the goal achieved. Of the \$1.5M appropriated by the Legislature and \$143,100 carried forward from 2013-2014, all but \$239,000 has been allocated or reserved. This remaining amount will be carried forward into 2015-2016 and allocated proportionately towards institutional 2015-2016 goals.

Commissioner's Recommendation

The Commissioner recommends the Regents approve each institution's allocations.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/BLS
Attachment

**Utah System of Higher Education
Performance Funding, 2014-2015
June 2015 – Results & Institutional Allocations**

During the 2014 Utah Legislative Session, Senator Urquhart proposed and the Legislature funded a second year of performance funding of \$1.5 million (one-time) for 2014-15, to address the most urgent needs in reaching the 66% goal. During the same Session, the USHE institutional Presidents proposed the following core performance measures emphasizing completions, be used for any performance funding dollars allocated.

- a. 1st year to 2nd year retention
- b. Increased completion rates (transfer counts towards completion)
- c. Acceleration in fulfilling the general education math requirement (such as requiring at least one math class during the first two semesters)
- d. Rapid transition of students from developmental math to successful completion of college math course
- e. Increase in graduate education (as applicable by institutional mission)

Intent language with the legislative funding in the second year included (but did not limit selection to) the performance measures listed above. Each institution selected core measures appropriate for mission and student mix, and as determined by the institution as having the greatest effect on moving the needle on performance measures. On June 15, 2014, each institutional President submitted the final list of 2014-15 core performance measures, specific measures, current data, and benchmarks to the Commissioner’s Office. The Board of Regents reviewed and approved the lists at the July 18, 2014 Board meeting.

The next step was for the institutions to provide the data on their performance to the Commissioner no later than June 1, 2015. The Board of Regents would then allocate performance funding to each institution, to be released by August 31, 2015, based on completion or significant progress toward achieving one or more of the specified measures. Money allocated would be based on the degree to which the measure(s) are met, e.g., if 100% achieved (or surpassed) 100% will be allocated; if 50% achieved, 50% will be allocated, etc. For institutions with more than one measure, the funding allocation will be divided accordingly. The Commissioner recommends to the Board of Regents the following distribution (with the amounts representing 100% allocations):

Group I	Group II	Group III
UU \$328,620	WSU \$197,170	SUU \$131,450
USU \$328,620	UVU \$197,170	DSU \$131,450
	SLCC \$197,170	Snow \$131,450
Includes 2013-14 carry forward of \$143,100		

- Time-Line:
- May 16, 2014: Regents approve 2014-15 guidelines.
 - June 15, 2014: Specific measures, current data, and benchmarks submitted by the institutions to the Commissioner’s Office.
 - July 18, 2014: Board of Regents approves proposed measures and benchmarks.
 - June 1, 2015: Institutions provide Commissioner’s Office with report on meeting approved benchmarks.
 - Aug. 31, 2015: Commissioner’s Office allocates funding. Unallocated funds will be carried forward to next year for future allocation.

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
University of Utah	a. Retention	Initial focus is on retention of first to second year for first time, full time freshmen. Supporting programs: student learning outcomes, proactive intervention for students at risk, integrated general education	First time, full time freshmen cohorts: Fall 2007 83.4% Fall 2008 82.8% Fall 2009 85.0% Fall 2010 86.5% Fall 2011 87.6% Fall 2012 88.4%	One-year Goal: 88.5% Result: Fall 2013 88.7% Goal: 100% Achieved Awarded: \$82,155
	b. Completion	Focus on increased 4 and 6 year graduation rates for first time, full time freshmen. Supporting programs: strategic enrollment management, Futures scholarships, mandatory advising	First time, full time freshmen cohorts 6 year graduation rates: 2010 56.9% 2011 55.3% 2012 58.9% 2013 60.0%	One-year Goal: 60.8% Result: 2014 62.2% Goal: 100% Achieved Awarded: \$82,155
	c. Successful completion of college math course	Grade of C or higher in Math 1050 Supporting programs: pilot program involving flipped classrooms	2011-2012 64.3% 2012-2013 65.5% 2013-2014 71.8% Three year running average: 67.2%	One-year Goal: 67.7% Result: 2014-2015 66.8% Three year running average of 68.0% Goal: 100% Achieved Awarded: \$82,155
	e. Increase graduate education	Long-term focus is on increasing 6-year doctoral completion rate. Supporting programs: Mentorship best practice resources for faculty and career counseling	Three-year running average of number of degrees: FY2009 2,196 FY2010 2,243 FY2011 2,277 FY2012 2,370 FY2013 2,518	One- year Goal: 2,550 Result: FY2014 2,569 Goal: 100% Achieved Awarded: \$82,155

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
Utah State University	Recruitment and Enrollment	Management of communication with prospective domestic freshman students to increase applications, enrollment, and % of applicants who enroll (yield)	Yield percentages from AAA: Fall 2013: 33.10% Fall 2012: 38.60% Fall 2011: 38.50% Fall 2010: 40.60% Fall 2009: 41.90% Fall 2008: 43.90%	Increase applications by 5% and increase yield (applicants who enroll) by 1% Result: In process Goal: 0% Achieved Awarded: \$0 (\$328,620 will be reserved for implementation of the new system with results evaluated June 2016)
Weber State University	a. Retention	First-Year Retention rates as reported to IPEDS	WSU's First Year Retention rate for the Fall 2012 to Fall 2013 was 68%	WSU will increase the First Year Retention Rate by 1.0 percentage point, or more, so the retention rate for Fall 2013 to Fall 2014 will be 69 percent or higher Result: Fall 2014 59% Goal: 0% Achieved Awarded: \$0
	b. Completion	Three-year moving average of total degrees awarded. A three-year average is used to control for random, year-to-year fluctuations	Three-year moving average was 4,177 degrees awarded in 2012-13	Three-year moving average ending in 2013-14 will increase by 5 percent, or more, so total degrees awarded will exceed 4,386 Result: 2013-14 4,346 Goal: 80.9% Achieved Awarded: \$53,140

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
Weber State University (Continued)	c. Accelerate GE Math Requirement	Three-year moving average of those successfully completing Math 0950, 0990 and 1010	Three-year moving average was 3,127 students passing developmental math in 2012-13	The three-year moving average ending in 2013-14 will increase by 5 percent, or more, so the number of students passing developmental math will exceed 3,283 Result: Three year moving average was 3,356 Goal: 100% Achieved Awarded: \$65,720
Southern Utah University	Transition from developmental math to successful completion of college math course	Percentage of first-time students who successfully complete remedial math in their first year and also successfully complete a Math GE course with their first two years	30.9% (five-year average for Fall 2008 to Fall 2012 cohorts)	35% Result: 36.5% of the students who completed remedial math in their first year successfully completed their Math GE course within their second year Goal: 100% Achieved Awarded: \$131,450
Snow College	c. Accelerate GE Math Requirement	Compare the average time to successful completion (passing with a C- or higher grade) of Math 1050 by first-time freshman students (excluding high school)	4-year average of successful Math 1050 completion is .67 years (a little over one semester)	Decrease the average time for successful Math 1050 completion from .67 years to .6 years over the next three years by the following: The Math committee will consider Pedagogies for teaching 1050; Properly placing students in appropriate levels of math. Experiment with pedagogies through the ILearn program for advanced placement to Math 1050 Result: 0.57 years Goal: 100% Achieved Awarded: \$43,820

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
Snow College (Continued)	c. Accelerate GE Math Requirement	The number of concurrent enrollment students successfully (passing with C- or higher grade) taking Math 1050	4-year growth average for concurrent enrollment students successfully taking Math 1050 is 0%	A 5% increase in the number of concurrent enrollment students successfully taking Math 1050. We will add 1050 sections to concurrent enrollment IVC Result: 0% increase Goal: 0% Achieved Awarded: \$0
	Transition from developmental to successful completion of college-level math	Average time to completion of college level math by developmental math students (first-time freshman, excluding high school students)	The 4-year average time to completion of college math by first-time freshman students taking developmental math is 1.67 years (approximately 3 semesters)	Reduce the time it takes to complete developmental math to less than three sem. With the USHE completion grant, we will compile a database of 120 projects where students engage in everyday math. Professors will also be trained on best practices for project use in developmental math, which will allow students to reach a level of proficiency that will enable them to move into Math 1030 and 1040 in one semester Result: 1.52 years Goal: 88.2% Achieved Awarded: \$38,660

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
Dixie State University	Expansion of First Year Peer Mentor Program	Target at-risk students by HS GPA, ACT/SAT test scores, parental education, ethnicity, and AGI. Assign peer mentors to each student with a strict communication plan. Test retention rate against sample population not receiving treatment	Fall 2012-2013 retention rate is 19.4% higher in targeted at-risk pool as compared to sample study of similarly indexed students	Increase fall-to-fall retention rate of targeted at-risk students by 3% as compared to a similarly indexed sample group Result: 7% increase or 26.4% Goal: 100% Achieved Awarded: \$43,817
	Implementation of First & Second Year Advisement Model	All students with < 30 credits assigned a "first year advisor." All students with > 30 credits and < 60 credits assigned a "second year advisor." Test to see quantity of students with appointment	37% of students with <= 30 credits received appointment during 2013-2014 year. 45% of students with > 30 credits and <= 60 credits received appointment during 2013-2014 year	Result: 48% of 2014-15 students with <=30 credits, and 49% of students with >30 credits and <=60 credits met with their advisor Goal: 100% Achieved Awarded: \$43,817
	Shorten the Math Course Requirement pipeline and Implement Supplemental Instruction in Transitional Math	Number of students going from Math 0900 directly into Math 1000 rather than from Math 0920 to Math 0990 to Math 1010 Implement a supplemental instruction model in Transitional Math courses	639 students enrolled in Spring 2014 Math-1000 course New program - Preliminary pipeline data available Fall 2014	Increase pass rate (C or better) by 5% over prior year Result: Pass rate in Math 1000 (Fall 2014) was 49% and Math 0990/1010 (Fall 2013) was 47%. Increase of 2%. Goal: 40% Achieved Awarded: \$8,766 Shorten the pipeline of target population taking 3 math courses to 2 courses by 5% Result: Fall 2013, 1,510 students enrolled in Math 0920/0990/1010. Fall 2014 1,177 students enrolled in Math 0900/1000. 22% decline Goal: 100% Awarded: \$21,910

Institution	Core Performance Measures (as Prioritized by Each Institution)	Specific Measurements to be Used to Determine Success	Current Data on Specific Measures	Benchmark: One-year Goal (2015)
Utah Valley University	b. Increased completion rates	Total number of certificates, diplomas, and degrees awarded	Three year rolling average: 2008-09 to 2010-11: 3,789 2009-10 to 2011-12: 4,162 2010-11 to 2012-13: 4,453	2011-12 to 2013-14: 4,700 Result: 4,804 Goal: 100% Achieved Awarded: \$98,585
	c. Acceleration in fulfilling the general education math requirement	Percent of students who have completed the Quantitative Literacy requirement by the end of the Spring Semester of their Sophomore year (excludes high school concurrent enrollment students; class standing measured at beginning of Spring Term)	Three year rolling average: 2008-2010: 46.8% 2009-2011: 47.5% 2010-2012: 48.1% 2011-2013: 49.4% 2012-2014: 50.7%	2013-2015: 51% Result: 53% Goal: 100% Achieved Awarded: \$98,585
Salt Lake Community College	d. Rapid transition of students from developmental math to successful completion of college math course	Average GPA of the transitioning cohort in Math 1010 Percent of students in the transitioning cohort who successfully complete Math 1010 with a "C" or above	Current Average GPA of the transitioning cohort in Math 1010 is 2.12 Current Pass Rate of the transitioning cohort in Math 1010 is 52%	Increase the Average GPA for the cohort transitioning in Math 1010 to ≥ 2.5 Result: 2.00 Goal: 0% Achieved Awarded: \$0 Increase the pass rate of the transitioning cohort in Math 1010 to $\geq 60\%$ Result: 60% Goal: 100% Achieved Awarded: \$98,590

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: 2015-16 USHE Performance Funding Model and Allocations

Background

In 2013 the Utah Legislature provided \$1 million in one-time funds to incent Utah System of Higher Education (USHE) institutions to meet specific performance metrics that aid college completion. These metrics were subsequently adopted by the Board of Regents, and funding was awarded to institutions based on their performance on the metrics. Similarly, in 2014, the Legislature provided \$1.5 million in one-time money for performance funding. Metrics were adopted by the Board, and funding will be allocated to institutions based on their performance in July 2015 (as provided in Tab Q of this agenda).

In the spring of 2014 the Commissioner appointed a working group chaired by President Charles Wight, Weber State University, and including President David Pershing of the University of Utah and President Scott Wyatt of Southern Utah University, to develop a new performance funding model for implementation in 2015 and beyond. This working group considered models from other states as well as guiding principles articulated by the Commissioner. This model was reviewed by Council of Presidents between September 2014 and January 2015 and then presented to and approved by the Board of Regents on January 23, 2015 as a proposal to the Utah Legislature. As approved by the Board, this model focused on benchmarking institutions to national peer institutions, as defined by *The Carnegie Classification of Institutions of Higher Education*, with an emphasis on making progress or maintaining a position in the top third compared to peers on measures of timely completion, affordability, access, retention and degrees per FTE student.

This proposal was presented to the Legislature's Higher Education Appropriations Subcommittee; an alternative plan was presented by subcommittee co-chairs, Senator Stephen Urquhart and Representative Keith Grover and also considered by the subcommittee. While no formal votes were taken it was clear that the subcommittee's intent was that USHE follow their lead in developing a revised model that included the parameters outlined by the subcommittee co-chairs.

Also during the 2015 legislative session Senator Urquhart introduced Senate Bill 232, *Higher Education Performance Funding*, sponsored in the House by Representative Grover. The bill passed the Senate 27-0, and the House 71-1, and was signed into law by the Governor. The 2015 legislature also appropriated to the Board of Regents distribution to the institutions \$9 million to implement Performance Funding (\$2 million on-going and \$7 million one-time).

Since the conclusion of the legislative session in March 2015, the Commissioner and his staff have worked collaboratively with co-chairs Senator Urquhart and Representative Grover as well as USHE presidents to develop a model that met the requirements and intent of S.B. 232. The result is this proposed model and funding allocation for Fiscal Year 2015-16 which is supported by the co-chairs and USHE presidents.

Issue

Senate Bill 232 (2015) provides that the Board of Regents shall establish performance funding with the following metrics approved by the board:

- Degrees and certificates granted
- Services provided to traditionally underserved populations
- Responsiveness to workforce needs
- Institutional efficiency (Graduation Efficiency)
- Graduate research for research universities

Detailed descriptions of the metrics, methodology and proposed implementation are included in the attached document, "Proposed Performance Funding Model." Under this model, funding will be allocated to institutions based 50% on their share of USHE graduates, and 50% on their share of USHE state tax funding. This provides a further incentive for increasing each institution's share of graduates in the system, while also taking into account higher cost programs. At each institution Performance Funding will be divided and weighted among the four or five metrics as recommended by the Higher Education Appropriations Subcommittee. Funds earned and awarded are based on the outputs achieved for each metric using a five-year rolling average. The appropriated on-going funding (\$2 million) will be allocated before the one-time funding (\$7 million) on a proportionate basis. In addition to the \$9 million appropriated by the Legislature for performance funding, \$239,000 will be distributed which was carried forward from the 2014-15 performance model. For the Graduation Efficiency metric, institutions are benchmarked on a 5-year rolling average to their *Carnegie* peers at the 66th percentile (top third is the target to earn 100 percent of the allocation). Funds not earned will be redistributed to institutions on a one-time basis in proportion to their success in meeting identified metrics.

Under this model, in year two forward, institutions will need to demonstrate progress in order to receive 100 percent of their earned allocation. If institutions stay the same for a particular measure as in 2015-16 (defined as within a band of +/- 1 percent), or decrease in their 5-year rolling average, they will be awarded 95 percent of the amount earned. In order to obtain 100 percent of the amount earned the outputs must have improved by one percent or greater (using the five-year rolling average). This will be difficult to achieve but in the instances where it is achieved will demonstrate significant progress. It is also recognized that as the system gains further experience in implementing the model, additional improvements to the metrics or methodology may be made (and would come back to the Board for approval).

Attached is the following:

- Proposed Performance Funding Model
- Weighting Matrix of metric outputs - as considered by the Higher Education Appropriations Subcommittee (with modifications approved by the subcommittee co-chairs)
- Performance Funding Detail by Institution
- One-Time Reallocation of Unearned Funds and Total Earned Funds
- Senate Bill 232, *Higher Education Performance Funding*

Commissioner's Recommendation

The Commissioner recommends the Board of Regents approve the Performance Funding Model as described in the attached document. Further, it is recommended that the Board approve the following allocation of funds based on implementation of this model, for fiscal year 2015-16:

<u>University of Utah:</u>	<u>\$2,554,101</u>
<u>Utah State University:</u>	<u>\$1,912,256</u>
<u>Weber State University:</u>	<u>\$1,162,445</u>
<u>Southern Utah University:</u>	<u>\$ 442,566</u>
<u>Snow College:</u>	<u>\$ 258,121</u>
<u>Dixie State University:</u>	<u>\$ 472,765</u>
<u>Utah Valley University:</u>	<u>\$1,216,340</u>
<u>Salt Lake Community College:</u>	<u>\$1,220,406</u>
<u>Total</u>	<u>\$9,239,000</u>

It is also recommended that the Board direct that the funds be used by institutions to enhance performance including in the areas of number of graduates in total and in high market-demand areas, service to underserved populations, and improving retention and graduation rates. Institutional proposals for uses of these funds shall be reported in the November 2015 board meeting.

David L. Buhler
Commissioner of Higher Education

DLB
Attachment

SB 232, *Higher Education Performance Funding*, adopted in the 2015 Legislative Session, directs the Board of Regents to establish and implement Performance Funding metrics based on outcomes as defined by the Legislature and to incentivize and reward progress over time. This document outlines the allocations, metrics, definitions, and procedures for Performance Funding.

Performance Funding uses outcomes based on the most recently reported and available data (usually available the middle of the fiscal year following an academic year). For example, FY16 Performance Funding uses outcomes based on the 2013-14 academic year.

Performance Funding Allocation to Institutions

Funds are allocated to each institution based on a 50/50 weighting of:

1. Percentage share of total ongoing USHE state appropriations from the most recent fiscal year (2016).
2. Percentage share of total USHE degrees and certificates awarded for the most recent academic year that data is available (2013-14).

For FY 2016, the Legislature appropriated \$9 million to Performance Funding (\$2 million ongoing, \$7 million one-time). In addition, \$239,000 in one-time funds has been added as carryover from the previous performance funding model (FY 2013-14 and FY 2014-15). As funds are earned and distributed for 2015-16, the ongoing funds will be distributed first proportionately among institutions.

The following table provides the breakdown by institution if 100% of the funding were earned (as defined above) as well as individual allocations based on the agreed-upon metric weightings identified with the Higher Education Appropriations Subcommittee (HEAC) Co-Chairs. Ongoing and one-time funds to each institution are proportionally split: 78% one-time funds, 22% ongoing funds.

Institution	% of Total Appropriation	Total Allocation	Completions	Underserved Students	Market Demand	Graduation Efficiency	Research
<i>Metric Weighting</i>			25%	10%	10%	40%	15%
UU	27.79%	\$2,567,100	\$641,775	\$256,710	\$256,710	\$1,026,840	\$385,065
USU	21.01%	\$1,940,700	\$485,175	\$194,070	\$194,070	\$776,280	\$291,105
<i>Metric Weighting</i>			25%	15%	10%	50%	
WSU	12.10%	\$1,118,100	\$279,525	\$167,715	\$111,810	\$559,050	
SUU	4.58%	\$423,000	\$105,750	\$63,450	\$42,300	\$211,500	
DSU	5.13%	\$473,800	\$118,450	\$71,070	\$47,380	\$236,900	
UVU	14.27%	\$1,318,700	\$329,675	\$197,805	\$131,870	\$659,350	
SNOW	2.57%	\$237,600	\$59,400	\$35,640	\$23,760	\$118,800	
SLCC	12.56%	\$1,160,000	\$290,000	\$174,000	\$116,000	\$580,000	
Total	100.00%	\$9,239,000	\$2,309,750	\$1,160,460	\$923,900	\$4,168,720	\$676,170

Metric Definitions

SB 232, passed in 2015, defines the performance outcomes on which USHE institutions will be measured. Data will be taken from a 5-year period that culminates with the most recent academic year (2013-14). Working with the Co-Chairs of the HEAC, below are the definitions associated with each metric outlined in SB 232:

Metric	Definition
Completion	<ul style="list-style-type: none"> Total certificates, associate, bachelor's, master's, and doctorate awards as reported to the Integrated Postsecondary Education Data System (IPEDS). Awards are weighted according to weights reviewed by HEAC (http://le.utah.gov/interim/2015/pdf/00001151.pdf). This includes transfer students reported in the IPEDS Graduation Rate Survey for two-year institutions.
Underserved Students	<ul style="list-style-type: none"> Total number of students receiving Pell grant assistance according to the IPEDS Financial Aid Survey (1:1 value for all students). Note: USHE is exploring additional data to be collected from institutions to improve this definition by focusing on first-generation students served.
Market Demand	<ul style="list-style-type: none"> Assign classification of instructional program (CIP) codes to the corresponding top 10 "5-star" occupations requiring a college degree or certificate (as defined by the Utah Department of Workforce Services) & STEM degrees. "5 Star" Degree areas by CIP: <ul style="list-style-type: none"> 01) AGRICULTURE, AGRICULTURE OPERATIONS, AND RELATED SCIENCE 03) NATURAL RESOURCES AND CONSERVATION 11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES 14) ENGINEERING 15) ENGINEERING TECHNOLOGIES AND ENGINEERING-RELATED FIELDS 26) BIOLOGICAL AND BIOMEDICAL SCIENCES 27) MATHEMATICS AND STATISTICS 41) SCIENCE TECHNOLOGIES/TECHNICIANS 51) HEALTH PROFESSIONS AND RELATED PROGRAMS 13) EDUCATION. 46) CONSTRUCTION TRADES. 52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES
Graduation Efficiency	<ul style="list-style-type: none"> IPEDS 150% graduation rate - the number of students completing their program within 150% of normal time to completion (three-years for associate and six-years for bachelor's). The IPEDS Bachelor's Degree Cohorts were used for USHE research and regional institutions, Associate degrees and transfers are counted for USHE 2-year institutions. The <i>Earned Award</i> is based on the institution's percentile rank of its graduation rate in comparison with its national <i>Carnegie</i> defined peers, using five years of historical IPEDS graduation rate cohort data and computing a weighted five-year average. The top-third (>=66%) percentile rank among institution peers is the highest funding benchmark (100%). Example: if an institution's graduation rate is 40% and the peer 66th percentile benchmark is a 50% graduation rate, the institution's graduate rate is at 80% of the benchmark, thereby being awarded 80% of its <i>Available Allocation</i> for this metric.
Research (University of Utah, Utah State University only)	<ul style="list-style-type: none"> Data compiled by the <i>Center for Measuring University Performance (MUP)</i> provides the total federal research dollars (x1000) for each of the research colleges and universities in the United States. (http://mup.asu.edu/publications/MeasuringResearchPerformance.pdf).

Below is an explanation of terms used on the attached institution funding detail for FY16 for the following metrics:

COMPLETION, UNDERSERVED STUDENTS, MARKET DEMAND, RESEARCH

Dollar Multiplier

Ties the weighted performance metrics (Completion, Underserved Students, Market Demand, and Research) to corresponding funding allocations. The dollar multipliers will be updated annually and change proportionally based on amounts appropriated by the Legislature for Performance Funding.

Available Allocation

The funds available for a specific metric based on the current appropriation, distributed according to each metric's weighting.

Earned Units

Completion, Underserved Students, Market Demand, Research

The five-year historical average of the summed units earned in a specific metric, weighted according to the agreed-upon weighting rubric (e.g. four units per four-year degree awarded, one unit per certificate awarded). Attached is a spreadsheet showing the units and weighting.

Research

The total federal research dollars (x1000) for each of the research colleges and universities in the United States. (see Metrics above).

Potential Award

The total dollars an institution could conceivably earn within a specific metric. This often exceeds the dollars available based on funding, as it is based solely on the dollar multiplier and weighted units regardless of actual funding.

Earned Award

The amount of **actual** funds earned by an institution, within a specific metric, based on its performance and corresponding funded portion of that metric. The funded portion is the allocated amount of the institution's overall share of the total current appropriation to USHE, divided among the institution's metric weightings.

Percent Funded

The *Earned Award* as percentage of the *Available Allocation*.

Unearned Balance

The unearned funds within a specific metric become part of an overall one-time reallocation for each metric. The unearned funds are redistributed to all institutions based on each institution's portion of all funds awarded in each metric. For example, if an institution is awarded 50% of all funds awarded for the Completion metric, it would earn 50% of the overall unearned allocation for that metric.

Below is an explanation of terms used on the attached institution funding detail for FY16 for:

GRADUATION EFFICIENCY

Available Allocation

The funds available for a specific metric based on the current appropriation, distributed according to each metric's weighting.

Target Graduation Rate (top 3rd peers)

The calculated graduation rate of the 66th percentile of an institution's peers, as defined by the *Carnegie Classification of Institutions of Higher Education* (<http://carnegieclassifications.iu.edu/>).¹ The graduation rate data is from the Integrated Postsecondary Education Data System (IPEDS). This calculated rate is the benchmark graduation rate for an institution to receive 100% of its *Available Allocation* for the Graduation Efficiency metric.

Institution Graduation Rate

150% Graduation Rate as defined by the Integrated Postsecondary Education Data System (IPEDS): the number of students completing their program within 150% of normal time to completion (three-years for associates and six-years for bachelors). The Bachelor's degree seeking cohort is used for USHE research and regional institutions, the Associate degree seeking cohort is used for USHE 2-year institutions. Students who transfer are counted as a completion for 2-year institutions.

Earned Award

The proportional amount of an institution's *Available Allocation* earned based on the *Institution Graduation Rate* in relation to its *Target Graduation Rate* calculated as the 66th percentile of its Carnegie-defined peers. For example, if an *Institution Graduation Rate* is 40% and the *Target Graduation Rate (66th Percentile)* is 50%, the institution is at 80% of the 66th percentile, thereby awarding 80% of an institution's *Available Allocation*.

Percent of Target

Percentage of funding earned determined by the *Institution Graduation Rate* in proportion to the institution's corresponding *Target Graduation Rate*.

MEASURING YEAR-TO-YEAR OUTCOMES FOR COMPLETIONS, UNDERSERVED STUDENTS, AND MARKET DEMAND

FY16 - Baseline Year

If approved by the Board of Regents, FY16 will be used to define the appropriate benchmarks for the weighted units of each metric. FY16 Performance Funds will be allocated by August 31, 2015. The Dollar Multipliers are consistent across institutions for each metric to establish a baseline against which future progress will be measured.

Five-Year Rolling Average Measures Year-to-Year Progress

Each year beginning in 2015-16, a new five-year historical average for each metric will be used and then measured against the previous year's five-year historical average to determine outcomes in each metric. This rolling average (adding the most recent year's data and dropping the oldest year) is the output measure that determines the *Earned Award* for each metric.

FY17 and Beyond:

To anticipate the normal variability in outcome measures beyond any institution's control, a control band of +/- 1% of an institution's five-year rolling average for each metric is established to mitigate the effects of such short-run variations. Increases and decreases will be calculated using the percentage decrease from the previous year's earned units, with funding awarded using the *Dollar Multiplier* of the current year.

To encourage year-to-year progress beyond current efforts, an institution must increase its five-year rolling average of *Earned Units* by one percent (1%) or more annually. If the *Earned Units* of the most recent year are within the control band or less than the previous year's *Earned Units*, the *Actual Award* for that metric will be reduced by 5%. It is expected that with experience in implementing this model additional modifications may be made over time to fulfill the goals of SB 232.

SAFE HARBOR

If an institution is performing in the top 80% of its national peer institutions (as defined by the *Carnegie Classification of Institutions of Higher Education*) for the following metrics, then the institution will earn its full award for that metric as long as the institution maintains performance among the top 80%:

- *Completions*: IPEDS 150% Graduation Rate (Bachelor's Cohorts, 2-year Cohorts)
- *Underserved Students*: Percent of Undergraduate students receiving Pell Awards
- *Research*: Total Federal Research Dollars

Graduation Efficiency: An institution whose graduation rate exceeds the calculated benchmark (top one-third or above) will received 100% of its *Available Allocation*.

ATTACHMENTS:

- Weighting and Unit matrix approved by the Higher Education Appropriations Subcommittee for purposes of defining the *Potential Award* and measuring the *Earned Award* for the Completion, Underserved Students, and Market Demand metrics (with minor modifications agreed to by the Subcommittee Chairs).
- Proposed first year (FY16) Performance Funding allocation and award detail for each USHE institution.

ⁱ The Carnegie Peer classifications for each institution are as follows:

University of Utah, Public 4-year and above, Research Universities – very high research activity, excluding institutions affiliated with the American Association of Universities (38)

Utah State University, Public 4-year and above, Research Universities – high research activity, Land Grant (16)

Weber State University, Public 4-year and above, Master’s Colleges and Universities (medium programs) (60)

Southern Utah University, Public 4-year and above, Master’s Colleges and Universities (Larger programs)(163)

Snow College, Public 2-year Associate’s, Public Urban-Rural-Serving Medium (292)

Dixie State University, Public 4-year and above, Baccalaureate/Associate’s Colleges (25)

Utah Valley University, Public 4-year and above, Baccalaureate Colleges – Diverse Fields, limited to institutions that admit 90 percent or more of applicants. (21)

Salt Lake Community College, Public 2-year, Associate’s – Public Urban-serving Multi-campus (120)

Metric Weightings

As reviewed by the Higher Education Appropriations Subcommittee

	<u>UU, USU</u>		<u>WSU, SUU, UVU, DSU</u>		<u>Snow, SLCC</u>	
	<u>Per Unit</u>	<u>Weight</u>	<u>Per Unit</u>	<u>Weight</u>	<u>Per Unit</u>	<u>Weight</u>
		100%		100%		100%
Overall Persistence/Completion		25%		25%		25%
One-year certificate/30 SCH	0.50		1.00		1.00	
General Ed/Transfer					3.00	
Associate degree/60 SCH	2.00		2.00		3.00	
Bachelor's degree	4.00		4.00		4.00	
Master's degree	2.00		2.00			
Doctoral degree	4.00					
Subtotal Overall Degree Completion						
Underserved Population		10%		15%		15%
Certificates						
Associate degree	1.00		1.00		1.00	
Bachelor's degree	2.00		2.00		2.00	
Subtotal Underserved						
Market Demand		10%		10%		10%
Certificates	0.50		1.00		1.00	
Associate degree	2.00		2.00		3.00	
Bachelor's degree	4.00		4.00			
Master's degree	2.00		2.00			
Doctoral degree	4.00					
Subtotal Market Demand						
Graduation Efficiency		40%		50%		50%
Graduation Rate at 150%	2.00		2.00		2.00	
Subtotal Efficiency						
Research		15%		0%		0%
Research Grant \$ per FTE Tenured Faculty	2.00					
Subtotal Research						
Safe Harbor						
Top 20% compared to peers						

Performance Funding Detail by Institution

Research Universities							
	Completion	Underserved Students	Market Demand	Research	Graduation Efficiency		Total
<i>Weighting</i>	25%	10%	10%	15%	40%		100%
<i>Dollar Multiplier</i>	\$25.00	\$25.00	\$25.00	\$1.50			
University of Utah							
Available Allocation (27.79%)	\$ 641,775	\$ 256,710	\$ 256,710	\$ 385,065	Allocation	\$1,026,840	\$2,567,100
Earned Units (5-Yr Average)	26,168	7,129	11,273.4	410,392	Target Graduation Rate (top 3rd Peers)	66.14%	
Potential Award	\$ 654,188	\$ 178,235	\$ 281,835	\$ 615,588	Campus Graduation Rate	58.55%	
Safe Harbor	No	No	N/A	Yes (not applied)	Safe Harbor	N/A	
Earned Award	\$ 641,775	\$ 178,235	\$ 256,710	\$ 385,065	Earned Award (%target * Allocation)	\$ 909,039	\$2,370,824
Percent (%) Funded	100%	69%	100%	100%	Percent of Target	88.53%	92.4%
Unearned Balance	\$ 0	\$ 78,475	\$ 0	\$ 0	Balance	\$ 117,801	\$ 196,276
Utah State University							
Available Allocation (21.01%)	\$ 485,175	\$ 194,070	\$ 194,070	\$ 291,105	Allocation	\$ 776,280	\$1,940,700
Earned Units (5-Yr Average)	17,522	8,652	9,070.6	172,563	Target Graduation Rate (top 3rd Peers)	60.55%	
Potential Award	\$ 438,053	\$ 216,295	\$ 226,765	\$ 258,845	Campus Graduation Rate	53.60%	
Safe Harbor	No	Yes (not applied)	N/A	No	Safe Harbor	N/A	
Earned Award	\$ 438,053	\$ 194,070	\$ 194,070	\$ 258,845	Earned Award (%target * Allocation)	\$ 687,131	\$1,772,168
Percent (%) Funded	90%	100%	100%	89%	Percent of Target	88.52%	91.3%
Unearned Balance	\$ 47,123	\$ 0	\$ 0	\$ 32,261	Balance	\$ 89,149	\$ 168,532

Performance Funding Detail by Institution

Regional Universities						
	Completion	Underserved Students	Market Demand	Graduation Efficiency		Total
<i>Weighting</i>	25%	15%	10%	50%		
<i>Dollar Multiplier</i>	\$25.00	\$25.00	\$25.00			
Weber State University						
Available Allocation (12.10%)	\$ 279,525	\$ 167,715	\$ 111,810	Allocation	\$ 559,050	\$1,118,100
Earned Units (5-Yr Average)	13,171	6,859	7,979.6	Target Graduation Rate (top 3rd Peers)	46.87%	
Potential Award	\$ 329,275	\$ 171,480	\$ 199,490	Campus Graduation Rate	42.73%	
Safe Harbor	No	No	N/A	Safe Harbor	N/A	
Earned Award	\$ 279,525	\$ 167,715	\$ 111,810	Earned Award (%target * Allocation)	\$ 509,632	\$1,068,682
<i>Percent (%) Funded</i>	100%	100%	100%	<i>Percent of Target</i>	91.16%	95.6%
Unearned Balance	\$ 0	\$ 0	\$ 0	Balance	\$ 49,418	\$ 49,418
Southern Utah University						
Available Allocation (4.58%)	\$ 105,750	\$ 63,450	\$ 42,300	Allocation	\$ 211,500	\$ 423,000
Earned Units (5-Yr Average)	5,251	2,857	2,782.4	Target Graduation Rate (top 3rd Peers)	51.15%	
Potential Award	\$ 131,280	\$ 71,435	\$ 69,560	Campus Graduation Rate	47.23%	
Safe Harbor	No	Yes (not applied)	N/A		N/A	
Earned Award	\$ 105,750	\$ 63,450	\$ 42,300	Earned Award (%target * Allocation)	\$ 195,254	\$ 406,754
<i>Percent (%) Funded</i>	100%	100%	100%	<i>Percent of Target</i>	92.32%	96.2%
Unearned Balance	\$ 0	\$ 0	\$ 0	Balance	\$ 16,246	\$ 16,246

Performance Funding Detail by Institution

Regional Universities						
	Completion	Underserved Students	Market Demand	Graduation Efficiency		Total
<i>Weighting</i>	25%	15%	10%	50%		
<i>Dollar Multiplier</i>	\$25.00	\$25.00	\$25.00			
Dixie State University						
Available Allocation (5.13%)	\$ 118,450	\$ 71,070	\$ 47,380	Allocation	\$ 236,900	\$ 473,800
Earned Units (5-Yr Average)	4,438	4,027	1,914.8	Target Graduation Rate (top 3rd Peers)	47.19%	
Potential Award	\$ 110,945	\$ 100,685	\$ 47,870	Campus Graduation Rate	40.90%	
Safe Harbor	No	No	N/A	Safe Harbor	N/A	
Earned Award	\$ 110,945	\$ 71,070	\$ 47,380	Earned Award (%target * Allocation)	\$ 205,301	\$ 434,696
<i>Percent (%) Funded</i>	94%	100%	100%	<i>Percent of Target</i>	86.66%	91.7%
Unearned Balance	\$ 7,505	\$ 0	\$ 0	Balance	\$ 31,599	\$ 39,104
Utah Valley University						
Available Allocation (14.27%)	\$ 329,675	\$ 197,805	\$ 131,870	Allocation	\$ 659,350	\$1,318,700
Earned Units (5-Yr Average)	13,837	12,007	6,000.2	Target Graduation Rate (top 3rd Peers)	39.41%	
Potential Award	\$ 345,930	\$ 300,175	\$ 150,005	Campus Graduation Rate	27.81%	
Safe Harbor	No	No	N/A	Safe Harbor	N/A	
Earned Award	\$ 329,675	\$ 197,805	\$ 131,870	Earned Award (%target * Allocation)	\$ 465,205	\$1,124,555
<i>Percent (%) Funded</i>	100%	100%	100%	<i>Percent of Target</i>	70.56%	85.3%
Unearned Balance	\$ 0	\$ 0	\$ 0	Balance	\$ 194,145	\$ 194,145

Performance Funding Detail by Institution

Community Colleges						
	Completion	Underserved Students	Market Demand		Graduation Efficiency	Total
<i>Weighting</i>	25%	15%	10%		50%	
<i>Dollar Multiplier</i>	\$25.00	\$25.00	\$25.00			
Snow College						
Available Allocation (2.57%)	\$ 59,400	\$ 35,640	\$ 23,760		Allocation	\$ 118,800
Earned Units (5-Yr Average)	2,666	1,394	968.0		Target Graduation Rate (top 3rd Peers)	42.55%
Potential Award	\$ 66,660	\$ 34,840	\$ 24,200		Campus Graduation Rate	73.52%
Safe Harbor	<i>Yes (Not Applied)</i>	<i>No</i>	<i>N/A</i>		Safe Harbor	<i>N/A</i>
Earned Award	\$ 59,400	\$ 34,840	\$ 23,760		Earned Award (%target * Allocation)	\$ 118,800
<i>Percent (%) Funded</i>	100%	98%	100%		<i>Percent of Target</i>	100.00%
Unearned Balance	\$ 0	\$ 800	\$ 0		Balance	\$ 0
Salt Lake Community						
Available Allocation (12.56%)	\$ 290,000	\$ 174,000	\$ 116,000		Allocation	\$ 580,000
Earned Units (5-Yr Average)	11,512	9,599	3,398.0		Target Graduation Rate (top 3rd Peers)	36.63%
Potential Award	\$ 287,805	\$ 239,975	\$ 84,950		Campus Graduation Rate	36.10%
Safe Harbor	<i>No</i>	<i>No</i>	<i>N/A</i>		Safe Harbor	<i>N/A</i>
Earned Award	\$ 287,805	\$ 174,000	\$ 84,950		Earned Award (%target * Allocation)	\$ 571,579
<i>Percent (%) Funded</i>	99%	100%	73%		<i>Percent of Target</i>	98.55%
Unearned Balance	\$ 2,195	\$ 0	\$ 31,050		Balance	\$ 8,421
Unearned Allocation (to be reallocated based on performance)						
	Completion	Underserved Students	Market Demand	Research	Graduation Efficiency	Total
	\$56,823	\$79,275	\$31,050	\$32,261	\$506,779	\$706,187

One-time Reallocation of Unearned Funds
-and-
Total of All Earned Funds

One-time Reallocation of Unearned Funds

	Completion	Underserved Students	Market Demand	Graduation Efficiency	Research	One-time Total	% of One-time Total
Unearned Available:	\$ 56,823	\$ 79,275	\$ 31,050	\$ 506,779	\$ 32,261	\$ 706,187	
University of Utah	16,187	13,069	8,927	125,803	19,292	183,277	25.95%
Utah State University	11,048	14,230	6,749	95,093	12,968	140,088	19.84%
Weber State University	7,050	12,297	3,888	70,528	-	93,764	13.28%
Southern Utah University	2,667	4,652	1,471	27,021	-	35,812	5.07%
Dixie State University	2,798	5,211	1,648	28,412	-	38,069	5.39%
Utah Valley University	8,315	14,504	4,586	64,380	-	91,785	13.00%
Snow College	1,498	2,555	826	16,441	-	21,320	3.02%
Salt Lake Community College	7,259	12,758	2,954	79,101	-	102,072	14.45%
Total	\$ 56,823	\$ 79,275	\$ 31,050	\$ 506,779	\$ 32,261	\$ 706,187	100.00%

TOTAL (Earned + One-time Reallocation of Unearned)

	Completion	Underserved Students	Market Demand	Graduation Efficiency	Research	Total	% of Total
University of Utah	657,962	191,304	265,637	1,034,841	404,357	2,554,101	27.64%
Utah State University	449,101	208,300	200,819	782,224	271,813	1,912,256	20.70%
Weber State University	286,575	180,012	115,698	580,160	-	1,162,445	12.58%
Southern Utah University	108,417	68,102	43,771	222,276	-	442,566	4.79%
Dixie State University	113,743	76,281	49,028	233,713	-	472,765	5.12%
Utah Valley University	337,990	212,309	136,456	529,585	-	1,216,340	13.17%
Snow College	60,898	37,395	24,586	135,241	-	258,120	2.79%
Salt Lake Community College	295,064	186,758	87,904	650,680	-	1,220,406	13.21%
Total	\$ 2,309,750	\$ 1,160,460	\$ 923,900	\$ 4,168,720	\$ 676,170	\$ 9,239,000	100.00%

HIGHER EDUCATION PERFORMANCE FUNDING

2015 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Stephen H. Urquhart

House Sponsor: Keith Grover

LONG TITLE

General Description:

This bill amends and enacts provisions related to higher education funding.

Highlighted Provisions:

This bill:

- ▶ defines terms;
- ▶ amends provisions related to mission based funding for higher education

institutions;

- ▶ directs the State Board of Regents to establish performance funding for higher education institutions;

▶ requires the State Board of Regents and higher education institutions to annually report to the Higher Education Appropriations Subcommittee on the use of performance funding; and

- ▶ makes technical and conforming changes.

Money Appropriated in this Bill:

None

Other Special Clauses:

None

Utah Code Sections Affected:

AMENDS:

53B-7-101, as last amended by Laws of Utah 2011, Chapter 73

Be it enacted by the Legislature of the state of Utah:

30 Section 1. Section 53B-7-101 is amended to read:

31 **53B-7-101. Combined requests for appropriations -- Board review of operating**
32 **budgets -- Submission of budgets -- Recommendations -- Hearing request --**
33 **Appropriation formulas -- Allocations -- Dedicated credits -- Financial affairs.**

34 (1) As used in this section:

35 (a) (i) "Higher education institution" or "institution" means an institution of higher
36 education listed in Section 53B-1-102.

37 (ii) "Higher education institution" or "institution" does not include the Utah College of
38 Applied Technology.

39 (b) "Research university" means the University of Utah or Utah State University.

40 ~~[(+)]~~ (2) (a) The board shall recommend a combined appropriation for the operating
41 budgets of higher education institutions for inclusion in a state appropriations act.

42 (b) The board's combined budget recommendation shall include:

43 (i) employee compensation;

44 (ii) mandatory costs, including building operations and maintenance, fuel, and power;

45 (iii) mission based funding described in Subsection ~~[(2)]~~ (3);

46 (iv) performance funding described in Subsection (4);

47 ~~[(iv)]~~ (v) statewide and institutional priorities, including scholarships, financial aid,
48 and technology infrastructure; and

49 ~~[(v)]~~ (vi) unfunded historic growth.

50 (c) The board's recommendations shall be available for presentation to the governor
51 and to the Legislature at least 30 days prior to the convening of the Legislature, and shall
52 include schedules showing the recommended amounts for each institution, including separately
53 funded programs or divisions.

54 (d) The recommended appropriations shall be determined by the board only after it has
55 reviewed the proposed institutional operating budgets, and has consulted with the various
56 institutions and board staff in order to make appropriate adjustments.

57 ~~[(2)]~~ (3) (a) The board shall establish mission based funding.

- 58 (b) Mission based funding shall include:
- 59 (i) enrollment growth; and
- 60 (ii) up to three strategic priorities.
- 61 (c) The strategic priorities described in Subsection ~~[(2)]~~ (3)(b)(ii) shall be:
- 62 (i) approved by the board; and
- 63 (ii) designed to improve the availability, effectiveness, or quality of higher education in
- 64 the state.

65 ~~[(d) When recommending an allocation of mission based funding to a~~
66 ~~doctorate-granting university, as defined by the board, or Southern Utah University, the board~~
67 ~~shall place greater emphasis on the university's fulfillment of the strategic priorities described~~
68 ~~in Subsection (2)(b)(ii).]~~

69 ~~[(e) Notwithstanding Subsection (2)(d), the board may allocate funding for a modest~~
70 ~~amount of growth to doctorate-granting institutions and Southern Utah University.]~~

71 ~~[(f)]~~ (d) Concurrent with recommending mission based funding, the board shall also
72 recommend to the Legislature ways to address funding any inequities for institutions as
73 compared to institutions with similar missions.

- 74 (4) (a) The board shall establish performance funding.
- 75 (b) Performance funding shall include metrics approved by the board, including:
- 76 (i) degrees and certificates granted;
- 77 (ii) services provided to traditionally underserved populations;
- 78 (iii) responsiveness to workforce needs;
- 79 (iv) institutional efficiency; and
- 80 (v) for a research university, graduate research metrics.

- 81 (c) The board shall:
- 82 (i) award performance funding appropriated by the Legislature to institutions based on
83 the institution's success in meeting the metrics described in Subsection (4)(b); and
- 84 (ii) reallocate funding that is not awarded to an institution under Subsection (4)(c)(i)
85 for distribution to other institutions that meet the metrics described in Subsection (4)(b).

86 ~~[(3)]~~ (5) (a) Institutional operating budgets shall be submitted to the board at least 90
87 days prior to the convening of the Legislature in accordance with procedures established by the
88 board.

89 (b) Funding requests pertaining to capital facilities and land purchases shall be
90 submitted in accordance with procedures prescribed by the State Building Board.

91 ~~[(4)]~~ (6) (a) The budget recommendations of the board shall be accompanied by full
92 explanations and supporting data.

93 (b) The appropriations recommended by the board shall be made with the dual
94 objective of:

95 (i) justifying for higher educational institutions appropriations consistent with their
96 needs, and consistent with the financial ability of the state; and

97 (ii) determining an equitable distribution of funds among the respective institutions in
98 accordance with the aims and objectives of the statewide master plan for higher education.

99 ~~[(5)]~~ (7) (a) The board shall request a hearing with the governor on the recommended
100 appropriations.

101 (b) After the governor delivers his budget message to the Legislature, the board shall
102 request hearings on the recommended appropriations with the appropriate committees of the
103 Legislature.

104 (c) If either the total amount of the state appropriations or its allocation among the
105 institutions as proposed by the Legislature or its committees is substantially different from the
106 recommendations of the board, the board may request further hearings with the Legislature or
107 its appropriate committees to reconsider both the total amount and the allocation.

108 ~~[(6)]~~ (8) The board may devise, establish, periodically review, and revise formulas for
109 its use and for the use of the governor and the committees of the Legislature in making
110 appropriation recommendations.

111 ~~[(7)]~~ (9) (a) The board shall recommend to each session of the Legislature the
112 minimum tuitions, resident and nonresident, for each institution which it considers necessary to
113 implement the budget recommendations.

114 (b) The board may fix the tuition, fees, and charges for each institution at levels it finds
115 necessary to meet budget requirements.

116 ~~[(8)]~~ (10) (a) Money allocated to each institution by legislative appropriation may be
117 budgeted in accordance with institutional work programs approved by the board, provided that
118 the expenditures funded by appropriations for each institution are kept within the
119 appropriations for the applicable period.

120 (b) A president of an institution shall:

121 (i) establish initiatives for the president's institution each year that are:

122 (A) aligned with the strategic priorities described in Subsection ~~[(2)]~~ (3); and

123 (B) consistent with the institution's mission and role; and

124 (ii) allocate the institution's mission based funding to the initiatives.

125 ~~[(9)]~~ (11) The dedicated credits, including revenues derived from tuitions, fees, federal
126 grants, and proceeds from sales received by the institutions are appropriated to the respective
127 institutions and used in accordance with institutional work programs.

128 ~~[(10)]~~ (12) Each institution may do its own purchasing, issue its own payrolls, and
129 handle its own financial affairs under the general supervision of the board.

130 ~~[(11)]~~ (13) (a) If the Legislature appropriates money in accordance with this section, it
131 shall be distributed to the ~~[State Board of Regents]~~ board and higher education institutions to
132 fund the items described in Subsection ~~[(1)]~~ (2)(b).

133 (b) During each general session of the Legislature following a fiscal year in which the
134 Legislature provides an appropriation for mission based funding or performance funding, the
135 board and institutions shall report to the Legislature's Higher Education Appropriations
136 Subcommittee on the use of the previous year's mission based funding~~[-]~~ and performance
137 funding, including performance outcomes relating to the strategic initiatives approved by the
138 board.

July 22, 2015

MEMORANDUM

TO: State Board of Regents
FROM: David L. Buhler
SUBJECT: Southern Utah University – Center for the Arts Project Update

Issue

Southern Utah University has requested the opportunity to provide a brief presentation on the status of the Center for the Arts Project that is currently under construction.

Commissioner's Recommendation

This is an information item only, and is a status update to the campus master plan that was approved last year.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

July 1, 2015

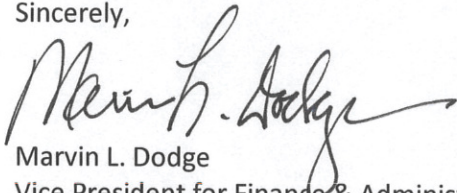
Ralph Hardy
Board of Regents Building, Two Gateway
60 South 400 West
Salt Lake City, UT 84101-1284

Dear Ralph,

SUU would like to add an informational item to the upcoming July 31, 2015 Regents agenda. Since we will not be presenting a Campus Master Plan presentation this year, we are proposing a brief update of the Center for the Arts project.

Thank you for your assistance in this matter.

Sincerely,



Marvin L. Dodge
Vice President for Finance & Administration

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: University of Utah – Series 2015 Certificates of Participation (COP) Refunding

Issue

On March 27, 2015 the Board authorized the University of Utah to refund up to \$20 million of callable Series 2007 Certificates of Participation (COP) that were issued to finance energy saving equipment and the acquisition and construction of a new cogeneration plant on the University campus.

The University elected to sell the Refunding Certificates on a direct purchase basis to Wells Fargo Bank, N.A. The interest rate was locked on June 8, 2015 and the closing date on the transaction was June 10, 2015. The following summarizes the key elements of a very successful transaction:

- | | |
|--|------------------|
| • Advanced Refunding of Series 2007 COPS | \$15.175 million |
| • NPV Refunding Savings of 10.61% | \$2.54 million |
| • All-in True Interest Cost | 2.034% |

In addition to the refinance described above, as a part of the transaction, the University used cash reserves for the following:

- \$6.65 million was used to shorten the final maturity of the Series 2015 Refunding COPS by four years, from 12/1/26 to 12/1/22
- \$9.55 million was used to fully defease \$8.74 million of the remaining callable, but not advance refundable, Series 2007 COPS.

The bottom line impact of the transaction, in addition to the interest rate savings noted above, was to reduce the outstanding COP par balance from \$29.9 million before the refunding to \$16.0 after the refunding.

Additional details about the transaction are provided in the updated Financing Summary with final results highlighted in red type face.

Commissioner's Recommendation

This is an information item only; no action is required.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment



FINANCING SUMMARY

For

\$20,000,000*

**Refunding Certificates of Participation
Series 2015**

**Evidencing a Proportionate Ownership Interest in
Certain Lease Payments to be Made by
UNIVERSITY OF UTAH
Pursuant to a Lease/Purchase Agreement**

FINANCING UPDATE: FINAL

Purpose:	The purpose for the issuance of the Series 2015 Refunding Certificates of Participation (“COPS”) is to refund, for savings purposes, a portion of COPS previously issued by the University of Utah in 2007. The Series 2007 COPS were issued to refinance COPS previously issued for the purchase of certain energy savings equipment and to finance the acquisition and construction of a co-generation facility. The initial par amount of the Series 2007 COPS was \$42.45 million and \$15.175 million of that amount is eligible to be advance refunded. A portion of the proceeds from the sale of the 2015 Refunding COPS will also be used to pay costs of issuance.
Not-to-Exceed Par Amount:	\$20 million (Final par amount was \$10,050,000)
Not-to-Exceed Maturity:	December 1, 2026 (Final maturity is December 1, 2022)
Cash Defeasance:	In addition to the issuance of the Refunding COPS to advance-refund \$15.175 million of the Series 2007 COPS, the University also elected to use reserves set aside to pay off debt to defease \$8,740,000 of remaining callable, but non-advance refundable, Series 2007 COPS.

Cash Contributions:	--\$6.65 million (approximate) to shorten final maturity of Series 2015 Refunding COPS to 12/1/22 from 12/1/26. --\$9.55 million (approximate) to fully cash defease \$8.740 million of Series 2007 COPS.
Impact on Par:	Par outstanding before refundings: \$29,890,000 Par outstanding after refundings: \$16,025,000
Security:	The Series 2015 Refunding COPS will be payable from legally available monies of the University.
Ratings:	To be determined. The University may choose to place the COPS as a direct purchase on an unrated basis. (No rating was requested or required)
Method of Sale:	To be determined. The COPS will be sold on a negotiated basis either as a public offering or on a direct purchase basis. (The University chose to sell the Refunding Certificates on a direct purchase basis to Wells Fargo Bank, N.A.)
NPV Refunding Savings:	Approximately \$1.04 million* or 6.84%* of refunded par (as of March 6, 2015) (Total NPV savings achieved were \$2,537,977.27, or 10.61% of refunded bonds).
All-in True Interest Cost:	2.45%* (An All-in TIC of 2.034% was achieved)
Underwriters/Purchasers:	To be determined (Wells Fargo Bank, N.A. was chosen by the University to purchase this transaction)
Sale Date:	To be determined (Interest rate was locked Monday, June 8, 2015)
Closing Date:	To be determined (Wednesday, June 10, 2015)
Principal Payment Dates:	December 1
Interest Payment Dates:	December 1 and June 1, beginning December 1, 2015
Interest Basis:	30/360
Optional Redemption:	May be non-callable or subject to redemption as determined at the time of sale. (The Refunding COPS are subject to a Make-Whole Call)

Other Not-to-Exceed Parameters:

Coupon: 6.50% (1.80% was locked rate)
Discount: 2.00% (None required)
Final Maturity: December 1, 2026 (December 1, 2022)

University Contacts:

Mr. Arnold Combe, Vice President for Administrative Services (801-581-6404)

Mr. John Nixon, Senior Chief Administrative Officer and CFO (801-585-0806)

Bond Counsel:

Mr. Blake Wade, Ballard Spahr LLP (801-531-3000)

Financial Advisor:

Mr. Kelly Murdock, RBC Capital Markets (801-656-2928)

July 22, 2015

MEMORANDUM

TO: State Board of Regents
FROM: David L. Buhler
SUBJECT: Dixie State University – Series 2015 Student Housing Project Revenue Bond

Issue

On April 3, 2015 the Board authorized Dixie State University (DSU) to proceed with the sale of the revenue bonds that were authorized in the 2015 legislative session to provide funding for construction of a new Student Housing Project. The bonds were sold on June 11, 2015 and closed on June 24, 2015.

The bond sale conformed to all of the parameters approved by the Regents. Following is a brief summary of the relevant details:

- Final Par Amount of the Bonds \$21,315,000
- Interest Rate TIC of 3.90% with a maximum 5% coupon rate
- Maturity Date 31.93 years

Additional information about the bond issue is provided on the attached Financing Summary, with the “Final Pricing Results” highlighted with red type face.

Commissioner’s Recommendation

This is an information item; no action is required.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/WRH
Attachment

**Dixie State University
Auxiliary System Revenue Bonds, Series 2015
Preliminary Summary Sheet**

Proposed Issue: Auxiliary System Revenue Bonds

Total Approximate Issue Size: \$19,020,000 (**\$21,315,000 Final Par Amount**)

Use of Funds: To fund the construction of a new student housing facility; satisfy any reserve requirements; pay capitalized interest for approximately 18 months while the project is constructed; and pay associated costs of issuance.

Detail of Proposed Series 2015A Bonds:

Principal Amount: Not to exceed \$23,000,000 (**\$21,315,000**)

Interest Rate: Not to exceed 5.0% (**max coupon of 5% and True Interest Cost of 3.90%**)

Maturity Date: Not to exceed 32 years (**31.93 years**)

Aggregate Discount: Not to exceed 2% (**premium of 0.096%**)

Underwriter's Discount: Not to exceed 2% (**0.325%**)

Bond Rating: AA from S&P (**AA rating confirmed**)

Bond Insurance: Bids will be received from Assured Guaranty and National PFG (**Assured Guaranty with a bid of 0.15% of total debt service**)

Source of Repayment: Auxiliary services and other revenue

Timetable Considerations: Regent approval will be sought at the March 27 meeting. The University is proceeding with plans to sell bonds soon after Regent approval is received, with a tentative sale date planned for the end of April. The bonds will be sold by negotiated sale. The bond closing date will be in the middle of May. (**The bonds were sold on June 11 and closed on June 24.**)

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah State University – Series 2015 Romney Stadium Westside Renovation Revenue Bond

Issue

On May 15, 2015 the Board authorized Utah State University (USU) to proceed with the sale of revenue bonds authorized by the 2015 Legislature to partially finance the renovation and expansion of the west side of the existing Romney football stadium (along with approximately \$8 million to be provided by private gift funds). After a competitive bond sale on June 25, 2015, the bonds closed on July 9, 2015.

The bond sale conformed to all of the parameters approved by the Regents. The following is a brief summary of the results:

- Final Par Amount of the Bonds \$23,900,000
- True Interest Cost (TIC) 3.82%
- Maximum Coupon Rate 5%
- Maturity Date 30.11 years

Additional details about the bond issue may be found in the attached Financing Summary with final pricing results in red type face.

Commissioner's Recommendation

This is an information item only; no action is required.

David L. Buhler
Commissioner of Higher Education

DLB/GLS/RPA
Attachment

**Utah State University
Student Building Fee Revenue Bonds, Series 2015
Preliminary Summary Sheet**

Proposed Issue: Student Building Fee Revenue Bonds

Total Approximate Issue Size: \$21,130,000 (**\$23,900,000 Final Par Amount**)

Use of Funds: To provide up to \$23,000,000 to finance the cost of the Romney Stadium Westside Renovation; satisfy any reserve fund requirements; fund any capitalized interest amount; and pay associated costs of issuance.

Detail of Proposed Series 2015 Bonds:

Principal Amount: Not to exceed \$24,500,000 (**\$23,900,000**)

Interest Rate: Not to exceed 5.0% (**max coupon of 5% and True Interest Cost of 3.82%**)

Maturity Date: Not to exceed 31 years (**30.11 years**)

Aggregate Discount: Not to exceed 2% (**Premium of 0.703%**)

Underwriter's Discount: Not to exceed 2% (**1.353%**)

Bond Rating: AA from S&P (**AA rating confirmed**)

Bond Insurance: Anticipated Insurance through Assured Guaranty (**Insurance and Surety Bond provided by Assured Guaranty**)

Source of Repayment: Student Building Fee Revenue Bonds

Timetable Considerations: Regent approval will be sought at their May 15 meeting. The University is proceeding with plans to sell bonds soon after Regent approval is received, with a tentative sale date planned for June 11, 2015. The University anticipates selling bonds by competitive sale, and the underwriter will be whichever bidder provides the lowest borrowing cost (as a combination of interest rates and fees) to the University. The anticipated closing date is Thursday, June 25. (**The bonds were sold on June 25th to Janney Montgomery Scott LLC by competitive sale. The transaction will close on July 9**)

July 22, 2015

MEMORANDUM

TO: State Board of Regents
FROM: David L. Buhler
SUBJECT: Utah State Auditor Report on Athletics Revenue Subsidization

Background

On July 7th, the Office of the Utah State Auditor released an Analysis Report on NCAA Athletics Revenue Subsidization for Utah's Public Colleges and Universities. A full copy of the report is attached.

Issue

The State Auditor's Office released a report on athletic subsidies for each of the eight USHE institutions, comparing both total and per student subsidies for fiscal years 2012, 2013, & 2014. The analysis was based upon the annual NCAA report provided by the five USHE institutions that are in Division 1 (UU, USU, SUU, WSU, & UVU) and on an [S-13] budget form provided to the Office of the Commissioner for the remaining three institutions (DSU, SLCC, & Snow C). The purpose of the Report was to demonstrate the extent of overall subsidy to intercollegiate athletics at the eight USHE institutions.

Commissioner's Recommendation

This is an informational item only; no Regent action is being requested.

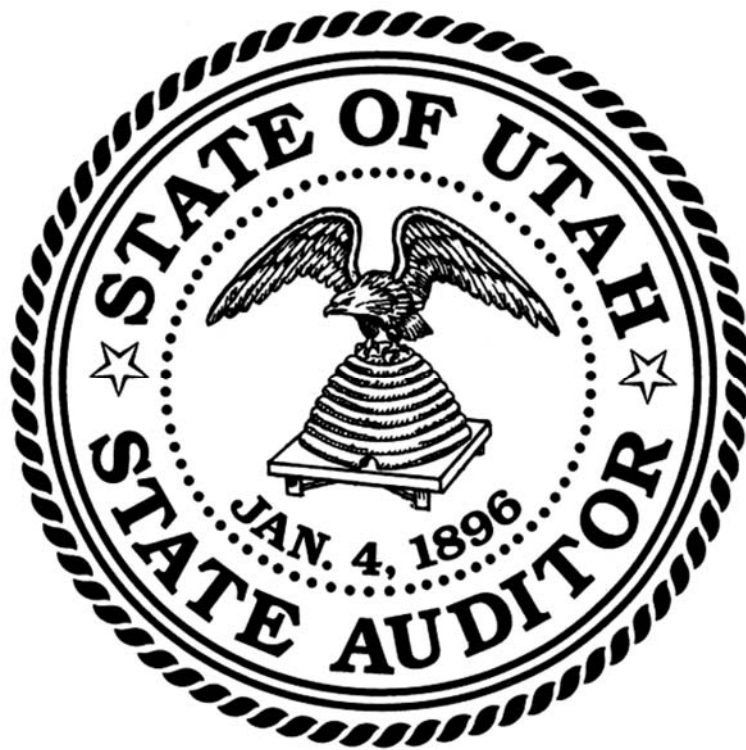
David L Buhler
Commissioner of Higher Education

DLB/GLS
Attachment: Office of the Utah State Auditor Analysis Report

Analysis Report No. AR 15-02

**NCAA Athletics Revenue Subsidization
for Utah's Public Colleges
and Universities**

July 7, 2015



**OFFICE OF THE
UTAH STATE AUDITOR**



OFFICE OF THE
UTAH STATE AUDITOR

July 7, 2015

The Office of the Utah State Auditor (Office) examined National Collegiate Athletic Association (NCAA) athletics revenue at Utah’s eight public colleges and universities (institutions) to identify the level of subsidization of athletics revenue at these institutions. While every institution subsidizes its NCAA sports, the amount and percentage of the subsidy varies greatly as well as the amount of the direct and indirect burden that the subsidy places on the students. The purpose of this report is to provide information to the general public, institution leaders, and policy makers to allow them to determine the appropriateness of the subsidization.

Background

As part of this examination, the Office reviewed the athletics revenue reported by Utah’s eight public colleges and universities for fiscal years 2012, 2013, and 2014. Five of the institutions—University of Utah, Utah State University, Weber State University, Utah Valley University, and Southern Utah University—provide an NCAA Agreed-Upon Procedures (AUP) Report, and the Office reviewed the revenue reported on these reports. The remaining three institutions—Dixie State University, Salt Lake Community College, and Snow College—are not required to have an NCAA AUP report; therefore, the Office reviewed the athletics revenue reported to the Utah System of Higher Education (USHE) on Form S-13: Report on Intercollegiate Athletics.

Analysis

At each of the eight institutions the Office identified total money targeted for NCAA-level athletics, labeled “Total Athletics Revenue” in the tables included in this report. The “Total Athletic Activity Revenue” includes revenue generated by the athletic activities, such as ticket sales, contributions restricted to athletics, NCAA conference distributions, sponsorships/licensing/media revenue, sports camps, concessions, and merchandise. The difference between these two numbers is identified as the “Total Athletics Subsidy” and represents any shortfall between funds generated by the athletic activities and funds targeted for NCAA athletics, including but not limited to student fees restricted to athletics, tuition waivers, direct institutional support, and state support, as well as indirect institutional support for Utah State University, Weber State University, and Utah Valley University. The remaining five institutions do not allocate all indirect institutional expenses—such as accounting, payroll, physical plant, and other general administrative costs—to their NCAA athletic programs although these expenses benefit the athletic programs; as such, the “Total Athletics Subsidy” is understated for these institutions.

To make comparisons easier, the subsidy has also been calculated on a full-time equivalent (FTE) enrollment basis to show the athletics subsidy per FTE enrolled student which is labeled “Amount Subsidized per FTE Student.”

Table 1 shows the extent of the overall dollar subsidy of NCAA athletics at Utah’s eight public colleges and universities for fiscal year 2014. The subsidy totaled over \$56 million and ranged from over \$14 million annually at Utah State University and nearly \$10 million at the University of Utah to less than \$1.3 million at Snow College.

Table 1. Subsidization of Athletics Revenue at Utah Public Colleges and Universities in FY 2014

School	Total Athletics Revenue ¹	Total Athletic Activity Revenue ²	Total Athletics Subsidy ³	Percent Subsidized	FTE Student Enrollment ⁴	Amount Subsidized per FTE Student ³
University of Utah	\$ 56,470,309	\$ 46,608,203	\$ 9,862,106	17.5%	29,498	\$ 334.33
Utah State University	25,152,919	10,973,374	14,179,545	56.4%	20,010	708.62
Weber State University	13,377,336	4,493,849	8,883,487	66.4%	14,448	614.86
Utah Valley University	11,191,569	1,590,150	9,601,419	85.8%	19,642	488.82
Southern Utah University	9,728,291	2,637,534	7,090,757	72.9%	6,087	1,164.90
Dixie State University	5,449,121	1,848,635	3,600,486	66.1%	5,977	602.39
Salt Lake Community College	1,966,175	236,303	1,729,872	88.0%	17,479	98.97
Snow College	1,668,640	374,130	1,294,510	77.6%	3,210	403.27
Total	\$ 125,004,360	\$ 68,762,178	\$ 56,242,182	45.0%	116,351	\$ 483.38

(1) Total Revenue per the NCAA Agreed-Upon Procedures Report for the year ended June 30, 2014 or the Utah System of Higher Education Form S-13: Report on Intercollegiate Athletics for 2013-2014 Actual.

(2) Revenue generated from athletic activities, including ticket sales, contributions restricted to athletics, NCAA conference distributions, sponsorships/licensing/media revenue,

(3) The subsidy includes student fees restricted to athletics, tuition waivers, direct institutional support, and state support, as well as indirect institutional support for USU, WSU, and UVU.

(4) Annualized FTE Budget Related Only (source: Utah System of Higher Education 2015 Data Book Tab C)

Figure 1 compares the percentage of NCAA athletics revenue subsidization for all eight Utah public colleges and universities during fiscal year 2014. In fiscal year 2014, the University of Utah subsidized 17.5 percent of its total NCAA athletics revenue, which was the lowest percentage among the eight institutions. Salt Lake Community College subsidized the most at 88.0 percent.

Figure 1

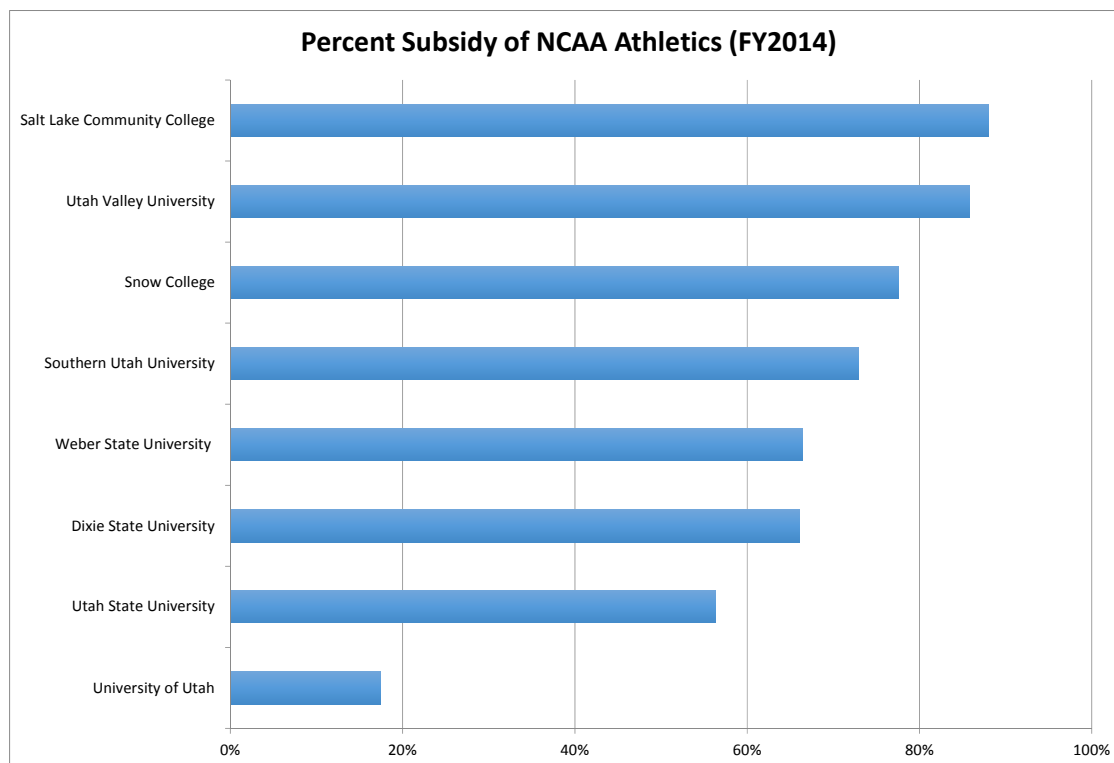
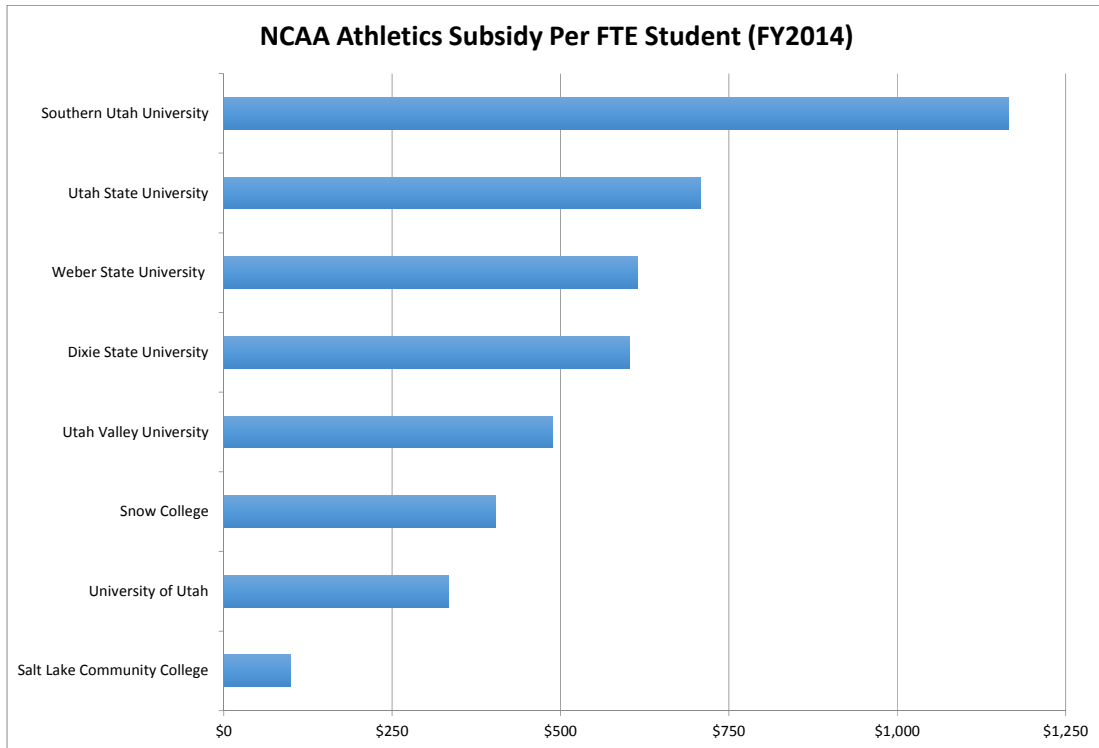


Figure 2 demonstrates the dramatic differences in per student dollar spending by institution during fiscal year 2014. Salt Lake Community College had the lowest per FTE student subsidization amount among the eight institutions at \$98.97. Southern Utah University had the highest per FTE student subsidization amount at \$1,164.90.

Figure 2



Summary

The State of Utah and its students subsidize NCAA athletics in the state at over \$56 million every year. The total amount of subsidy of NCAA athletics varies dramatically between Utah’s eight public colleges and universities, and the total amount often varies from percent subsidized or amount of subsidy per FTE student. The University of Utah has the lowest subsidy on a percentage basis, the second lowest per FTE student, but the second highest total subsidy at nearly \$10 million annually. Utah State University has the highest total subsidy at \$14 million, the second lowest subsidy on a percentage basis at 56%, but the second highest on a per FTE student basis at \$708.

Because of the amount and complexity of available information related to NCAA athletics, the Office has tried to pull together the results from our review in a manner to enable the institutions, policy makers, and the public to more readily see the results of our analyses. We encourage policy makers to review the information in this report and consider the following questions:

- To what extent should NCAA athletics be subsidized?
- To what extent should students be required to subsidize NCAA athletics?

**OTHER ANALYSES FOR
FISCAL YEARS ENDED
JUNE 30, 2012 THROUGH JUNE 30, 2014**

The charts and tables on the following pages
provide additional information
to allow for multi-year comparisons.

Table 2. Subsidization of Athletics Revenue at Utah Public Colleges and Universities in 2013

School	Total Athletics Revenue ¹	Total Athletic Activity Revenue ²	Total Athletics Subsidy ³	Percent Subsidized	FTE Student Enrollment ⁴	Amount Subsidized per FTE Student ³
University of Utah	\$ 46,855,280	\$ 36,615,781	\$ 10,239,499	21.9%	29,812	\$ 343.47
Utah State University	23,684,264	9,994,238	13,690,026	57.8%	20,385	671.57
Weber State University	12,333,964	4,139,304	8,194,660	66.4%	15,299	535.63
Utah Valley University	10,053,547	1,148,080	8,905,467	88.6%	20,712	429.97
Southern Utah University	10,178,699	2,836,360	7,342,339	72.1%	6,380	1,150.84
Dixie State University	4,787,053	1,446,930	3,340,123	69.8%	6,257	533.82
Salt Lake Community College	1,957,376	209,489	1,747,887	89.3%	18,256	95.74
Snow College	1,654,618	397,327	1,257,291	76.0%	3,238	388.29
Total	\$ 111,504,801	\$ 56,787,509	\$ 54,717,292	49.1%	120,339	\$ 454.69

(1) Total Revenue per the NCAA Agreed-Up on Procedures Report for the year ended June 30, 2013 or the Utah System of Higher Education Form S-13: Report on Intercollegiate Athletics for 2012-2013 Actual.

(2) Revenue generated from athletic activities, including ticket sales, contributions restricted to athletics, NCAA conference distributions, sponsorships/licensing/media revenue, sports camps, concessions/merchandise.

(3) The subsidy includes student fees restricted to athletics, tuition waivers, direct institutional support, and state support, as well as indirect institutional support for USU, WSU, and UVU.

(4) Annualized FTE Budget Related Only (source: Utah System of Higher Education 2015 Data Book Tab C)

Table 3. Subsidization of Athletics Revenue at Utah Public Colleges and Universities in 2012

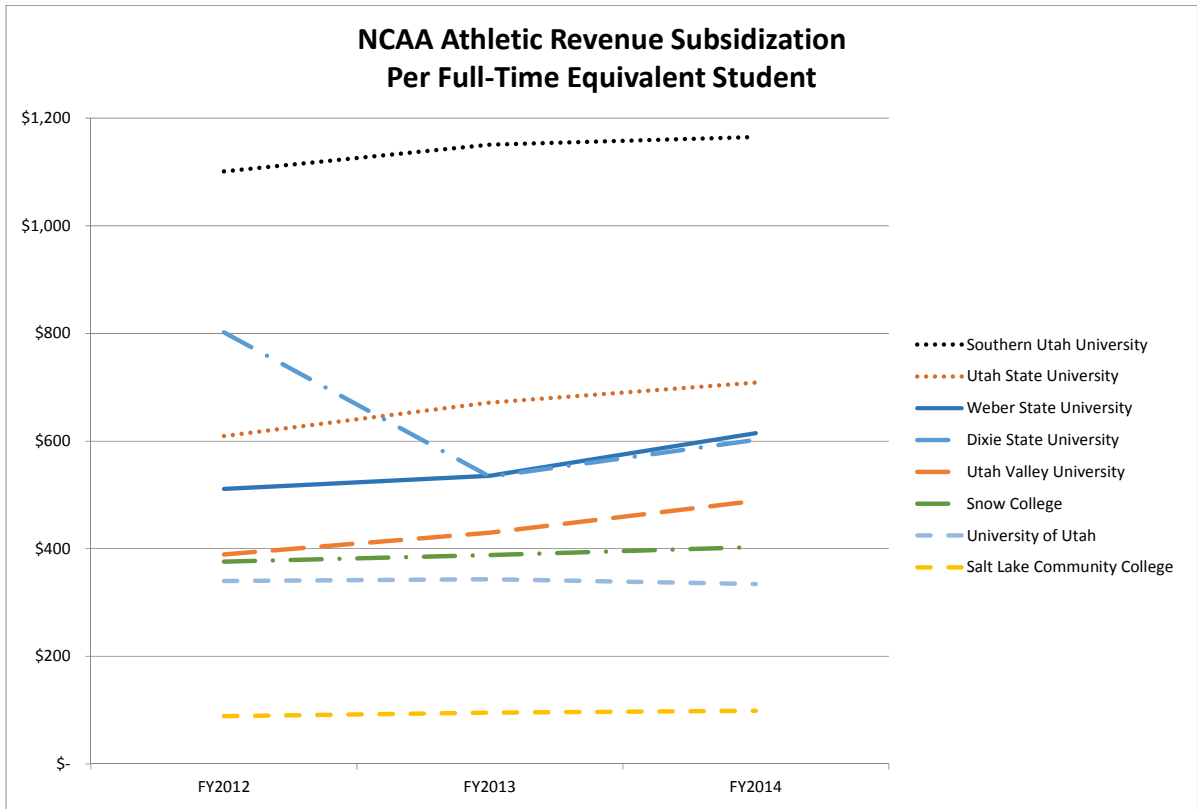
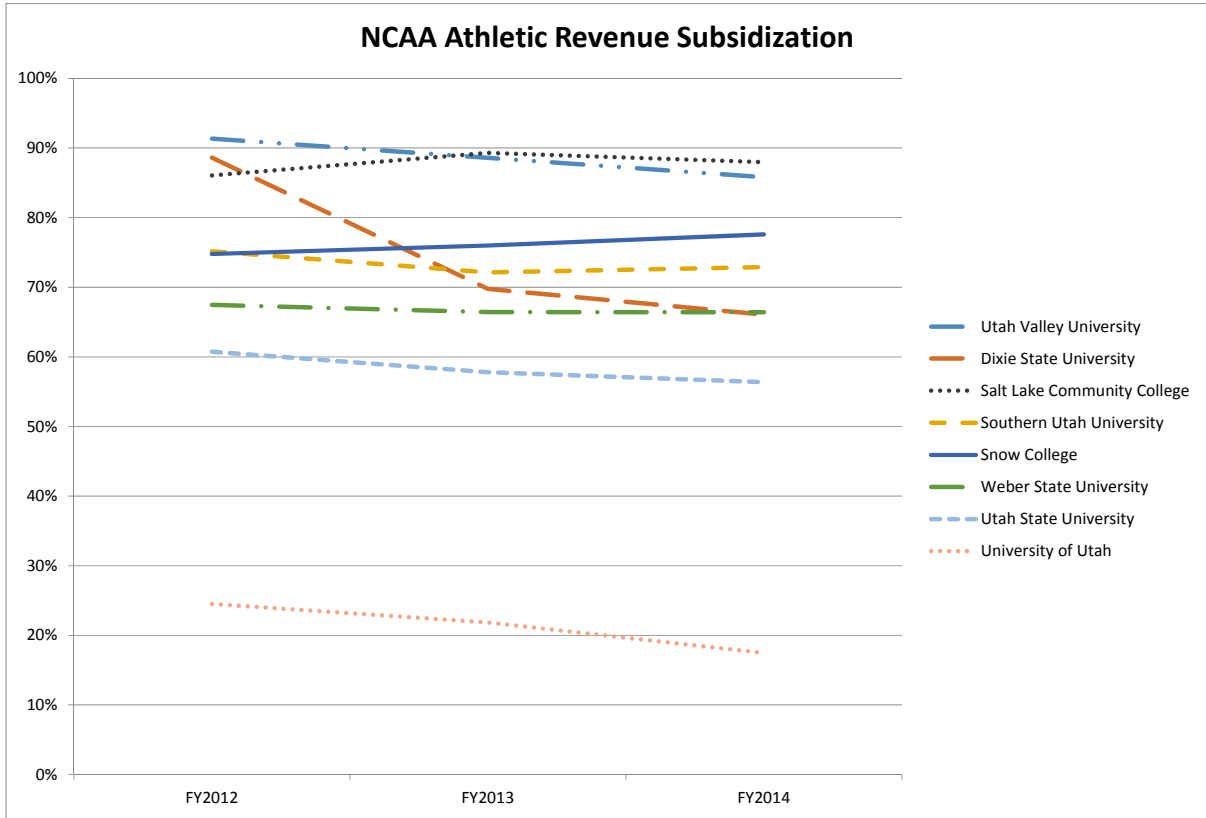
School	Total Athletics Revenue ¹	Total Athletic Activity Revenue ²	Total Athletics Subsidy ³	Percent Subsidized	FTE Student Enrollment ⁴	Amount Subsidized per FTE Student ³
University of Utah	\$ 40,756,665	\$ 30,774,171	\$ 9,982,494	24.5%	29,376	\$ 339.82
Utah State University	21,061,242	8,271,411	12,789,831	60.7%	20,985	609.47
Weber State University	11,562,166	3,759,701	7,802,465	67.5%	15,262	511.23
Utah Valley University	9,205,759	795,578	8,410,181	91.4%	21,602	389.32
Southern Utah University	9,415,221	2,338,829	7,076,392	75.2%	6,427	1,101.04
Dixie State University	5,930,808	675,630	5,255,178	88.6%	6,554	801.83
Salt Lake Community College	1,993,380	278,220	1,715,160	86.0%	19,255	89.08
Snow College	1,639,327	413,624	1,225,703	74.8%	3,259	376.10
Total	\$ 101,564,568	\$ 47,307,164	\$ 54,257,404	53.4%	122,720	\$ 442.12

(1) Total Revenue per the NCAA Agreed-Up on Procedures Report for the year ended June 30, 2012 or the Utah System of Higher Education Form S-13: Report on Intercollegiate Athletics for 2011-2012 Actual.

(2) Revenue generated from athletic activities, including ticket sales, contributions restricted to athletics, NCAA conference distributions, sponsorships/licensing/media revenue,

(3) The subsidy includes student fees restricted to athletics, tuition waivers, direct institutional support, and state support, as well as indirect institutional support for USU, WSU, and UVU.

(4) Annualized FTE Budget Related Only (source: Utah System of Higher Education 2015 Data Book Tab C)



July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Appointment of the Secretary of the Board of Regents

Background

The bylaws of the Board of Regents (Policy R120.3.2.3) provide:

3.2.3. Secretary: The State Board of Regents shall appoint from the staff of its executive officer a secretary to serve at the pleasure of the State Board of Regents. The secretary shall be a full-time employee at such salary as the State Board of Regents may fix. She or he shall be charged with the responsibility of recording and maintaining a record of all State Board of Regents meetings and shall perform such other duties as the State Board of Regents may direct. (Utah Code §53B-1-104(5)).

For many years the Board Secretary has also been the Executive Assistant to the Commissioner. Most recently the Board appointed Kirsten Schroeder to serve as Secretary in May 2011; in June 2015 Ms. Schroeder submitted her resignation effective July 1 as she accepted a position at South Dakota State University soon after her husband accepted a position in Sioux Falls, South Dakota. The position was posted, more than 15 candidates were considered, four finalists interviewed, and Loreen Olney was selected as Executive Assistant to the Commissioner. Ms. Olney previously was the Executive Assistant to the Associate Commissioner for Planning, Finance and Facilities, since 2011. Previously she worked for 24 years in various capacities at the Utah Higher Education Assistance Authority.

Recommendation

The Commissioner recommends that the Board appoint Loreen Olney as Secretary of the Board of Regents, pursuant to Regent Policy R120.3.2.3.

David L. Buhler
Commissioner of Higher Education

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: General Consent Calendar

The Commissioner recommends approval of the following items on the Regents' General Consent Calendar:

A. Minutes

1. Minutes of the Board Meeting May 15, 2015, Salt Lake Community College, Salt Lake City, Utah (Attachment).

B. Grant Proposals

1. University of Utah – US Department of Energy; “DOE CMS Center”; \$10,824,362. Dmitro Bedrov, Principal Investigator.
2. University of Utah – National Science Foundation; “NNCI: University of Utah”; \$4,958,848. Bruce K. Gale, Principal Investigator.
3. University of Utah – DOD Defense Advanced Research Projects Agency; “Ultra-Low Power Microsystems”; \$3,437,733. Massood Tabib-Azar, Principal Investigator.
4. University of Utah – New York Stem Cell Foundation; “Deans NYSCF Stem Cell”; \$1,500,000. Tara Lynn Deans, Principal Investigator.
5. University of Utah – New York Stem Cell Foundation; “Deans NYSCF Neuro”; \$1,500,000. Tara Lynn Deans, Principal Investigator.
6. University of Utah – NIH National Human Genome Research Institute; \$2,054,833. Erin Witter Rothwell, Principal Investigator.
7. University of Utah – NIH National Institute on Drug Abuse; “MORE-Primary Care”; \$3,662,945. Eric L. Garland, Principal Investigator.
8. University of Utah – Laura and John Arnold Foundation; “Social Innov.: Pay for Success”; \$1,000,000. Jeremy Keele, Principal Investigator.

9. University of Utah – HRSA Bureau of Health Professions; “FLOSS”; \$1,499,880. Glen R. Hanson, Principal Investigator.
10. University of Utah – DHHS National Institutes of Health; “Share”; \$3,715,167. James Morris Hotaling, Principal Investigator.
11. University of Utah – NIH National Heart Lung & Blood Institute; “Gene Regulatory Networks/CHD”; \$3,527,110. H. Joseph Yost, Principal Investigator.
12. University of Utah – NIH National Institute of Diabetes and Digestive and Kidney Diseases; “Bariatric Surgery Psychology”; \$3,480,684. Timothy W. Smith, Principal Investigator.
13. University of Utah – NIH National Cancer Institute; “IRCNI: Nano-Complex”; \$3,348,255. David A. Bull, Principal Investigator.
14. University of Utah – NIH National Institute of Diabetes and Digestive and Kidney Diseases; “Ambati – Huang Niddk”; \$2,980,000. Balamurali Krishna Ambati, Principal Investigator.
15. University of Utah – DHHS National Institutes of Health; “Myocardial Substrate”; \$2,879,270. Ravi Ranjan, Principal Investigator.
16. University of Utah – DHHS National Institutes of Health; “MRI-Guided HIFU”; \$2,445,717. Dennis L. Parker, Principal Investigator.
17. University of Utah – NIH National Heart Lung & Blood Institute; “MRI Detection of CAD”; \$2,192,172. Daniel Kim, Principal Investigator.
18. University of Utah – NIH National Institute for Child Health & Human Development; “Clark K12 CHRCDA APR 2015”; \$2,160,000. Edward B. Clark, Principal Investigator.
19. University of Utah – NIH National Institute on Drug Abuse; “ABDC-Prism”; \$2,009,088. Deborah Ann Yurgelun-Todd, Principal Investigator.
20. University of Utah – NIH National Cancer Institute; “PTF1 and Pancreatic Cancer”; \$1,972,125. Charles L. Murtaugh, Principal Investigator.
21. University of Utah – NIH National Eye Institute; “ARF 6 in Diabetic Retinopathy”; \$1,862,500. Weiquan Zhu, Principal Investigator.
22. University of Utah – DHHS National Institutes of Health; “Demyelination in Corpus-Callos”; \$1,490,000. Eun-Kee Jeong, Principal Investigator.

23. University of Utah – NIH National Institute of Allergy & Infectious Disease; “Preclinical Development of I”; \$1,478,310. Vicente Planelles, Principal Investigator.
24. University of Utah – Washington University in St. Louis; “Washu CCDG”; \$1,347,508. Aaron Quinlan, Principal Investigator.
25. University of Utah – DHHS National Institutes of Health; “NIH T32 2015”; \$2,277,690. Hamidrezas Ghandehari, Principal Investigator.
26. University of Utah – DOD Defense Advanced Research Projects Agency; “Brass”; \$2,799,275. Matthew Brendon Might, Principal Investigator.
27. University of Utah – DOD Defense Threat Reduction Agency; “Oxygen Signatures”; \$1,758,330. Luther W. McDonald IV, Principal Investigator.
28. University of Utah – US Department of Energy; “DOE 1240 – Area 3”; \$1,101,649. Amanda C. Bordelon, Principal Investigator.
29. University of Utah – US Environmental Protection Agency; “Climate Prediction”; \$1,000,000. Michael Ernest Barber, Principal Investigator.
30. University of Utah – Patient Centered Outcomes Research Institute; “HRQOL Validation”; \$1,035,765. Marjorie Anne Pett, Principal Investigator.
31. University of Utah – NIH National Institute of Environmental Health Science; “Role of TRPV3”; \$1,862,500. Christopher A. Reilly, Principal Investigator.
32. University of Utah – NIH National Institute of Mental Health; “Imaging Tool Kit”; \$1,526,340. Karen S. Wilcox, Principal Investigator.
33. University of Utah – DOJ National Institute of Justice; “Opioid Drug Interactions”; \$1,276,160. David E. Moody, Principal Investigator.
34. University of Utah – National Science Foundation; “NRT-DESE”; \$2,997,506. Frederick R. Adler, Principal Investigator.
35. University of Utah – DHHS National Institutes of Health; “High-Resolution Mass SPEC”; \$1,866,339. Erik Jorgensen, Principal Investigator.

36. University of Utah – DHHS National Institutes of Health; “Molecule Neuronal Growth”; \$1,490,000. Jon D. Rainier, Principal Investigator.
37. University of Utah – DHHS National Institutes of Health; “War in the Life Course”; \$2,705,427. Kim Korinek, Principal Investigator.
38. University of Utah – UT Department of Health; “Mountain West Refugee Health”; \$2,610,455. Caren Jean Frost, Principal Investigator.
39. University of Utah – Patient Centered Outcomes Research Institute; “PCORI-Resubmission”; \$2,653,776. Mia Hashibe, Principal Investigator.
40. University of Utah – Columbia University; “Legacy Girls Study”; \$1,301,030. Sandra S. Buys MD, Principal Investigator.
41. University of Utah – Patient Centered Outcomes Research Institute; “Diabetes and Dementia, AWV”; \$6,563,642. Norman Foster, Principal Investigator.
42. University of Utah – DHHS Agency for Healthcare Research & Quality; “SHAKIB AHRQ P30 Learning Lab”; \$3,987,843. Julie H. Shakib, Principal Investigator.
43. University of Utah – NIH National Institute of General Medical Science; “Training Program in Genetics”; \$2,707,020. David Grunwald, Principal Investigator.
44. University of Utah – Cincinnati Children’s Hospital Medical Center; “Cook CCHMC R01 Action Sub”; \$2,369,850. Lawrence J. Cook, Principal Investigator.
45. University of Utah – Biocardia; “Cardiamp Heart Failure Trial”; \$2,176,600. Amit N. Patel, Principal Investigator.
46. University of Utah – American Foundation for Aids Research; “Impact Grants Exploring”; \$2,000,000. Vicente Planelles, Principal Investigator.
47. University of Utah – NIH National Institute of Child Health & Human Development; “MFMU Network”; \$1,490,000. Michael W. Varner, Principal Investigator.
48. University of Utah – NIH National Human Genome Research Institute; “T32 Genomic Medicine”; \$1,426,130. Lynn B. Jorde, Principal Investigator.
49. University of Utah – DHHS Agency for Healthcare Research; “AHRQ Telehealth”; \$1,220,168. Amalia L. Cochran, Principal Investigator.

50. University of Utah – NIH National Cancer Institute; “Multi-tensor Decompositions”; \$3,472,131. Orly Alter, Principal Investigator.
51. University of Utah – Weill Cornell Medical College; “Central Thalamic Tract”; \$1,803,507. Christopher R. Butson, Principal Investigator.
52. University of Utah – National Science Foundation; “Bigdata: Cloud Algorithms”; \$1,493,008. Aaron M. Knoll, Principal Investigator.
53. University of Utah – American Museum of Natural History; “Openspace: Dynamic Visualizat”; \$1,300,000. Charles D. Hansen, Principal Investigator.
54. Utah State University – South Dakota Department of Education; “South Dakota Technical Assistance, Dispute Resolution Consortium, and Data Project”; \$1,143,200. John Copenhaver, Principal Investigator.
55. Utah State University – US National Science Foundation (NSF); “Regional Variation in Beta Diversity in Aquatic Ecosystems and its Consequences”; \$1,482,138. Charles Hawkins, Principal Investigator; Edward Hammill, Trisha Atwood, Co-Principal Investigators.
56. Utah State University – Unknown; “2015 Implementation of Western Region Sustainable Agriculture Research and Education (SARE) Proposal”; \$5,069,791. Teryl Roper, Principal Investigator.
57. Utah State University – US National Science Foundation (NSF); “Project STITCH: STEM Teaching Integrating Textiles and Computing Holistically”; \$1,102,087. Colby Tofel-Grehl, Principal Investigator; Vicki Allan, Louis Nadelson, Co-Principal Investigators.
58. Utah State University – US Department of Ed-National Institute on Disability and Rehab Other Research; “A Socio-Ecologic Framework Supporting Individuals with Disabilities Community”; \$2,467,065. Keith Christensen, Principal Investigator; Anthony Chen, Co-Principal Investigator.
59. Utah State University – US National Science Foundation (NSF); “Graduate training in collaborative interdisciplinary Climate Adaptation Research”; \$2,993,922. Nancy Huntly, Principal Investigator; Shih-Yu Wang, David Rosenberg, Courtney Flint, Patrick Belmont, Co-Principal Investigators.
60. Utah State University – US Department of Education (DoED); “Teaching Narrative Language Skills: Starting Early and Stepping up Classroom Int”; \$3,101,750. Margaret Lubke, Principal Investigator.

61. Utah State University – US National Aeronautics & Space Administration (NASA); “MeNISCuS”; \$2,990,049. Charles Swenson, Principal Investigator; Chad Fish, Alan Marchant, Co-Principal Investigators.
62. Utah State University – US National Science Foundation (NSF); “Genome to trait to landscape: using genomic prediction to understand the nature”; \$1,367,485. Zachariah Gompert, Principal Investigator; Karen Mock, Co-Principal Investigator.
63. Utah State University – Air Force Space and Missiles Command; “Overhead Persistent Infrared (OPIR) Test Manager Wide Field-of-View (WFOV) Support”; \$4,809,697. Deon Dixon, Program Manager.
64. Utah State University – University of Maryland Baltimore County; “Aerosol Science and technology Experiment with CubeSat (ASTEC)”; \$2,073,314. Tim Neilsen, Program Manager.
65. Utah State University – Orbital Sciences Corporation; “Gladiator Wide Field of View Telescope”; \$1,997,150. Jed Hancock, Program Manager.
66. Utah State University – Missile Defense Agency; “Missile Defense Agency Director for Engineering (DE) Staff Support/Counter Counter-Measures (CCM) Support”; \$1,103,387.
67. Utah State University – Revision - U.S. Dept. of Hlth. And Hum. Svcs. – National Institutes of Health (NIH); “Attentional Processing of Temporal Information”; \$17,645.00. Catalin Buhusi, Principal Investigator, Mona Buhusi, Co-Principal Investigator.
68. Utah State University – U.S. Dept. of Ag. – Agriculture and Food Research Initiative (AFRI); “Functional roles of single nucleotide polymorphism genetic marker of mastitis”; \$2,421,284.00. Zhongde Wang, Principal Investigator, Jacqueline Lorose, David Wilson, Kerry Rood, Co-Principal Investigators.
69. Utah State University – U.S. Dept. of Hlth. And Hum. Svcs. – National Institutes of Health (NIH); “Host Factors Required for Japanese Encephalitis Virus Replication”; \$1,974,540.00. Young-Min Lee, Principal Investigator, Sang-Im Yun, Co-Principal Investigator.
70. Utah State University - UT Dept. of Hum. Svcs. – Child and Family Services; “DHS/DCFS Title IV-E Training Project Continuation”; \$2,951,737.00. Derrik Tollefson, Principal Investigator, Diane Calloway-Graham, Co-Principal Investigator.
71. Utah State University – U.S. Dept. of Hlth. And Hum. Svcs. – National Institutes of Health (NIH); “Long-term trajectories of subjectively-and polysomnographically-assessed sleep”; \$2,125,163.00. Eric Reither, Principal Investigator.

72. Utah State University – U.S. Dept. of Def. – DARPA; “Developing Technologies to Select for Host Resilience”; \$2,945,082.00. Dale Barnard, Principal Investigator.
73. Utah State University – UT Department of Health; “Up to 3 Early Intervention”; \$1,161,895.00. Susan Olsen, Principal Investigator.
74. Utah State University – UT Department of Workforce Services; “CCPDIFY 16”; \$1,927,773.00. Ann Austin, Principal Investigator.
75. Utah State University – U.S. Department of Agriculture (USDA); “Multi-Disciplinary Methods for Effective, Sustainable, and Scalable Evaluations”; \$1,626,526.00. Carrie Durward, Principal Investigator, Paula Scott, Mateja Savoie, Heidi Leblanc, Co-Principal Investigators.
76. Utah State University – U.S. Dept. of Hlth. And Hum. Svcs. – Office of Family; “Health and Human Services – Office of Family Assistance”; \$7,632,725.00. Brian Higginbotham, Principal Investigator, Linda Skogrand, Co-Principal Investigator.
77. Utah State University – U.S. Dept. of Hlth. And Hum. Svcs. – Office of Family; “Healthy Relationships Utah”; \$9,995,237.00. Brian Higginbotham, Principal Investigator, Linda Skogrand, Co-Principal Investigator.
78. Utah State University – Change Order – Harris Corporation, Government Communications Systems; “CPS Integration”; \$1,964,139.00. Matt Cupal, Program Manager.
79. Utah State University – NASA Marshall Space flight Center; “Secondary Payload Avionics Box Development”; \$1,920,924.00. Tim Neilsen, Program Manager.
80. Utah State University – Revision – Orbital Sciences Corporation; “Gladiator Wide Field of View Telescope”; \$220,936.00. Jed Hancock, Program Manager.
81. Utah State University – Raytheon Corp General; “Ground Segment Modernization Program”; \$2,938,247.00. Kirk Larsen, Shane Jenkins, Program Managers.
82. Utah State University – Raytheon Corp General; Sky Lynx – Global Hawk”; \$1,187,500.00. Bennett Keller, Program Manager.

C. Awards

1. University of Utah – Laura and John Arnold Foundation; “Social Innov.: Pay For Success”; \$1,000,000. Jeremy Keele, Principal Investigator.

2. University of Utah – Biomarin Pharmaceutical Inc; “Safety, Tolerability & Pharmacokinetics of Single Subcu”; \$2,928,039. Nicola Longo, Principal Investigator.
3. University of Utah – NIH National Cancer Institute; “SEER”; \$1,861,162. Carol Sweeney, Principal Investigator.
4. Utah State University – Exelis Inc; “Radiation Budget Instrument Calibration”; \$5,888,618. Joel Cardon, Program Manager.
5. Utah State University – Navel Research Lab; “Naval Research Laboratory (NRL) Intelligence, Surveillance, and Reconnaissance Systems (ISRS) Task Order 0002 – FY15 Interim Virtualized Imagery Processing Capability (VIP-C) Tasks”; \$2,334,393. Glen Wada, Program Manager.
6. Utah State University – Naval Research Lab; “Naval Research Laboratory (NRL) Intelligence, Surveillance, and Reconnaissance Systems (ISRS) Task Order 0003 – FI Program”; \$2,000,000. Kenny Reese, Principal Investigator.

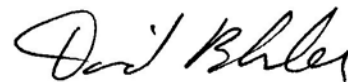
D. Academic Items Received and Approved

1. New Programs
 - a. University of Utah – Graduate Certificate in Gender Studies
 - b. Utah State University – Specialization in Higher Education/Student Affairs in Master of Education in Instructional Leadership
 - c. Weber State University – Certificate of Proficiency in Programming Essentials
 - d. Weber State University – Graduate Certificate in Elementary Teaching
 - e. Weber State University – Graduate Certificate in Secondary Teaching
 - f. Southern Utah University – Certificate of Proficiency in Technical Writing
 - g. Snow College – Certificate of Proficiency in Global Information Systems
2. Administrative Unit Restructure/New Administrative Units
 - a. University of Utah – College of Health
3. New Center
 - a. Utah Valley University – Center for Autism
4. New Institute
 - a. Southern Utah University – Confucius Institute
5. Name Change
 - a. Utah State University – Master of Education in Instructional Technology to Master of Education in Educational Technology & Learning Sciences

6. Discontinuation
 - a. Utah State University – Specialization in Interactive learning Technologies in Education Specialist in Instructional Technology
 - b. Utah State University – Specialization in Instructional Development for Training and Education in Education Specialist in Instructional Technology
 - c. Utah State University – Specialization in Interactive Learning Technologies in Master of Science in Instructional Technology & Learning Sciences
 - d. Utah State University – Specialization in Instructional Development for Training and Education in Master of Science in Instructional Technology & Learning Sciences
 - e. Utah State University – Specialization in Educational Technology in Master of Education in Instructional Technology
 - f. Utah State University – Specialization in Interactive Learning Technologies in Master of Education in Instructional Technology
 - g. Utah State University – Master of Arts in Sociology
 - h. Salt Lake Community College – Biomanufacturing Program (Associate of Applied Science, Certificate of Completion, Diploma)

7. Five-Year Review
 - a. Weber State University – Business Administration Department
 - b. Weber State University – Child & Family Studies Department
 - c. Weber State University – Health Promotion Program within the Health Promotion and Human Performance Department
 - d. Weber State University – Human Performance Program within the Health Promotion and Human Performance Department
 - e. Weber State University – Interior Design Program within the Professional Sales Department
 - f. Weber State University – Physical Education Program within the Health Promotion and Human Performance Department
 - g. Weber State University – Respiratory Therapy Department

8. Seven-Year Review
 - a. University of Utah – Department of Chemical Engineering
 - b. University of Utah – Department of Languages and Literature



David L. Buhler
Commissioner of Higher Education

STATE BOARD OF REGENTS
SALT LAKE COMMUNITY COLLEGE, SALT LAKE CITY, UTAH
TAYLORSVILLE REDWOOD CAMPUS, STUDENT CENTER (STC)
FRIDAY, MAY 15, 2015

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Adjournment 6

DRAFT

STATE BOARD OF REGENTS
SALT LAKE COMMUNITY COLLEGE, SALT LAKE CITY, UTAH
TAYLORSVILLE REDWOOD CAMPUS, STUDENT CENTER (STC)
FRIDAY, MAY 15, 2015

COMMITTEE OF THE WHOLE
MINUTES

Regents Present

Daniel W. Campbell, Chair
Jessellie B. Anderson
Nina R. Barnes
Bonnie Jean Beesley
Marlin K. Jensen
Jefferson Moss
Jed H. Pitcher
Robert W. Prince
Harris H. Simmons
Mark R. Stoddard
Teresa L. Theurer
John H. Zenger

Regents Absent

France A. Davis, Vice Chair
Leslie Brooks Castle
Wilford W. Clyde
James T. Evans
Brady L. Harris
Robert S. Marquardt
Joyce P. Valdez

Office of the Commissioner

David L. Buhler, Commissioner of Higher Education
Elizabeth Hitch, Associate Commissioner for Academic and Student Affairs
Gregory Stauffer, Associate Commissioner for Planning, Finance and Facilities

Institutional Presidents Present

Senior Vice President Ruth V. Watkins, University of Utah
Stan L. Albrecht, Utah State University
Charles A. Wight, Weber State University
Scott L Wyatt, Southern Utah University
Gary L. Carlston, Snow College
Matthew S. Holland, Utah Valley University
Richard B. Williams, Dixie State University
Deneece G. Huftalin, Salt Lake Community College

Other Commissioner's Office and institutional personnel were also present. The signed role is on file in the Commissioner's Office.

The Board of Regents began the day at 7:30 a.m. with a breakfast meeting; they were joined by the Salt Lake Community College Board of Trustees. Following breakfast, the Board of Regents were joined by the USHE presidents in an informal discussion regarding strategic planning and technology until 10:30 a.m. This was followed by board committee meetings and lunch.

Chair Campbell called the meeting to order at 12:57 p.m. He excused Regents Castle, Clyde, Davis, Evans, Harris, Marquardt and Valdez from the meeting. He also recognized Senior Vice President Ruth Watkins representing President Pershing in his absence.

State of the University

President Huftalin gave a presentation on the state of Salt Lake Community College (SLCC) focusing on four institutional core themes: Access and Success, Transfer Education, Workforce Education and Community Engagement. President Huftalin also reported to the Regents about her progress on the presidential charge they gave her at inauguration, to educate and equip students to compete and excel, stay true to the mission, build unity within SLCC, and strengthen relationships with the community SLCC serves.

General Consent Calendar (TAB Z)

On a motion by Regent Simmons, and seconded by Regent Zenger the following items were approved on the Regents' General Consent Calendar:

- A. Minutes – Minutes of the Board meeting March 27, 2015, Dixie State University, St. George, Utah; and the minutes of the Board meeting April 3, 2015, Board of Regents Building, Salt Lake City, Utah (via conference call).
- B. Grant Proposals
- C. Awards
- D. Academic Items Received and Approved

Reports of Board Committees

Academic and Student Affairs Committee

Utah State University – Doctor of Philosophy in Aerospace Engineering (TAB A)

Weber State University – Bachelor of Science in International Business Economics (TAB B)

Southern Utah University – Bachelor of Arts/Bachelor of Science in Anthropology (TAB C)

Dixie State University – Bachelor of Science in Communication Studies (TAB D)

Dixie State University – Bachelor of Science in Media Studies (TAB E)

Regent Prince briefly reported on the above requests for new degrees and moved the approval of each of them as outlined in Tabs A, B, C, D and E. The motion was seconded by Regent Beesley and carried.

Revision to Policy R513, Tuition Waivers and Reductions (TAB F)

Regent Prince reported the revision to R513 is a result of legislative action. **It was moved by Regent Prince and seconded by Regent Stoddard to approve the revisions to R513 as outlined in Tab F. The motion carried.**

Authorization of Commissioner to Convey Information to State Board of Education as Required by SB196 (TAB AA)

Regent Prince reported the Academic and Student Affairs Committee approved the authorization of the Commissioner to convey the information outlined in Tab AA to the State Board of Education as

required by the legislature and moved the approval by the full board. The motion was seconded by Regent Harris and carried.

Institutional Completion Update: Salt Lake Community College (TAB G)

Regent Prince briefly reported on this information item; no action was taken.

Alan E. Hall Innovation for Undergraduate Student Success Awardees for 2014-15 (TAB H)

Regent Prince briefly reported on this information item; no action was taken.

Report on USHE College Application Portal Feasibility Study and Recommended Next Steps (Gates Grant) (TAB I)

Regent Prince briefly reported on this information item; no action was taken.

College Access Challenge Grant Annual Report (TAB J)

Regent Prince briefly reported on this information item; no action was taken.

Chair Campbell inquired if job placement opportunities and job needs of the state data are considered when reviewing new degrees. Regent Prince and Associate Commissioner Elizabeth Hitch responded each new degree proposal includes information regarding anticipated placement and job growth in the degree area, and program review (as part of the General Consent Calendar) is vetted carefully considering current data provided by the institution at a granular level. This consideration is an important process of program approval.

Finance/Facilities Committee

Salt Lake Community College – Campus Master Plan Approval (TAB K)

Regent Simmons briefly reported on this item (see **below for motion**).

Salt Lake Community College – Westpointe Campus Property Purchase (TAB L)

Regent Simmons briefly reported on this item (see **below for motion**). He noted the purchase price of this property is \$1,837,579 which is slightly below the appraised values.

Utah State University – Series 2015 Romney Stadium Westside Renovation Revenue Bond (TAB M)

Regent Simmons briefly reported on this item (see **below for motion**). He noted that the project will dramatically improve the experience of visitors sitting on the west side of the stadium. Utah State University is requesting authorization to bond for \$24,500,000 of the \$31K project and plans to make up the balance with gift funds.

Southern Utah University – Sale of Noncontiguous Property (TAB N)

Regent Simmons briefly reported on this item (see **below for motion**). He noted the two vacant lots Southern Utah University has requested authorization to sell are not contiguous to campus and were purchased in 2004 for the intended purpose of creating a gateway to campus. However those plans have changed and the property is no longer needed. The intent is to offer the vacant lots to the Dixie and Anne Leavitt Foundation as the properties sit between two properties currently owned by the Foundation.

Regent Simmons moved the approval of Tabs K, L, M and N. The motion was seconded by Regent Pitcher and was carried.

Revision to Policy R512, Determination of Resident Status (TAB O)

Regent Simmons briefly reported on this item (see below for motion). He noted the changes are a result of the recent passage of HB 233 that addressed military veterans and their residency eligibility.

Revision to Policy R571, Delegation of Purchasing Authority (TAB P)

Regent Simmons briefly reported on this item (see below for motion). He noted the changes incorporate compliance to the Utah State Code as well as adding additional detail about the condition of a donation, trial use, and emergency procurement.

Revision to Policy R590, Issuance of Revenue Bonds for Facilities Construction, Facilities Acquisition, or Equipment (TAB Q)

Regent Simmons briefly reported on this item (see below for motion). He noted the revisions are to come into compliance with the SEC Municipalities Continuing Disclosure Cooperation (MCDC) Initiative.

Revision to Policy R710, Capital Facilities (TAB R)

Regent Simmons briefly reported on this item (see below for motion). The revisions consolidate and clarify the requirements for Board of Regents authorization of capital development projects.

Revision to Policy R803, Students and Employees Called to Active Military Service (TAB S)

Regent Simmons briefly reported on this item (see below for motion). The revisions give students, who are called to active military service, additional options in moving in and out of institutions.

Regent Simmons moved the approval five policy revisions, R512, R571, R590, R710 and R803 as outlined in Tabs O, P, Q, R and S. The motion was seconded by Regent Zenger and was carried.

Capital Development Prioritization (CDP) Cycle – Adoption of Priority Guidelines (TAB T)

Regent Simmons reported R741 requires the Board of Regents to establish priority guidelines to be used in each Capital Facilities Evaluation Cycle. He noted there were no changes. (See below for motion).

USHE – Enrollment Forecasts (TAB U)

Regent Simmons reported on the enrollment forecasts through fall semester 2024. He noted the projected annual growth is 2.7% over the next ten years and the head count is projected to grow from 161,000 FTE to 226,000 in the fall 2024 semester. This process is critical for the capital facilities process as well as other long-range planning.

Regent Simmons moved the approval of Tabs T and U. The motion was seconded by Regent Pitcher. Chair Campbell noted Associate Commissioner Gregory Stauffer would check in with members of the Capital Facilities Committee to make sure they are comfortable with the priority guidelines. **The motion carried.**

University of Utah – Sale of Gifted Property in Layton, Utah (TAB V)

Regent Simmons reported briefly on this information item, no action was taken.

University of Utah – Sale of Series 2015B General Revenue and Refunding Bond (TAB W)

Regent Simmons reported briefly on this information item, adding the savings was \$2.5 million on refunded bonds. No action was taken.

USHE – 2015-16 Capital Improvement Funding Update (TAB X)

Regent Simmons reported briefly on this information item, adding the Building Board met on April 8, 2015 and allocated the amount of \$60,166,315 for USHE Capital Improvement needs for FY 2016. No action was taken.

USHE – Institutions' Health Plan Changes 2015-16 (TAB Y)

Regent Simmons reported briefly on this information item, adding the cost increases range for the various institutions. No action was taken.

Resolutions of Appreciation

Bonnie Jean Beesley

Regent Anderson read a resolution of appreciation for Bonnie Jean Beesley and her years of service on the Board of Regents and moved the adoption of the resolution. Vice Chair Campbell spoke in favor of the resolution adding he appreciated Regent Beesley's conviction and the board will miss her. **Regent Simmons seconded the motion and it carried unanimously.**

Jed H. Pitcher

Regent Theurer spoke in support of the resolution of appreciation for Jed H. Pitcher and his service on the Board of Regents and moved its approval, adding Regent Pitcher's absence would leave a hole in USHE. The motion was seconded by Regent Bonnie Jean Beesley and was carried unanimously.

Brady L. Harris

Regent Stoddard spoke in support of the resolution of appreciation for Student Regent Brady L. Harris and his one year service to the Board representing students in the State of Utah and moved the approval of the resolution. The motion was seconded by Regent Theurer. The motion carried.

Chair Campbell noted this meeting would be the last Board of Regents meeting for several Office of Commissioner of Higher Education staff members.

- Melissa Miller Kincart, Assistant Commissioner for Access and Outreach, is moving out of state. She joined the office in 2007 and provided great leadership in growing and new outreach programs.
- Courtney White, Assistant Commissioner for Policy and Planning, who has accepted a position as the Assistant to the President for Special Projects at Dixie State University, spearheaded major review of Regents' policies, revising nearly 100 since 2012, and managed three presidential searches in two years.
- Maria Millet, Public Affairs Assistant, is also moving out of state. She joined the office in 2012 and has helped with communications and coordinating legislative efforts for the past three legislative sessions.

Commissioner Buhler also commended each staff member for their contributions adding each of them will be greatly missed.

It was moved by Regent Stoddard and seconded by Regent Zenger to meet in Executive Session for the sole purpose of discussing the character, professional competence, or physical or mental health of individuals, pending or reasonably imminent litigation, and the possible sale of real property. The motion carried.

The Board of Regents met in Executive Session until 3:12 p.m.

Kirsten Schroeder, Executive Secretary

Date Approved:

July 22, 2015

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Completion Strategy Five: Reverse Transfer and Stackable Credentials

Background

In July 2013 the Board of Regents unanimously passed a resolution to “Implement Strategies to Increase Completion Rates” in support of the state’s 66% attainment goal. This resolution acknowledged that the Utah State Board of Regents is committed to improving the completion rates of students who enroll in an institution within the Utah System of Higher Education (USHE) by ensuring a quality, cost-effective educational experience and awarding meaningful education credentials that will help students find gainful employment and life-long success. The Presidents and their administrations and faculty have taken seriously the Board’s charge and have been implementing these strategies.

The five specific recommendations in the resolution are:

1. *Establish 15 credits hours per semester as the normal full-time course load for students.*
2. *Set plateau tuition levels with a focus on 12 to 15 credit hours to help students maximize their tuition dollars and their time.*
3. *Create semester-by-semester degree program maps with specific recommended courses each semester and make them available to current and potential students.*
4. *Encourage students to enroll in an appropriate mathematics course in their first year of college.*
5. *Explore the feasibility of implementing reverse transfer/stackable credentials.*

With support from USHE, institutions have worked hard and made good progress on these strategies, in particular, strategies 1-4. The fifth strategy is challenging and merits further focus to help increase the number of Utahns who complete a college degree or meaningful certificate.

Issue

According to the most recent Lumina Foundation report, *A Stronger Nation Through Higher Education*, the number of Utahns with “some college but no degree” has risen from 27% to 28.1%. Providing a way for these adults to complete their education is essential for the State of Utah. The final strategy of the July 2013 Completion Resolution directly addresses some best practices to help adult students complete a credential, and asked Chief Academic Officers, Chief Student Services Officers, and institutions to explore

specific strategies to make it easier for students to achieve credentials, including reverse transfer, automatic awarding of associate degrees, and stackable credentials.

In 2014, through a newly formed Adult College Completion Working Group and Complete College Utah, USHE addressed these issues, with the following results:

- Institutions have made it easier for students who have completed the requirements for an associate degree to receive that degree.
- More stackable credentials have been created and the number of students completing certificates has risen.

However, more work remains to adequately serve and graduate adult students. The practice of *reverse transfer* has started to attract national attention for the potential to help students achieve benchmarks on their way to a degree and to help students whose plans change leave institutions with a credential.

Some students who transfer to four-year institutions do so before completing an associate degree at the two-year college. *Reverse transfer* is a process where students can transfer credits from the four-year institution back to the sending institution to satisfy the requirements for the degree. Reverse transfer recognizes the student's achievements and the associate degree can serve as encouragement for students to complete an additional credential.

- Students with an associate degree are more likely to stay in school and finish a four-year degree program.
- Graduates will have two degrees on their résumés, more accurately reflecting their skills and training over time.
- Students who do not complete a four-year degree will still have a credential on their résumés, helping with career goals. If they decide to return and complete a bachelor degree later, transferring will be easier and they will move more quickly towards completion.
- If the associate degree is in a more technical or applied area than the bachelor's degree, this can be attractive to a future employer who is looking for someone with experience in the hands-on and theoretical aspects of a given field.
- Two-year colleges will benefit from a more accurate reflection of the time and resources they have invested in these transfer students, and will gain credit in their completion outcomes.

Next Steps

During the next year the Commissioner's Office will seek heightened public visibility of initiative number five, which directly addresses the success of adult students. The ultimate goal is to increase the graduation rates of adult students and decrease the number of Utahns with "some college but no degree."

Commissioner's Recommendation

The Commissioner recommends the Board discuss these issues and reaffirm their commitment to improving services to and graduation rates of adult students. The Board further directs the institutions to work collaboratively with the Commissioner's office to develop a workable reverse transfer policy that can be presented to the Board for action and then implemented statewide.

David L. Buhler
Commissioner of Higher Education

DLB/CF