



AGENDA

MEETING OF THE
UTAH STATE BOARD OF REGENTS

August 3-4, 2000

**Utah State Board of Regents
Office of the Commissioner
of Higher Education
355 West North Temple
3 Triad Center, Suite 550
Salt Lake City, Utah 84180-1205**

UPDATED AS OF JULY 27, 2000

**AGENDA
MEETING OF THE STATE BOARD OF REGENTS
SOUTHERN UTAH UNIVERSITY
Cedar City, Utah
Sharwan Smith Student Center**

Thursday, August 3

9:30 a.m. - COMMITTEE OF THE WHOLE
12:00 noon Ballroom

1. University of Utah – Red Butte Gardens Construction Project Tab A
2. USHE 2001-2002 Capital Development Project Hearings Tab B

12:00 noon - JOINT MEETING WITH STATE BUILDING BOARD Tab C
3:00 p.m. Ballroom

Chief Academic Officers Luncheon Meeting
Brian Head Room

Student Services Vice Presidents Luncheon Meeting
Cedar Breaks Room

(Food will be set up in the Convention Center Lobby)

3:00 p.m. - EXECUTIVE SESSION – BOARD OF REGENTS
3:15 p.m. Escalante Room

3:15 p.m. - MEETINGS OF BOARD COMMITTEES
5:30 p.m.

Academic and Applied Technology Education Committee
Cedar Breaks Room

ACTION:

1. Weber State University – Associate of Applied Science, Bachelor of Science Degree in Computer Engineering Technology (CET) Tab D

- | | |
|-------------------------------------------------------------------------------------------------------------|-------|
| 2. College of Eastern Utah/Snow College/Utah Valley State College – Associate of Science Degree in Business | Tab E |
| 3. Utah Valley State College – Associate of Applied Science Degree in Telecommunications Technology | Tab F |
| 4. Utah Valley State College – Associate of Applied Science Degree in Manufacturing Engineering Technology | Tab G |

INFORMATION:

- | | |
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| 5. Information Calendar, Academic and ATE Committee | Tab H |
| <ul style="list-style-type: none"> a. University of Utah <ul style="list-style-type: none"> i. Name change from the Graduate School of Education to the College of Education ii. Rename degree programs to reflect restructuring of the Department of Educational Studies b. Utah State University <ul style="list-style-type: none"> i. Specialization in Agribusiness Management added to the Master of Business Administration Degree ii. Consolidation of the Master of Science in Agricultural Economics and the Master of Community Economic Development Degree into a Master of Science in Applied Economics iii. Name change from the Bachelor’s Degree in Secondary Education to the Bachelor’s Degree in Social Studies | |

CONSENT:

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 6. Consent Calendar, Academic and ATE Committee | Tab I |
| <ul style="list-style-type: none"> a. University of Utah – Restructure the Department of Educational Studies into the Department of Teaching and Learning and the Department of Education, Culture, and Society b. University of Utah – Test a new delivery model on an existing Ph.D. Program in Social work | |

Finance and Facilities Committee

Escalante Room

ACTION:

- | | |
|--------------------------------------------------------------------|-------|
| 1. Southern Utah University – St. George Head Start Facility Lease | Tab J |
| 2. Southern Utah University – Campus Master Plan | Tab K |
| 3. USHE – Long-term Enrollment Projections | Tab L |

4. Student Financial Aid – Approving Resolution, SBR Student Loan Revenue Bonds, 2000 Series S, 2000 Series T, and 2000 Series U Tab M

INFORMATION:

5. USHE – Audit Review Subcommittee Report Tab N

CONSENT:

6. Consent Calendar, Finance and Facilities Committee Tab O
- a. OCHE Monthly Investment Report
 - b. USHE – 2000-2001 Initial Work Program Revisions
 - c. USHE – 2000-2001 Appropriated Operating Budgets
 - d. Donated Property Liquidation

5:30 p.m. DINNER AND ENTERTAINMENT
Institutional Residence

8:30 p.m. Shakespeare Festival Performances

Friday, August 4

7:30 a.m. - BREAKFAST MEETING – STATE BOARD OF REGENTS, SUU
9:00 a.m. TRUSTEES, PRESIDENT BENNION, COMMISSIONER FOXLEY
Escalante Room

- Open discussion
- Executive session

Chief Academic Officers Breakfast Meeting
Brian Head Room

Student Services Vice Presidents Breakfast Meeting
Zion Room A

9:00 a.m. - COMMITTEE OF THE WHOLE
12:00 noon Ballroom

1. Proposed Revisions to Policy R171, *Postsecondary Proprietary School Act and Rules* Tab P
2. Reports on Master Planning Issues and Initiatives Tab Q

- a. Missions and Roles
 - Proposed Revisions to Policy R311, *Institutional Missions and Roles*
 - b. Applied Technology Education
 - c. Formula Funding
 - d. Tuition and Financial Aid
 - e. Service Area Education Coordination Plans
 - f. Other
3. Report of the Chair
 4. Report of the Commissioner
 5. Reports of Board Committees
 - Academic and ATE Committee (Tabs D - I)
 - Finance and Facilities Committee (Tabs J - O)
 6. General Consent Calendar Tab R

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In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Angie Loving, ADA Coordinator, at 355 West North Temple, 3 Triad Center, Suite 550, Salt Lake City, UT 84180, or at 801-321-7124, at least three working days prior to the meeting. TDD # 801-321-7130.

MEMORANDUM

July 27, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: University of Utah–Red Butte Gardens Construction Project

Issue

University of Utah officials seek authorization to build an Orangery—an atrium-type facility used for growing plants—in the University’s Red Butte Gardens. A generous donation has been secured for such purpose.

Background

As outlined in the attached letter from Special Assistant to the President Michael T. Benson, the Hank Hemingway family has donated \$1.2 million to the University to build and maintain an Orangery that will house Mediterranean plants. The Orangery would be located just north of the existing Red Butte Garden visitor center. The donation includes a \$500,000 endowment for perpetual operation and maintenance of the facility.

In past years, this proposal would have required legislative authorization, due to its use of state land. However, legislation passed during the 2000 General Legislative Session allows for such projects without legislative approval under certain circumstances. These circumstances are: (1) that the facility never utilize state funding for construction, operation and maintenance, or capital improvements, and (2) that the State Building Board review the proposed project to determine that it is an appropriate use of state land. This is the first time the USHE has attempted to utilize this new statutory language.

If authority for this project is granted by the Regents, University officials intend to seek approval from the State Building Board during their regular business meeting on August 3, 2000.

State Board of Regents
July 27, 2000
Page 2

Recommendation

It is the recommendation of the Commissioner that the Regents authorize the University of Utah to construct and maintain an Orangery in the University's Red Butte Gardens with donated funds.

Cecelia H. Foxley, Commissioner

CHF/NCT
Attachment

MEMORANDUM

July 27, 2000

TO: State Board of Regents
FROM: Cecelia H. Foxley
SUBJECT: 2001-2002 Capital Development Project Hearings

Issue

Immediately preceding the joint meeting with the State Building Board on August 3, 2000, the Board of Regents will hold hearings on the capital development needs of the USHE institutions. Enclosed with this tab is reference material for these capital development hearings.

Background

The Board of Regents is statutorily charged with submitting annually to the Legislature, Governor, and State Building Board, a list of the most urgent capital development needs within the USHE. These needs are then considered for state funding along with other state education and governmental needs. As in past years, proposed institutional capital development projects will be prioritized into a list through a process known as the Qualification and Prioritization (Q&P) process which is outlined in Regents' Policy R-741. Policy R-741 constitutes a numeric formula and point scoring system intended to help the Regents weigh the relative need for various capital development projects. This year's Q&P list will be presented to the Regents for consideration at the September 15th Board meeting. The August 3rd hearings are intended to give the Regents background on the projects that will be "scored" through the Q&P process.

Institutional Presentations

Each institutional president will give a brief presentation on their top capital development needs. Regents will have an opportunity to ask questions as desired. The presentations will be in the following order:

State Board of Regents

July 27, 2000

Page 2

University of Utah - President Bernard Machen
Utah State University - President George Emert
Weber State University - President Paul Thompson
Snow College - President Gerald Day
Dixie State College - President Robert Huddleston
College of Eastern Utah - President Grace Jones
Utah Valley State College - President Kerry Romesburg
Salt Lake Community College - President Lynn Cundiff
Southern Utah University - President Steven Bennion

Recommendation

This is an information item only. No action is needed at this time.

Cecelia H. Foxley, Commissioner

CHF/NCT
Attachments

MEMORANDUM

July 27, 2000

TO: State Board of Regents
FROM: Cecelia H. Foxley
SUBJECT: Joint Meeting with the State Building Board

Issue

On August 3rd from 12:00 noon until 3:00 PM the Regents and the State Building Board will hold a joint meeting to discuss facility-related issues of common interest to the two boards. Attached is an agenda for the meeting. Much of the material that will be discussed during the meeting is included in other tabs of this agenda. Tab L, which is a new set of long-term enrollment projections for the USHE will be discussed, as will Tab B which summarizes the USHE's Q&P process and top capital development priorities. Other material for the joint meeting will be hand carried on August 3rd.

Recommendation

No action is requested. This is an information item only.

Cecelia H. Foxley, Commissioner

CHF/NCT
Attachment

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Weber State University - Request to offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering Technology (CET)- Action Item

Issue

Officials at Weber State University (WSU) request approval to offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering Technology, through the Department of Computer and Electronic Engineering Technology (CEET), beginning Fall, 2000.

Background

WSU has offered a CET emphasis within the existing A.A.S. and B.S. Degrees in Electronics Engineering Technology (EET) since Fall, 1999. Approximately 60 students are currently enrolled in this emphasis area. Officials at WSU now request authorization to change these emphases to degree programs at both the associate and baccalaureate levels. The proposed change serves two purposes. First, a degree clearly defines for prospective students the nature of the program, thus reducing or eliminating possible confusion. Second, a defined degree program makes clear to prospective employers the exact nature of the education the student has received.

The program is designed in a "2+ 2" format, using already existing courses from both Electronics Engineering Technology and Computer Science. Students must complete the A.A.S. CET Degree at WSU, or an equivalent A.A.S. Degree or course work in another accredited A.A.S. degree program prior to enrollment in the CET Bachelor of Science Degree Program.

The CET A.A.S. Degree will prepare graduates to specify, install, operate, troubleshoot and modify computers, automated programmable controllers and electronic systems. The CET B.S. Degree builds on the students' experiences gained through the A.A.S. Degree, and will provide students with knowledge and skills in problem solving, critical thinking, project management and applied research. It will teach them to identify, evaluate, analyze and solve complex computer and electronic-related technical problems.

The demand for information technology (IT) workers in Utah has been well documented by the Utah Information Technology Association (UITA), the *Utah Job Outlook*, and *Newsweek* magazine which, in its

November issue, included Utah among the top ten IT centers in the world. Employees in Utah's IT vendor industry in 1998 earned an average annual wage of \$42,740, up 7 percent from \$39,924 in 1997. This is 66 percent higher than the state's average 1998 wage of \$25,752 for all public and private non-agricultural workers.

In addition, computing and computer-related fields have been listed by the U.S. Department of Labor as one of the ten fastest growing occupational categories in the country. Lately this field has been growing nationally at a rate of 16% per year. It is estimated that the country will require more than 1.3 million information technology workers by the year 2006 and that nearly 240,000 annually will be needed just to replace workers who are leaving the field.

The proposed program is comprised of existing courses already taught in the CET emphases. No additional faculty, equipment, library or learning resources are required. The budget is already in place; no additional state funds are requested.

Policy Issues

This proposal was approved by WSU's Board of Trustees on June 13, 2000. Appropriate faculty and academic officials from other USHE institutions have reviewed the proposed degrees, and no concerns were expressed in those reviews. The program was discussed by the Chief Academic Officers at a meeting on July 11, 2000, and it was recommended that the proposal should be placed on the Board of Regents' August agenda as an action item. Officials from Salt Lake Community College (SLCC) expressed support for the proposal, emphasizing the need for articulation between WSU and SLCC on this program. Officials at the College of Eastern Utah also expressed support for the proposed program.

Options Considered

After the Regents have reviewed the proposal from Weber State University to offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering Technology, they may raise issues, request additional information, deny the request or approve the request.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve the request of Weber State University to offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering Technology.

Cecelia H. Foxley, Commissioner

Academic and Applied Technology Education Committee

Action Item

Request to Offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering
Technology (CET)

Weber State University

Prepared for
Cecelia H. Foxley
by
Michael A. Petersen
and
Linda Fife

July 26, 2000

SECTION I

The Request

Officials at Weber State University (WSU) request approval to offer Associate of Applied Science and Bachelor of Science Degrees in Computer Engineering Technology (CET), through the Department of Computer and Electronics Engineering Technology (CEET), beginning Fall, 2000.

SECTION II

Program Description

The CET A.A.S. and B.S. Degrees provide applications-oriented education which produces professionals who are prepared to make significant contributions in technology-based career fields. These programs prepare students to incorporate computer and electronic systems in solving engineering, technological, scientific and manufacturing problems. The CET A.A.S. Degree is a combination of software and hardware courses supporting off-the-shelf computer systems and networking. It prepares graduates to specify, install, operate, troubleshoot and modify computers, automated programmable controllers and electronic systems. The CET B.S. Degree combines advanced hardware and software courses supporting both customized and off-the-shelf computer systems. It builds on the students' experiences gained through the A.A.S. Degree and provides students with knowledge and skills in problem solving, critical thinking, project management and applied research. It teaches them to identify, evaluate, analyze and solve complex computer and electronic-related technical problems.

The program is designed in a "2+ 2" format, using already existing courses from both Electronics Engineering Technology and Computer Science. Students must complete the A.A.S. CET Degree at WSU, or an equivalent A.A.S. degree or course work in another accredited A.A.S. degree program prior to enrollment in the CET Bachelor of Science Degree Program.

The proposed curricula for both the A.A.S. and B.S. Degrees are outlined below. Course descriptions are included in Appendix A. Suggested class schedules can be found in Appendix B.

Requirements for Completion of the Associate of Applied Science (AAS) Degree in Computer Engineering Technology (CET)

Grade Requirements: A grade of "C" or better in all CEET and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.0 or higher. Students must also satisfy the o the general grade requirements for graduation as outline in the WSU Catalog.

Credit Hour Requirements: A minimum of 66 credit hours is required with a minimum of 40 credit hours in the major. Transfer students are required to take a minimum of 30 credit hours at WSU.

Assessment Requirements: Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate degrees.

Advisement: All CET students are required to meet with a faculty advisor at least annually for course and program advisement.

Core and General Education: Students must meet all WSU General education requirements for A.A.S. degrees. Computer Literacy, as defined in the WSU Catalog, is also required for all A.A.S. degrees as well.

Course Requirements for A.A.S. Degree

Course Number	Title	Credits
Computer and Electronics Engineering Technology Courses Required (24 credit hours)		
CEET1005	Personal Computer Fundamentals	4
CEET1010	DC and AC Circuits	4
CEET1030	Digital Circuits	4
CEET 1041	Computer Architecture and Networking	4
CEET 2031	Microprocessor Systems & Embedded Controllers	4
CEET 2040	Communications Circuits	4
Computer Science Courses Required (16 credit hours)		
CS SI1130	Introduction to UNIX and C	4
CS 2410	Network Essentials	4
CS 2420	Windows NT	4
CS 2430	Internetworking TCP/IP	4
Support Courses Required (23 credit hours)		
COMM HU1050	Interpersonal Communications	3
PHSX PSI2210/L	Physics for Scientists & Engineers I with Lab	5
MATH QL1080	Pre-calculus	5
MATH SI1210	Calculus I	4
ENGL EN1010	Introduction to Writing	3
ENGL EN 2010	Intermediate Writing	3
Other Courses Required (3 credit hours)		
General Ed Social Science Elective		3
Total A.A.S. Degree:		66

Requirements for Completion of the Bachelor of Science (BS) Degree in Computer Engineering Technology (CET)

Program Prerequisite: A.A.S. degree in CET from WSU or an equivalent degree or course work from an accredited A.A.S. degree program.

Grade Requirements: A grade of "C" or better in all CEET and support courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA of 2.0 or higher. Students must also satisfy the the general grade requirements for graduation as outlined in the WSU Catalog.

Credit Hour Requirements: A total of 126 credit hours is required for graduation. A total of 40 upper division credit hours is required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at WSU.

Assessment Requirements: Students will be required to complete certain assessment instruments as part of the accreditation requirements for the B.S. Degree.

Advisement: All CET students are required to meet with their faculty advisor at least annually for course and program advisement.

Core and General Education Requirements: Students must meet all WSU general education requirements for B.S. Degrees. The following courses required for the CET B.S. Degree will also fulfill General Education requirements: COMM HU1050 (Oral Communication), and MATH 1080 (Math and Statistics), PHSX PS2210/L (Physical Science).

Course Requirements for B.S. Degree

To be taken in addition to the requirements for the A.A.S. degree:

Course Number	Title	Credits
AAS Degree		66
Computer and Electronics Engineering Technology Courses Required (17 credit hours)		
CEET SI 3010	Advanced Circuit Analysis I	4
or MATH SI1220	Calculus II	4
or MATH QL1040	Introduction to Statistics	3
CEET 3050	Assembly Language & Device Drivers	4
CEET 4010	Project Management	3
CEET 4020	Senior Project	3
CEET 4890	Cooperative Work Experience	3

Computer Science Courses Required (12 credit hours)

CS 2705	Network Fundamentals & Design	4
CS 3100	Operating Systems	4
CS 4740	Internet Firewalls & Network Security	4

CEET Technical Electives (Select one course of 4 hours from the following)

Course Number	Title	Credits
CEET 3070	Engineering Technology Research	4
CEET 4040	Digital Signal Processing	4
CEET 4060	Advanced Communications	4
CEET 4800	Individual Studies	1-4
CEET 4900	Special Topics	4

Computer Science Technical Electives (Select one course from the following)

CS 3230	Internet Multimedia	4
CS 3730	Client/Server Network Programming	4
CS 4780	Object Oriented Windows Applications	4
CS 4830	Advanced Topics in Computer Science	4

CEET or Computer Science Elective (4) (Select one course from the electives listed above)

Support Courses Required (3)

ENGL 3100	Professional & Technical Writing	3
General Education Courses per WSU graduation requirements (16)		16

AAS Degree:	66
Additional BS Course Requirements:	60
Total BS Degree:	126

The curriculum was developed under the guidance of the CEET Advisory Committee which includes members from business, industry and other academic institutions. A list of advisory committee members is included in Appendix C.

The B.S. program has been designed to be accreditable by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology. Application for ABET

accreditation is planned for Spring of 2003, when the other engineering technology programs in the college are to have their accreditation renewed.

Enrollment

The projected student FTE enrollments and the mean student FTE/faculty ratio for each of the first five years of the programs follow:

	Year				
	1	2	3	4	5
<u>A.A.S. Degree</u>					
Student FTE	40	50	60	70	80
Student to Faculty Ratio	16:1	18:1	19:1	20:1	22:1

	Year				
	1	2	3	4	5
<u>B.S. Degree</u>					
Student FTE	20	30	40	50	60
Student to Faculty Ratio	16:1	18:1	19:1	20:1	22:1

Cost

The projected budget for the first five years of the program is outlined below:

Year	1	2	3	4	5
Salaries ¹	\$29,420	\$61,194	\$95,462	\$132,043	\$171,655
Benefits ¹	\$11,180	\$23,254	\$36,276	\$50,176	\$65,229
Curr Exp ²	\$1,800	\$3,600	\$5,400	\$7,182	\$9,000
Library ³	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Equipment	-	-	-	-	-
Travel ⁴					
TOTAL	\$137,200	\$141,608	\$200,138	\$208,112	\$216,404

¹Based upon an increasing portion of the students in the department selecting the CET Degree and already existing positions

²Based upon a portion of the present current expense budget being allocated to the CET Program

³ One half of the current library budget allocation for the CET department

⁴Travel monies are allocated centrally from the college and not budgeted to departments or programs.

Faculty and Staff

Since these degrees consist of already existing courses, it is not anticipated that there will be a need for any additional contract or adjunct faculty for the first five years of the program. A list of current faculty who will support the proposed program is included in Appendix D.

No additional support staff will be needed. The CEET Department has a half-time secretary, and two full-time college technicians will also support this program.

Facilities and Equipment

Both the CEET and Computer Science Departments have existing laboratories which have been developed to support the courses which are already part of the proposed degrees. No new physical facilities or modifications to existing facilities will be required.

No equipment specific to these degrees will need to be purchased beyond the normal computer lab upgrades which typically take place every two years.

Libraries and Learning Resources

Because these degrees are a combination of already existing programs, the needed library resources are already available. Additional journals or books will be purchased from existing budgets as needed. Necessary standards, catalogs, software and vendor materials will be purchased with industry donations and housed in the CEET Departmental Library.

SECTION III

Need

The computer industry in the Intermountain Region is very strong and is anticipated to grow at an increasing rate during the next decade. According to the Utah Information Technology Association, Utah's Information Technology (IT) vendor industry is among Utah's largest industries, and among the top 10 regions of IT activity in the U.S. In November 1998, Newsweek magazine included Utah among the top ten IT centers in the world. In 1998, Utah's IT vendor industry consisted of 2,427 business enterprises, up nearly 9% from 1997. (A Utah IT enterprise is defined as a business that is a developer, producer, manufacturer and/or seller of computer hardware, software, systems, telecommunications related products and services, and/or multimedia and that is headquartered or has operations in Utah.) The following table shows the growth of the IT industry in Utah in the years 1995 - 1998 (1999 data are not available until the end of June, 2000).

Utah IT Vendor Industry Key Growth Indicators

	1995	1996	1997	1998
# IT Enterprises	1,748	1,870	2,230	2,427
# IT Employees	34,804	38,971	39,698	42,328
IT Revenues (billions)	\$ 6.4	\$ 6.6	7.1	N/A

As shown in this table, in 1998 the IT vendor industry in Utah employed 42,328 people, which was 4 percent of Utah's non-agricultural workforce. Leaders of Utah's IT vendor enterprises are extremely optimistic, projecting the addition of some 24,000 employees over the next three years, compared to their 1997 projection of 15,084. In addition, the employees in Utah's IT vendor industry in 1998 earned an average annual wage of \$42,740, up 7 percent from \$39,924 in 1997. This is 66 percent higher than the state's average 1998 wage of \$25,752 for all public and private non-agricultural workers.

The *Utah Job Outlook* for 1998-2003, published by the Utah Department of Workforce Services, shows computer support specialists and computer systems analysts to be among the 50 fastest growing occupations in Utah for the 1998 - 2003 timeframe. These areas are expected to grow during this period at a rate of 7.5% and 9.8% respectively. In a December 10, 1999 news release, Governor Michael Leavitt challenged colleges and universities to increase by 50% the number of graduates in engineering, computer science, and other high demand fields over the next ten years.

Computing and computer-related fields have been listed by the U.S. Department of Labor as one of the ten fastest growing occupations in the country. Lately this field has been growing nationally at a rate of 16 percent per year. It is estimated that the country will require more than 1.3 million information technology workers by the year 2006 and that nearly 240,000 annually will be needed just to replace workers who are leaving the field. Industry officials have expressed a strong need for employees with the formal education described in this proposal. Furthermore, employers are asking for a specific degree rather than an emphasis area so they have a thorough understanding of graduates' education and background.

In addition to the needs of industry, student interest in the program is also high. Even though the CET emphasis option has only been in existence since the 1999 fall semester, 60 students have selected it. For all of these reasons, there is a definite need and support for such a degree program.

Currently, no USHE institution offers either an A.A.S. or a B.S. CET Degree. Although several institutions offer electronics- and computer-related degrees, none of these programs contain the mix of hardware and software courses which the proposed WSU CET programs require. In addition, to date, none of these institutions have indicated they will seek the ABET accreditation that is part of WSU's proposal. In the Intermountain Region, Ricks College is now offering a Computer Engineering Technology option within their Electronics Engineering Technology two-year degree program. Many Rick's technology students who wish to pursue four-year degrees transfer to WSU. The only other institutions in the Intermountain Region with ABET accredited bachelor's degree programs in Computer Engineering Technology are Oregon Institute

of Technology and Eastern Washington University.

Institutional Readiness

The proposed A.A.S. and B.S. in CET Degrees satisfy the missions of both WSU and the College of Applied Science and Technology by preparing students for immediate employment in professional positions or for further study. The programs are designed to develop a cohesive, solid technical foundation bolstered by practical, hands-on experiences, at the same time providing education for lifelong learning in a changing world. The process of learning is emphasized, as well as accumulation of knowledge.

The proposed programs will strongly support the further growth and educational needs of the computing industry within the Intermountain Region. In addition, they will ensure that productive, accountable, and responsible technically-educated professionals are available to fill the ever growing need in today's workplace.

The programs will be housed in the College of Applied Science and Technology's CEET Department. The current CEET Department Chair will assume responsibility for the administration of both the EET and CET Degree Programs.

It is expected that there will be decreased growth in enrollments in the Computer Science Department. Since this department has seen dramatic increases in enrollments over the past several years, these programs should beneficially reduce some of the enrollment pressure in existing Computer Science courses.

State's Ability to Finance

No additional state funds are requested. Current expense and library budgets are currently in place to support the CET emphasis. Courses are already in place and being taught by existing faculty.

Appendix A

Description of Program Courses

EET 1030. DIGITAL CIRCUITS (4)

Introduction to digital electronics, integrated circuits, numbering systems, Boolean algebra, gates, flip-flops, multiplexers, sequential circuits, combinational circuits, and programmable logic devices. Lecture and lab combination. Laboratory activities to include the design, construction, analysis, and measurement of basic digital circuits.

CEET 1041. COMPUTER ARCHITECTURE & NETWORKING (4)

Introduction to computer architecture and networking principles. Computer fundamentals to include microprocessors, buses, registers, data flow, addressing, instruction sets, and networking principles. Lecture and lab combination. Laboratory activities to include the design, operation, configuration, and analysis of PC computer systems and networks.

CEET 2031. MICROPROCESSOR SYSTEMS & EMBEDDED CONTROLLERS (4)

Introduction to microprocessors, embedded controllers, operational characteristics, computer architecture, machine code programming, memory devices, and interfacing. Lecture and lab combination. Laboratory activities to include the design, construction, and analysis of microprocessor based systems. Analysis techniques to include the use of assemblers, cross-assemblers, and emulators. Prerequisite: CEET 1041.

CEET 2040. COMMUNICATIONS CIRCUITS (4)

Introduction to digital and wireless communication circuits. Topics to include radio frequency circuits, modulation, detection, transmitters, receivers, transmission lines, antennas, and measurement instruments. Digital communications topics to include parallel and serial data transmission. Lecture and lab combination. Laboratory activities to include the design, construction, computer simulation, and analysis of communication circuits. Prerequisites: CEET 2020 and 2031.

CEET 3010. ADVANCED CIRCUIT ANALYSIS I (4)

Advanced topics related to electronic circuit analysis, Laplace transforms, differential equations, Fourier series, Fourier transforms, and applications. Lecture and lab combination. Laboratory activities to include circuit design, construction, computer simulation, and analysis. Prerequisites: CEET 2010 and Math SII210.

CEET 3050. ASSEMBLY LANGUAGE & DEVICE DRIVERS (4)

Small computer architecture, computer I/O, graphics, assembly language fundamentals, BIOS, device drivers, advanced assembly language techniques. Lecture and lab combination. Laboratory activities to include design, simulation, computer programming, analysis, and troubleshooting. Prerequisite: CEET 2031.

CEET 4010. PROJECT MANAGEMENT (3)

Introduction to project management. Selection of a team and a senior project. Project management and problem solving techniques to include the design, construction, test, analysis, and documentation of the senior project. Lecture and lab combination. Laboratory activities to include goal preparation, research, reporting, team meetings, design reviews, and demonstrations. Prerequisite: Department approval.

CEET 4020. SENIOR PROJECT (3)

Continuation of Project Management, CEET 4010. Completion of the senior project. Lecture and lab combination. Laboratory activities to include design, construction, documentation, analysis and demonstration of the senior project. Presentations and demonstrations are required to confirm the completion of the senior project. Presentation, team building, and writing skills are emphasized. Prerequisite: CEET 4010.

CEET 4890. COOPERATIVE WORK EXPERIENCE (1-3)

The student will receive credit for approved computer engineering technology industrial experience. May be repeated. Ten hours of work each week for a semester is equivalent to one credit hour.

CS 1130. INTRODUCTION TO UNIX AND C (4)

Covers basic UNIX shell commands, editors, utilities, shell scripts, and networks. Substantial time will be spent doing hands-on exercises, especially learning and applying C language at the introductory level. Covers the use of compilers, editors and libraries in creating C programs. C language topics include the use of pointers, structures, arrays, functions, and I/O. Prerequisites: Math 1140 and CS 1020 or equivalent experience.

CS 2410. NETWORKING ESSENTIALS (4)

An introduction to the basics of a LAN, with various topologies, cabling schemes and troubleshooting of a typical LAN installation. Students will gain the knowledge and skills to install, configure, optimize, and maintain the Microsoft® Windows® 95 operating system. They will build and configure a peer-to-peer network, a Windows NT-based network, and a NetWare network. Prerequisites: CS 1020 or equivalent experience and CS SI2650.

CS 2420. WINDOWS NT (4)

Provides students with the knowledge and skills necessary to perform daily administration tasks in a single or multiple domain network. This is the core foundation course for supporting the Microsoft® Windows NT® operating system and prepares support professionals with the skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows NT. Prerequisite: CS SI2650 and CS 2410.

CS 2430. INTERNETWORKING TCP/IP (4)

Prepares support professionals to design, implement, and support the Windows NT Server network operating system in a multi-domain enterprise environment. Also provides the knowledge and skills required to set up, configure and support TCP/IP on Microsoft® Windows NT® operating system. It is assumed that students have experience supporting a Windows NT Server-based network. Prerequisites: CS 2410 and CS 2420.

CS 2705. NETWORK FUNDAMENTALS & DESIGN (4)

A comprehensive examination of the hardware and software components of a network and the practical techniques for designing and implementing computer systems in a network. Topics will include the purpose and use of various LAN, Man, WAN configurations (Ethernet, rings HDLC, SMDS, ATM, Frame Relay, ISDN, xDSL, TCP/IP UDP/IP, x.25, PPP, Sonet and new protocols. Media type and structures (repeaters, bridges, switches, hubs, routers with routing algorithms, and gateways), signaling/data encoding, multiplexing, error detection/correction and flow control, packet formats, network classes, and subnetting. Introduction to CISCO routing commands and setup (will help students to take the basic CISCO test). Prerequisite: CS SI1130.

CS 4740. INTERNET FIREWALLS & NETWORK SECURITY (4)

An introduction to security issues related to networking. This course is designed for advanced users and system and network administrators. The course covers TCP/IP security issues, security policies, screening routers and firewalls, packet filtering, Internet firewall architecture and theory, TCP wrappers, detecting and monitoring unauthorized activity, password authentication, and security issues involving UNIX and Windows NT operating system. Prerequisites: CS SI1130, CS SI1220, CS 2705, CS 3705 or consent of instructor.

ENGL EN1010. INTRODUCTION TO WRITING (3)

Students will learn about and practice imaginative and expository writing. They will focus on the writing process, on the whole theme, paragraphs, and sentences, and on the interrelationship between reading and writing. Writing assignments will emphasize modes of organization including narration, description, and classification, with content based in on the student's personal experience, feelings, and critical thinking. Student must complete English EN1010 satisfactorily (a grade of "C" or better) before enrolling in English EN2010.

ENGL EN2010. INTERMEDIATE WRITING (3)

Students will build on the skills learned in EN1010. They will focus on argumentation/ persuasion, critical thinking, and documented research. Special attention will be paid to the reciprocity between reading and writing and the production of well-developed analytical arguments. Students will choose context-specific projects in which they write to real audiences to accomplish specific purposes. Students will also be introduced to computer technologies and their impact on writing. Prerequisite: English EN1010 with "C" grade or better.

ENGL 3100. PROFESSIONAL & TECHNICAL WRITING (3)

The course focuses on planning, drafting, and revising various technical reports, such as expanded definitions, technical descriptions, processes, and instructions. This course also emphasizes audience analysis, the use of graphics, and oral presentations. In addition to its role as a service course, this course also introduces technical writing theories and serves as the foundation course for the minor in Professional and Technical Writing.

Prerequisite: Engl EN2010.

COMM HU1050. INTRODUCTION TO INTERPERSONAL AND SMALL GROUP COMMUNICATION (3)

Explores the dynamics of verbal and nonverbal communication in personal relationships and small groups. The emphasis is on practical application of course content to enhance interpersonal relationships and to achieve competence as group members.

MATH QL1080. PRE-CALCULUS (5)

A course covering college algebra and trigonometry concepts preparatory to calculus. Prerequisite: Math 1010 or Math ACT score of 23 or higher or placement test.

MATH 1210. CALCULUS I (4)

Limits, continuity, differentiation, integration. Prerequisite: Math QL1050 and 1060 or Math QL1080 or placement test. Corequisite: Math 1100 or ability to use a computer algebra system.

MATH 1220. CALCULUS II (4)

Transcendental functions, techniques of integration, analytic geometry, infinite series, multivariable functions, partial derivatives. Prerequisite: Math SI1210. Co-requisite: Math 1100 or ability to use a computer algebra system.

PHSX PS2210/L. PHYSICS FOR ENGINEERS & SCIENTISTS I (4/1)

First semester of a two-semester sequence in calculus-based physics, primarily for students in science, math, computer science and pre-engineering. This semester covers topics in mechanics, including kinematics, Newton's laws, and the conservation laws of energy, linear momentum, and angular momentum. Also covered are topics in gravity, fluid mechanics, waves, and thermodynamics. Corequisite: Math SI1210. Class meets five hours per week in lecture/discussion format.

Appendix B
Sample Class Schedule

YEAR 1

AUT	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 1005	Personal Computer Fundamentals	4
	CEET 1010	DC & AC Circuits	4
	CEET 1030	Digital Circuits	4
	MATH 1080	Pre-Calculus	5
			17

SPR	COURSE	COURSE DESCRIPTION	CREDITS
	MATH 1210	Calculus I	4
	CS 1130	Intro to UNIX and C	4
	CS 2410	Networking Essentials	4
	CEET 1041	Computer Architecture & Networking	4
			16

YEAR 2

AUT	COURSE	COURSE DESCRIPTION	CREDITS
	SS	Social Science Elective	3
	COMM 1050	Interpersonal Communications	3
	ENGL 1010	Intro to Writing	3
	CEET 2031	Microprocessor Systems	4
	CS 2420	Windows NT	4
			17

SPR	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 2040	Communications Circuits	4
	CS 2430	Internetworking TCP/IP	4
	PHSX 2210/L	Physics for Scientists & Engineers I with Lab	5
	ENGL 2010	Intermediate Writing	3
			16

YEAR 3

AUT	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 3010	Advanced Circuit Analysis I	4
	CS 3100	Operating Systems	4
	ENGL 3100	Professional & Technical Writing	3
	AI	American Institutions	3
			14

SPR	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 3050	Assembly Language & Device Drivers	4
	CEET 4890	Cooperative Work Experience	1
	CS 2705	Network Fundamentals & Design	4
	CA	Creative Arts General Education Course	3
	LS	Life Science General Education Course	4
			16

YEAR 4

AUT	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 4010	Project Management	3
	CEET 4890	Cooperative Work Experience	1
	CS 4740	Internet Firewalls & Network Security	4
	CEET/CS	Elective	4
	SS	Social Science Elective	3
			15

SPR	COURSE	COURSE DESCRIPTION	CREDITS
	CEET 4890	Cooperative Work Experience	1
	CEET 4020	Senior Project	3
	CS	Elective	4
	CEET	Elective	4
	HU	Humanities Elective	3
			15

Appendix C

Program Advisory Committee Members

William Clapp
Weber State University

Dale Lake
Autoliv Auto Safety Products

Marcia Dixon
Cabletron Systems

Jim Mahon
Cerebral Developments Inc

Gary Gooch
Computer Sciences Corp

Steve Wirick
Hill Air Force Base

Carleton Watkins
Novell

Warren Hill, Dean
Weber State University

Lee Barrett
In-Line Diagnostics

Glenn Dixon
Iomega Corp

Rick Gayheart
L-3 Communications

Pat Gerrard
Litton Guidance & Control Systems

Rex Fisher
Ricks College

Dick Darnell
Salt Lake Community College

Joe Vandenberghe
Set Point Engineering

Bruce Wilson
Cordant Technologies

Appendix D

Faculty

William Clapp, Department Chair

Professor of Electronics Engineering Technology

B.S. 1971 San Diego State – Industrial Engineering Technology

M.S. 1978 San Diego State – Industrial Engineering Technology

EdD 1987 Brigham Young University - Educational Administration

18 years electronics engineering technology industry experience

16 years teaching experience

Wane Andrews

Associate Professor of Electronics Engineering Technology

B.S. EET 1966 Weber College

M.S. EET 1969 University of Southern California, Los Angeles

31 years teaching experience

Verne Hansen

Associate Professor of Electronics Engineering Technology

B.S.E.E. 1972 Brigham Young University

M.S.E.E. 1976 Brigham Young University

11 Years electronics engineering technology industry experience

13 years teaching experience

Jay Smith

Professor of Electronics Engineering Technology

B.S.E.E. 1982 University of Utah

M.S.E.E. 1984 University of Utah

PhD E.E. 1995 Utah State University

18 years electronics engineering technology industry experience

15 years teaching experience

Robert Summers

Professor of Electronics Engineering Technology

B.S.E.E 1972 Brigham Young University

M.S.E.E. 1978 University of Washington

PhD E.E. 1988 University of Idaho

10 years electronics engineering technology industry experience

11 years teaching experience

Delroy Brinkerhoff

Assistant Professor of Computer Science

B.S./CS 1984 Brigham Young University

MS/CS 1996 Utah State University

4 years teaching experience

William Hoggan

Assistant Professor of Computer Science

BSEE 1964 University of Utah

MS/CS 1967 University of Utah

18 years computer science industry experience

13 years teaching experience

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Utah Valley State College, College of Eastern Utah, and Snow College: Associate of Science in Business–Action Item

Issue

Officials at Utah Valley State College (UVSC), College of Eastern Utah (CEU), and Snow College request approval to offer an Associate of Science Degree in Business, starting Fall, 2000.

Background

For the past two years, the Commissioner’s Office has worked closely with subject area/discipline committees to improve the articulation of courses from one institution to another. As part of that effort, the Business Major Committee has been reviewing the lower division business curriculum across the state to articulate the program offerings. Through these efforts, the Committee has developed a common Business core curriculum that will meet the requirements of the first two years of the bachelor’s degree at any of the degree granting institutions in the state. This articulation will greatly improve the transfer from one institution to another. Salt Lake Community College and Dixie State College have already received approval for this degree. UVSC, CEU and Snow are now submitting a similar request.

This proposed degree will simplify the transfer process for students within the Utah System of Higher Education. In the past, each two-year institution had its own transfer agreement with each four-year institution. Students had to know in advance which university they were transferring to, in order to insure maximum transferability to their program of study. This requirement often led to transfer difficulties for the student. The Business Major Committee has now designed a common curriculum for the first two years. If students complete this two-year curriculum and obtain an Associate of Science Degree, they will be able to transfer to any of the USHE Business Baccalaureate Programs and be able to begin upper division coursework. There are a limited number of lower division general education or Business requirements that students will need to anticipate if they transfer to a particular USHE university. Those requirements are described on Page 1 of the attached report.

Policy Issues

This proposal has been through the review process at each institution and approved by each of the three Boards of Trustees. There is agreement among the Chief Academic Officers and institutional representatives that establishing common major requirements at the community colleges will prove to be advantageous for students transferring to USHE universities.

Options Considered

After Regents have reviewed the proposal from UVSC, CEU and Snow College for approval to offer an Associate of Science Degree in Business , they may raise issues, request additional information, deny the request or approve the request.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve the request by UVSC, CEU and Snow College to offer an Associate of Science Degree in Business. It is further recommended that the institutions which require courses in addition to the common Business core curriculum, review these additional courses to see if they should be retained.

Cecelia H. Foxley, Commissioner

CHF/MAP/GSW
Attachment

ACADEMIC AND APPLIED TECHNOLOGY EDUCATION COMMITTEE

Action Item

Request to Offer an Associate of Science Degree in Business

Utah Valley State College
College of Eastern Utah
Snow College

Prepared for
Cecelia H. Foxley
by
Michael A. Petersen
and
Gary S. Wixom

July 26, 2000

SECTION I

The Request

Utah Valley State College (UVSC), College of Eastern Utah (CEU), and Snow College requests approval to offer an Associate of Science Degree in Business.

SECTION II

Program Description

Students planning to transfer to a four-year institution to complete a baccalaureate degree in Business Management should enroll in the Associate of Science Degree in Business. The core business courses are:

Financial Accounting	Micro Economics	Calculus
Managerial Accounting	Macro Economics	Statistics
Computer Proficiency	Business Writing	Business Law

Students completing the Business core and the appropriate general education requirements will be awarded the Associate of Science Degree in Business. Having completed the Associate of Science Degree in Business, the student may then transfer to any four-year school in the state having fulfilled the general education requirements and pre-advance standing requirements.

Students will need to anticipate the following lower division general education or Business requirements that will need to be satisfied at the following institutions:

- 1) University of Utah: 1 course of Philosophy; 2 of 3 courses: Anthropology/ Psychology/ Sociology; Business Foundations (MGT 1010); Grades of 'B' or higher in English and College Algebra; Public Speaking with a 'B-' or higher.
- 2) Utah State University: Psychology or Sociology 1010; Spreadsheets and Databases (BIS 2450).
- 3) Weber State University: Second Business Statistics course (Quant 2610).
- 4) Utah Valley State College: Business Principles (BMGT 1010); Accounting Majors: Accounting Systems (ACC 2610)

The core Business curriculum is as follows at the institution indicated:

Utah Valley State College

Course Number	Course Title	Credits
ACC 2010	Financial Accounting	4:4:0
ACC 2020	Managerial Accounting	4:4:0
BMGT 2310	Microeconomics	3:3:0
BMGT 2300	Macroeconomics	3:3:0
BMGT 2340	Business Statistical Applications	3:3:0
BSA 2200	Written Business Communication	3:3:0
LEGL 3000	Business Law	3:3:0
MATH 1100	Introduction to Calculus	4:4:0
BSA 1050	Basic Software Suite Training	3:3:0
or		
CSIS 1100	Introduction to Computers	4:4:0

College of Eastern Utah

Course Number	Course Title	Credits
BUSN 2010	Financial Accounting	4:4:0
BUSN 2020	Managerial Accounting	4:4:0
BUSN 2030	Business English and Communications	3:3:0
BUSN 2090	Business Law	4:4:0
BCIS 1810	Business Computer Applications I	3:1:3
ECON 2010	Principles of Macroeconomics	3:3:0
ECON 2020	Principles of Macroeconomics	3:3:0
MATH 1100	Calculus Techniques	3:3:0
MATH 2470	Introduction to Statistics	4:4:0
Computer Literacy/Proficiency		

Snow College

Course Number	Course Title	Credits
ACCT 2010	Financial Accounting	4:4:0
ACCT 2020	Managerial Accounting	4:4:0
MATH 1050 (MA)	College Algebra	4:4:0

MATH 1100	Applied Calculus	4:4:0
MATH 2040	Applied Statistics	4:4:0
COMM 1070 (HU)	Public Speaking	3:3:0
ECON 2010 (SS)	Introduction to Microeconomics	3:3:0
ECON 2020	Introduction to Macroeconomics	3:3:0
BMGT 2120	Business Law	3:3:0
BUED 2200	Business Communication	3:3:0
CIS 1010	Introduction to Computers and Business Applications	3:3:1

A full description of each course required in the proposed AS degree is attached to this proposal (see Appendix I).

No new courses are required. The content of the Business courses have been modified to insure compatibility across the state. In the case of the computer proficiency requirement, a list of required topics was developed by a committee of representatives from the institutions. Each transferring institution can meet this requirement with an exam and/or a course. Students are expected to complete the general education requirement specified at each institution.

Enrollment

Currently, Business students at UVSC, CEU, and Snow College enroll in the general Associate Degree Program. If the proposed Degree is approved, it is not anticipated that enrollment levels will change.

Cost

No additional costs will be incurred offering this degree. The funds are already in place at each institution to support the program.

Faculty and Staff

No additional staff or faculty will be required.

Facilities and Equipment

No additional facilities will be required.

Libraries and Learning Resources

The existing library resources are adequate to support the proposed degree.

SECTION III

Need

A close working relationship among USHE Business schools has resulted in the articulation of the first two years of the Baccalaureate Degree in Business. Until this comprehensive articulation took place, there have been individual articulation agreements between the separate schools. Each two-year institution had its own transfer agreement with each four-year institution. Students would need to state in advance which university they would like to transfer to in order to insure maximum transferability to their program of study. The two-year institutions had to respond to some of the unique characteristics of each of the baccalaureate degrees in the state. This arrangement often led to transfer difficulties for the student.

The Business schools have now identified a common core curriculum for the first two years. If a student completes this two-year curriculum and obtains an Associate of Science Degree in Business, he or she can transfer to any of the Business Baccalaureate Degrees in the state. This articulation will simplify the transfer process.

Institutional Readiness

A mission of the two-year transfer institutions is to provide the coursework that will allow a student to transfer as easily as possible to a four-year institution to complete a baccalaureate degree. A mission of the four-year institutions is to receive transferring students and integrate them as smoothly as possible into their existing baccalaureate degrees. The cooperation that has taken place among the state institutions will facilitate this transferability. Students can achieve their educational goals more efficiently and institutions can fulfil their missions more effectively.

State's Ability to Finance

This program will not require any new state funds.

APPENDIX I

Business Core Curriculum

I. COLLEGE OF EASTERN UTAH CORE BUSINESS COURSES

BUSN 2010
Financial Accounting
4:4:0

This course is designed for all students wanting to learn about accounting as the language of business. A required course for business and accounting majors. This course introduces students to basic accounting principles necessary to prepare, understand, and use financial statements and financial information for decision making. This course is designed to provide the student with useful and productive skills that will help in understanding more about the business world and the role accounting information plays in the U.S. economy.

BUSN 2020
Managerial Accounting
4:4:0

Recommended: BUSN 2010, MATH 1050

This course is designed for all students wanting to learn how accounting information is used in business decisions. A required class for business and accounting majors. The main focus of this class is on providing relevant information that is necessary to assist managers in a modern, global environment. Topics will include product costing, activity based costing, cost behavior, budgeting for planning and control, and budgeting for capital expenditures. Prerequisites:

BUSN 2030
Business English and Communications
3:3:0

This course is required for students working towards an A.S. in Business or an AAS in Business Administration. This course is designed to give students the knowledge and opportunity to write clear, concise, and correct business correspondence. Its focus is on the most common forms of business writing: sales letters, memos, proposals, research reports and resumes. The proper format of business writing is presented and stressed and emphasis is also placed on editing and proofreading in order to produce "mistake-free" correspondence. Prerequisites: An introductory English composition course and a word-processing course.

BUSN 2090
Business Law
4:4:0

Business Law introduces the student to the fundamental yet dynamic nature of the legal environment among businesses, government and consumers. These relationships include questions of constitutional law, legal reasoning, ethics and procedures. Torts, crimes, contracts, property (real, personal and intellectual), physical environment, employment, agency, commercial transactions and bankruptcy are but a few issues facing national and international business.

BCIS 1810

Business Computer Applications I

3:1:3

Computer Literacy/Proficiency

A required course for students seeking an A.S. in Business degree. This course uses the Microsoft Office program to teach students basic word processing, data processing, spreadsheet, graphics, Internet, Windows 95, and E-mail skills in a business setting. Following the completion of the course, students will be able to use the Microsoft Office program for personal and business use.

ECON 2010

Principles of Microeconomics

3:3:0

Prerequisite: MATH 1010 or 1050.

This course covers economics of the market place and issues surrounding business and consumer institutions, how prices are set in the market along with supply and demand factors of production. The business environment and how this environment interacts with government to solve the problems associated with industrial society and market structures; regulations; and international trade will also be discussed.

ECON 2020

Principles of Macroeconomics

3:3:0

Prerequisite: ECON 2010, MATH 1010 or 1050.

Principles that deal with the analysis of aggregate levels of income, employment, inflations, monetary and fiscal policy, economic growth and development, international finance, and comparative economics systems.

MATH 1100

Calculus Techniques

3:3:0

Prerequisite: MATH 1050.

This course is also known as Quantitative Analysis. It is a non-trigonometry based calculus course. Topics include functions, graphs, limits, continuity, differentiation techniques and applications, integration techniques and applications, exponential and logarithmic functions, growth and decay.

MATH 2470

Introduction to Statistics

4:4:0

Prerequisite: MATH 1050

An introduction to the general ideas and techniques of statistics as applied to many disciplines. Topics include an introduction to statistics, descriptive experiments, probability, probability distributions, normal probability distributions, estimates and sample sizes, testing hypotheses, inferences from tow samples, correlation and regression, multinomial experiments, contingency tables, and analysis of variance. Statistical software is used in this course to supplement paper and pencil calculations. This course fulfills the mathematics requirement for graduation.

II. SNOW COLLEGE CORE BUSINESS COURSES

ACCT 2010
FINANCIAL ACCOUNTING
4:4:0

An introduction to accounting concepts and techniques which are essential to administration of a business enterprise and the periodic determination of income and financial position.

ACCT 2020
MANAGERIAL ACCOUNTING
4:4:0

Prerequisite: ACCT 2010 and BMGT 1320 or equivalent

A continuation of accounting concepts and techniques which are essential to administration of a business enterprise and the internal managerial uses of accounting information planning (budgeting), controlling and decision making in business operations.

MATH 1050 (MA)
COLLEGE ALGEBRA
4:4:0

An axiomatic development of the real number system, logarithms, systems of equations, complex numbers theory of equation, matrices, progressions and the binomial theorem. Programmable graphing calculators will be used extensively prerequisite: MATH 1010 or two successful years of high school algebra. Graphing Calculator required.

MATH 1100
Applied Calculus
4:4:0

Prerequisite: MATH 1050

Techniques of elementary calculus of functions of one variable including differentiation and integration. Applications are emphasized in the areas of biological, management and social sciences. Also techniques of calculus of several variables including partial differentiation and multiple integrals. Graphing calculator required (TI-83 preferred).

MATH 2040
APPLIED STATISTICS
4:4:0

Prerequisites: Math 1050

A study of the nature of statistical reasoning including descriptive statistics, sampling and data collection, probability, sampling and one-way analysis of variance, correlation and regression. This course is primarily for Business and Mathematics/Statistics majors. TI-83 graphing calculator required.

COMM 1070 (HU)
PUBLIC SPEAKING
3:3:0

A practical and general course designed for students who desire to improve their speech efficiency, poise and self-

confidence in public address situations. Special emphasis is placed on preparing, selecting, organizing and delivering oral messages as well as on analyzing and evaluating the speaking-listening process.

ECON 2010 (SS)
INTRODUCTION TO MICROECONOMICS
3:3:0

Prerequisite: MATH 1010 sequence.

This course develops a basic understanding of how individual consumers and firms attempt to maximize returns and minimize costs in economic decision making.

ECON 2020
INTRODUCTION TO MACROECONOMICS
3:3:0

Prerequisite: ECON 2010

This course develops a basic understanding of how the national economy works, and how the private and public sectors interact to create stable economic conditions.

BMGT 2120
BUSINESS LAW
3:3:0

Addresses the basic principles of business law, including the legal environment of business torts, contracts, agency, and the purchase and sale of goods under the UCC. Discusses the various legal forms of business organization with their particular advantages and disadvantages. Covers antitrust law, consumer environmental law, and employee and labor law together with international business, ethics, and social responsibility.

BUED 2200
BUSINESS COMMUNICATION
3:3:0

Principles of and practice in preparing business letters, reports, and oral communications. Prerequisites: keyboarding/word processing experience, good English skills.

CIS 1010
INTRODUCTION TO COMPUTERS AND BUSINESS APPLICATIONS
3:3:1

This is an introductory course in Business Computer Applications. This course will help students understand the impact of the computer-oriented society on individuals, as well as businesses, and includes security, privacy, and the social and ethical issues of the computer age. It will also help students understand the basics of an operating system, and be able to use fundamental operating systems commands. This course will help students understand the basics of public and private networks as information resources and the use of electronic communications such as e-mail. Students will also be taught the basics of several business applications, including word processors, spreadsheets, databases, and presentation software.

This course exceeds the information necessary to pass the CIL (Computer and Information Literacy) requirement and meets/exceeds the Board of Regent's Business Core Advisory Committee's requirement.

III. UTAH VALLEY STATE COLLEGE CORE BUSINESS COURSES

ACC 2010

Financial Accounting

4:4:0

Prerequisite: MAT 0990, ENGH 0990, and RDG 0900 or equivalent

Designed for School of Business majors in either the Associate in Applied Science (AAS) or Associate in Science (AS) tracks. The first course in the introductory accounting series covering concepts and methods underlying preparations of financial statements utilizing generally accepted accounting principles (GAAP). Topics include the accounting cycle, income determination for service and merchandising operations, and the reporting of assets, liabilities, and owner's equity for sole proprietorships, partnerships, and corporations. (It is strongly recommended that ACC 1150 be taken concurrently with ACC 2010 if both are part of student's program).

ACC 2020

Managerial Accounting

4:4:0

Prerequisite: ACC 2010

Designed for School of Business majors in either the Associate in Applied Science (AAS) or Associate in Science (AS) tracks. A second course in the introductory accounting series covering managerial accounting and the financial control of business operations. Topics include: job-order and process costing, segment reporting, cost-volume-profit relationships, contribution margin and standard variance concepts, master budgeting, present and future value concepts, and analysis of accounting information.

BMGT 2310

Microeconomics

3:3:0

Prerequisite: BMGT 2300

Designed for Business Management transfer students and as elective credit for other business students desiring economic decision-making skills. Covers intermediate microeconomics, presentations, and computer simulation. Completers should be ready to take university upper-level economics courses and to make upper-level management decisions.

BMGT 2300

Macroeconomics

3:3:0

Prerequisite: (BMGT 1010 and ACC 1150) or MATH 1010

Required for all Business Management students. Introduces Macro and Microeconomics. Presents the necessary economic background to prepare students to function as citizens in business in a world economy and understand the role of economic policy in the United States. Uses lecture, class discussion, student presentations, computer simulations, and videos. Completers should have the necessary prerequisite knowledge to successfully gain admittance to upper level university economics courses.

BMGT 2340

Business Statistical Applications

3:3:0

Prerequisite: BMGT 2240 or MATH 1100

An application of statistics in business and economics covering methods of collecting analyzing, and presenting data. Course includes frequency distributions, averages, index numbers, probability, sampling, estimation, analysis of variance, time series, regression and correlation, and chi-square.

BSA 2200

Written Business Communication

3:3:0

Prerequisite: BSA 1200 (BSA majors) or equivalent knowledge, BSA 1350 or basic word processing skill

A core class for all business majors. Teaches written correspondence and business reports using direct and indirect approaches. Emphasizes basic language utilization. Includes application of communication principles to business writing situations. Requires completion of a formal research report.

LEGL 3000

Business Law

3:3:0

For School of Business students and others desiring a more complete understanding of business law. Presents the American legal system, constitutional law, statutory law, common law, and administrative

MATH 1100

Introduction to Calculus

4:4:0

Prerequisite: MATH 1050 with a grade of C- or better, or instructor approval

Includes limits and continuity, differentiation techniques, applications of differentiation, exponential and logarithmic functions, integration techniques, applications of integration, and functions of several variables.

BSA 1050

Basic Software Suite Training

3:3:0

Prerequisite: Basic keyboarding skill

Presents microcomputer concepts and hands-on training in Internet and e-mail, the operating system, and Microsoft Office suite software. Emphasizes terminology of microcomputer hardware and software. Teaches basic microcomputer operating system software commands for efficient computer utilization, the use of Internet browsers, e-mail basics and netiquette. Studies commands to effectively use word processing documents, spreadsheets, databases, and presentation slide shows. Offered as a traditional class, workshop, self-paced course with multimedia support, or as a Internet Course with credit/non-credit options.

OR

CSIS 1100

Introduction to Computers

4:4:0

Introduces computer literacy and commonly used business software packages. Presents hands-on instruction using Windows 98, word processing, spreadsheets, presentation graphics, E-mail, and Internet software. Includes a broad based coverage of computer concepts such as: hardware, software, systems, and industry trends.

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H, Foxley

SUBJECT: Utah Valley State College: Associate of Applied Science Degree in Telecommunications Technology - Action Item

Issue

Utah Valley State College (UVSC) officials propose to establish a two-year Associate of Applied Science Degree (AAS) Program in Telecommunications Technology that would begin Fall Semester, 2000.

Background

A central mission of UVSC is the technological training of students, and to further this mission UVSC has established relationships with numerous Utah telecommunications firms. Officials of these companies have inquired about a program in telecommunications, have offered to help UVSC establish the proposed program, will provide employee expertise, and, in some cases, are prepared to donate equipment needed to educate and train students.

The proposed Telecommunications Technology Program is believed to have a unique curriculum and would not compete with existing programs at other institutions. Weber State University offers both the AAS Degree and a BS Degree in Telecommunications Administration. These degree programs concentrate on the administrative skills needed to manage telecommunications operations. However, the UVSC Telecommunications Technology AAS Degree Program focuses on the technical nature of the telecommunications infrastructure and not on administration. The Dean of the College of Applied Science and Technology at Weber State University supports UVSC's proposed program and has indicated that UVSC students will be encouraged to transfer, as appropriate, into the Weber program.

The proposed program will require 51 technical credits for a total of 69 credit hours for completion.

Policy Issues

Utah State University officials, while not opposing the proposed program, raised concerns about UVSC's capability to establish the proposed program, which will require 16 additional courses, a few of which are to be taught by faculty who have existing full-time assignments. UVSC officials note that an Associate Professor from the Electronics and Computer Technology Department would teach in the proposed program together with a special consultant from business and industry who is also a credentialed faculty member. Also, other adjunct teachers will be available, as indicated in the proposal, and some faculty could teach with approved overload assignments. Courses would be developed over several years with approximately three courses being completed the semester before they need to be taught.

Salt Lake Community College officials supported the proposal, suggested adding industry certification to the curriculum, and stated the desire to articulate with the proposed program. Representatives of other USHE institutions supported the proposed degree.

Options Considered

After the Regents have reviewed the proposal from Utah Valley State College to offer the Associate of Applied Science Degree Program, they may raise issues, request additional information, deny the request, or approve the request.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve the request from Utah Valley State College to offer an Associate of Applied Science Degree in Telecommunications Technology.

Cecelia H. Foxley, Commissioner

CHF/MAP/PCS
Attachment

ACADEMIC AND APPLIED TECHNOLOGY EDUCATION COMMITTEE

Action Item

Request to Offer the Associate of Applied Science Degree in Telecommunications Technology

Utah Valley State College

Prepared for
Cecelia H. Foxley
by
Michael A. Petersen
and
Phyllis C. Safman

July 26, 2000

SECTION I

The Request

Utah Valley State College(UVSC) proposes to establish a two-year Associate of Applied Science Degree (AAS) Program in Telecommunications Technology that would begin Fall Semester, 2000.

SECTION II

Program Description

Telecommunications is profoundly affecting society in many areas such as retailing, finance, health care, education, and entertainment. The current demand for trained and knowledgeable technicians is very strong, and career opportunities abound. Students entering the Telecommunications Technology program can expect to receive the required knowledge and training to become effective and well-paid telecommunication technicians (see page 10). Students will receive a rigorous foundation in theory and practice in a broad range of telecommunications topics. Subject areas to be studied include the following:

- | | |
|----------------------------------------|-------------------------------------|
| 1. History of data/telecommunications | 9. Wide area networks |
| 2. Circuit switching networks | 10. Public Switch Telephone Network |
| 3. Packet switching networks | 11. Internet |
| 4. Store-and-forward transport methods | 12. Modulation and demodulation |
| 5. Channel-sharing techniques | 13. Network Performance |
| 6. Current network technologies | 14. Communication security |
| 7. Local area networks | 15. Data compression |
| 8. Ethernet, Token Ring | 16. Network architecture |
| | 17. Telecommunications standards |

For the proposed Associate of Applied Science (AAS) Degree, the following General Education courses are recommended:

ECT 1030 Electronics Safety	1.0
ENGL 1010 Introduction to Writing	3.0
TASP 1100 Basic Speech	3.0
PHYS 2010 College Physics I	4.0
PHYS 201L College Physics I Lab	1.0
MATH 1030 Intermediate Algebra	3.0
HIST 1700 American Civilization	3.0

Total	-----	18.0
The following courses are required: (Technical Speciality)		
TCT 1110 Introduction to Telecommunications		3.0
TCT 1120 Electronic Systems Tests and Measurement		2.0
TCT 112L Electronic Systems Tests and Measurement Laboratory		2.0
TCT 1130 Binary Systems and Computing Architecture		2.0
TCT 113L Assembly Language Programming Laboratory		2.0
TCT 1210 Data Communication Fundamentals		4.0
TCT 121L Data Communications Laboratory		2.0
TCT 1220 Telephony Systems Theory		4.0
TCT 122L Telephony Systems Laboratory		2.0
CSIS 1110 C Programming Language		3.0
TCT 2110 Communication Protocol Theory		4.0
TCT 211L Network Performance Monitoring Laboratory		2.0
TCT 2120 Fiber Optic Systems Theory		3.0
TCT 212L Fiber Optic Systems Laboratory		1.0
TCT 2130 C Programming for Networks		3.0
TCT 2210 Wireless Communication Theory		4.0
TCT 221L Wireless Communication Laboratory		2.0
TCT 2220 Audio and Video Protocols and Systems		3.0
TCT 2230 Telecommunications Physical Plant Systems		3.0
Total	-----	51.0

Those courses currently offered in the curriculum are:

ECT 1030 Electronics Safety	1.0
ENGL 1010 Introduction to Writing	3.0
TASP 1100 Basic Speech	3.0
PHYS 2010 College Physics I	4.0
PHYS 201L College Physics I Lab	1.0
MATH 1030 Intermediate Algebra	3.0
HIST 1700 American Civilization	3.0
CSIS 1110 C Programming Language	3.0

Detailed descriptions of the courses that would be added to the proposed program over a five-year period can be found in Appendix A.

The following courses would constitute a typical class schedule for each semester:

First Semester	Credit Hours

TCT 1110 Introduction to Telecommunications	3.0
TCT 1120 Electronic Systems Tests and Measurement	2.0
TCT 112L Electronic Systems Tests and Measurement Laboratory	2.0
TCT 1130 Binary Systems and Computing Architecture	2.0
TCT 113L Assembly Language Programming Laboratory	2.0
MATH 1010 Intermediate Algebra	3.0
TASP 1100 Basic Speech	3.0
Total Credits	17.0
Second Semester	Credit Hours

TCT 1210 Data Communications Fundamentals	4.0
TCT 121L Data Communications Laboratory	2.0
TCT 1220 Telephony Systems Theory	4.0
TCT 122L Telephony Systems Laboratory	2.0
CSIS 1110 C Programming Language	3.0
ENGL 1010 Introduction to Writing	<u>3.0</u>
Total Credits	18.0
Third Semester	Credit Hours

TCT 2110 Communications Protocol Theory	4.0
TCT 211L Network Performance Monitoring Laboratory	2.0
TCT 2120 Fiber Optic Systems Theory	3.0
TCT 212L Fiber Optic Systems Laboratory	1.0
TCT 2130 C Programming for Networks	3.0
HIST 1700 American Civilization	3.0
ECT 1030 Electronics Safety	<u>1.0</u>
Total Credits	17.0
Fourth Semester	Credit Hours

TCT 2210 Wireless Communications Theory	4.0
TCT 221L Wireless Communications Laboratory	2.0
TCT 2220 Audio and Video Protocols and Systems	3.0

TCT 2230 Telecommunications Physical Plant Systems	3.0
PHYS 2010 College Physics I	4.0
PHYS 201L College Physics I Lab	<u>1.0</u>
Total Credits	17.0
Total Credits in the Program	69.0

Advisory Committee

The following people have agreed to serve on the initial program advisory committee. William H. Gillman, a consultant in telecommunications, assisted UVSC in the development of this proposal. The committee will operate under the established guidelines found in the UVSC Advisory Committee Handbook.

Table I: Program Review and Advisory Committee

Name/ Title	Company
William H. Gillman Telecommunications Consultant	Gillman and Associates 3386 S. Shady Tree Court Salt Lake City, UT
Lindsay Wallace CEO	World Access NACT Switching Div. 191 W. 5200 N. Provo, Utah
John Greenhalgh Communications Consultant	J & G Products 348 E. 1040 N. Orem, Utah
Gary Brown Vice President of Research and Development	World Access NACT Switching Div. 191 W. 5200 N. Provo, Utah
Kevin Davis Director of Teleconferencing Markets	Gentner Communications Corporation 1825 West 2770 South West Valley City, Utah
Mark Bowler Director of Sales Engineering	Ikon Office Solutions Technology Services Salt Lake City, Utah

Tory Anderson Manager of Consulting Services	World Access NACT Switching Div. 191 W. 5200 N. Provo, Utah
B.J. Holdaway Vice President	Niels Fugal Sons Company 1005 S. Main Pleasant Grove, Utah
Mark Richardson Systems Engineering	Cisco Systems, Inc. 746 East Winchester Murray, Utah
Don Williams Central Office Switch Manager	Nextlink 8871 South Sandy Parkway Sandy, Utah
Bob Christensen Sales Engineer	MCI WorldCom Salt Lake City, Utah
Guy Chang Director of Engineering	Airswitch Corporation 1875 South State Street Orem, UT

Accreditation

UVSC expects to seek accreditation for the proposed Telecommunications Technology Program from the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) in 2-3 years. The curriculum has been designed to closely match the requirements of the Commission to facilitate accreditation.

Enrollment

The proposed program is expected to grow steadily and, in the process, will stimulate enrollment in other technical programs. The enrollment projections in Table II illustrate UVSC’s best estimates regarding the number of possible full-time students who would choose the proposed program.

Table II: Headcount and FTE Projections

	Year 1	Year 2	Year 3	Year 4	Year 5
Headcount	20	35	50	75	125
FTE	15	30	45	70	115

Cost

The first year budget is higher per FTE student because full-time faculty are needed for curriculum development and program start-up. A projected budget for the proposed Telecommunications Technology Program is shown in Table III:

Table III: Five-Year Program Costs

	Year 1	Year 2	Year 3	Year 4	Year 5
Salaries and Wages	\$11,003	\$57,756	\$124,097	\$179,680	\$292,155
Benefits	1,166	13,678	39,738	54,878	85,257
Current	2,000	5,000	5,000	6,000	9,000
Library	6,000	4,000	3,000	3,000	3,000
Capital	30,000	20,000	10,000	10,000	10,000
Travel	1,000	3,000	3,000	4,000	6,000
Total	\$51,169	\$103,434	\$184,835	\$257,558	\$405,412

The above budget reflects total course costs based on the enrollment projections. It is anticipated that the proposed program would be funded through enrollment growth, and that other state funds would not be sought. Based on their expertise, faculty included in the budget may be reassigned and their salaries transferred from other programs.

Faculty and Staff

Table IV lists current faculty within the institution who will support the initial implementation of the proposed program.

Table IV: Current Faculty Within the Institution.

Name	Credentials	Years Teaching Exp.	Years Industrial Exp.	Teach (T) or Consult(C)
Ted Crowther	Adjunct Professor ,Computer Science and Information Systems. M.S., Electrical Engineering. Director for a Telecommunications Company.	15	40	T, C
Name	Credentials	Years Teaching Exp.	Years Industrial Exp.	Teach (T) or Consult(C)
Bill Gillman	Adjunct Professor, Electronic & Computer Technology. A.A.S., Electronics Technology. Telecommunications Consultant.	5	26	T, C
David Draper	Associate Professor, Electronic & Computer Technology. B.A., Art & Design. B.S., Electrical Engineering.	14	24	T
Ray Walker	Associate Professor, Electronic & Computer Technology. M.S. in Electrical Engineering.	14	6	T
Lynn Manhart	Associate Professor, Electronic & Computer Technology. B.S., Electronic Engineering Technology.	18	22	T
Paul Dunkley	Professor, Electrical Automation & Robotic Technology.	20	30	T
James Barnes	ATE Director. Professor, Electronic & Computer Technology. M.S., Industrial Education.	30	9	T, C

Ralph Merrill	Director of Industrial Partnerships. Professor, Electronic & Computer Technology. M.E.E.E., Electrical Engineering.	28	10	T, C
Malcolm Crawford	Professor, Pre-Engineering. M.S.E.E., Electrical Engineering.	29	9	T,C
Tom Branam	Telephone Services Director. Associate of Science.	3	23	T, C

One adjunct faculty would be hired in year one to support the proposed program. It is anticipated that 1.0 FTE new faculty will need to be added in the second year along with necessary adjunct faculty. (Other additional full-time faculty and part-time adjunct faculty are shown in Table II.) Although the above faculty who are already on UVSC's staff are an important part of the program, they already have full-time duties with their respective departments and are not available for the intense work required to establish this program. Table V shows an estimate of the FTE faculty staffing needs for the first five years.

Table V. FTE Faculty Required in Each of the First Five Years

Faculty	Year 1	Year 2	Year 3	Year 4	Year 5
Salaried		1.0 FTE	2.0 FTE	3.0 FTE	5.0 FTE
Adjunct	0.75 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE

Hourly staff would be needed to provide clerical and advising support. Year 1 will require .25 FTE; year 2, .5 FTE; and year 3, 1.0 FTE.

Facilities and Equipment

Necessary classrooms and laboratories will need to be creatively scheduled with allied programs in the same department. The new Information Sciences Building is expected to be ready for occupancy in the Fall of 2001; the proposed program would be housed there along with other allied programs in Electronics/Computer and Electrical and Automation Technology. Careful scheduling will accommodate the laboratory needs of the proposed program and the other allied programs.

The proposed program will utilize much of the laboratory equipment and facilities in the Electronics and Computer Technology Department, and existing laboratories in the allied programs of Electronics and Electrical Technology, but will require additional new laboratory equipment. Some of this equipment has been promised to UVSC by interested telecommunications companies. For

example, World Access (NACT) of Provo, Utah, will donate two telecommunications switches and peripherals to equip the Telecommunications laboratory. UVSC has also submitted a \$62,000 proposal to the Carl Perkins Vocational Program for funds to assist program development and procurement of capital equipment.

Libraries and Learning Resources

Currently, UVSC has adequate library resources to offer a strong program. The library collection holds over 2,000 volumes that support telecommunications and applied engineering. The UVSC library has three print journal titles relevant to the telecommunications field, approximately nineteen titles that are online or in an electronic format, and eight video titles relevant to telecommunications. The library has a variety of online indices available where students can search a variety of subject areas and retrieve articles in full text. There is also an online interlibrary loan capability through the library's web page that allows students to request books and articles not readily available in the UVSC library. Delivery of books is usually within five to seven days and article delivery is usually within 48 hours. No additional learning resources would be required.

SECTION III

Need

In June, 2000 issue of *Utah Business* (pages 42-43, Industry Trends), Kevin Stoker describes the current environment in the telecommunications industry:

"Companies are scrambling to provide one-stop shopping for a dizzying array of phone, wireless and Internet services. Call it the telecom industry's version of the sports utility vehicle. It has all the comforts of local and long distance phone service combined with off-road access to the Internet, e-mail and the Worldwide Web. It can also host a web site, transport data, send and receive faxes, conduct business in cyberspace, and broadcast ESPN."

The article continues.

"What absolutely has to happen in the telecommunications industry is that companies need to provide a whole array of products to customers, whether that be high-speed Internet access through Digital Subscriber Lines, Internet access itself, regular phone service or wireless phone service, says Michael Frandsen, spokesman for U. S. West in Utah. That's where the industry is heading."

The Utah Information Technologies Association (UITA) estimates there are now 2,427 IT enterprises in Utah that provide products and/or services related to digital content, hardware, software, and telecommunications. UVSC anticipates that its proposed program will produce graduates who will

have job skills needed by many of these companies, and the need to hire out-of-state employees will be reduced.

The United States Department of Labor/Bureau of Labor Statistics in its *Career Guide to Industries 2000-01 Edition*, concludes that:

- Telecommunications is rapidly expanding beyond traditional voice telephone service.
- The demand for greater telecommunications capacity -- or bandwidth -- will create jobs that require technical skills.
- Average earnings in telecommunications greatly exceed average earnings throughout private industry (See Appendix B for full document).

Other key findings of this report further document the need for additional telecommunications technicians:

- The telecommunications industry provided 1,042,000 wage and salary jobs in 1998.
- Due to the rapid introduction of new technologies and services, the telephone industry is among the most rapidly changing in the economy. This means workers must keep their job skills up to date. Increased knowledge of both computer hardware and software is of paramount importance.
- Average weekly earnings of non-supervisory workers in telephone communications, the principal sector of the telecommunications industry, were \$756 in 1998, significantly higher than average earnings of \$442 in private industry.
- Employment in the telecommunications industry is expected to increase 23 percent over the 1998-2008 period, faster than the 15 percent projected for all industries combined. Strong growth in both residential and business demand for high-capacity communications will lead to the expansion of telecommunications networks. This expansion will create employment opportunities for individuals with strong technical skills.

Appendix C of this proposal contains a letter of support from the vice president of World Access NACT Switching Division, a leading company in the telecommunications industry. The company is challenged to find and hire qualified workers. The letter also includes the company's opinion about projected growth in the industry and future need for telecommunications-educated college graduates. The letter comments on how new cell-phone companies have had to import technical people to Utah because of a dearth of technically- skilled workers here.

Institutional Readiness

The proposed program will be located in the School of Technology, Trades and Industry under the Department of Electronics/Computer and Electrical and Automation Technology. An Ad Hoc Advisory Committee with representatives from regional telecommunications companies will be established to assist in the further development of the program's technical content.

Students will also have the opportunity to continue their education into the Baccalaureate Program in Technology Management. It is not anticipated that the proposed Telecommunications Technology Program will adversely affect enrollment in any other degree program.

State's Ability to Finance

No additional funds will be requested.

TCT121L	DATA COMMUNICATIONS LABORATORY	2:0:6
CO-REQUISITE: TCT 1210		
COURSE DESCRIPTION: The methods of building, testing, monitoring, and troubleshooting data networks is presented. Cable construction and testing, test equipment operation, ethernet data link layer testing and monitoring are among the topics studied in a hands on laboratory environment.		
TCT1220	TELEPHONY SYSTEMS THEORY	4:4:0
PREREQUISITE: TCT 1110		
CO-REQUISITE: TCT112L		
COURSE DESCRIPTION: The fundamentals of the world wide telephone network are presented and studied. Topics include history of the telephone system, human voice characteristics, twisted pair characteristics, in-band signaling, DTMF signaling, central office switching, trunk circuits, multiplexing, private branch exchange, digital telephony, call switching, echo suppression, modems, T1 trunks, SS7 call control protocol, integrated services digital networks (ISDN), digital subscriber lines (DSL), voice over packet switched networks.		
TCT122L	TELEPHONY SYSTEMS LABORATORY	2:0:6
CO-REQUISITE: TCT 1220		
COURSE DESCRIPTION: Methods of construction, testing, and monitoring of telephone infra-structure are studied. Topics include telephone cabling, termination, tracing, T1 testing and monitoring, PBX operation, T1 switching hardware, call routing.		
TCT2110	COMMUNICATIONS PROTOCOL THEORY	4:4:0
PREREQUISITE: TCT 1210		
CO-REQUISITE: TCT 211L		
COURSE DESCRIPTION: Data communication protocols are studied in detail. The following topics are studied; The OSI reference model, IEEE standards, commonly used protocols including, NetBEUI, XNS, IPX/SPX, TCP/IP, protocol stacks, datagrams, routing, bridging, gateways, network layer protocols, application layer protocols including FTP, SMTP, SNMP, PPP, SLIP, HTTP.		
TCT211L	NETWORK PERFORMANCE MONITORING LABORATORY	2:0:6
CO-REQUISITE: TCT 2110		
COURSE DESCRIPTION: Principles of protocol monitoring and operation of test equipment and network monitoring tools is presented. Techniques of monitoring and troubleshooting are discussed and practiced including the use of data sniffer equipment and standard UNIX network monitoring tools.		
TCT2120	FIBER OPTIC SYSTEMS THEORY	3:3:0
PREREQUISITE: TCT 1210		
CO-REQUISITE: TCT 212L		
COURSE DESCRIPTION: Fiber optic transmission systems are introduced and discussed. Topics include transmission line principles, fiber optic materials, cabling specification and practice, amplification of optical signals, synchronous optical networks, optical carrier multiplex standards, SONET, wavelength division multiplexing.		
TCT212L	FIBER OPTIC SYSTEMS LABORATORY	1:0:3
CO-REQUISITE: TCT 2120		
COURSE DESCRIPTION: Methods and practice of fiber optic cabling systems are introduced and studied. The construction and testing of fiber optic cables is presented as well as optical switching systems and optical carrier systems.		
TCT2130	C PROGRAMMING FOR NETWORKS	3:3:0
PREREQUISITE: TCT 1130, TCT 113L		
COURSE DESCRIPTION: Object Oriented C Programming with Emphasis on Network Communications.		
TCT2210	WIRELESS COMMUNICATIONS THEORY	4:4:0
PREREQUISITE: TCT 1210, TCT 2110		

APPENDIX B:

Telecommunications Career Guide to Industries 2000-01 (U.S. Bureau of Labor Statistics)

APPENDIX C:

Local Job Data and World Access Letter of Support

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Utah Valley State College: Associate of Applied Science Degree in Manufacturing Engineering Technology –Action Item

Issue

Officials at Utah Valley State College (UVSC) request approval to offer an Associate of Applied Science (AAS) Degree in Manufacturing Engineering Technology.

Background

The proposed program will educate manufacturing technicians to be knowledgeable in the mechanical principles, manufacturing processes, materials and control methods for all types of manufacturing industries. These include industries such as metal, plastics, food, and electronics, and vary from solids to liquids. The graduates of this program will understand the technology, equipment, tooling, methods and quality of manufacturing and will be capable of being employed in manufacturing industries as lead persons, schedulers, estimators, planners, technicians and other lower-level managers.

There is strong demand for the Manufacturing Engineering Technology AAS Degree in the service area of UVSC because of the many manufacturing industries in the area. In cooperation with the Utah Manufacturing Extension Partnership, staff at UVSC conducted a survey of 120 manufacturing businesses to determine the potential demand. The survey indicated that the need for such graduates is very strong and employers are willing to substantially increase yearly wages to hire graduates of the proposed program. There will be numerous employment opportunities for graduates in a wide variety of technical positions.

The proposed AAS Degree program in Manufacturing Engineering Technology is comprised of a total of a 66 credits, including 18 general education credits and 48 technical credit hours.

Similar programs exist at Salt Lake Community College, Weber State University, and Brigham Young University. UVSC officials state that the Manufacturing Engineering Technology Program has a

unique curriculum and regional focus, and therefore would not compete with programs at other institutions.

Many of the required courses are already offered at UVSC. Existing faculty will be reassigned on the basis of their expertise, and the budget for this program will be supported by existing and new student enrollment funds. No additional state funds are required.

Policy Issues

This proposal has been through UVSC's institutional review process and approved by the Board of Trustees.

An initial concern was expressed by staff at Salt Lake Community College about the need for the program. They agree that the proposed program is strong and that present employment opportunities outpace the availability of trained students. However, they were initially concerned that similar programs at SLCC, Weber, and BYU are under-enrolled, and a fourth program would further dilute low enrollments.

UVSC officials emphasize that the proposed program has been designed to address the current operations and management of the manufacturing environment in central Utah and that it would not negatively impact enrollments in other institutions' programs. A survey of students currently enrolled in the School of Trades, Technology and Industry at UVSC shows a high interest in the program. Two hundred twenty two students stated that they would have been interested if the program had been offered when they initially enrolled at UVSC. One hundred forty one students responded that they were still interested in the program if it is approved. In conjunction with the high labor market demand in the local area, UVSC officials believe that the student demand is sufficient to make the program a success.

After further review of the UVSC program, SLCC officials have concluded that the curriculum of the UVSC program is different, and that it responds to the needs of the Central Utah region. They are therefore supportive of the proposal.

Although officials at Weber State University support the UVSC request, several suggestions were made regarding the proposal and the curriculum. These changes have been considered by UVSC, and resulted in several adjustments being made to the proposal.

Options Considered

After Regents have reviewed the proposal from Utah Valley State College to offer an Associate of Applied Science Degree in Manufacturing Engineering Technology, they may raise issues, request additional information, deny the request or approve the request.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve the request by Utah Valley State College to offer an Associate of Applied Science in Manufacturing Engineering Technology.

Cecelia H. Foxley, Commissioner

CHF/MAP/GSW
Attachment

ACADEMIC AND APPLIED TECHNOLOGY EDUCATION COMMITTEE

Action Item

Request to Offer an Associate of Applied Science Degree
in Manufacturing Engineering Technology

Utah Valley State College

Prepared for
Cecelia H. Foxley
by
Michael A. Petersen
and
Gary S. Wixom

July 26, 2000

SECTION I

The Request

Utah Valley State College’s School of Technology, Trades and Industry requests approval to offer an Associate of Applied Science (AAS) Degree in Manufacturing Engineering Technology.

SECTION II

Program Description

The AAS Degree Program in Manufacturing Engineering Technology is designed to train manufacturing technicians who would be knowledgeable in the mechanical principles, manufacturing processes, materials and control methods for all types of manufacturing industries. These industries include metal, plastics, food, electronics, etc. and vary from solids to liquids. The graduates of this program will understand the technology, equipment, tooling, methods and quality of manufacturing and will be capable of being employed in manufacturing industries as lead persons, schedulers, estimators, planners, technicians and other lower-level managers. Their education will give them the skills necessary to solve a myriad of manufacturing problems in high technology industries.

The proposed AAS Degree Program in Manufacturing Engineering Technology is composed of a total of a sixty-six credits, including 18 general education credits and 48 technical credit hours.

The following new courses will be added to the UVSC curriculum.

MET 1100	Intro to Manufacturing Engineering Technology	2 credits
MET 1300	Drafting/Blueprint Reading/Geometric Dimensioning & Tolerancing	2 credits
MET 1500	Hydraulics & Pneumatics	4 credits
MET 1800	Engineering Materials	4 credits
MET 2300	Production Scheduling	2 credits
MET 2400	Manufacturing Processes	5 credits
MET 2500	Computer Numerical Control and Automation	3 credits
MET 281R	Co-op Work Experience	1-4 credits
MET 285R	Co-op Correlated Class	1 credit
MET 295R	Current Topics in Manufacturing	3 credit

Eighteen credit hours of general education course work are required for the AAS Degree. Required general education courses are as follows:

General Education

ENGL 1060	Career Writing	3 credits
MATH 1010	Intermediate Algebra	3 credits
PE-S 1300	Fitness for Life	1 credit
PHYS 2010	College Physics I	4 credits
PHYS 201L	College Physics I Lab	1 credit
	Social/Behavioral/Political Science elective	3 credits
TASP 1100	Introduction to Public Speaking	<u>3 credits</u>
	Total	18 credits

Course Requirements for the AAS Degree

Required vocational-specific courses:

DT 1040	Cad-AutoCAD	2 credits
DT 1610	Technical Math (Geometry & Trigonometry)	3 credits
DT 2600	Statics	3 credits
DT 2610	Strength of Materials	3 credits
ECT 1100	Electronics Fundamentals	4 credits
ENVT 1500	Hazardous Materials	3 credits
MET 1100	Intro to Mfg Engin Technology	2 credits
MET 1300	Drafting/Blueprint Rdg/Geom Dim	2 credits
MET 1500	Hydraulics & Pneumatics	3 credits
MET 1800	Engineering Materials	4 credits
MET 2300	Production Scheduling	2 credits
MET 2400	Manufacturing Processes	5 credits
MET 2500	Computer Numerical Control/Autom	3 credits
MET 281R	Coop Work Experience	2 credits
MET 285R	Coop Correlated Class	1 credit
MET 295R	Current Topics in Manufacturing	3 credits
MTT 2450	Manufacturing Systems & Quality	<u>3 credits</u>
	Total	48 credits

Course descriptions and a proposed student schedule are in Appendices A and B.

Enrollment

Projected enrollments for the first five years are listed in the table below. These enrollment projections are based on the number of current and future manufacturing companies which will be served and indications of student demand from a recently completed student survey. The survey was conducted with enrolled students in the School of Trades, Technology and Industry at UVSC. It identified 222 students who would have been interested in the program if it were available when they started at UVSC, and 141 students who stated that they would still be interested if the program was approved this year.

Headcount and FTE Projections

Year 1	30 headcount	25 FTE	20:1 Ratio
Year 2	55 headcount	50 FTE	20:1 Ratio
Year 3	60 headcount	55 FTE	20:1 Ratio
Year 4	65 headcount	60 FTE	21.8:1 Ratio
Year 5	75 headcount	65 FTE	21.7:1 Ratio

Cost

The proposed budget will require no new funding from the state; funds will come from new student enrollments and existing department budgets.

Projected Budgets, 1-5 Years

	Year 1	Year 2	Year 3	Year 4	Year 5
Salaries & Wages	\$35,955	\$75,178	\$84,758	\$88,148	\$94,932
Benefits	\$ 7,449	\$15,536	\$16,854	\$17,528	\$18,575
Current	\$ 2,000	\$ 5,000	\$ 5,000	\$ 6,000	\$ 6,000
Library	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Capital	\$ 2,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000

Travel	\$ 1,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Total	\$51,404	\$105,714	\$116,612	\$121,676	\$129,507

Faculty and Staff

The following table projects faculty needs for the first five years. It is anticipated that a .5 FTE faculty position will be established in Year 1, and in the second year the position will be expanded to a full-time commitment. This new faculty position will be needed to teach new courses required in the major as well as to recruit students, establish a permanent advisory committee, develop the new curriculum and work with fellow instructors. Additional faculty will be hired on a part-time basis, as shown in the table below.

FTE Faculty, 1-5 Years

Year 1	.5 FTE faculty .75 FTE faculty	Salaried Adjunct
Year 2	1.0 FTE faculty 1.5 FTE faculty	Salaried Adjunct
Year 3	1.0 FTE faculty 1.75 FTE faculty	Salaried Adjunct
Year 4	1.0 FTE faculty 1.75 FTE faculty	Salaried Adjunct
Year 5	1.0 FTE faculty 2.0 FTE faculty	Salaried Adjunct

Hourly staff will be needed to provide clerical and advising support for this program. Year 1 will require .25 FTE; Year 2 will require .5 FTE; and Year 3 will require .75 FTE hourly staff.

Current Faculty

The following faculty members teach existing classes that will be included in the proposed AAS Degree program:

Douglas F. Bradley

M.I.E.(Masters of Industrial Education), Brigham Young University
 B.S., Technical Education-Automotive, Utah State University
 Utah Technical & Industrial certification, Diesel, Auto, Welding

ASE certified-Heavy-duty mechanic (Diesel), Electrical, Air-conditioning
Certified Air Brake Technician
CDL Class A Driver's License
Author, Supplemental Electrical Concepts for Diesel Mechanics
28 yrs. teaching experience (including 3 yrs., Certified Caterpillar instructor/trainer)

Joel Bradford

B.S., Vocational Education, Southern Illinois University
Industrial experience-Tool Builder, Aero General & Rohr Industries, 8 years; Manufacturing Engineer, 6 years, Rohr Industries
Educational experience-Director of Apprenticeships, 7 years, Utah Valley State College

Eddy L. Cadet

B.S., Biology, University of Illinois
Certified: EPA/OSHA Trainer
Certified: National Registered Environmental Health Specialist
Industrial experience-Environmental Scientist, Dept. of Environmental Quality, Registered Sanitarian, Lake County Health Dept-5 years, Science teacher, Shiloh Academy-1 year
Educational experience-Coordinator/instructor-6 years, Utah Valley State College

Dr. James Callison

Ph.D., Watershed Management, University of Arizona
M.S., Range Science, Brigham Young University
B.S., Biology, Southern Utah University
Industrial experience- logging, 12 years
Educational experience-Department Chair, Professor-6 years, Utah Valley State College;
Program Coordinator, Professor-10 years, Pima Community College

J. Thomas Emang

M.S., Computer-Aided Manufacturing, Brigham Young University
B.S., Manufacturing Engineering Technology, Oregon State University
Industrial experience-16 years, i.e. Sulzer/Bingham Pumps, Inc
Educational experience-8 years

Robert S. Goodwin

B.S., Welding Engineering, Utah State University
Industrial experience-structural steel fabrication, 6 years; piping systems-6 years; heavy equipment maintenance repair-3 years; nuclear vessels-1 year; small business owner in welding-20 years
Educational experience-instructor to professor-29 years, Utah Valley State College

Larry B. Marsing

M.S., Technology Education, Utah State University
B.S., Industrial Education, Utah State University
AAS, Drafting & Design Technology, Utah Technical College at Provo
91 credits, Civil Engineering, University of Utah
Industrial experience- Design Draftsman, 3 years, Chicago Bridge & Iron Co., Project Engineer, 1 year, Mark Steel Co., Design Draftsman, 1 year, Eaton-Kenway; Structural Detailer, 2 years, Coffin, Harris & Beighley. Educational experience- Professor, Utah Valley State College, 21 years

Dr. Donald Seagle

Ph.D., Workforce Education/Administration, Southern Illinois University
M.S., Industrial Education, Northern Michigan University
B.S., Industry & Technology, Northern Michigan University
Industrial experience-Maintenance Welder, Empire Mine, 6 years
Educational experience- Professor, Northern Michigan University, 23 years; Lead Instructor/Coordinator, Denmark Technical College, 2 years; Professor, Utah Valley State College, 2 years. Writer of training manuals, consulting, industrial training programs.

Darin Taylor

B.S., Technology Management, Utah Valley State College
AAS, Drafting & Design Technology, Utah Technical College
Industrial experience-10 years as Senior Engineering Technician & Design Draftsman, R,B & B Engineering, Provo.
Educational experience-Assistant Professor, Drafting Technology, 8 years, Utah Valley State College.

Allan Tucka

M.S., Mechanical Engineering, Portland State University
B.S., Mechanical Engineering, University of Illinois-Chicago
A.S., Pre-engineering, College of Lake County
Tool & Die Apprenticeship (4 yr), V. R. Wesson Co-College of Lake County
Industrial experience-15 years, i.e. Griffin Machining and Tolerance Manufacturing
Educational experience-4 years, Utah Valley State College

Facilities and Equipment

Since classrooms and labs are already in existence and equipped with proper tools, equipment and power, there is no need to modify existing facilities or provide new facilities within the first five years. All of the necessary laboratories are already in place and operational.

Libraries and Learning Resources

There are 2,217 volumes in the UVSC library collection that support Manufacturing and Applied Engineering Technology. This number encompasses areas of Drafting, Graphics, Mechanics and Materials of Engineering, Machine Shop, Electrical, Electronics, Metallurgy, and Manufacturing. In addition, there are 84 Manufacturing & Applied Engineering Technology journal titles and 7 abstracts and indexes in the library.

SECTION III

Need

A needs assessment of employers has been completed by the school of Technology, Trades and Industry at Utah Valley State College. The demand for the Manufacturing Engineering Technology Degree in the regional area of Utah Valley State College is strong due to the high number of manufacturing industries in the area. Graduates from the proposed program will have numerous opportunities to be employed in a wide variety of technical positions since the courses in the proposed program provide the knowledge and skills enabling graduates to perform the technical duties which are essential in the globally-competitive, world-class manufacturing companies in the region. This AAS Degree Program will provide a technically current and competent individuals desired by those companies located in the Utah Valley region and/or companies considering a move to the region. As such, it is an important component for the economic development of the region.

A survey of potential employers was conducted in conjunction with the Utah Manufacturing Extension Partnership. The study indicated that the curriculum is appropriate, the need for the program is strong and wages will be substantially increased for graduates of the program. An ad-hoc Advisory Committee which was created to advise on the appropriateness of this program fully supported the curriculum and agreed that the degree is needed in this area. A labor market analysis indicated the program need was extremely high. A review of area newspapers over a one-month period showed over 160 local jobs per week which required the knowledge and experience that the graduates from this program would have. Based on a review with employers and input from the ad-hoc advisory committee, there is an estimated need for over 200 graduates at this time from this program, with the need growing rapidly as new manufacturing companies enter the area and as existing companies reap the benefits of having more highly educated professionals and promote program graduates.

Institutional Readiness

This proposed program is related directly to the mission of Utah Valley State College and the School of Technology, Trades and Industry to provide applied science programs that meet the needs of employers and students and to train the future leaders and managers of technical operations. The purpose of the Associate of Applied Science Degree in Manufacturing Engineering Technology, in harmony with the mission statement, is to educate and train technical manufacturing professionals and lower-level managers for manufacturing industries in the Central Utah area.

State's Ability to Finance

All funds to offer the AAS Degree will come from new student enrollments and the existing department budget.

Appendix A

Description of Proposed Program Courses

DT 1040	Computer-Aided Drafting-AutoCAD	2:2:0 credits
Prerequisite: none		
Course Description: Teaches the drafting AutoCAD software system. Includes enough exposure to Windows to create files, read directories, create directories and operate the AutoCAD software as it applies to Windows and Graphics. Drawings are produced, plotted, printed, checked and corrected on the CAD system.		
DT 1610	Technical Math (Geometry & Trigonometry)	3:3:0 credits
Prerequisite: DT 1600 or equivalent course with "C-" grade or better		
Course Description: Covers more advanced principles of algebra, geometry and trigonometry as they relate to problem-solving on the job. Includes systems of equations, powers and roots, trigonometry functions, vectors, polynomials, quadratic equations, exponents and radicals and circle concepts.		
DT 2600	Statics	3:3:0 credits
Prerequisite: DT 1610 with C- grade or better.		
Course Description. For students preparing for the second year design classes. Covers the basic principles of statics, coplanar force systems, coplanar-concurrent force systems and noncoplanar-concurrent force systems. Prepares students for entry-level employment as a design drafter in structural, architectural and mechanical drafting.		
DT 2610	Strength of Materials	3:3:0 credits
Prerequisite: DT 2600 with grade of C- or better		
Course Description: Studies strength of materials dealing with direct stress in compression, tensile and shear. Also covers engineering materials and their properties dealing with stress and deformation, centroids, moments of inertia, section modules, thin wall pressure vessels, tension and the calculation of beams, girders and columns under various loading conditions. Includes calculations to determine the deflection in beams and girders under various load conditions.		
ECT 1100	Electronics Fundamentals	4:3:3 credits
Prerequisite: ECT 1010 & 1050 or equivalent		
Course Description: An introductory and foundation course in electronics for non-majors. Covers fundamental electronic circuit concepts. Studies basic electrical physics, DC/AC sources, resistance, capacitance, inductance, transformers, circuit configurations, basic laws and network theorems, the sine wave, reactance, impedance, resonance, frequency response, semiconductor and IC basics. Includes lecture, lab, demonstrations, video presentations and computer simulation.		
ENGL 1060	Career Writing	3:3:0 credits
Prerequisite: COMPASS Writing/DRP scores of 80+/77+, or ACT English/ACT Reading scores of 19+/19+, or ACT English/ACT Composite scores of 19+/19+, or completion of ENGH 990 and RDG 1170 each with a grade of C- or higher.		
Course Description: Application to personal & job-oriented writing in the student's area of interest or vocation. Includes letter writing, memos, brief response papers, resumes and other communications. Uses critical readings & class discussion to teach writing of ideas & opinions in a clear, concise format. Completers should have skills necessary to write effectively on the job. Teaches reading, thinking and critical analysis. Emphasizes standard English through concise written expression. Includes descriptions, proposals, sets of instructions and other technically orientated papers through exercises, portfolios and examinations.		

- ENVT 1500 Hazardous Materials 3:3:0 credits**
 Prerequisite: none
 Course Description: Introduces basic issues in hazardous materials handling. Studies generation of hazardous materials, minimization of waste, toxicology and regulations. Discusses responding to spills, personal safety, site remediation and transportation.
- MATH 1010 Intermediate Algebra 3:3:0 credits**
 Prerequisite: One of the following: MAT 0990 with a grade of C- or better; either an ACT mathematics score of 19 or an SAT mathematics score of 500 (assuming each test has been taken with the last two years); recommended placement by the COMPASS test; or instructor approval.
 Course Description: Includes linear equations, inequalities, polynomials, exponents, rational expressions, radicals, quadratic equations, functions, systems of equations and applications.
- MTT 2450 Manufacturing Systems & Quality 3:3:0 credits**
 Prerequisite: none
 Course Description: For students desiring an advanced course in the organization and operation of the modern manufacturing company. Focuses on quality in manufacturing.
- PE-S 1300 Fitness for Life 1:.5:1.5 credit**
 Prerequisite: none
 Course Description: provides an individualized approach to physical fitness. Teaches principles of cardiovascular endurance, weight control, strength and ability. Students apply learning by writing and engaging in a personalized fitness program.
- PHYS 2010 College Physics 4:4:0 credits**
 Prerequisite: MATH 1010
 Corequisite: 201L
 Course Description: For students desiring a two semester algebra-based course in applied physics. Covers mechanics, fluid, heat and thermodynamics. Lab is designed to accompany PHYS 2010. Provides firsthand experience with the laws of mechanics, fluids, heat, thermodynamics and data analysis.
- PHYS 201L College Physics I Lab 1:0:2 credit**
 Prerequisite: none
 Corequisite: PHYS 2010
 Course Description: Designed to accompany PHYS 2010. Provides firsthand experience with the laws of mechanics, fluids, heat and thermodynamics and data analysis.
- TASP 1100 Introduction to Public Speaking 3:3:0 credits**
 Prerequisite: none
 Course Description: For students interested in improving communicative and public speaking skills. Covers speech research, preparation, outlining and delivery. Provides students with practical experience and evaluation. Includes lecture, speaking before the class, critiques, evaluation and watching and listening to others speak.
- MET 1100 Intro to Manufacturing Engineering Technology 2:1:3 credits**
 Prerequisite: none

Appendix B

Sample Class Schedule

First Year

<u>Fall</u>	ENGL 1060 Career Writing	3 cr	
	TASP 1100 Introduction to Public Speaking	3 cr	
	MATH 1010 Intermediate Algebra	3 cr	
	MET 1100 Intro to Mfg Engineering Technology	2 cr	
	DT 1040 Cad-AutoCAD	2 cr	
	MET 1300 Drafting/Blueprint Rdg/Geom Dim	<u>2 cr</u>	
	Total		15 cr

Spring

	DT 1610 Technical Math (Geometry & Trig)	3 cr	
	ENVT 1500 Hazardous Materials	3 cr	
	MET 1500 Hydraulics & Pneumatics	3 cr	
	MET 1800 Engineering Materials	4 cr	
	ECT 1100 Electronics Fundamentals	<u>4 cr</u>	
	Total		17 cr

Second Year

Fall

	PE-S 1300 Fitness for Life	1 cr	
	PHYS 2010 College Physics I	4 cr	
	PHYS 201L College Physics I Lab	1 cr	
	DT 2600 Statics	3 cr	
	MET 2300 Production Scheduling	2 cr	
	MET 2400 Mfg Processes	<u>5 cr</u>	
	Total		16 cr

Spring

	Social/Behavioral/Political Sc elect	3 cr	
	DT 2610 Strength of Materials	3 cr	
	MTT 2450 Manufacturing Systems & Quality	3 cr	
	MET 2500 Computer Numerical Ctrl/Autom	3 cr	
	MET 281R Coop Work Experience	2 cr	
	MET 285R Coop Correlated Class	1 cr	
	MET 295R Current Topics in Mfg	<u>3 cr</u>	
	Total		18 cr
	Total credits		66 cr

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Information Calendar, Academic and Applied Technology Education Committee

The following items have been submitted by the designated institutions for review by the Regents on the Information Calendar of the Academic and Applied Technology Education Committee. The actions that are described have been approved by institutional Boards of Trustees. No action is required by the Regents.

A. University of Utah

1. Name change from the Graduate School of Education to the College of Education

The University of Utah wishes to change the name of the College because the current name does not adequately reflect the College's role in preparing pre-service teachers in undergraduate degrees and licensure programs in elementary, secondary, early childhood, and special education. The title "College of Education" is more nationally recognized for its role in preparing pre-service teachers, a role that the University of Utah wants to emphasize. The term "School" can mean a college unit, a departmental unit, or other unit within a college. In a search of 75 major public institutions, only one other "Graduate School of Education" was found (SUNY-Buffalo). The name change has received unanimous support from the dean's office, administrative personnel and all department chairs with a ninety percent approval rate of the faculty.

2. Renaming of degree programs to reflect restructuring of the Department of Educational Studies.

Current degree titles in the College of Education reflect the present departmental structure. The new degree titles will reflect the change in departmental structure proposed by the University of Utah in Item A of the Consent Calendar. Following is the list of current degree titles and their new names.

Current Ed Studies Degree/Program Name	Restructured Degree/Program Name
B.A./B.S. in Elementary Education	Teaching/Learning-B.S./B.S. in Elementary Education
M.ED. /M.A./M.S. Degree in Ed Studies	MED/MA/MS Degree in Teaching/Learning
Teaching & Teacher Ed Specialization	MED/MA/MS Degree in Teaching/Learning
Learning & Instruction Specialization	MED/MA/MS Degree in Teaching/Learning
Critical, Cultural, & Curriculum Studies Specialization	MED/MA/MS Degree in Education/Culture/Society
Ph.D. Degree in Cultural Foundations of Education	
Teaching & Teacher Ed Specialization	PhD Degree in Teaching/Learning
Learning & Instruction Specialization	PhD Degree in Teaching/Learning
Critical, Cultural & Curriculum Studies specialization	PhD Degree in Education/Culture/Society

B. Utah State University

1. Specialization in Agribusiness Management added to the Master of Business Administration Degree

The Master of Business Administration (MBA) is awarded by Utah State University with several specializations. This proposal would add the specialization in Agribusiness to the MBA Program. The Agribusiness Management Specialization will prepare students for positions in industry and government that require advanced understanding of business management skills and the unique characteristics of agriculture. Graduates have expressed a desire for access to advanced training in the agribusiness management area.

2. Consolidation of the Master of Science in Agricultural Economics and the Master of Community Economic Development Degrees into a Master of Science in Applied Economics

A recent review by the Department of Economics of its degree programs resulted in a recommendation by the faculty that the two degrees be consolidated to produce a single degree, the Master of Science in Applied Economics. Both programs have been preparing economics students at the master's degree level with professional applied economics training. The consolidated degree will improve the organization of the curriculum and provide a program name which will increase the marketability of the degree. The program will also meet the demands of business and governmental

agencies that need economists trained in policy analysis and resource evaluation. The new Master of Science in Applied Economics will include specializations in Agricultural Economics, Natural Resource Economics, and Regional Economic Development.

3. Name change from the Bachelor's Degree in Secondary Education to the Bachelor's Degree in Social Studies

The Department of Secondary Education has graduated students with a Bachelor's Degree in Secondary Education, generally in the areas of social studies teaching. The Department has consulted with the Utah State Office of Education to change the name of the major from Secondary Education, which does not identify the teaching discipline, to Social Studies Composite teaching, which does provide proper identification of the discipline in courses completed by students. This will identify students in the State of Utah as well as provide proper certification identification for students seeking employment in Utah and in other states.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents review the Information Calendar of the Academic and Applied Technology Committee and raise any questions they may have. No action is required by the Board.

Cecelia H. Foxley, Commissioner

CHF/MAP/PCS

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Consent Calendar, Academic and Applied Technology Education Committee

The following requests have been submitted by the University of Utah for consideration on the Consent Calendar by the Academic and Applied Technology Education Committee.

1. University of Utah
 - A. Proposal to restructure the Department of Educational Studies into two departments: the Department of Teaching and Learning; and the Department of Education, Culture, and Society.

Rationale: In an effort to make more prominent the teacher education role of the College of Education, formerly the Graduate School of Education, interviews were conducted with all Department of Educational Studies faculty and those from other departments who work closely with Educational Studies faculty. Information from these interviews led to a report that described the history of the college, a summary of findings, and a set of recommendations.

Findings from the study suggested that the current structure of the Department of Educational Studies inhibited effective change and responsiveness to teacher education programs. The goals and priorities for teacher education were not shared by all faculty. Thus, department faculty were asked to consider and recommend a restructuring plan that would make teacher education a priority program within the college. After several months of discussion, the Educational Studies faculty overwhelmingly recommended that the Department be divided into two separate administrative units: the Department of Teaching and Learning (T&L); and the Department of Education, Culture, and Society (ECS).

The T&L Department will prepare pre-service and in-service K-12 classroom teachers through degree and licensure programs. Included are teacher licensure programs in elementary, secondary, and early childhood education, graduate programs (Masters and Ph.D. Degrees) emphasizing teaching and learning in Mathematics, Reading, Science, Social Studies, Technology, and Teacher Education. The ECS Department will prepare graduate students (Masters and Doctoral) for academic careers in Social and Cultural Foundations of Education (e.g., History, Philosophy, Sociology, and Anthropology of Education) and will offer College of Education service courses which emphasize diversity and

multicultural education. ECS faculty with joint appointments contribute to teaching and instruction in Ethnic Studies.

College faculty believe that by separating the Department of Educational Studies into two units, faculty will be able to reach consensus on issues of retention, promotion, and tenure as well as governance. In addition, the prominence of teacher preparation will make it more responsive to students and to national standards for teacher preparation. University officials believe that both new departments will be able to develop high quality programs that reflect their respective missions, achieve improved program quality and effectiveness, and increase enrollments in both departments.

No new instructional faculty nor emphases will be added to either program at this time. Sixteen full-time, tenure-track faculty, and seven full-time clinical faculty will be assigned to the T&L Department. Ten tenure-track faculty will be assigned to the ECS Department. Some remodeling will be needed to provide additional departmental space for the T&L unit. The Departments will continue to be housed in Milton Bennion Hall. In addition, there will be one-time expenses for office furniture and equipment and on-going expenses for clerical support. Funds will be transferred from the Dean's budget to the T&L Department. The University of Utah Board of Trustees approved the College's restructuring plan. The new Departments are expected to be fully operational by July 2001.

B. Proposal to test a new delivery model for the Ph.D. Program in Social Work

Rationale: Officials from the University of Utah want to test a new delivery model which targets faculty in Social Work Education programs and selected community leaders in the Intermountain region. Both groups hold Master of Social Work Degrees (MSW). Although both groups are considered to be place-bound, they will complete residency requirements and participate in both on-campus and electronically delivered doctoral curriculum.

The pilot program was developed to respond to several critical needs. Currently, 44 percent of faculty at the master's level and 58 percent of faculty at the baccalaureate level do not hold doctoral degrees. These people tend to be women and persons of color whose careers are impacted negatively without the terminal degree. In addition, demand for Social Work Ph.D. faculty exceeds supply. Finally, there is a dearth of solid scientific and scholarly knowledge being produced. There is a need for more scholarly-prepared professionals who can contribute to the scientific knowledge that undergirds the practice of social work.

Doctoral students in the Program will be prepared for roles as scholar change agents, and professionals who bring research perspectives to policy and practice problems involving social welfare and the organization of human services. The Program is expected to produce scholar/practitioners who will reform, transform, invent, and evaluate social welfare policies and practices.

This technology-enhanced pilot program has the same requirements and focus as the on-

campus program. In addition, the technology-enhanced pilot program will test new methods of building a sustainable community of scholars. It also will address a critical shortage of Ph.D. faculty in Schools of Social Work and develop new research infrastructures in Social Work education.

Students will meet residency requirements by spending the summers in intensive class sessions that will last at least six weeks. There will be a year-long professional seminar, seven researched-based courses, a two-course social policy sequence, interdisciplinary and individualized studies, an integrative research capstone, qualifying examinations, and a dissertation. Students who successfully complete the 57 credit hours and all requirements can expect to be qualified for roles as college and university faculty, policy leaders, and researchers in state agencies, institutes, and centers.

Technology components will include interactive television, Web-based instruction, electronic mail, mailing lists, bulletin boards, and other real-time communication technologies. Faculty will make site visits to assist students in building research infrastructures at the home institutions and partnering agencies. Students will need to rely upon their institutions or agencies for technological support.

Students will be recruited from universities, colleges, and communities, including Native Americans communities, in Reno, Albuquerque, Denver, and Logan. Faculty have conducted a needs assessment and found interest in the technologically-delivered program. Current faculty will teach in the proposed program. Program and technology coordinators will be hired to manage the proposed program. Evaluative methodologies will be used to assess the effectiveness of the traditional and pilot programs. Indicators have been identified. An advisory committee has been involved in the development of the Program and will continue to offer guidance. The faculty are exploring the use of special fees to help support the program. Funding will be needed for a one-time equipment enhancement which will be sought internally within the institution. The three-year program is expected to cost \$315,000.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve the requests from the University of Utah as detailed in the Consent Calendar of the Academic and Applied Technology Education Committee.

Cecelia . Foxley, Comissioner

CHF/MAP/PCS

MEMORANDUM

July 27, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Southern Utah University – St. George Head Start Facility Lease

Issue

SUU officials seek to enter into a lease for a 6,000 square foot facility in St. George to house the University's St. George Head Start Program. This new space is necessary because the current Head Start facility does not comply with child-care center licensing requirements.

Background

As the designated grantee for Southwestern Utah, SUU sponsors Head Start Programs in communities throughout the region. Head Start Programs receive funding from a federal grant to provide comprehensive developmental services for low-income children ages three to five. The grants provide sufficient funding for the regional Head Start Programs to lease, operate, and maintain facilities. However, restrictions prohibit the use of these funds for construction.

To meet the facility needs of the program in St. George, SUU officials are proposing to enter into a contract with a private company. This company, S & G Bowen LLC, would construct a building with parking and other improvements at 510 East 900 South in St. George, and then lease the property to the SUU Head Start program. Specific provisions of the lease are as follows:

- An initial 20-year lease period with lease costs of \$4,933 (\$0.82 per square foot) per month for the first five years with a 2% cost increase per year for the remaining years.
- An optional second 20-year lease period with provisions for \$1,500 per month, an annual gift tax receipt of \$36,000, and the gifting of the property to the SUU Head Start Program.

State Board of Regents
July 27, 2000
Page 2

- Major maintenance and replacements associated with the building, parking lot, and grounds provided by S & G Bowen LLC for the first 20 years.
- Payment of property taxes, utilities, and day-to-day maintenance by SUU Head Start.
- Payment of insurance by SUU Head Start for the first five years and then shared equally between the two parties for the remaining 15 years of the initial lease.

Because the Head Start Program receives a federal grant, SUU officials indicate no state funding will be used to execute the terms of the lease.

Two documents are included for review. Attachment A is a letter from SUU officials indicating their intent to lease the facility. As the letter notes, the University Board of Trustees approved the lease earlier this year. Attachment B is a copy of the proposed lease agreement. The State Attorney General's Office has reviewed the agreement and did not express any material concerns.

Recommendation

It is the recommendation of the Commissioner that Regents approve SUU's request to lease a Head Start facility in St. George.

Cecelia H. Foxley, Commissioner

CHF/NCT/BLM
Attachments

MEMORANDUM

July 21, 2000

TO: State Board of Regents
FROM: Cecelia H. Foxley
SUBJECT: Southern Utah University - Campus Master Plan

Issue

As indicated in the attached letter from Associate Vice President, Dorian G. Page, the master plan is being presented to the Board of Regents for their approval. There are no changes to the master plan since last year.

Members of the University's administration will be in attendance at the Regents' meeting to present the plan and address questions.

Recommendation

It is the Commissioner's recommendation that the Board of Regents review the Southern Utah University's master plan, ask questions of Southern Utah University representatives at the meeting, and if satisfied, approve the University's campus master plan.

Cecelia H. Foxley, Commissioner

CHF/NCT/BK
Attachments

MEMORANDUM

July 27, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: USHE Long-term Enrollment Projections

Issue

Attached are long-term enrollment projections for each USHE institution and the system as a whole. These projections have been prepared to assist the Regents and other state-level policy-makers in mid- to long-range planning for the USHE.

Background

The projections included here are intended to measure demand for enrollment in the USHE given the current policy climate and current Utah population projections. The underlying model that generates the projections utilizes the methods of the Governor's Office of Planning and Budget (GOPB) as well as those of the National Center for Higher Education Management Systems (NCHEMS). The Commissioner and USHE Presidents have reviewed the projections and consider them as appropriate input for ongoing, long-term planning processes of the USHE. However, the Regents should keep in mind a few caveats as they consider the projections.

- Projecting enrollment is as much art as science and--particularly given the 20-year duration of the projections--should be viewed as informed estimations rather than certainties.
- The projections are only as good as the assumptions they are based on. A principle assumption embedded in the USHE enrollment projections is that statewide population projections promulgated by GOPB will hold to be relatively accurate. If they turn out to be significantly inaccurate, the USHE enrollment projections will be equally as inaccurate.

July 27, 2000
State Board of Regents
Page 2

- Only those enrollments that have been systematically reported by the institutions in the past form the basis for future projected enrollments. At most institutions, non-credit enrollments have not been systematically reported in past years. Consequently, no reliable database is available on which to project future enrollments of this type. A primary purpose of recent revisions to the USHE enrollment reporting process is to more systematically capture such enrollments in the future.
- These projections will not be used for budget purposes such as the determination of enrollment growth requests. USHE enrollment growth funding requests have for several years been based on actual enrollments rather than projected enrollments, and institutions receive growth funding a year after student growth has actually occurred.

Recommendation

No action is requested. This is an information item only.

Cecelia H. Foxley, Commissioner

CHF/NCT
Attachment

MEMORANDUM

July 25, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: ACTION: Student Financial Aid--Approving Resolution, SBR
Student Loan Revenue Bonds, 2000 Series S, 2000 Series T, and
2000 Series U

Issue

At its meeting on July 14, 2000, the Student Finance Subcommittee voted unanimously to recommend Board of Regents adoption of the attached Approving Resolution for the Board's Student Loan Revenue Bonds, 2000 Series S, 2000 Series T, and 2000 Series U. Board of Regents adoption of the Resolution is necessary to provide authority for issuance and sale of the bonds.

Background

As directed by Policy R610, the UHEAA Board of Directors has designated persons from its membership to comprise the Student Finance Subcommittee. The Student Finance Subcommittee, in accordance with Policy R610, "shall be directly responsible, reporting directly to the Board of Regents through its Finance and Facilities Committee, for oversight and advice regarding bond issues and other financing arrangements for the Loan Purchase Program." The present members of the Student Finance Subcommittee are: Mr. John B. Goddard, Chair; Regent L. Brent Hoggan (Finance and Facilities Committee Chair); Regent David J. Grant; Mr. Edward T. Alter (State Treasurer); Dr. Stephen D. Nadauld; Mr. Walter P. Gnemi; and Associate Commissioner Chalmers Gail Norris. All Subcommittee members except Regent Grant and Dr. Nadauld participated in the July 14 meeting.

Pursuant to statutory authority, the Board of Regents operates its Loan Purchase Program to assure liquidity in the local marketplace for guaranteed student loans under the Federal Family Education Loan Program (FFELP), to maintain a high degree of control over servicing of the student loans guaranteed by the Utah Higher Education Assistance Authority (UHEAA) Student Loan Guarantee Program (LGP).

By maintaining its Loan Purchase Program the Board is able to ensure availability of the lowest feasible costs of educational loans for Utah students and families through its array of borrower benefits for reduced origination fees and lower in-repayment interest rates. Through its programs administered by UHEAA, the Board is quite unusual in providing: (1) significant cost saving opportunities on PLUS Loans (for parents) and Consolidation Loans; (2) more generous qualifying criteria for the saving opportunities; and (3) a guarantee (backed up by designated reserve funds) that the benefits will be available for loans currently being originated, regardless of how much time elapses before they enter repayment and are sold to the Board. (Most lenders and secondary markets guarantee eligibility for their borrower benefits only for loans currently being purchased.)

The Board issues Student Loan Revenue Bonds as needed, and uses the proceeds to finance the purchase of FFELP student and parent loans and the origination of FFELP Consolidation Loans.

Current Year (2000) tax exempt bonding cap authority for the Board's Student Loan Revenue Bonds, in the amount of \$49,500,000, is available. The new revenue bonds covered by the proposed Resolution will be a blend of: (1) \$93.5 million in new tax-exempt variable-rate bonds (\$49.5 million using the available new issue cap authority and a \$44 million refunding of current tax-exempt bonds, which does not require new cap authority); and (2) \$35 million in new taxable variable-rate bonds.

The Board has established two different current bond series, one based on a 1988 General Indenture and one based on a 1993 General Indenture. The current Resolution will authorize a Tenth Supplemental Indenture to the 1988 General Indenture, providing for three additional 2000 Series.

Proposed Structure of the Bond Issue

The proposed structure recommended by the underwriting team and the Student Finance Subcommittee is as follows:

Proposed Sale Date: August 24, 2000
Proposed Closing Date: August 29, 2000

	<u>Expected Rating</u>	<u>Proposed Amount</u>	<u>Type</u>	<u>Maturity</u>
2000 Series S	AAA	\$ 44,000,000	Variable Rate, Tax Exempt	2007-08
2000 Series T	AAA	\$ 49,500,000	Variable Rate, Tax Exempt	11/01/34
2000 Series U	AAA	<u>\$ 35,000,000</u>	Variable Rate, Taxable	11/01/39
Total Issue		\$128,500,000		

The Resolution provides for a total new issue amount not to exceed \$130 million, to allow flexibility in final marketing and sale of the bonds.

The bonds will be sold as Auction Rate Certificates–Book Entry Only. The mechanism for resetting rates on the bonds is Variable Rate Dutch Auction (VRDA) on a 35-day cycle.

All of the tax-exempt revenue bonds will be subject to Federal Alternative Minimum Tax (AMT) provisions.

Proceeds of the \$44 million in tax-exempt refunding bonds will be used to call and currently refund 1990 Series E and 1991 Series F Bonds. Remaining new bonds will be used to finance FFELP Stafford and PLUS Loan acquisitions and FFELP Consolidation Loan originations.

Proposed Not-to-Exceed Parameters

Proposed not-to-exceed parameters are as follows:

	<u>Not-to-Exceed Parameter</u>	<u>Resolution Reference</u>
◆	Total Principal Amount	\$130,000,000 Section 5
◆	Principal Amount of Bonds That May Bear Variable Interest Rates	\$130,000,000 Section 5
◆	Maximum Interest Rate of Tax Exempt Auction Rate Certificates	14.000% Section 5
◆	Maximum Interest Rate of Taxable Interest Rate Certificates	18.000% Section 5
◆	Underwriter’s Discount	0.85% Section 7

Maximum interest rates as listed above provide flexibility for the rates to float upward in the event of a prolonged and large increase in short-term interest rates in the marketplace. If that eventuality should occur, it would be accompanied by a commensurate rise in the lender return (capped student loan interest plus a Federal Government special allowance, reset quarterly) on the student loans purchased or originated with the bond proceeds. Anticipated initial interest rates are in the range of 4.25% to 5.0% for the tax exempt auction rate certificates, and 6.25% to 6.95% for the taxable auction rate certificates.

Basic Documents Requiring Approval

The Approving Resolution is in final draft form. Its approval by the Board will authorize the execution of a Tenth Supplemental Indenture to the 1988 General Indenture, a Bond Purchase Agreement, and a Preliminary Official Statement.

The Tenth Supplemental Indenture is a contract between the Board and First Security Bank, as trustee, for the Bank to serve as custodian of funds and as authorized representative of bondholders in order to ensure compliance by the Board with provisions of the Indenture.

The Official Statement is a disclosure document which describes in detail the security and financial information about the bond issue. The Official Statement is used by the Underwriters to market the bonds to potential investors.

The Bond Purchase Agreement is a contract between the Underwriters (PaineWebber Incorporated, Solomon Smith Barney, First Security Bank and Zions First National Bank) and the Board, which sets forth the terms under which the Underwriters will purchase the bonds. This agreement will contain the selling price of the bonds, any premium or discount, the interest rates the bonds will bear, the conditions which must be met in order to close the sale of the bonds, and a description of any restrictions on the responsibilities of the Board or the Underwriters.

Parameters for the proposed financing, as set forth on page 2, were determined by the Student Finance Subcommittee at its July 14 meeting, and are recommended by the Subcommittee for Board of Regents adoption. The Approving Resolution delegates authority to the Board Chair, Vice Chair and/or Chair of Finance and Facilities to approve final versions of the documents described above, consistent with the parameters contained in the Approving Resolution, and, along with designated Officers of the Board, to execute other necessary implementing agreements. (See sections 8 through 12 of the Approving Resolution.)

Copies of the draft bond documents described above are being mailed under separate cover to members of the Finance and Facilities Committee. Copies are available upon request for other members of the Board. (Please call Richard Davis at (801) 321-7285.) Assistant Commissioner Richard Davis (UHEAA Chief Financial Officer), Assistant Attorney General David Jones, and representatives of the Underwriters and Bond Counsel will be at the Board of Regents meeting on August 3 and 4 to answer questions.

Policy Implications

Timely sale of the Board's Student Loan Revenue Bonds, 2000 Series S, 2000 Series T, and 2000 Series U, is projected to ensure uninterrupted access of Utah students and families to student loans at least through March 2001. New tax-exempt bond cap authority will become available January 1, 2001, and an additional financing is contemplated in the first quarter of 2001, to provide for capital requirements in the remainder of the calendar year.

Options Considered

The Student Finance Subcommittee, Program Officers, Underwriters and Bond Counsel periodically review and consider a wide range of financing facilities and structures. The recommended structure and parameters continue to represent the best fit for the Program's present needs. Variable rate bonds more closely track the annual resetting of borrower interest rates and quarterly resetting of special allowances paid on the student and parent loans.

Recommendation

It is the recommendation of the Commissioner that the Board of Regents approve the attached Approving Resolution for the Board's Student Loan Revenue Bonds, 2000 Series S, 2000 Series T, and 2000 Series U.

Cecelia H. Foxley, Commissioner

Attachment
CHF/CGN

APPROVING RESOLUTION
STUDENT LOAN PROGRAM
2000 SERIES S, T AND U

Cedar City, Utah
August 4, 2000

The State Board of Regents of the State of Utah met in regular session at Southern Utah State University in Cedar City, Utah on August 4, 2000, commencing at 10:00 a.m. The following members were present:

Charles E. Johnson	Chair
Aileen H. Clyde	Vice Chair
Jerry C. Atkin	Member
Pamela J. Atkinson	Member
David J. Grant	Member
L. Brent Hoggan	Member
Karen H. Huntsman	Member
James S. Jardine	Member
Michael R. Jensen	Member
David J. Jordan	Member
E. George Mantes	Member
Rob Peterson	Member
Winn L. Richards	Member
Paul S. Rogers	Member
Maria Sweeten	Member

Absent:

Also Present:

Cecelia H. Foxley	Commissioner of Higher Education
Chalmers Gail Norris	Associate Commissioner for Student Financial Aid
Richard O. Davis	Assistant Commissioner for Student Loan Finance
Joyce Cottrell, C.P.S.	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 of student loan revenue 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:

YEA:

NAY:

The resolution is as follows:

RESOLUTION

A RESOLUTION OF THE STATE BOARD OF REGENTS OF THE STATE OF UTAH (THE "BOARD") AUTHORIZING THE ISSUANCE AND SALE OF ITS STUDENT LOAN REVENUE BONDS, 2000 SERIES S, 2000 SERIES T AND 2000 SERIES U IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED \$130,000,000; AUTHORIZING THE EXECUTION OF A TENTH SUPPLEMENTAL INDENTURE, A BOND PURCHASE AGREEMENT, AN OFFICIAL STATEMENT, 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; and

WHEREAS, pursuant to Chapter 13, Title 53B, Utah Code Annotated 1953, as amended (the "Act"), the Board is empowered to make or purchase student loan notes and other debt obligations reflecting loans to students under its Student Loan Program; and

WHEREAS, in order to provide funds for such purpose, the Board is duly authorized to issue and sell bonds pursuant to the provisions of the Act; and

WHEREAS, the Board has previously issued its Student Loan Revenue Bonds, 1988 Series A through C, 1989 Series D, 1990 Series E, 1991 Series F, 1992 Series G and Series H, 1994 Series I through Series K, 1995 Series L through Series N, 1996 Series O through Series Q and 1997 Series R (collectively, the "Prior Bonds") pursuant to a General Student Loan Program Indenture dated as of July 15, 1988 (the "General Indenture") between the Board and First Security Bank, N.A. (formerly known as First Security Bank of Utah, N.A.) (the "Trustee") and the First through Ninth Supplemental Indentures each between the Board and the Trustee; and

WHEREAS, the Board considers it desirable and necessary for the benefit of the residents of the State of Utah to issue additional student loan revenue bonds under the General Indenture by the execution and delivery of a Tenth Supplemental Indenture dated as of August 1, 2000 (the "Tenth Supplemental Indenture" and together with the General Indenture and the First through Ninth Supplemental Indentures described above, the "Indenture") to be entered into between the Board and the Trustee, which bonds will be designated as the State Board of Regents of the State of Utah Student Loan Revenue Bonds, 2000 Series S, 2000 Series T and 2000 Series U (or such other or additional designation as appropriate officers of the Board may determine) (collectively,

the "2000 Series S, T and U Bonds") in an aggregate principal amount of not to exceed \$130,000,000; and

WHEREAS, the Board desires to use a portion of the proceeds of the 2000 Series S, T and U Bonds to refund a portion of certain maturing student loan revenue bonds of the Board; and

WHEREAS, the Board has previously issued its Student Loan Revenue Bonds, 1990 Series E and its 1991 Series F (collectively, the "Series E and F Bonds") and the Board desires to provide for the optional redemption of the Series E and F Bonds maturing after November 1, 2000; and

WHEREAS, because of the lack of sufficient private activity bond volume cap in the State of Utah, a portion of the 2000 Series S, T and U Bonds will be issued on a taxable basis for federal income tax purposes; and

WHEREAS, the 2000 Series S, T and U Bonds shall be payable solely from the revenues and other moneys pledged therefor and shall not constitute nor give rise to a general obligation or liability of the Board or constitute a charge against its 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"), a form of a Preliminary Official Statement (the "Preliminary Official Statement"), and a form of the Tenth Supplemental Indenture; and

WHEREAS, pursuant to Section 53B-13-104(9) of the Act, the Board desires to grant to the Chair and/or Vice Chair of the Board and/or the Chair of the Finance and Facilities Committee of the Board the authority to approve the final principal amounts, terms, maturities, interest rates and purchase prices at which the 2000 Series S, T and U 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 action heretofore taken (not inconsistent with the provisions of this resolution) by the Board and the officers of the Board directed toward the issuance of the 2000 Series S, T and U Bonds are hereby ratified, approved and confirmed.

Section 3. The Board hereby authorizes, approves and directs the use and distribution of the Preliminary Official Statement in substantially the form of the Preliminary Official Statement presented to the Board at this meeting in connection with the offering and sale of the 2000 Series S, T and U Bonds.

Section 4. The Tenth Supplemental Indenture, in substantially the form presented to this meeting, is in all respects authorized, approved and confirmed. The Chair, Vice Chair and/or Chair of the Finance and Facilities Committee and Secretary of the Board are hereby authorized to execute and deliver the Tenth Supplemental Indenture in the form and with substantially the same content as presented to this meeting for and on behalf of the Board with such alterations, changes or additions as may be authorized by Section 11 hereof.

Section 5. For the purpose of providing funds to be used to refund certain of the Board's outstanding student loan revenue bonds (including the optional redemption of the Series E and F Bonds) and make deposits into the Loan Account and other special trust accounts established under the Indenture, the Board hereby authorizes the issuance and sale of the 2000 Series S, T and U Bonds in the aggregate principal amount of not to exceed \$130,000,000. The 2000 Series S, T and U Bonds may bear variable rates of interest, as provided in the Indenture and such rates shall not at any time exceed (i) 14% per annum for the 2000 Series S, T and U Bonds bearing federally tax-exempt interest and (ii) 18% per annum for the 2000 Series S, T and U Bonds bearing federally taxable interest. The 2000 Series S, T and U Bonds shall mature on such date or dates, as approved by the Chair, Vice Chair and/or Chair of the Finance and Facilities Committee, on or before November 1, 2039. The issuance of the 2000 Series S, T and U Bonds shall be subject to final advice of Bond Counsel and to the approval of the Attorney General of the State of Utah.

The Board hereby authorizes the optional redemption of the Series E and F Bonds maturing after November 1, 2000 at a redemption price of 102% of the principal amount thereof, plus accrued interest, all as provided in the General Indenture and the supplemental indentures under which the Series E and F Bonds were issued. The appropriate officers of the Board are hereby authorized to direct the trustee for the Series E and F Bonds to give notice of the call for redemption of the Series E and F Bonds maturing after November 1, 2000 as required by the General Indenture and the related supplemental indentures.

Section 6. The form, terms and provisions of the 2000 Series S, T and U Bonds and the provisions for the signatures, authentication, payment, registration, transfer, exchange, tender, auction, redemption and number shall be as set forth in the General Indenture, as amended and supplemented by the Tenth Supplemental Indenture. The Chair, Vice Chair and/or Chair of the Finance and Facilities Committee and the Secretary of the Board are hereby authorized to execute and seal by manual or facsimile signature the 2000 Series S, T and U Bonds and to deliver the 2000 Series S, T and U Bonds to the Trustee for authentication. All terms and provisions of the Indenture are hereby incorporated in this Resolution. The appropriate officials of the Board are

hereby authorized to execute and deliver to the Trustee the written order of the Board for authentication and delivery of the 2000 Series S, T and U Bonds in accordance with the provisions of the Indenture.

Section 7. The 2000 Series S, T and U Bonds shall be sold to PaineWebber Incorporated, First Security Van Kasper, Inc., Salomon Smith Barney Inc. and Zions First National Bank (the "Underwriters"), with an Underwriter's discount of not to exceed .85% of the face amount of the 2000 Series S, T and U Bonds, plus accrued interest, if any. The Chair or Vice Chair of the Board and/or the Chair of the Finance and Facilities Committee are hereby authorized to execute and deliver the Bond Purchase Agreement and a final Official Statement (the "Official Statement", the use and distribution of which is hereby authorized), in substantially the form of the Bond Purchase Agreement and the Preliminary Official Statement, respectively, and with substantially the same content as presented at this meeting for and on behalf of the Board with final terms as may be established for the 2000 Series S, T and U Bonds and such alterations, changes or additions as may be authorized by Section 11 hereof. Pursuant to Section 53B-13-104(9) of the Act, the Chair and/or Vice-Chair of the Board and/or the Chair of the Finance and Facilities Committee, are each hereby authorized to specify and agree as to the final principal amounts, terms, discounts, maturities, interest rates, rate determination methods and purchase price with respect to the 2000 Series S, T and U Bonds for and on behalf of the Board by the execution of the Bond Purchase Agreement and the Tenth Supplemental Indenture 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 are within the parameters set by this Resolution.

Section 8. The appropriate officers of the Board, including without limitation the Chair, Vice Chair, Chair of the Finance and Facilities Committee, Commissioner of Higher Education, Assistant Commissioner for Student Loan Finance and Secretary are hereby authorized to take all action necessary or reasonably required by the Bond Purchase Agreement and the Indenture 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 9. The Chair or Vice Chair of the Board and/or the Chair of the Finance and Facilities Committee, for and on behalf of the Board, and the Trustee are, and each of them is, hereby authorized to enter into an investment agreement or agreements (the "Investment Agreement"), in form and substance satisfactory to the Chair or Vice Chair of the Board and/or the Chair of the Finance and Facilities Committee. Any and all proceeds of, and investment income attributable to, the 2000 Series S, T and U Bonds may be loaned to or deposited from time to time pursuant to the Investment Agreement for the periods, and at the interest rates, specified therein.

Section 10. The Commissioner of Higher Education and designated associate or assistant commissioners or authorized officers of the Board are, and each of them is, hereby authorized to enter into and execute student loan purchase agreements with qualified lenders (the "Student Loan Purchase Agreements"), in form and substance satisfactory to the Commissioner

of Higher Education and the Student Finance Subcommittee and in form and substance similar to present student loan purchase agreements being utilized by the Board in its Student Loan Program.

Section 11. The appropriate officials of the Board, including without limitation the Chair or Vice Chair of the Board and/or the Chair of the Finance and Facilities Committee are authorized to make any alterations, changes or additions in the Indenture, the 2000 Series S, T and U 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 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.

Section 12. The appropriate officials of the Board, including without limitation the Chair, the Vice Chair, the Chair of the Finance and Facilities Committee, the Commissioner of Higher Education, Assistant Commissioner for Student Loan Finance and Secretary of the Board, are hereby authorized and directed to execute and deliver for and on behalf of the Board 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 13. Upon their issuance, the 2000 Series S, T and U Bonds will constitute special limited obligations of the Board payable solely from and to the extent of the sources set forth in the Indenture and such 2000 Series S, T and U Bonds. No provision of this Resolution, the 2000 Series S, T and U Bonds, the Bond Purchase Agreement, the Indenture, the Investment Agreement or any other instrument authorized hereby, shall be construed as creating a general obligation of the Board, 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.

Section 14. After any of the 2000 Series S, T and U Bonds are delivered by the Trustee to or for the account of the Underwriters and upon receipt of payment therefor, this Resolution shall be and remain irrevocable until the principal of, premium, if any, and interest on the 2000 Series S, T and U Bonds are deemed to have been fully discharged in accordance with the terms and provisions of the Indenture.

Section 15. 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 16. 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 17. This Resolution shall become effective immediately upon its adoption.

PASSED AND APPROVED BY THE STATE BOARD OF REGENTS OF THE
STATE OF UTAH THIS 4th DAY OF AUGUST, 2000.

STATE BOARD OF REGENTS OF THE
STATE OF UTAH

Chair

(S E A L)

ATTEST:

Secretary

After the conduct of other business not pertinent to the above, the meeting was, on motion duly made and seconded, adjourned.

Chair

(S E A L)

ATTEST:

Secretary

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Joyce Cottrell, 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 August 4, 2000 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 4th day of August, 2000.

Secretary

(S E A L)

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

I, Joyce Cottrell, 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 52-4-6(2), Utah Code Annotated 1953, as amended I gave public notice of the agenda, date, time and place of the August 4, 2000 public meeting held by the Members of the State Board of Regents by causing a Notice of Public Meeting to be posted at the principal office of the State Board of Regents at 355 West North Temple, 3 Triad Center, #550, in Salt Lake City, Utah, on July __, 2000, at least 24 hours prior to the convening of such meeting, in the form attached hereto as Exhibit "A"; 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 Exhibit "A" to be provided on July __, 2000, 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; and

(b) that in accordance with the requirements of Section 52-4-6(1), Utah Code Annotated 1953, as amended, public notice of the 2000 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 Exhibit "B") to be posted on October 21, 1999, 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 on October 21, 1999, to a newspaper of general circulation within the geographic jurisdiction of Salt Lake City, Utah.

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 4th day of August, 2000.

Secretary

(S E A L)

EXHIBIT "A"

Notice of Public Meeting

[See Transcript Document No. ___]

EXHIBIT "B"

Notice of Annual Meeting Schedule

[See Transcript Document No. __]

MEMORANDUM

July 21, 2000

To: State Board of Regents
From: Cecelia H. Foxley
Subject: Information: Report of the Audit Review Subcommittee

Issue

This information report is submitted by the Audit Review Subcommittee to apprise the Finance and Facilities Committee and the full Board of the Subcommittee's actions pursuant to Policy R565.

Report

On May 9, 2000 and on June 27, 2000, the Audit Review Subcommittee took the following actions:

The Subcommittee approved the following for closure:

1. Reports issued in connection with the annual financial audit of the institutions.
2. Reports issued pursuant to the Regent's policy on Institutional Discretionary Funds.
3. University of Utah audits on the Office of Sponsored Projects, the University Press, the Museum of Natural History, the Chemistry Department, the Park City Family Health and Emergency Center, University Hospital Pharmacy Services, Controls and Procedures to Prevent Check Fraud, and the Graduate Student Tuition Benefit Support Program.
4. Utah State University audits on Utah Public Radio and the College of Natural Resources.
5. Weber State College audits on the Motor Pool, the College of Health Professions, the College of Social and Behavioral Sciences, and the University's Y2000 Efforts.

State Board of Regents

Page 2

6. Utah Valley State College audits on the Outdoor Recreation Department and the Political Science/History Department.

The Subcommittee held open, pending compliance reviews, the following:

1. University of Utah audits on the Golf Course, UUHN Cash Receipts Controls, the Compass Group Contract, and the Museum of Fine Arts.
2. Utah State University audits on Housing and K-SAR.
3. Weber State University audits on the Student Health Center, Campus Police/Parking Services, the Dee Event Center, the Goddard School of Business and Economics, and the Performing Arts Budget Specialist.
4. Salt Lake Community College audits of the Grand Theatre, Student Government, and Barbering/Cosmetology.
5. A UVSC audit of Printing Services.
6. A management letter issued in connection with the annual financial audit of the University Hospital.

Cecelia H. Foxley, Commissioner

CHF/gf

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MEMORANDUM

July 27, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Action: Consent Calendar, Finance and Facilities Committee

It is the recommendation of the Commissioner that the Regents approve the following items on the Finance and Facilities Committee Consent Calendar:

- a. **OCHE Monthly Investment Report (Attachment A).** Board Policy R541, Management and Reporting of Institutional Investments, requires approval of investment reports by the Board of Trustees or the Finance and Facilities Committee for the Office of the Commissioner. All operating funds of the Office of the Commissioner are invested with the University of Utah Cash Management Pool. The current investment report for 1999-2000 for the Office of the Commissioner is attached.
- b. **USHE - 2000-2001 Initial Work Program Revisions (Attachment B).** Utah statute requires that the Board of Regents approve all work program revisions. "Work Program" is a term applied to revenue and expenditure allotment schedules submitted to the State Division of Finance. Work programs serve as a basis for the disbursement of state appropriated funds to institutions. Attached is a summary of the initial 2000-2001 work program revisions.
- c. **USHE 2000-2001 Appropriated Operating Budgets (Attachment C).** Each USHE institution has prepared an initial appropriated operating budget for 2000-2001. The schedules are provided for aggregate analysis of these initial base operating budgets. The 2000-2001 initial appropriated operating budgets will be used in preparation of the 2001-2002 budget request. The budgets reflect appropriations made by the Legislature, revised tuition revenue estimates, funded enrollment levels and the latest budget information for each institution.

State Board of Regents

July 26, 2000

Page 2

d. **Donated Property Liquidation (Attachment D).** Under Regents' policy, donations to USHE institutions that are to be liquidated are included in the consent calendar. The University of Utah recently accepted the donation of several real properties. The sale of the following two properties are requested for approval: (1) Undivided ½ interest in 40 acres near Park City - Beneficiary, School of Medicine. The sale of this property eliminated a pending legal action to partition the property, saving the University court costs and legal fees. (2) Home at 754 East 18th Avenue, Salt Lake City - Beneficiary, Department of Anesthesiology. The sale of this property made it possible to remove the home from the family estate and meet terms of the executor to establish a contingency escrow account for estate taxes. All expenses associated with the sale of these two properties are deducted from the proceeds prior to the distribution of the residual to the beneficiaries as direct by the donors.

Cecelia H. Foxley, Commissioner

CHF/NCT/BK

Attachments

MEMORANDUM

July 25, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Proposed Revisions to Policy R 171, Postsecondary Proprietary School Act and Rules

Issue

Proposed revisions to Board Policy R 171 were discussed in a public hearing on this topic during the July 29th meeting of the Board. Several representatives of proprietary schools attended the hearing and spoke out on issues of concern to them. At the conclusion of the hearing, the Board decided to defer action on the proposed revisions until their meeting of August 3rd and 4th in Cedar City.

Background and Refinements

There was broad support among the Regents for the uniform tuition refund policy, annual registration fees, and requirements for bonding, certificates of deposit, or letters of credit. A few schools felt the bonding level was too high, while some Regents questioned whether it was high enough. They asked whether surety companies would provide greater scrutiny of schools and their owners for a \$100,000 bond than for a \$75,000 bond. The answer is that scrutiny would be similar, but that the higher the bonding level the more closely surety companies will look at the liquid assets of a school and its owners. Other states that require bonding have established maximum levels at \$75,000, \$50,000, and even \$25,000 and \$15,000. Only one or two states have gone beyond a \$75,000 maximum.

There was also discussion as to whether the bonding level might be reduced after an institution has become well established for a few years and operated without serious problems. This matter has been considered. Under the proposed rules, schools already have the option of submitting certificates of deposit or letters of credit as an alternative to bonding. Since Utah does not maintain a separate Tuition Recovery Fund to protect students, it is felt that the proposed bonding levels are appropriate, reasonable, and should be maintained.

Attached is a revised copy of the Act and Rules submitted to the Board last month. Based upon comments made during the public hearing, by both school representatives and Regents, the following sections have been added:

7.8.3. (page 11). All registration fees collected by the Board will be used to enhance the administration of the Act and Rules.

8.3.5. (page 15). A pay-as-you-learn payment schedule that limits the unescrowed collection of prepaid or unearned tuition and fees from self-funded students to **six months** of training, plus registration or start-up costs not to exceed \$200 or an alternative amount that the institution can demonstrate to have spent in undertaking a student's instruction.

These are the only changes to the proposed Act and Rules submitted to the Board last month. All registered schools have been sent copies of the proposed changes with an invitation to submit comments or discuss them with the Commissioner's Office. The Board meeting in Cedar City will not constitute another public hearing on this topic; rather, the proposed rules are submitted for Board discussion and action.

Recommendation

It is the Commissioner's recommendation that the attached proposed revisions to Board Policy R 171, designed to implement the Utah Postsecondary Proprietary School Act as amended by the 2000 Utah Legislature, be approved.

Cecelia H. Foxley, Commissioner

CHF:DAC
Attachment

MEMORANDUM

July 26, 2000

TO: State Board of Regents

FROM: Cecelia H. Foxley

SUBJECT: Reports on Master Planning Issues and Initiatives

Progress reports will be made at the August Board meeting to update the Regents and Presidents and to receive their input on the following major issues and initiatives:

1. Institutional Missions and Roles. Attachment I contains Regents Policy R311, *Institutional Missions and Roles*, which has been revised to reflect changes in the mission and role statements for each institution that have been made during the master planning process of the last two years. In addition, the areas of emphasis for each institution which were included in the "Highlights of the Utah System of Higher Education Master Plan 2000" document have been added to Policy R311.
2. Applied Technology Education (ATE). The Legislative Task Force on ATE has held four meetings thus far and have scheduled two more meetings for August (14th and 28th). Attachment II contains a summary of the issues being considered by this Task Force.
3. Formula Funding. Attachment III contains a summary of the items being considered by the USHE Task Force on Formula Funding.
4. Tuition and Financial Aid. Attachment IV contains a summary of the work of the USHE Task Force on Tuition and Financial Aid.
5. Service Area Education Coordination Plans. The USHE Task Force on Service Area Coordination Plans is scheduled to have a meeting prior to the August 3-4 Regents meeting to identify the issues which need to be addressed. A progress report will be presented verbally to the Board.

We greatly appreciate the additional time and effort of all those who have been involved in the meetings and discussions on the above topics.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the Regents approve revised Policy R311, *Institutional Missions and Roles*. It is further recommended that the Regents and Presidents discuss the Task Force reports listed above and offer additional suggestions for each of these important topics.

Cecelia H. Foxley, Commissioner

Attachments

R311, Institutional Missions and Roles

July 17, 2000

R311-1. Purpose: To provide institutional mission statements for the institutions in the Utah System of Higher Education.

R311-2. References

- 2.1. Utah Code §53B-6-101 (Master Plan for Higher Education)
- 2.2. Policy and Procedures R301, Master Plan Executive Summary
- 2.3. Policy and Procedures R310, System wide Vision and Mission Statement

R311-3. Definitions

- 3.1. "Mission Statements" - the general purposes and functions of the various institutions.
- 3.2. "Roles and Scope" - the types and levels of educational programs and services assigned to and offered by the institutions.

R311-4. Institutional Missions and Roles Policy

4.1. Mission Statements Describe General Purposes - The institutional mission statements that follow describe the general purposes and functions of the nine colleges and universities that comprise the Utah System of Higher Education. They are not intended to detail all of the diverse institutional roles and programs offered, as approved by the State Board of Regents. ~~Although some institutional missions and programs will and should be similar in purpose and goals, particularly in the community colleges and in much of the less specialized undergraduate curriculum, each college and university has a clearly defined mission and scope of educational — programs and activities. It is the intent of the Board to emphasize differing roles and missions of the nine USHE institutions, which will provide greater choices for students. Some of these distinct differences among institutional missions are also noted~~ highlighted in this policy. Within these broad and general statements of mission, subject to Board review, institutions are also free to prepare and publish more specialized statements of role and purpose that highlight distinguishing features of their programs, offerings, and areas of institutional focus.

4.2. Moratorium Against Expansion of Institutional Missions - ~~Within the time frame of this Master Plan and until such time as the Regents are satisfied that the Utah System of Higher Education is adequately funded to ensure superior quality higher education, a Board moratorium against expansion of institutional missions will remain in place to curb unwise academic drift that could result in a System that is over built and under funded. Thus, all community colleges are restrained from becoming four-year institutions, state colleges are restrained from becoming metropolitan/regional universities, and~~

state four-year metropolitan/regional universities are—restrained from becoming teaching and research universities.

4.2. Institutional Mission Changes. The Board of Regents, in consultation with institutional Boards of Trustees, will continually refine the missions and roles of each public college and university to respond to the changing needs of students, businesses, and communities. At the appropriate time, based on the principles enunciated in the current Master Plan, the Regents will consider additional institutional mission changes.

R311-5. Missions Statements for Utah System of Higher Education Institutions:

5.1. ~~The University of Utah - Located in Salt Lake City at the heart of Utah's growing populace and economy, the University of Utah, established in 1850, is the state's oldest and largest public institution. Its mission is that of a major urban state teaching and research university with significant programs of sponsored research and of graduate, professional, and undergraduate education in 15 colleges and professional schools and their degree programs. It includes a Graduate School and School of Medicine; graduate schools in Architecture, Business, Education, and Social Work; colleges of Law, Engineering, Fine Arts, Health, Humanities, Mines and Mineral Industries, Nursing, Pharmacy, Science, and Social and Behavioral Science; a Division of Continuing Education; University Hospital; and University Research Park. *The University of Utah* is considered the flagship institution of the Utah System of Higher Education. As a major urban state teaching and research university, the mission of the University of Utah is to provide significant programs of sponsored research and of graduate, professional, and undergraduate education in 15 colleges and professional schools.~~

The Board will enhance the University of Utah's mission by capitalizing on its research and medical reputation and assuring it is competitive with peer institutions on an international basis. Specifically, the Board will:

- Seek increased state appropriations, independent from enrollment growth funding, to increase the quality of instruction at the U of U.
- Support flexibility in setting tuition rates, and using collected tuition to improve quality.
- Support increased admission standards.

5.1.1. Institutional Mission Statement - The mission of the University of Utah is to educate the individual and to discover, refine and disseminate knowledge. As a major teaching and research university, the flagship institution of the Utah System of Higher Education, the University of Utah strives to create an academic environment where the highest standards of scholarship and professional practice are observed and where responsibilities to students are conscientiously met. It recognizes the mutual relevance and interdependence of teaching and research as essential components of academic excellence. It welcomes students who are committed to learning and who conform to high academic standards. The right of free inquiry is zealously preserved; diversity is encouraged and respected; critical examination and creativity are promoted; and intellectual integrity and social responsibility are

fostered. The University is fully committed to the goals of equal opportunity and affirmative action, which are designed to ensure that each individual be provided with the opportunity for full, unhampered, and responsible participation in every aspect of campus life.

5.1.2. Teaching - In its role as teaching institution, the University of Utah offers instruction in baccalaureate, masters, and doctoral degree programs. Its colleges, graduate, and professional schools include architecture, business, education, engineering, fine arts, health, humanities, law, medicine, mines and earth sciences, nursing, pharmacy, science, social and behavioral sciences, and social work. The University commits itself to providing challenging instruction for all its students, from both Utah and other states and nations, and encourages interdisciplinary work and the integration of instruction and research opportunities. It expects and rewards superior teaching and academic excellence among its faculty. It seeks the broad and liberal education of all its students and their familiarity with a changing world.

5.1.3. Research - In its role as research university, the University of Utah fosters the discovery and humane use of knowledge and artistic creation in all areas of academic, professional, and clinical study. In both basic and applied research, the University measures achievement against national and international standards. Rigorous assessment and review are central to advancing its research programs and creative activities, as are participation and leadership in national and international academic disciplines. The University also cooperates in research and creative activities with other agencies and institutions of higher education, with the community, and with private enterprise.

5.1.4. Public Life - In its role as contributor to public life, the University of Utah fosters reflection on the values and goals of society. The University augments its own programs and enriches the larger community through its libraries, hospitals, museums, botanical gardens, broadcast stations, public lectures, continuing education programs, alumni programs, athletics, recreational opportunities, music, theater, film, dance, and other cultural events. The University facilitates the application of research findings to the health and well-being of Utah's citizens through programs and services available to the community. The University's faculty, staff, and students are encouraged to contribute time and expertise to community and professional service, to national and international affairs and governance, and to matters of civic dialogue. (Approved by the institutional Board of Trustees January 13, 1992.)

5.2. Utah State University - ~~Utah State University in Logan is one of two major teaching and research universities in the Utah System of Higher Education and is the state's land-grant university under state and federal legislation. It is a primary center of university research and of graduate, professional, and undergraduate education in numerous fields of study. Its land-grant mission includes colleges of Agriculture, Business, Education, Engineering, Family Life, Humanities-Arts-Social Sciences, Natural Resources, and Science; a School of Accountancy; a School of Graduate Studies; a Division of International Studies and Programs; a Division of Extension and Continuing Education, including the Cooperative Extension Service, and Continuing Education Centers in the Uintah Basin and Southeastern Utah; the Utah Agricultural Experiment Station; and a Research and Technology Park.~~

Utah State University is the land-grant institution of the Utah System of Higher Education. As a major teaching and research university, it is a primary center of research and graduate, professional, and undergraduate education in numerous fields of study, including agriculture, applied sciences, education, and natural resources. The University also has a statewide role to disseminate knowledge through Cooperative Extension and to deliver education on-site and through distance delivery methods to the unserved and under-served people of the state.

The Board will enhance Utah State University's mission by capitalizing on its teaching, research, and extension reputation and assuring it is competitive with peer land-grant institutions on a national and international basis. Specifically, the Board will:

- Seek differing funding mechanisms to serve USU's state-wide role which will both improve the quality of instruction and expand the range of programs delivered by USU to unserved and under-served residents of Utah.
- Support flexibility in setting tuition rates, and using collected tuition to improve quality.
- Support increased admission standards.

5.2.1. Institutional Mission Statement - Utah State University integrates teaching, research, extension and service to meet its unique role as Utah's land-grant university. Students are the focus of the University as they seek intellectual, personal, and cultural development.

The mission of Utah State University is to provide high quality undergraduate and graduate instruction, excellent general education and specialized academic and professional degree programs. USU is committed to preparing students to serve the people of Utah, the nation and the world.

USU provides nationally and internationally acclaimed programs of basic and applied research. USU engages in research to further the quest for knowledge and to help society meet its scientific, technological, environmental, economic and social challenges.

Outreach to Utah's citizens through extension and service programs is central to the University's mission. The University's outreach programs provide to individuals, communities, institutions and industries throughout the state, services that help improve technology, the environment and quality of life.

In all its endeavors, the University is committed to developing responsible citizens through freedom of inquiry and expression, and through its best efforts in teaching, research, creative arts, extension and service, and encouraging cultural diversity. (Approved by the Board November 5, 1993.)

5.3. Weber State University - ~~Weber State University, located in Ogden near the center of the state's population, has the mission of a large comprehensive undergraduate institution seeking to develop and refine programs appropriate to its market and achieve distinction within that mission. It~~

~~provides undergraduate liberal education in the arts, humanities, and sciences; professional study in education, business, and technology; specialized certificate, associate degree, and baccalaureate training in a broad range of applied technology fields, including the allied health sciences, and a strong program of continuing education. Through Regent action, the University offers a Master of Professional Accountancy degree, and in conjunction with Utah State University, a Combined Master of Education degree designed primarily for in-service teachers in area public schools. Any new graduate programs authorized for the institution should not be oriented toward traditional basic research and should be offered only when Regent criteria for approving new graduate programs have been satisfied. Weber State University has the mission of a comprehensive, regional university in northern Utah. It provides undergraduate liberal education in the arts, humanities, and sciences; professional study in education, business, and technology; and specialized certificate, associate degree, and baccalaureate education and training in a broad range of applied technology fields. Selected masters programs are also available.~~

The Board will enhance Weber State University's mission by assuring its competitiveness in delivering high quality undergraduate programs and a limited number of masters degrees. Specifically, the Board will:

- Support the addition of a limited number of professional masters degree programs.
- Support the development of facilities and expansion of programs to be offered by WSU and other USHE institutions, as appropriate at the new Davis County Campus.
- Support its ATE mission.
- Seek increased funding to enhance the quality of undergraduate education.

5.3.1. Institutional Mission Statement - Weber State University provides learning opportunities appropriate to a comprehensive institution of higher education, welcoming participants from all regions, nations, and cultures. The chief mission of the University is to meet the educational needs of Utah through roles assigned by the State Board of Regents in the liberal arts and sciences and a variety of vocations and professions. Primarily committed to quality undergraduate education, the University offers degree programs which include some advanced professional preparation.

Students are admitted on the basis of demonstrated competence in skills that assure a reasonable chance of success in both college and career. Curricular and co-curricular programs emphasize further development of such skills, together with acquisition of knowledge and development of character. Eligibility for degrees requires meeting established standards of competence through outcomes assessment.

Instructional programs are designed to prepare students for immediate employment or further study, at the same time equipping them through liberal education for lifelong learning in a changing world. The process of learning is emphasized, as well as accumulation of knowledge. Organized around traditional disciplines, the University also cultivates opportunities for faculty and students to transcend disciplinary boundaries. Extensive personal contact and support among students, faculty, and staff

creates an enriched learning environment both in and out of the classroom.

Weber State University responds to the changing global environment through innovative and conventional instruction, public service activities, and continuous improvement of its programs. To ensure vitality for effective teaching and service, the University engages in scholarship, research, artistic expression, and other professional pursuits. The University serves as a cultural center for its region and seeks to be a leader in addressing the particular needs of its diverse students, improving public education, and stimulating economic development through appropriate, learning oriented partnerships with the community. (Approved by the Board September 24, 1993.)

5.4. Southern Utah University - ~~Located in Cedar City, Southern Utah University has the mission of a four-year comprehensive undergraduate teaching institution meeting the baccalaureate and assigned vocational training needs of Southern Utah. The University offers liberal arts courses leading to baccalaureate degrees in the humanities, arts and sciences; professional study in teacher education, business, and technology; approved pre-professional certificates and Associate of Applied Science degrees in applied technology and agricultural fields; and authorized outreach and continuing education programs. Through Regent action, a Master of Accountancy degree program is offered by the University, and a Master of Education degree is available through a cooperative program with Utah State University. Any new graduate programs authorized for the institution should not be oriented toward traditional basic research and should be provided only when Regent criteria for approving new graduate programs have been satisfied. Southern Utah University has the mission of a comprehensive, regional university in southern Utah. It provides undergraduate liberal and professional education in business, education, humanities, performing and visual arts, social sciences, sciences and technology. It offers specialized certificates, associate, baccalaureate, and selected professional graduate degrees.~~

The Board will enhance Southern Utah University's mission by assuring its competitiveness in providing a unique residential university setting with strong undergraduate programs, and a limited number of masters degree programs. Specifically, the Board will:

- Support the addition of a limited number of professional masters degree programs.
- Seek additional funding to fulfill the unique residential mission of SUU.
- Support a tuition adjustment comparable to the WSU rate and use additional tuition to improve quality.
- Encourage inter-institutional collaboration to bring high demand baccalaureate and masters degree programs to southern Utah.
- Explore the possibility of increased admission standards, at an appropriate time.

5.4.1. Institutional Mission Statement - As a community of learners, Southern Utah University serves as a comprehensive regional university to encourage a lifelong love of learning, to foster academic excellence, to instill ethics and values and to honor thought in all its finest forms. Foremost to our role and central to our disciplines are superior teaching and quality service to our students.

Fundamental to our purpose are scholarly activities and public service.

Our mission is to provide students a personalized learning environment to foster meaningful experiences involving the mind, heart and hands, which:

5.4.2. Affirm integrity, the search for truth and respect for all people as the foundation of education;

5.4.3. Develop communication, analytic, creative, and information gathering skills;

5.4.4. Prepare students as informed and responsible citizens and for effective roles in families and other social organizations;

5.4.5. Afford opportunities for success in students' personal and professional lives by providing service an leadership experiences in a residential campus setting;

5.4.6. Enhance economic, technological and cultural development of the communities served.

Southern Utah University provides baccalaureate, applied technology, and selected graduate education. We address the unique needs of rural students and communities; serve as a major cultural center for southern Utah; and create partnerships with public and higher education, government, business and industry. (Approved by the Board of Trustees MM DD, 1999.)

5.85. Utah Valley State College - Utah Valley State College is a state college comprised of two interdependent divisions. The lower division embraces and preserves the philosophy and mission of a comprehensive community college, while the upper division consists of programs leading to baccalaureate degrees in areas of high community demand and student interest.

During a period of tremendous enrollment growth, the Board will enhance the Utah Valley State College mission by supporting its primary focus on associate level programs and the addition of four-year degrees that are needed in the community. Specifically, the Board will:

- Support additional four-year programs based on student and community needs.
- Ensure that enrollment growth, appropriate student services and capital facilities are adequately funded through state appropriations and tuition.
- Support funding proposals to assure that an appropriate mix of full-time and adjunct instructors is hired, particularly in upper-division programs.
- Support its ATE mission.

5.5.1. Institutional Mission Statement - Utah Valley State College is a state college comprised of two interdependent divisions. The lower division embraces and preserves the philosophy and mission of a comprehensive community college, while the upper division consists of programs leading to baccalaureate degrees in areas of high community demand and interest.

Utah Valley State College is dedicated to providing a broad range of quality academic, vocational, technical, cultural and social opportunities and experiences designed to encourage and assist students in attaining their goals and realizing their talents and potential, personally and professionally. The college is committed to meeting student and community lower division and upper division needs for occupational training; providing developmental, general, and transfer education; meeting the needs for continuing education for personal enrichment and career enhancement; and providing diverse social,

cultural and international opportunities, and student support services, and a sustained focus on ethics across disciplines. (Approved by Board March 13, 1998.)

5.6. Dixie State College of Utah - ~~Dixie College is a comprehensive community college in St. George. Its mission includes a broad range of general/liberal education and applied technology programs leading to Associate of Arts, Associate of Science, and Associate of Applied Science degrees, as well as numerous specialized short term vocational training certificates and diplomas. An open access institution, the College serves community needs with a strong commitment to programs of transfer and general education; occupational training; continuing education for personal enrichment or career updating; and student support services, including academic assessment, counseling, developmental/remedial studies, and placement.~~ Dixie State College of Utah is a state college comprised of two interdependent divisions. The lower division embraces and preserves the philosophy and mission of a comprehensive community college, while the upper division offers a limited number of baccalaureate degrees in areas of high community demand and student interest.

The Board recognizes the expanded need for baccalaureate education opportunities in Washington County. To meet that need, it has enhanced the College mission by changing it to a state college with a primary focus on associate level programs and selected high demand four-year degrees which it is prepared to offer. Specifically, the Board will:

- Support the offering of selected high demand four-year degrees.
- Support funding proposals to adequately fund the expanded mission of Dixie State College of Utah.
- Support funding proposals to enhance the effectiveness of the University Center in offering additional four-year degrees to be delivered by USHE universities.
- Support additional resources to expand delivery of ATE and lower division programs.

5.6.1. Institutional Mission Statement - Dixie State College of Utah, a publicly supported state college with two interdependent tiers, functions as a comprehensive community college while offering a limited number of quality baccalaureate programs.

Dixie State College of Utah helps students achieve their academic, career, and life goals, including goals related to basic skills, core content knowledge, and knowledge that broadens and enriches students' lives. The College's educational programs help students establish and expand their worldviews.

With a lower-division open-door admission policy, the College welcomes students both young and old who represent diverse educational, ethnic, national, and economic backgrounds. The College's students are predominantly residents of southwest Utah and other western regions, both in and out of Utah, and are predominantly of traditional college age.

A member of the Utah System of Higher Education, Dixie State College of Utah is assigned the task of providing and coordinating higher education for Washington and Kane counties. (Submitted to Board March 30, 2000.)

5.57. Snow College - ~~Snow College is a comprehensive community college located in Ephraim. Its mission includes a broad range of general/liberal education and applied technology programs leading to Associate of Arts, Associate of Science, and Associate of Applied Science degrees, as well as numerous specialized short-term vocational training certificates and diplomas. An open access institution, the College serves community needs with a strong commitment to programs of transfer and general education; occupational training; continuing education for personal enrichment or career updating; and student support services, including academic assessment, counseling, developmental/remedial studies, and placement.~~ Snow College is a comprehensive community college with a residential campus in Ephraim and the Snow College South campus in Richfield. Its mission includes offering general education and applied technology programs leading to Associate of Arts, Associate of Science, and Associate of Applied Science Degrees. Excellence will continue to be the hallmark of all the work and activities of the College.

The Board is committed to enhancing the outstanding academic reputation of the Snow College Ephraim campus and expanding the quality ATE strengths of the Snow College South campus. Specifically, the Board will:

- Support the emphasis on, and seek adequate funding for, high quality business, general education and academic transfer courses and programs at the Ephraim campus.
- Support policies that emphasize the preparation of a high percentage of Snow College students for transfer to USHE colleges and universities.
- Support policies which guarantee smooth transfer of prepared Snow College students to USHE colleges and universities.
- Support increased recruitment of international and non-resident students to enhance diversity of the student body on both campuses.
- Support Snow College South as the Central Utah applied technology center to meet the ATE needs of adults and high school students in the Central Utah Region.

5.57.1. Institutional Mission Statement - The specific mission of Snow College is threefold: 1) to educate students; 2) to inspire them to love learning; and 3) to lead them to serve others. The success of the College will be measured by how well it motivates individuals to understand and value life and all its richness; develops student character and confidence through active involvement in the college experience; and prepares graduates to contribute fully as productive, responsible members of society. Snow will achieve this mission through a constant pursuit of excellence in teaching; through a nurturing, positive learning environment; and through people who demonstrate a love for lifelong learning and service to humanity. Excellence will be the hallmark of all the work and activities of the College. (Submitted to Board July 17, 1997.)

5.78. College of Eastern Utah - ~~The College of Eastern Utah is a comprehensive community college located in Price. Its mission includes a broad range of general/liberal education and applied technology programs leading to Associate of Arts, Associate of Science, and Associate of Applied Science degrees, as well as numerous specialized short term vocational certificates and diplomas. An~~

~~open access institution, the College serves community needs with a strong commitment to programs of transfer and general education; occupational training; continuing education for personal enrichment or career updating; and student support services, including academic assessment, counseling, developmental/remedial studies, and placement. CEU also administers the San Juan Center in Blanding, which provides access to higher education for students in the Southeastern most corner of the State. College of Eastern Utah is an open admission, comprehensive community college with campuses at Price and Blanding and centers at Moab and Castle Dale (shared with Utah State University) and Monument Valley. CEU serves community needs throughout southeastern Utah with a strong commitment to students for certification, transfer and general education, occupational training, and continuing education for personal enrichment, career updating and lifelong learning.~~

The Board recognizes that College of Eastern Utah must support the higher education needs of smaller communities in a geographically vast area of Utah, and with a high proportion of part-time students. To assure its continued vitality, the Board will:

- Support an initiative to recognize total students served, as well as full-time enrollments, in funding the college.
- Support adequate resources at the Price campus to deliver associate degrees, certificates, as well as upper division course-work on a contractual basis from other institutions.
- Support additional resources to expand delivery of ATE and lower division programs at other locations.
- Support new initiatives to expand the student base, including specialized areas of study, more out-of-state students, and collaborative programs with four-year institutions.

5.78.1. Institutional Mission Statement - The College of Eastern Utah is a multicultural oasis of learning and experience in a community atmosphere. Students at CEU form part of a thriving college community which mirrors Southeastern Utah's unique ethnic, cultural, and socioeconomic diversity. An open access institution, the College serves regional needs with a strong commitment to programs of general education and transfer, applied technology education; continuing education for lifelong learning opportunities; developmental/remedial studies; community involvement featuring partnerships with people and business; and student support service, including academic assessment, counseling and placement. The CEU mission includes: General and Transfer Education (Academic Excellence); Applied Technology Education (Putting Knowledge to Work); Continuing and Adult Education (Lifelong Learning Opportunities); Developmental/Remedial Education (Preparation for New Challenges); Community Involvement (Partnerships with People and Business); and Student Services which Support Education and Promote Responsibility. (Submitted to Board July 17, 1997.)

5.9. Salt Lake Community College - ~~Salt Lake Community College is a comprehensive community college serving the populous Salt Lake Valley. Its mission includes a broad range of applied technology and general/liberal education offerings leading to Associate of Science and Associate of~~

~~Applied Science degrees, as well as numerous specialized short term vocational certificates and diplomas. An open access institution, the College serves community needs with a strong commitment to programs of occupational training; transfer and general education; continuing education for personal enrichment or career updating, with numerous credit and noncredit off campus courses for business and industry; and student support services, including academic assessment, counseling; developmental/remedial studies, and placement. (The Associate of Arts degree should be authorized when Regent criteria for approving new degree programs have been fully satisfied.)~~ *Salt Lake Community College* is a multi-campus, open-door, comprehensive community college serving a diverse urban population. The College is committed to providing a full range of education experiences with emphasis on applied technology education, academic, developmental, and community education and training to meet the needs of business and industry and the community at large.

The Board is committed to enhance the mission of *Salt Lake Community College* by assuring that its students who transfer to other institutions are able to do so seamlessly, and that students preparing for work meet their training objectives and those of business and industry. Specifically, the Board will:

- Support more training funds for higher education through such initiatives as custom fit and shifts of unemployment funds to training.
- Support changes in enrollment funding to include total students (headcount) served as well as full time equivalent (FTE) students.
- Support the expansion of open entry/open exit ATE programs.
- Support clear role assignments and common tuition policies for adult ATE programs in the Wasatch Front South area.
- Support the development of facilities and expansion of programs offered by SLCC and other USHE institutions, as appropriate, at the new Jordan Campus.

5.9.1. Institutional Mission Statement - Salt Lake Community College is a multi-campus, comprehensive institution serving a diverse population through lifelong education. Our mission focuses on student needs in an open door setting.

The College is committed to providing a full range of education experiences with emphasis on applied technology education, academic, developmental, and community education and training to meet the needs of business and industry and the community at large. Courses are offered in a variety of ways utilizing innovative technology including distance education to better meet the needs of students and community partners.

An extensive program of student services assists students in selecting programs of study, making career choices, and other important decisions that will impact the quality of life both for them and for others. Students may elect to achieve certain skill levels, complete certificates or degrees of study, or meet a number of other individual educational goals. (Submitted to Board July 17, 1997.) (Approved December 12, 1986, amended May 14, 1993, September 24, 1993 and March 13, 1998.)

MEMORANDUM

July 19, 2000

TO: State Board of Regents
FROM: Cecelia H. Foxley
SUBJECT: Revisions to Policy R311: Institutional Missions and Roles- Action Item

Issue

As a result of decisions made by the Board in *Master Plan 2000: A Commitment to the People of Utah*, it is necessary to make several revisions to Policy R311.

Background

Policy R311: Institutional Missions and Roles contains institutional mission statements of Utah System of Higher Education (USHE) institutions and the policies of the Board regarding the general purposes and functions of the institutions. The policy has been periodically updated to reflect changes made in institutional mission statements. However, the underlying policies of the Board related to institutional missions have not been changed to reflect Master Plan 2000. After each abbreviated institutional mission statement and areas of emphasis, the current Institutional Mission Statement of each USHE institution is included.

Policy Issues

The following major changes are needed as a consequence of policy changes adopted in Master Plan 2000:

1. Master Plan 2000 states (page 1) that it is the intent of the Board to emphasize “differing roles and missions of the nine USHE institutions [which] will provide greater choices for students.” This statement has been incorporated into section 4.1 and replaces earlier language which is inconsistent with this intent.
2. Section 4.2 has been completely revised. Master Plan 2000 states (page 8) that the Regents, “in consultation with institutional Boards of Trustees, will continually refine the missions and roles of each public college and university to respond to the changing needs of students, businesses, and communities... At the appropriate time, based on the principles stated in the Master Plan, the Regents will consider additional institutional mission changes.” This statement replaces language in the 1986 Master Plan that included a moratorium against expansion of institutional missions.

3. Master Plan 2000 contains abbreviated versions of institutional mission statements with areas of emphasis for future action by the Board, which have been incorporated into R311.

The proposed changes in R311 will make the policy consistent with decisions that were made by the Board during the development of Master Plan 2000. These changes have been reviewed and are supported by the Council of Presidents.

Commissioner's Recommendation

It is the recommendation of the Commissioner that the proposed changes to *R311: Institutional Missions and Roles* be approved, in order to make the policy consistent with Master Plan 2000.

Cecelia H. Foxley, Commissioner

CHF/MAP
Attachment

MEMORANDUM

July 26, 2000

TO: State Board of Regents
FROM: Cecelia H. Foxley
SUBJECT: Consent Calendar

It is the recommendation of the Commissioner that the Regents approve the following items on the Consent Calendar:

- A. Minutes – Approval of the Minutes of the Regular Meeting of the Utah State Board of Regents held June 29, 2000, at Utah State University in Logan, Utah.
- B. Grant Proposals - Approval to submit the following proposals:
 1. University of Utah – National Science Foundation. NSF 99-167 Itr-Haptically Enriched Tele-Immersive Environment; \$2,992,568; Elaine Cohen, Principal Investigator.
 2. University of Utah – Public Health Service. Trial of Activity in Adolescent Girls; \$4,123,159; Edward B. Clark, Principal Investigator.
 3. University of Utah – NASA. The UAV Cirrus Cloud Measurement Program: A Proposal in Support of the NASA Ese Uav Science Demonstration Program; \$7,584,177; Gerald G. Mace, Principal Investigator.
 4. University of Utah – Breaking Cultural Barriers Through Postdoctoral Training; \$2,419,111; John R. Roth, Principal Investigator.
 5. University of Utah – Public Health Service. Genetics and Consequences of Nicotine Addiction; \$9,536,022; John R. Hoidal, Principal Investigator.
 6. University of Utah – Public Health Service. Regulation of Cell Growth and Death by Lipid Messengers; \$8,599,218; Thomas M. McIntyre, Principal Investigator.
 7. University of Utah – Public Health Service. The Global Contribution of Programmed Shifts in Reading Frame for Gene Expression: Exploitation of Antizyme Frame-shifting; \$2,811,406; Raymond F. Gesteland, Principal Investigator.
 8. University of Utah – Public Health Service. Developmental Biology Training Program; \$2,562,737; Carl S. Thummel, Principal Investigator.

9. University of Utah – Public Health Service. Mapping and Cloning Prostate Cancer Predisposition Loci; \$2,514,841; Lisa Cannon-Albright, Principal Investigator.
10. University of Utah – Public Health Service. Molecular Characterization of the Ovulatory Cascade; \$2,270,445; Eli Y. Adashi, Principal Investigator.
11. University of Utah – US Department of Defense/USAF. Robust Composition of Embedded Systems; \$2,975,233; Frank J. Lepreau, Principal Investigator.
12. University of Utah – Public Health Service. Porphyrin Biosynthesis in Normal and Disease States; \$2,054,543; James P. Kushner, Principal Investigator.
13. University of Utah – Public Health Service. Diet and Somatic Mutations in Colon Cancer; \$2,978,647; Martha L. Slattery, Principal Investigator.
14. University of Utah – National Science Foundation. A Proposal to Create a National Science Foundation Joint Institute for Theoretical Chemistry; \$3,369,893; Gregory A. Voth, Principal Investigator.
15. University of Utah – National Library of Medicine. National Network of Libraries of Medicine; \$4,775,078; Wayne J. Peay, Principal Investigator.
16. Utah State University - Third year Funding for Lightweight Robotic and Semiautomatic Ground Vehicle Mobility and Survivability Enhancements; \$1,921,473; Bruce Bishop, Principal Investigator.
17. Utah State University - Calibration Techniques Related to the Next Generation of Space-Based Surveillance Systems; \$1,504,650; J. Steven Hansen, Principal Investigator.
18. Utah State University - Influence of Stream/Lake Landscapes on Nitrogen Transport and Ecosystems Function in Alpine Watershed; \$1,396,712; Wayne Wurtsbaugh, Principal Investigator.
19. Utah State University - Organization and Training for Farmer Managed Irrigation Systems; \$5,343,467; Gary P. Merkle, Principal Investigator.
20. Utah State University - Field Equipment for Geophysical Site Characterization, Measurement of Dynamic Response of Ground and Structures, and Small-Scale Earthquake Simulation; \$2,754,355; James A. Bay, Principal Investigator.
21. Utah State University - Youth and Families with Promise; \$1,000,000; Glen Jenson, Principal Investigator.
22. Utah State University - Consortium for the Application of Behavioral Principles to Management; \$3,608,771; Frederick Provenza, Principal Investigator.
23. Utah State University - RW1A 1 Watershed Management Project; \$1,091,451.68; Thomas Hardy, Principal Investigator.

24. Utah State University - Geostationary Imaging Fourier Transform Spectrometer; \$48,870,831; Gail Bingham, Principal Investigator.
 25. Utah State University - Lightweight Robotic and Semiautonomous Ground Vehicle Mobility and Survivability Enhancements; \$1,921,473; Bruce A. Bishop, Principal Investigator.
- C. Proposed Policy R926, Use of Office-owned Computers and Software – A policy applying to OCHE employees requiring appropriate use of office-owned computer hardware and software for official work of the office and maintaining appropriate separation between such office use and other personal or entertainment uses of personally owned computer hardware and software.
- D. Executive Session(s) — Approval to hold an executive session or sessions in connection with the meetings of the State Board of Regents to be held September 15, 2000, at Weber State University, to consider property transactions, personnel performance evaluations, litigation, and such other matters permitted by the Utah Open and Public Meetings Act.

Cecelia H. Foxley, Commissioner

CHF:jc

**MINUTES
MEETING OF THE STATE BOARD OF REGENTS
UTAH STATE UNIVERSITY
LOGAN, UTAH**

June 29, 2000

Regents Present:

Charles E. Johnson, Chair
Aileen H. Clyde, Vice Chair
Jerry C. Atkin
Pamela J. Atkinson
David J. Grant
L. Brent Hoggan
Karen H. Huntsman
James S. Jardine
Michael R. Jensen
E. George Mantes
Rob Peterson
Winn L. Richards
Paul S. Rogers
Maria Sweeten

Regents Excused:

David J. Jordan

OFFICE OF THE COMMISSIONER

Cecelia H. Foxley, Commissioner
Michael A. Petersen, Associate Commissioner for Academic Affairs
Norm Tarbox, Associate Commissioner for Finance and Facilities
Chalmers Gail Norris, Associate Commissioner for Student Financial Aid
Joyce Cottrell, Executive Secretary
Debbie Brennan, Data Warehouse/LAN Manager
Don Carpenter, Associate Commissioner for Proprietary Schools and Veterans Education
Harden R. Eyring, Executive Assistant
Linda Fife, Director of Academic Programs
Edith Mitko, Director of Student Services and Minority Affairs
Brad Mortensen, Director of Business and Finance
Phyllis C. Safman, Assistant Commissioner for Academic Affairs
Gary S. Wixom, Assistant Commissioner for Applied Technology Education and Special Projects

INSTITUTIONAL REPRESENTATIVES

University of Utah

David W. Pershing, Senior Vice President for Academic Affairs and Acting President
Michael T. Benson, Special Assistant to the President
A. Lorris Betz, Senior Vice President for Health Sciences

Paul T. Brinkman, Associate Vice President for Budget and Planning
John G. Francis, Associate Vice President for Academic Affairs
Richard A. Fullmer, Executive Director, University Hospital
Barbara Snyder, Vice President for Student Services

Utah State University

George H. Emert, President
C. Blythe Ahlstrom, Assistant Provost
David Cowley, Manager, Space Management, Facilities Planning
John DeVilbiss, Director of Media Relations and Marketing
Peter F. Gerity, Vice President for Research
Robert L. Gilliland, Vice President for University Extension/Dean of Continuing Education
Darrell E. Hart, Assistant Vice President for Facilities Management
Lynn E. Janes, Associate Vice President for Administrative Services
Joyce Kinkead, Associate Dean and Professor, College of Humanities, Arts & Social Sciences
Clinton G. Moffitt, Controller
H. Craig Petersen, Vice Provost
Jennifer Putnam, High School/College Relations
Patricia S. Terrell, Vice President for Student Services
Heather Andersen, President's Ambassadors
Rachel Olson, President's Ambassadors
Mark Swensen, President's Ambassadors

Weber State University

Paul H. Thompson, President
Carol V. Gaskill, Director of Budget and Institutional Research
Allen F. Simkins, Vice President for Administrative Services

Southern Utah University

Steven D. Bennion, President
Michael Reid, Director of Purchasing
Michael D. Richards, Associate Provost

Snow College

Gerald J. Day, President
Rick White, Vice President for Academic Affairs

Dixie College

Robert C. Huddleston, President
William D. Fowler, Vice President, Student Services
Stanley J. Plewe, Vice President, Administration & Information Technology
Max H. Rose, Executive Vice President of Academics

College of Eastern Utah

Charles D. Foust, Vice President for Academic Affairs
Raelene Allred, Vice President for Finance & Administrative Services
Gail Glover, Dean of Administrative Services, San Juan Campus
Don C. Larson, Dean of Instruction, San Juan Campus

Utah Valley State College

Kerry D. Romesburg, President

Bradley J. Cook, Vice President for College Relations

Linda Makin, Budget Director

Brent Roberts, Associate Vice President for Facilities and Planning

Ryan L. Thomas, Vice President for Administration and Campus Computing

Bradley A. Winn, Vice President for Student Services and Campus Planning

Salt Lake Community College

Frank W. Budd, President

Daniel Bingham, Director, Larry H. Miller Entrepreneurship Center

Marjorie Carson, Vice President of Academic Services

Julie Ann Curtis, Assistant to the Vice President of Academic Services

Rand A. Johnson, Assistant to the President

Richard M. Rhodes, Vice President of Administrative Services

Representatives of the Media

Matt Canham, *Daily Utah Chronicle*

Kirsten Stewart, *Salt Lake Tribune*

Maria Titze, *Deseret News*

Rich West, *Logan Herald Journal*

Others Present

Bobbie Coray, Cache Chamber of Commerce

Debra Headden, Office of the Legislative Fiscal Analyst

John Massey, Legislative Fiscal Analyst

Mel Parker, Governor's Office of Planning and Budget

Vernon C. Rowley, Governor's Deputy for Education

Chair Charles E. Johnson welcomed everyone to Utah State University and called the meeting to order at 10:20 a.m. He explained that the Regents had been meeting in executive session to discuss personnel issues.

Commissioner Foxley reported that Brian Brown, last year's Student Regent, had undergone a bone marrow transplant and was recovering in the Bone Marrow Transplant Unit at the University Hospital. We can communicate with him through e-mail and and his wife, Heather.

Chair Johnson introduced Mel Parker, a long-time employee in the Governor's Office of Planning and Budget who has recently been assigned to higher education. Regent Hoggan mentioned that Senator Lyle Hillyard had been elected President of the Utah Senate the previous day.

Report on the Legislative Applied Technology Education Task Force

Chair Johnson said the outcome of the Legislative ATE Task Force could impact education as much as anything we have seen for several years. Higher Education made a presentation to the task force the

preceding Monday. Public Education had made a presentation at the previous meeting. Several Presidents and Regents attended the meetings, and Chair Johnson thanked them for their support.

Chair Johnson reviewed the options available to the task force:

1. Continue the existing structure of dual governance of adult ATE.
2. Establish a third, independent ATE governing board.
3. Establish a single governing board for all levels of education.
4. Create a different division point between public education and higher education.
5. Consolidate governance of adult ATE under the State Board of Education.
6. Unify all adult ATE under the State Board of Regents.
7. Other possible governance structures not yet identified.

Assistant Commissioner Wixom led the group through the various concerns for unifying all adult ATE under the Board of Regents. He used the conversion of the Sevier Valley Applied Technology Center into Snow College South as one example of successful delivery of ATE to adults in the Richfield area. He affirmed that the USHE's responsibility is the training of adults; the public schools are responsible for training secondary students.

Commissioner Foxley noted that the Legislative Auditor had made a report to the task force of an audit which was over five years old. Applied technology education through higher education was shown as being more costly than public applied technology education. The task force asked for the numbers to be updated. It is a challenge for higher education to be as cost effective as public education because of the state subsidy going into the ATCs.

President Budd pointed out that of the 11,500 concurrent enrollments at SLCC, two-thirds of the offerings were in ATE. Cooperative endeavors are underway to educate the secondary students. One example is the sharing of facilities on SLCC's new Jordan Campus. The Jordan School District is building a 90,000-square foot facility which will be shared with Salt Lake Community College. President Romesburg noted that there was no stand-alone ATC in Utah Valley. UVSC works cooperatively with the seven school districts and superintendents and houses the Mountainlands Applied Technology Center. Last year the MATC served 2000 secondary students, in addition to adults. Seventy five percent of the students had their instruction delivered at the local high schools. Equipment and faculty are shared rather than duplicated. President Huddleston observed that at Dixie College, 300 students every semester are interested in ATE. Dixie would not be able to offer them just to community college students. Since 1993, Dixie has added eight occupational programs to its curriculum. Last year, 30% of their programs were in vocational areas.

Dr. Wixom said in the presentation to the task force that higher education's ATE programs provide a continuum of education. The Regents' motivation is to help improve ATE delivery throughout the state. The presentation concluded with the commitment that we would work cooperatively with the State Board of Education and the State Office of Education to meet the ATE needs of the state.

Regent Grant asked about quality. Chair Johnson said the ATC system is well funded for quality. Dr. Wixom said quality was not the issue. The real issue is credit. Commissioner Foxley agreed that instruction in the ATCs is of a good quality. Credit is an issue for many students. Some USHE institutions give credit for some of the programs offered at ATCs which have been articulated with a college or university.

Commissioner Foxley commended Associate Commissioner Petersen, Assistant Commissioner Gary Wixom, and Linda Fife for the excellent work they had done on the publication distributed to the task force. It was a very helpful document, giving background to the presentation, which was received positively by the committee. Public Education was invited to respond to Higher Education's presentation, and we were asked to present some disadvantages to our options. Commissioner Foxley thanked Chair Johnson, Vice Chair Clyde, Regent Mantes and Regent Sweeten for their attendance at the legislative task force meeting. She encouraged the Regents and Presidents to attend future meetings to respond to questions. The next three meetings of the task force are scheduled for July 13 at 2:00 p.m., August 14 at 1:00 p.m. and August 28 at 1:00 p.m. All meetings will be held in Room 303 of the State Capitol.

Vice Chair Clyde recalled that initially applied technology education was seen by parents as "not professional." That feeling has changed. The advantage of training students through higher education is that they can move from one course or program to another at their discretion. Higher education does not "drift." The perception seems to remain that the Regents approve degree programs and neglect ATE programs.

Chair Johnson asked the Presidents for their overviews of the discussion. All agreed it had been an extremely effective presentation. However, a great deal of time was spent discussing secondary students in ATE and how they would be handled. We clarified that our concern was the training of adults. President Romesburg said there may not be a single definition of the problem we are trying to solve.

Regent Huntsman suggested a one-page summary to show the bottom line. Our position can be stated on one page. It is important that in the volumes of information given to busy people, there should be a one-page summary with bullet points.

President Day said he was continually disappointed in the implication that becoming community colleges rather than technical colleges was the wrong thing for SLCC and UVSC to do. Their value is enhanced by the community college mission, rather than diminished. Now that credit is available at Snow College South, tuition is higher for credit classes, yet for those students who have had the opportunity to choose, nearly 100% have opted for credit even if they have to pay more.

President Budd stressed that this is not a turf issue; it is an issue of the role and mission of education in the state of Utah. Educational demand at all levels is exploding. The Legislature needs to identify system components. Public education should be funded for what it must do, and higher education must be funded for what it must do. The Legislature needs to support and underwrite both missions and roles.

President Day summarized the problem we are trying to solve as how best to provide quality and training for the Utah workforce and how to balance workforce training and education in the state. We think that is best done under a single entity with broad responsibilities, resulting in the highest credential possible. Chair Johnson said ATE would be discussed extensively in the August Board meeting.

USHE Education, Career Planning, and Advising Web Site

Assistant Commissioner Safman said one of the commitments in the USHE Master Plan was to use technology to create a web-based advising system. A USHE transfer and articulation guide would fit in with that piece of the master plan. A web-based advising system must provide comprehensive information on

credit and transfer programs, connect with high schools for seamless education, connect with financial aid, tuition and fees, and connect with advisors. Dr. Safman stressed that a web site was not to be used in lieu of face-to-face advising, but rather to facilitate the use of personal advising. It will connect to links regarding jobs and employment opportunities throughout the country. A prototype was developed for this meeting with Media Solutions. Assistant Commissioner Wixom said the site had been developed with the various users in mind. Linda Fife guided the Board through the high school student portion of the presentation.

Dr. Safman said the staff had tried to be as efficient as possible by linking with existing web sites operated by the State Office of Education, USHE institutions and others. Web sites are very expensive to set up and maintain. She asked the Regents to support placing this on their priority list for the 2000-2001 budget when it is presented to the Legislature. Chair Johnson thanked Dr. Safman, Dr. Wixom and Ms. Fife for their excellent presentation.

Regent Sweeten asked if there had been discussion about opening the site to advertising and obtaining income from that source. Commissioner Foxley said that had not yet been discussed but it will be looked into. We want to make sure our web site is not cluttered with constant advertisements.

Chair Johnson said the idea began with the knowledge that there are an insufficient number of advisors in our high schools and colleges. We want to leverage technology for these people. If high school, college and university advisors know how to find this site, it will be a valuable tool. Accessibility is the key. Chair Johnson said the Technology Task Force, chaired by Regent Jordan, would study issues related to this project. Assistant Commissioner Safman explained that this was a massive project. The web site would need to be amended constantly after it is up and running. The plan is to have this site online in a year. Regular meetings will be held with institutional representatives and students so that the information remains current and that it is user-friendly for the students.

Regent Rogers moved that this become an action item. The motion was seconded by Regent Atkinson and carried unanimously. Regent Rogers then moved that \$277,000 be budgeted for this project, to be one of the Regents' highest budget priority items for 2000-2001. The motion was seconded by Regent Atkinson. Regent Sweeten moved to amend the motion to include a study of an income stream. Regent Atkinson suggested that a high tech firm might possibly be willing to underwrite the entire expense. Commissioner Foxley said there will be a need for a full-time staff member with part-time consultation. Four staff members have had to set aside their normal duties to focus on getting a prototype done for presentation to the Regents. It is a very time-consuming process. Associate Commissioner Petersen suggested that a clear description of timelines be provided to the Board in August.

Vote was taken on the motion, which carried unanimously and enthusiastically.

Update on Formula Funding Task Force

Chair Johnson said a single, concise funding formula has been sent to the institutions for their detailed review. Associate Commissioner Tarbox said the task force had created a formula to meet legislative intent language and the provision of the Regents' Master Plan 2000. It will include funding for enrollment growth, salary increases, and inflationary adjustments on non-personnel budgets. A possible issue which could arise is head count, as the formula is basically based on FTE. Chair Johnson said another possible issue would be hold harmless provisions for schools experiencing an enrollment decline.

The Tuition and Financial Aid Task Force will begin meeting next month. A report will be made in the August Board meeting.

The Board recessed at 12:00 noon for luncheon meetings.

Administration of Oath of Office to Rob Peterson

The Board reconvened at 1:47 p.m., at which time Chair Johnson administered the Oath of Office to Rob Peterson, the new Student Regent.

Public Hearing - Revised Policy R171, *Utah Postsecondary Proprietary School Act and Rules*

The following representatives of proprietary schools were present for the public hearing:

Kevin Hart, MicroCert
Jim Holm, Advanced Technical Center
Shelly Kaufman, Advanced Technical Center
Keith Larsen, Sports Academy
Randi Mears, Alpha Computer Solutions
Travis Pera, Computer Education Specialists
Robert Simpson, IT Career Academy
Karsten Sysak, Computer Education Specialists
Wendy Wimmer, Sports Academy
Kevin Wolford, MicroCert
Steven Kraatz, IT Career Academy
Clay Neves, Executrain of Utah

Commissioner Foxley explained the background leading up to the public hearing: After one of the proprietary schools closed last year, leaving students with large student loans to repay and their training unfinished, the Regents were concerned. Legislation was sponsored by Senator Lyle Hillyard to strengthen the Regents' role in the process of registering the proprietary schools. Dr. Don Carpenter, Associate Commissioner for Veterans Affairs and Proprietary Education, and Harden Eyring, Executive Assistant to the Commissioner, have met several times with representatives of proprietary schools and have received input on the drafted policy to implement the law enacted during the 2000 Legislative Session (Tab D).

Associate Commissioner Carpenter gave a broad overview of the major changes to policy R171, *Utah Postsecondary Proprietary School Act and Rules*. He explained that private education was a growing industry in this state. Enrollments in the private and proprietary sector approach two-thirds of the enrollments in USHE institutions. In addition to the situation with the Certified Technical Institute (CTI), it was recognized that it was time for the state to update its procedures for proprietary schools. Senate Bill 80 allows the Board to establish a surety bond, letter of credit or certificate of deposit as part of the registration process. The bill provides funds to repay unearned tuition in case a school closes suddenly or prematurely. It also allows a third party entity (i.e., a bonding company) to make a bonding check and to check the financial plan and financial

status of the school. Registration fees will be required annually. In some states, registration is funded by fees. Other states have both fees and some state support.

Another policy change is a uniform tuition refund policy. There has always been a refund policy, but it has not been consistent or uniform. The final change is that the schools can no longer collect tuition beyond four months. Dr. Carpenter referred to the amendment which was included in the Regents' folders. The new "pay-as-you-learn payment schedule" is limited to four months of training.

Chair Johnson asked why the maximum surety bond had been set at \$75,000. Associate Commissioner Carpenter said he had studied the issue and attended meetings with representatives from other states. Ours is a moderate bonding requirement. Some states require bonds up to \$100,000.

Regent Atkinson asked Dr. Carpenter to define the Regents' role in terms of quality of education. Dr. Carpenter said various things are examined - time spent in the classroom, facilities, equipment, faculty qualifications, etc. The schools must follow the law, and the faculty must have adequate education and training to teach the programs. Mr. Eyring said the Regents are restricted by legislation from recommending or becoming involved in the curriculum. Dr. Carpenter explained that the reason for the legislation was to avoid consumer fraud and diploma mills. We have been able to keep several "fly-by-night" schools out of the state because of the requirements which are in place.

Representatives of the proprietary schools spoke and were generally supportive of the proposed changes, in order that a high level of integrity be maintained. A concern was raised regarding the four-month time frame for unescrowed funds. Many computer training programs vary between four and six months, with some longer. The Board was encouraged to extend the time frame to six months. Concern was also raised regarding the current language basing bonding on the number of students and revenues generated, when much income comes from the corporations for one- to two-day classes for their employees. It was suggested that the language reflect pro-rating based on revenue involved in prepayment business only.

Chair Johnson asked Associate Commissioner Carpenter to review the comments which had been made and bring the proposed policy revisions back to the Board. Regent Jardine asked how the Regents could be sure the schools were complying with the escrow requirement. Mr. Eyring said the Commissioner's office prepares the escrow agreement. Schools could not break it without our knowledge. Regent Atkinson requested that this item be brought back to the Board in August for action. Commissioner Foxley said Associate Commissioner Carpenter would be meeting with the school representatives between now and the August Board meeting. The policy will be brought to the Board with a request for approval in August.

Regent Jensen asked if fees were segregated to be applied toward supervision and administration of the Proprietary School Act and suggested that an addendum be added to the policy with that provision.

Chair Johnson thanked everyone who had been present for the public hearing. The public hearing concluded at 2:35 p.m., and the Regents moved into meetings of the Board Committees.

The meeting of the Committee of the Whole resumed at 4:20 p.m.

Revised Policy R135, Institutional Legal Counsel in the Utah System of Higher Education

Commissioner Foxley referred to Tab V and said the agenda material reflected suggestions made at the previous meeting. She briefly explained the changes which were made to the policy. Regent Jordan moved that the Board approve the proposed amendments to policy R135. The motion was seconded by Regent Sweeten and carried unanimously.

Report of the Commissioner

Commissioner Foxley reminded the Regents and Presidents that the agenda is now available on the SBR web site (www.utahsbr.edu) and can be downloaded in whole or in part.

USU Presidential Search. The Commissioner said the Utah State University Presidential Search Committee had met and received a charge from the Board chair. She referred to the press release and position announcement in the Regents' and Presidents' folders.

Reports of Board Committees

Finance and Facilities Committee

University of Utah – 2000-2001 University Hospital and Neuropsychiatric Institute Operating Budgets (Tab K). Chair Brent Hoggan said the committee had enjoyed a good discussion. A recent Federal Budget Act resulted in a \$200 billion decrease in Medicare funding over a period of time. This impacted the University Hospital. Chair Hoggan noted that the proposed budget is "in the black." The committee had been surprised to learn that 700 to 800 physicians are involved in the operation of the hospital. The University is obviously a very extensive institution. Chair Hoggan moved approval of both budgets. The motion was seconded by Regent Mantes. Regent Atkinson commended University officials for their proposed budget. With the Balanced Budget Act, health care is finding it increasingly difficult to receive funding. The University has made outstanding moves to bring about this outstanding balanced budget. Regent Jardine said the university budget and projections have been a matter of scrutiny for ten years. Academic health sciences centers throughout the country have been having budget deficits for several years. University personnel have done a tremendous job. He expressed the Board's support for the University's efforts to achieve this budget. Dr. Betz said most initiatives are already in place, realizing some savings for the hospital. The general public does not fully appreciate how serious the situation is. He introduced Rick Fullmer, the new executive director of the hospital. Chair Johnson remarked that historically the Board has had a link to the hospital. He asked Regent Jardine to act as the link between the Board and the University Hospital. Dr. Betz said he would welcome a close link with the Board of Regents. Vote was taken on the motion, which carried unanimously.

University of Utah – Huntsman Cancer Institute, Phase II Design (Tab L). Chair Hoggan explained that the request was for programming and design money only. The committee had discussed the three issues raised by the Commissioner in her cover letter. It is expected that the hospital will cost approximately \$70 million, to be raised following the design. The planning and design money will come from a private donation. Chair Hoggan moved approval of the request for funding for programming and design. The motion was seconded by Regent Jensen. Chair Hoggan said Dr. Betz had indicated that as the clinical phase of the HCI is completed, it is anticipated that patients in the University Hospital can be transferred into the clinical facility at the Huntsman Cancer Institute. The University Hospital is currently "outsourcing" enough patients to other

hospitals to back fill spots vacated at the University Hospital. The Hospital should not lose revenues from regular hospital service by transferring patients into the Cancer Institute. HCI Phase II operating costs will be self-funded. There is presently some surplus parking at the HCI. The second phase of the parking structure is planned beneath the building. Chair Johnson reminded the Board that there would be additional funding requests later. Vote was taken on the motion, which carried unanimously.

Utah State University – Campus Master Plans(Tab M). Chair Hoggan referred to page 19 of the agenda material and indicated the proposed location for the new central heating plant, which will be located north of the Spectrum. The institutional residence will be built on a six-acre parcel, and lots will be sold to reduce the size of the institutional lot. Chair Hoggan moved approval of the master plans. The motion was seconded by Regent Jensen and carried unanimously.

Utah State University – Research Park Property Acquisition (Tab N). Chair Hoggan explained that the property in question was 60 acres of undeveloped land, which will be purchased with donated funds. No request will be made for O&M funding. He moved approval of the transaction. The motion was seconded by Regent Atkin and carried unanimously.

Utah State University – Bear Lake Property Boundary Line Adjustment (Tab O). Chair Hoggan noted that there are no fences on any boundary lines in all of Rich County. The University will be paid \$120,000 for the property acquired through straightening out the said boundary line, with the money to be used for further development. Chair Johnson asked if there were any other related neighbor transactions. Chair Hoggan said there were none. He moved approval of the property sale. The motion was seconded by Regent Richards and carried unanimously.

Weber State University – Retention Basin Land Sale (Tab P). Chair Hoggan explained that Ogden City would use the 2.67 acres of unimproved property for a storm retention basin. It will serve both the University and the city, with the added benefit that the city would pick up the cost. He moved approval of the transaction. The motion was seconded by Regent Sweeten and carried unanimously.

Utah Valley State College – Sale of Property to LDS Church (Tab Q). Chair Hoggan said UVSC proposed to sell 1.5 acres of property at the east side of the campus to the LDS Church. The property is not suitable for a building and will be used for an Institute parking lot. The sale is for the appraised value of the property, and the money will be used to purchase additional property at a future date. UVSC will have parking privileges. Calling it a win-win situation, Chair Hoggan moved approval of the transaction. The motion was seconded and carried unanimously.

Ratification of Executive Committee Actions(Tab R). Chair Hoggan explained the three items which were approved by the Board Executive Committee on May 17, which were discussed and voted on separately.

- A. University of Utah – Huntsman Cancer Institute Revenue Bonds. Chair Hoggan noted that the bonds had been sold within the parameters of the authorization. He moved ratification of the HCI revenue bonds. The motion was seconded by Regent Atkinson and carried unanimously. Chair Hoggan then moved to approve the approving resolution, which was Attachment A, Supplement to Tab R. The motion was seconded by Regent Mantes and approved unanimously.

- B. Snow College – Programming for Performing Arts Building. Chair Hoggan pointed out that no state appropriation had been approved for this purpose. The Building Board has authorized \$25,000 from contingency funds to assist the College with this expense. He moved that the Executive Committee's approval of this item be ratified. The motion was seconded by Regent Atkinson and carried unanimously.

- C. Dixie College – Land Purchase. Chair Hoggan explained that the land in question was a .2 acre parcel adjacent to the campus. The property will be purchased with a private donation, rather than discretionary funds, as indicated in the minutes attached to the agenda materials. He moved that the Board ratify the Executive Committee's action to approve this purchase. The motion was seconded by Regent Atkinson and carried unanimously.

USHE – Athletics Report (Tab S). Chair Hoggan noted that this report had been provided for information only. It is a summary report for the USHE and includes a breakdown for each institution. No action was required.

Student Financial Aid – UHEAA Board of Directors Report (Tab T). Chair Hoggan said this report was also for information only. Associate Commissioner Norris had highlighted the report in committee. UHEAA has been working for some time on the procurement of a computer system which has now been finalized. Also, borrower benefits have been realized through operating efficiencies and actions of the UHEAA Board. Chair Hoggan encouraged the Regents to review the report. Associate Commissioner Norris said the UHEAA Board provides energetic oversight of student financial aid.

Consent Calendar, Finance and Facilities Committee(Tab U). Upon motion by Chair Hoggan and second by Regent Atkin, the following items were approved on the committee's consent calendar:

- A. OCHE Monthly Investment Report
- B. UofU and USU Capital Facilities Delegation Reports
- C. 1999-2000 Final Work Program Revisions
- D. USHE Presidential Salaries

Chair Johnson expressed his appreciation to Chair Hoggan for his report which was well presented.

Academic and Applied Technology Education Committee

Utah State University – Master of Rehabilitation Counseling (MRC) Degree (Tab E). Chair Atkinson said in addition to a master's degree, a Certified Rehabilitation Counselor (CRC) credential is now required for individuals seeking to be "qualified rehabilitation professionals." This is a great benefit to nursing homes, assisted living centers, and hospitals. People in this field do an outstanding job. The committee was enthusiastic and applauded the change. Chair Atkinson moved the Board's approval of the MRC degree program. The motion was seconded by Vice Chair Clyde and carried unanimously.

Utah State University – Establishment of Center for Online Education (COLE) (Tab F). Chair Atkinson said the University had looked at the number of courses being delivered online and discovered that little research had been done to evaluate the effectiveness of this delivery method. The proposed center would establish "best practices." It requires approval of the Regents because it is a center. USU will be working with other universities, colleges, and public schools to let them know the best practices and what should be changed

in delivering online courses. Chair Atkinson moved approval to establish the Center for Online Education. The motion was seconded by Vice Chair Clyde and carried unanimously.

Minutes of the SBE-SBR Joint Liaison Committee (JLC) Meeting held on December 7, 1999 (Tab G). Chair Atkinson explained the JLC had met since their December 7 meeting, but the minutes of the more recent meeting have not been approved by the Joint Liaison Committee. She noted one correction to the minutes: She was identified as absent, but was in fact in attendance. She reminded Board members that approval of the JLC minutes indicates acceptance of policy decisions and statements and approval of the actions of the committee. The ATE Advisory Committee is presently "on hold" because of the Legislative Applied Technology Education Task Force. Chair Atkinson moved approval of the December 7 minutes of the Joint Liaison Committee. The motion was seconded by Regent Sweeten and carried unanimously.

Consent Calendar, Academic and Applied Technology Education Committee (Tab H). Chair Atkinson said Utah State University's proposal to offer Associate of Arts and Associate of Science Degrees at the Brigham City Branch Campus and for National and International Audiences was sensible and the committee had recommended approval. Accordingly, she moved the Board's approval. The motion was seconded by Vice Chair Clyde and carried unanimously.

Information Calendar (Tab I). Chair Atkinson said the committee's information calendar contained name changes of various departments at Utah State University and Southern Utah University. The rationale for the changes was very reasonable. No action was required.

1999-2000 Annual Report on Women and Minorities in Faculty and Administrative Positions in the Utah System of Higher Education(Tab J). Chair Atkinson urged all of the Regents to read this important document if they had not already done so. The committee expressed several concerns: (1) Each institution reports somewhat differently, based on the lack of standardized definitions. (2) Comparisons are not reliable because of this. (3) The Presidents had not all seen this data before it was sent to the Board. The committee requested that in the future all Presidents review and sign off on the data before it is presented to the Board. Disappointment and concern were expressed in terms of minorities. Questions were raised about whether we were doing enough to recruit minorities into the system. She urged the Board to recommit and look at the best ways to recruit more minority faculty. The committee would like to see more minority students, as well as faculty. Many minority students are dropping out of public education whom we need to help get into higher education institutions. Chair Atkinson moved that (A) the USHE assure the standardization of criteria, (B) the Presidents be asked to sign off on the accuracy of data before the report is given to the Regents, (C) the Regents receive a report from the ethnic directors to include a proposal to study ethnic minorities on campuses, both for faculty and students, and (D) a task force be explored to establish community-based partnerships, including public education, to increase the number of minority students going through the system. The motion was seconded by Vice Chair Clyde. Chair Atkinson noted that at SLCC, minority data is brought before the President's Cabinet every week to assess whether or not best practices are being used. She suggested that this be reinforced throughout the system. Vote was taken on the motion, which carried unanimously.

Chair Johnson thanked Chair Atkinson for her excellent report.

General Consent Calendar

On motion by Vice Chair Clyde and second by Regent Atkinson, the Board approved the following items on the General Consent Calendar:

A. Minutes

1. Approval of the Minutes of the Regular Meeting of the Utah State Board of Regents held April 14, 2000, at the College of Eastern Utah in Price, Utah
3. Approval of the Minutes of the Special Meeting of the Utah State Board of Regents held May 18, 2000, at Salt Lake Community College in Salt Lake City, Utah

B. Grant Proposals - Approval to submit the following proposals:

1. Utah State University - MMR Vaccine and Autism; \$1,042,500; Anthony R. Torres, Principal Investigator.
2. Utah State University - Faculty Immune Regulation in Autism; \$3,161,166; Anthony R. Torres, Principal Investigator.
3. Utah State University - An Empirical Evaluation of the Performance of Different Approaches to Classifying Reference Conditions in Streams; \$1,499,691; Charles P. Hawkins, Principal Investigator.
4. Utah State University - Determination of the Presence of Microbes; \$1,074,200; Linda Powers, Principal Investigator.
5. Utah State University - Engineering is Fun! Integration of Engineering in Utah's K-12 math and Science Education; \$1,320,033; Cynthia Furse, Principal Investigator.
6. Utah State University - Consortium for the Application of Behavioral Principles to Management; \$3,608,770; Fred Provenza, Principal Investigator.
7. Utah State University - Developing a U.S. Market for Identity-Preserved Red Meat; \$1,236,533; Dee Von Bailey, Principal Investigator.
8. Utah State University - The utility of the USURF/SDL GIFTS as the Infrared Imaging and Sounding Sensor on the Next Generation of Geostationary Operational Environmental Satellite (GOES) Weather Satellite; \$48,870,831; Gail Bingham, Principal Investigator.
9. Utah State University - Presidential Scholarship Program; \$1,406,674; Craig Petersen, Principal Investigator.

- C. Executive Session(s)— Approval to hold an executive session or sessions in connection with the meetings of the State Board of Regents to be held August 3-4, 2000, at Southern Utah University, to consider property transactions, personnel performance evaluations, litigation, and such other matters permitted by the Utah Open and Public Meetings Act.

Adjournment

Chair Johnson thanked President Emert and his staff for their hospitality, great weather and Aggie ice cream. The meeting was adjourned at 5:05 p.m.

Joyce Cottrell
Executive Secretary