

ITEM 135-106-R0507

TO: Montana Board of Regents

FROM: Roger Barber
Deputy Commissioner for Academic & Student Affairs

RE: Two-Year Education Council Recommendations

DATE: May 23, 2007

At its meeting on May 23, 2007, the Two-Year Education Council considered three (3) exception requests to Policy 301.12, Undergraduate Degree Requirements; Associate Degrees and Certificates of Applied Science. Those exception requests, and the process for approving such exceptions, is described in the Item page that accompanies this memorandum.

The Two-Year Education Council makes the following recommendations on the requests:

- 1) Certificate in Farm and Ranch Business Management, Dawson Community College: **The exception request should be tabled for additional review, before a recommendation goes forward.**
- 2) Associate of Applied Science degree in Civil Engineering Technology, Montana State University-Northern: **The exception should be approved.**
- 3) Associate of Applied Science degree in Dental Hygiene, Montana State University-Great Falls College of Technology: **The exception should be approved.**

Memo

To: Roger Barber, Deputy Commissioner of Higher Education

From: Jackie Schultz, Dean of Instructional Services

Date: April 20, 2007

RE: BOR Policy and Procedures 301.12 (Exception Request)

Dawson Community College seeks an exception to the requirements for certificate programs under C.3 of Section 301.12 of the Policy and Procedures Manual of the Montana Board of Regents.

Farm and Ranch Business Management is a Certificate of Applied Science program designed to be delivered over a two year period. The curriculum layout of this certificate program was intended to facilitate participants who are actively engaged in farming and ranching enterprises. Unique to this program and significant to the overall success of the program are the co-op instructor visits to the farm/ranch sites over the two year cycle of classes. The two year time allotment provides our students the ability to make practical application of the program skills to the management of their agricultural operations.

The Farm and Ranch Business Management curriculum is an employment related program which accommodates the needs of the working farmer or rancher over a two year cycle. Dawson Community College believes the program qualifies for an exception to BP 301.12 which proscribes that certificated coursework must be completed in one calendar year.

April 4, 2007

MEMO TO: Roger Barber, Deputy Commissioner
FROM: Cheri Jimeno, Provost and Vice Chancellor for Academic Affairs
SUBJECT: Exception Request, AAS Degree, Civil Engineering Technology
Montana State University -Northern

Although we believe our count of credits for the AAS degree in Civil Engineering Technology meets Board of Regent policy that requires 2/3 of the total credits required in the degree to be “technical” to the degree, we submit this memo as a request for an “exception” based on ABET accreditation standards.

The AAS degree in Civil Engineering Technology is ABET accredited. Criterion 4, Program Characteristics, for ABET accreditation standards is specific. For example, in accordance with ABET accreditation standards, *associate degree programs must consist of a minimum of 64 semester hours.*

There are numerous other accreditation standards the degree must meet including (but not limited to):

Mathematics: *...Algebra, trigonometry, and an introduction to mathematics above the level of algebra and trigonometry constitute the foundation mathematics for an associate degree program...*

Physical and Natural Science: *...The basic science content can include physics, chemistry, or life and earth sciences....*

Social Sciences and Humanities: *...The social sciences and humanities content must support technical education by broadening student perspective and imparting an understanding of diversity and the global and societal impacts of technology...*

Technical Content: *...The technical content of a program must focus on the applied aspects of science and engineering in that portion of the technological spectrum closest to produce improvement, manufacturing, construction and engineering operational functions..*

You can also access more detailed information concerning the ABET criteria for associate degrees in engineering technology programs by accessing their website at www.abet.org.

Please let me know if you need any additional information.

Cc: Alex Capdeville, Chancellor
Greg Kegel, Dean, COTS
Larry Strizich, Chair, COTS

**AAS degree in Civil Engineering Technology
Montana State University - Northern**

<i>Course</i>	<i>Credits</i>	<i>General Education</i>	<i>Technical</i>	<i>Other</i>
ENGL 111 – Written Communications	3	3		
MATH 112 College Algebra	3	3		
CIS 110 – Introduction to Computers	3		3	
CET 173 – Architectural Construction & Materials	3		3	
CET 181 – Surveying	3		3	
CET 220 – Construction Management & Bid Estimation	3		3	
CET 221 – Engineering Mechanics	3			
CET 232 – Strength of Materials	3			
CHEM 111 – General Chemistry	3		3	
CIS 171 – Desktop/Small Business Databases	3		3	
DRFT 131 – Technical Graphics I	3		3	
DRFT 156 – Intro to CAD	3		3	
DRFT 244 – Topographic Mapping & GIS Applications	3		3	
EET 110 – Electronics Survey I	3		3	
IT 100 – Introduction to Technology	3		3	
IT 111 – Industrial/Safety/Waste Management	2		2	
MATH 125 – Trigonometry	2		2	
MATH 133 – Introduction to Calculus	3		3	
PHYS 231 – Fundamentals of Physics	3		3	
PHYS 234 – Fundamentals of Physics I Lab	1		1	
SPCH 141 – Fundamentals of Speech	3	3		
Advisor Approved Elective(s)	3			3
Advisor Approved Science Elective (s)	3			3
Totals	65	9	48	6

Request for Exception to BOR 301.12
AAS in Dental Hygiene, MSU-Great Falls College of Technology

Area of Exception:

BOR 301.12 requires that an AAS degree program comprise no more than 72 credits. The AAS in Dental Hygiene is 70 credits once admitted into the program, but a total of 22 credits of prerequisite course work is required prior to admission, bringing the total credits required for the degree to 92.

Rationale(s) for Exception:

1. **Accreditation Requirements.** The curriculum content is dictated by the American Dental Association's Commission on Dental Accreditation in Accreditation Standards for Dental Hygiene Education Programs. The pertinent excerpts are attached as a PDF file and summarized herein. Accreditation Standard 2-10 requires content in four areas: general education, biomedical sciences, dental sciences, and dental hygiene science. Although the curriculum content in these areas need not be met through a discrete course, the courses – especially the general education, social science, and biomedical science courses – “should be equivalent to those offered in four-year colleges and universities” (p. 17).

Specific content requirements and the MSU – Great Falls course meeting those requirements are listed in Attachment A. As Attachment A illustrates, when possible, MSUGF has consolidated course work to meet the curriculum content requirements of the Commission on Dental Accreditation. If a discrete course were instituted to meet each requirement, the total credits-to-degree would be at the baccalaureate level. However, on the basis of general education and upper-division course work alone, even with the discrete course work the program would not meet bachelor's level requirements at any institution in the Montana University System.

The only curriculum content in MSU – Great Falls' AAS degree program in Dental Hygiene **not** specifically required by the Commission on Dental Accreditation is a mathematics/computation course. MSU-Great Falls requires a core-level course in mathematics to meet this requirement.

2. **Comparability to Other Accredited Programs.** When the AAS degree in Dental Hygiene was proposed for approval by the Board of Regents, MSU – Great Falls conducted a review of curriculum in other states accredited by ADA and by Northwest Commission on Colleges and Universities. When prerequisites are included in the total credits to degree, no other program in this region was able to deliver the program in fewer than 90 credits. Most offer the degree for 95 credits or more (when prerequisites are included in the credits to degree).

3. **Use of Prerequisites to Identify Students Most Likely to Succeed.** Dental Hygiene is a high-demand, high-wage, high-expectation career choice. Since its inception, over 30 students from throughout Montana who have completed the prerequisite course work have applied for admission into the program. Only 14 students can be admitted each year, so it is crucial that admissions criteria reinforce the acquisition of skills and proficiencies that ensure that students selected for admission into the program are those most likely to complete the program. Since its inception, 70 students have been admitted into the program, filling all 14 slots each year. Only 3 students of the 70 students admitted have withdrawn or been removed from the program. The high quantity and rigor of prerequisite course work, apart from being required by the ADA, also helps to identify the students most likely to complete the program.
4. **Fiscal Issues with Further Credit Reduction.** We designed the program to provide the fastest and least-expensive route for students to enter the dental hygiene workforce. We are aware that some AAS programs, primarily programs in healthcare, reduce the credit-to-degree by altering the standard clinical hours:credit ratio. Such adjustments, while sometimes (but not always) advantageous to students' financial considerations, are disadvantageous to institutions' fiscal ability to sustain programs.

Dental Hygiene is an expensive program for a two-year institution to offer. Adding to the fiscal challenge of MSU – Great Falls' offering the program is that fact that more than half of the students admitted to the program have completed the prerequisite course work elsewhere. In the interest of statewide access, MSU – Great Falls agreed when the program was approved to adopt and promote prerequisite course work that could be completed at any campus of the Montana University System, as well as Montana's community and tribal colleges. The result is that most of the students complete 15 to 20 credits of the 90 credits-to-degree outside MSU – Great Falls, making fiscal sustainability additionally challenging.

Attachment A
ADA Accreditation Requirements for Curriculum Content
in Dental Hygiene Programs

General Education

Accreditation Standard 2-11

Oral Communications		Comm 130	Public Speaking or
	(3)	Comm 135	Interpersonal Comm.
Written Communications	(3)	Engl 121	Composition I
Psychology		PSY 101	General Psychology or
	(3)	PSY 109	Lifespan Development
Sociology	(3)	SOC 111	Intro to Sociology

MSUGF Compliance

Biomedical Science

Standard 2-12

Anatomy and Physiology	(4)	Bio 213	Anatomy & Phys I w/ lab
	(4)	Bio 214	Anatomy & Phys II w/ lab
Chemistry	(4)	Chm 111	Prin of Inorganic Chem w/lab
Biochemistry (mixed)		The prerequisites in Chemistry and Microbiology, leading to the biochemistry content in Dental Nutrition, have been accepted by ADA in lieu of discrete coursework.	
Microbiology	(4)	Bio 280	Microbiology
Immunology		Components of the content of General & Oral Pathology and Periodontology I have been accepted by ADA in lieu of discrete coursework.	
General Pathology	(3)	DH 215	General/Oral Pathology
Nutrition	(3)	DH 220	Dental Nutrition
Pharmacology	(2)	AH 140	Pharmacology

Dental Sciences

Standard 2-13

Tooth Morphology	(3)	DH 118	Oral Anatomy for Hygienists
Head, Neck & Oral Anatomy	(3)	DH 118	Oral Anatomy for Hygienists
Oral Embryology	(2)	DH 165	Oral Embryology and Histology
Histology	(2)	DH 165	Oral Embryology and Histology
Oral Pathology	(3)	DH 215	General/Oral Pathology

MSUGF Compliance

Radiography	(3)	DH 122	Oral Radiology
	(1)	DH 123	Oral Radiology Interpretation
Periodontology	(3)	DH 160	Periodontology I
	(2)	DH 201	Periodontology II
Pain Management	(2)	DH 240	Local Anesthesia/Nitrous Oxide Theory and Lab
	(2)	DH 210	Theory II
Dental Materials	(2)	DH 130	Dental Materials

Dental Hygiene Science

Standard 2-14

MSUGF Compliance

Oral Health Education and Preventive Counseling	(2,1)	DH 150, 250	Theory I and III
Health Promotion	(2,1)	DH 150, 250	Theory I and III
Patient Management	(2,1)	DH 150, 250	Theory I and III
Clinical Dental Hygiene		DH 101, 102, 151, 211, 218, 251	Ongoing clinical experiences to meet clinical hours req.
Patients w/ Special Needs	(2)	DH 241	
Community Dental/ Oral Health	(2)	DH 230	Community Dental Health (?)
Medical/Dental Emergencies	(2)	DH 150	Theory I
Basic Life Support			
Legal and Ethical Aspects	(2)	DH 235	Professional Issues & Ethics in Dental Practice
Infection and Hazard Control Management	(2)	DH 111	Infection Control & Disease Mgmt
Oral Healthcare for Patients w/bloodborne diseases	(2)	DH 111	Incorporated in Infection Control and Disease Management



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**May 30, 2007 Report to the Academic & Student Affairs Committee of the
 Board of Regents, on the WICHE Internet Course Exchange (ICE) Program &
 Related Distance Learning Projects and Initiatives**

WICHE ICE (Internet Course Exchange)

The Montana University System has been actively involved in the development of a consortium of two- and four-year institutions from the 15 WICHE member States, formed to enable an online course sharing arrangement to benefit both the institutions and their respective students. Following regular discussions and meetings since October 2006, the member campuses conducted final review and offered approval of the ICE Operating policies, parts of which I'd like to share with the MUS institutions that presently offer online courses. The following represents the basic tenants of this WICHE program in summary fashion. This information is being shared in hopes that campuses in addition to MSU-Bozeman will seek to join this consortium in order to better serve their students and to more fully utilize their online course enrollment availability, as:

- ♦ **Member institutions** of the consortium honor their existing policies and procedures to the greatest degree possible, and agree to abide by the Consortium ICE program policies and guidelines.
- ♦ **Member institutions** may post, select, and offer online exchange courses, and promote faculty and administrative interactions and collaborations amongst member institutions.
- ♦ **Member institutions** must be regionally accredited and must ensure that all standards for quality in design, content, delivery, and effectiveness are met for the courses being shared.
- ♦ WICHE maintains the database created from posting available course seats, and course seats desired by the member institutions.
- ♦ Advantages of the ICE program use versus students going direct to other teaching institutions:
 1. **Teaching campus can offer "excess seats" in any online course** to members
 2. Student's **Home campus can assist a student in finding an online course** that can be confidently selected **to clearly meet the objective of the student's program**
 3. The **Home campus will receive a posting of information on the course** that is significantly more detailed than what is typically received, **in order to evaluate a transfer course**
 4. The **Home campus will evaluate the course and identify the transfer equivalency** for the student's program
 5. The **Home campus will create their Course Record Number** for the course, which **will allow the student to register for the course as a Home campus course**, potentially helping the student attain the credit load to meet financial aid objectives and potentially also achieve the tuition "flat spot"
 6. The **Home campus will collect a tuition** sufficient enough to allow remittance to the Teaching campus at its stated price, and it may also allow the Home campus to recover some administrative costs
 7. The **Teaching campus will post the student grade to a secure WICHE database**, from which it can be retrieved by the Home campus for posting to the transcript

8. The student **transcript will show the course as a Home campus course**, though it may be noted as taught online or by another campus, in accord with local campus policies
- ◆ **ICE allows the Home campus to evaluate the course and transcript the course and credits well ahead of the student actually taking the course**, rather than having the student take the course and then present it for transfer evaluation by the Home campus in hopes that it meets the desired course requirements.
 - ◆ Institutional (and System) **members in the ICE consortium are afforded equal standing** with each other
 - ◆ Each **member institution (and System) is afforded a seat on the ICE Steering Board**.
 - ◆ The **Steering Board sets annual membership fees, develops policies, and recruits** new members.
 - ◆ Annual **System membership** is \$2,500, also affording one seat on the Steering Board.
 - ◆ Annual **institutional membership** is \$2,000 for campuses with fewer than 4,000 headcount, \$3,000 for campuses with headcount between 4,000 and 12,000, and \$4,000 for those with a headcount greater than 12,000.
 - ◆ **Teaching institutions will remit to WICHE a fee of \$20 per seat sold** for web support, as determined by WICHE. If the full \$20 is not needed for support, then \$10 per seat may be set aside to fund a wider array of services to the members or for other ICE support.
 - ◆ **Member institutions** will post seats available in three courses or will purchase three course seats from other member campuses for Spring 2008.
 - ◆ **Member institutions** of the ICE consortium (as of 01 May 07) include: Univ of Utah, Univ of Wyom, Univ of NV-Reno, Univ of AK-Anchorage, MSU-Bozeman, Lewis-Clark State (ID), Idaho State Univ, Eastern Wash Univ, Central Wash Univ, Boise State College, and the MT Univ System.
 - ◆ The Teaching institution may charge whatever fee is appropriate for each course seat posted as available, in accord with its local policy. The **Home institution will collect whatever tuition and fees that it deems necessary under local policy, and will remit the posted seat price to the Teaching institution** for each seat sold, by the date prescribed in the ICE Operating policies. Remittances will be only once per academic session, per campus, and will be via wire or ACH, so as to reduce administrative costs.
 - ◆ Even before the website posting is opened to the members, there is a **noted demand for lower division Gen Ed courses, and for teacher education math and science courses** by many of the campuses.

Depending upon the campus feedback, I am willing to draft an addendum to the existing tuition & fee policies that will allow the campuses to assess their tuition & fees at their self-support level, or at 150% of the Resident Tuition level for State-supported courses, in recognition of the WICHE member institutions. Is there an interest in this by the CAO's?

MUS General Education Core Project Status

The Montana University System has adopted a new URL for its website: <http://mus.edu> and the MUS Gen Ed Core component will be found at: <http://mus.edu/online> about the end of May.

The website was built to allow easy navigation by the user, and to eliminate duplication of info on the website, to the greatest degree possible. The new MUS Gen Ed Core website allows a visitor to access the campus online courses either by searching "By Campus" or by searching by "Core Program Area" at the website. In the Program area search, all MUS Gen Ed Core courses from all

campuses are visible by semester. Under either search, once the listing of courses appears, the user can drill one level deeper to the Course Information Form.

There is a hot link to each of the campus home pages from each CIF page of the new website, and there is now another hot link entitled “Learn How to Register Now” to the campus page of choice. These links constitute a new door to the campuses for the user coming from the MUS website.

The database behind the new website is driven by input from a master Excel formatted file, with one page for each semester, which each campus will periodically update and submit in order to keep the info current. We have mirrored the courses that the Gen Ed Council has approved for each campus. We do have to complete some of the narrative for each of the drop-down tabs at the website. The site will be live by no later than May 31st.

2007 Legislative Distance Learning Initiative

Full funding of the request was ultimately received, in the amount of \$900K for the biennium, for:

- Development of new online courses in high demand areas – est \$100K
- Assist in developing online learning outcomes assessment – est \$25K
- Strengthen student support and online advising system – est \$100K
- Develop online application, records, financial aid processes – est \$75K
- Single home campus tuition & fee statements for all online courses – est \$75K
- Expand the MUS online gateway to the campuses and facilitate provision of central course management system for all campuses – est \$450K

Deliverables desired for the Legislative education and gov’t interim committee include:

- Increase number of online students by 10% per year
- Develop approximately 60 new online courses for delivery
- Develop new programs and approximately 30 new courses to serve primarily workers in need of career training and employers in need of specially skilled workers
- Demonstrate a collaborative approach to utilizing existing courses from multiple campuses to meet new program needs

I desire to use the DE campus advisory committee to identify the specific projects and ranked priority, but also desire CAO input on specific issues such as ICE participation; shared faculty training and development, both initial and advanced; identifying high demand areas for course and program development; working with Gen Ed Council to support online learning outcomes assessment; expansion of the MUS online gateway; interest in a central course management system approach; rich faculty input; online services and single fee statement development; other.....

FY07 Campus Support Funds & Projects

Brief reports will be requested within the next couple of weeks from the campuses, showing how the matching funds were used to support the respective campus DE projects, as shown below.

Respectfully,

T. H. Gibson, Director
Distance Learning Business Development