Faculty Senate Minutes
3/28/2019
9-10 a.m.
Highlands College 112

Attendees: Stella Capoccia (chairing the meeting), John Ray, Charie Faught, Phil Curtiss, Alysia Cox (for Karen Wesenburg-Ward), Hilary Risser (for Atish Mitra), Chris Gammons, Tony Patrick, Chad Okrusch, Dan Autenrieth, Ulana Holtz, Jackie Timmer, Miriam Young, Scott Coguill (for Peter Lucon), Vicki Petritz

I. Welcome and Minutes (https://www.mtech.edu/facultystaff/facultysenate/minutes/index.html)

Motion to approve minutes and seconded. **Motion passes.**

Action Items

II. Emeritus Recommendation – Jim Handley

Hilary Risser presenting. See attachment. Started at Tech in 1983, hired after 15 minutes. Jim plays a significant role in the department by taking all of new faculty members to social events like skiing, organizes other social events for departments and other Tech groups. Also works for the science fair every year. Has taught many students. Jim has been a great fixture and committed to the students and the development of younger faculty. Motion to approve emeritus status and seconded. **Motion passes.**

III. Emeritus Recommendation – Diane Wolfgram

Chris Gammons representing, reading portions of recommendation letter. See attachment. Has known her for over 21 years. Has served in the military before moving to Anaconda to work in mining. Joined faculty at Montana Tech in 1992. Active in areas such as faculty senate. Started research seed grants and active in accreditation committees. Authored publications and abstracts. Licensed as professional geologist and engineer. Motion to approve emeritus status and seconded. **Motion passes.**

Informational Items

IV. Committee updates:

a. Teaching Community

Bill Ryan is going to have a high impact practices presentation/workshop in the near future (sometime in April).

b. Research Mentors

Two events are being planned. One is a person from NIH about research grants, helpful for OSH and public health (a date not available). Another is in the works.

c. Budget

Budget committee met over spring break (representative did not attend). Another this week that representative not able to attend. Understanding from the provost that spring break meeting determined that the financial situation was bleaker than thought, with budget number deficit between $1.2 to 2 million dollars. Tech will be increasing fees in the proposed areas to 3%. Not sure if budget deficit is over one or two years. The fee increase will only be in the $100,000 range. No clear rationale on how fees are used and allocated. Frustrating to not know the rationale of using fees. Representative expressed the need for someone who has more of a financial background, but no one able to attend from faculty at this moment. For next year, would hope that someone from business or a background would be able to attend. It seems

like no one knows what is going on, including administration. We do have a vice chancellor of finance, but the person has been replaced with an interim finance person (Carleen Cassidy). Question as to why finance person has been removed, but not known because it is an employment issue. Not only happening at Montana Tech, but other institutions as well. A bad time to not have a CFO, since we are in a budget shortfall.

Chair asks what we can do as faculty senate. Some accounts have not been touched or re-allocated (such as one account with $600,000) some accounts can only be used for certain items. For instance, certain foundation accounts can only be used for certain items, as well as certain student fees. Some are for certain classes.

Question about hiring someone from the outside as an option. Can we ask them to hire an outside person? Would need to be sent to the board of regents and OCHE. All vice presidents have been given notice, for which a new chancellor may elect to renew or not (part of standard operating procedure). Believe would include Provost, VP Research, VP Foundation. Likely that a new CFO would be hired quickly.

Chair recommends to keep budget in mind as we discuss chancellor search and satisfaction survey. Belief that deficit number is closer to 2 million dollars than any other number, which would be equivalent to at least twenty faculty members. Tech right now not declaring an emergency. If they eliminate a department, there are certain requirements for faculty. However, it may be a grey area to offer online classes taught by non-Tech faculty. When programs go into moratorium, Tech can have substitutions with a time limit to complete. Question regarding if a legal requirement, but a practice (will have to see if OCHE requirement). We do have a teach out plan as part of the paperwork for moratoriums.

More pressing issue is getting clarity on the budget issue and what the plan of administration might be.

d. Chancellor Search Advisory Committee

Four candidates who are visiting campus- three this week, one next week. Chancellor search web page does have feedback link. Encourage all faculty to be explicit in the feedback. Committee does not select, BOR does. If a candidate not acceptable, may be taken off the list. Not allowed to rank the list forwarded, but can list pros and cons. Request forward pros and cons before April 9th, best before that date (last candidate on April 5th). Link requires e-mail. If you would like to be anonymous, send an e-mail directly to a committee member, who will compile, anonymize, and forward.

Question on how we got to four candidates. Those conversations are confidential. Hilary Risser will accept other communications, such as texts, letters, and personal e-mails. Forums are available for all candidates, and recommend to attend all the ones that you can. Representative also willing to ask questions at forums on your behalf. Also recommend the community reception to ask questions, as well as the Highlands tour.

Request from chair to have committee member send an e-mail to share with faculty senate on how to get in touch with representatives.

Discussion Items

V. Full Faculty Meeting – Discussion lead by Senators North Abbott and Capoccia

Looked at calendars, and came up with Wednesday April 17 from 4-5 (hinging on officers being able to attend). Thursday morning is another option, but afternoons typically have better attendance. Not conflicting with other events, like Texpo or events. Service awards and final TGIF at that time from 4-6, so 3-4 may be an option. Once meeting of Chancellor Search committee meets, hope to have a choice fairly quickly (so hope will have information by the date of the meeting).

Chair will look to see if time will still work (though stated that want to celebrate at TGIF, don't do enough).

VI. Revisions to the Faculty Senate Satisfaction Survey

Question of the efficacy of the survey. The faculty have stated dissatisfaction fairly consistently, without any changes. Chair responds that it is over a longer period of time, with changes over time. Conversations occur every year, with people providing anonymous feedback. Responses from the survey are content analysis, with true constructive criticisms. Year that Okrusch was chair, resulted in a conflict of interest for the finance administrator and hiring an HR professional. Now have several years of consistent data that can present to the new chancellor. Argument of dissatisfaction is stronger if we continue.

Suggestion that we remove the chancellor as part of the survey and add the issue of budgeting and/or program prioritization. Chair counters to keep the chancellor so that new chancellor will have some overall information (also for consistency). Addition of budgeting is important, including transparency, especially those who are bringing in money. Can add budget transparency. Last year about 70 faculty, which is about 1/3 of the faculty. Some are still afraid to put comments forth. Should communicate that anonymity is part of the process.

Senate and re-designers made some changes, such as going from survey monkey to qualtrics as the survey tool. Comment that survey monkey has better anonymity and ability to analyze questions. Answers did differ between non-tenured and tenured faculty.

Chair asks if Okrusch willing to be part of the survey committee. Results are disseminate to whole campus, with comments sent to the individual in question.

Motion to include a budget question for all members and seconded. Every director and VP have requirements in this area. **Motion passes.**

Need to change who to send the paper copy of the survey (now reads Scott and Glen).

VII. Senate Officer Election – 19/20 Senate

Chair opens the discussion asking for nominations. Charie Faught nominated and seconded for chair. No other nominations for chair. **Motion passes.** Stella Capoccia is nominated and seconded. No other nominations. **Motion passes.** Nomination for Atish Mitra for secretary, seconded. No other nominations. **Motion passes.**

VIII. Other Items

Alysia Cox wanted to talk about earth science and engineering PhD. Went through the CRC yesterday. Hope that members have been aware of this for a while. Would be difficult for individual areas to have a PhD, so grouped together. Budget comes from indirect costs and research grants. Chancellor in the future may elect to have additional funding, but should have students if funding available. Anticipating three students a year with a maximum amount of fifteen. Both UM and MSU contacted, with support from UM but not necessarily from MSU (said that OCHE will have to decide, consider “mission expansion”). Hoops that students go through are the qualifying or candidacy exam, a thesis, and a dissertation. Must take both earth science and engineering courses. Also have committee members from earth science, engineering, grad school rep, and an external expert in the field. 24 credits of class, only adding seminar classes. Anticipate that others will want to participate to help research culture. Will attend low enrollment grad classes, but can also take external classes.

Motion to have an electronic vote, pending CRC paperwork (required to have CRC paperwork to vote). Comment that we can suspend the rules, pending confirmation from the CRC and vote today. Move to suspend the rules and seconded.

Chair moves to Charie Faught at this time. Further discussion:

Question regarding work load of supervision of PhD candidates, with response that the answer is awkward because there is a change in administration. Right now there are no stipulations for work load and that thus far is an on-your-own time strategy. We have 17 people who are willing to chair a PhD – considering the faculty work load> Question regarding number on the committee, whether or not it was 4 or 5 committee members, with response that it is 5 with 3 internal, one graduate department representative person, and one external.

Motion to vote to accept pending confirmation of CRC approval and seconded. **Motion passes.**

Comment from chair that Theresa Stack will change the next CRC meeting to before the last scheduled Faculty Senate Meeting.

Comment that CRC, General Education, and Faculty Senate should coordinate future meetings.

Motion to adjourn

April 11th will set agenda

VII. Senator elections (bylaws below)

Article IV. Elections

(Article IV, Section 1 replaced by following according to faculty action 10/21/2011.)

SECTION 1:

Membership in the Faculty Senate shall be determined by annual elections held in March at the department level. Only persons holding faculty rank are eligible to vote, except in the case of Adjunct Faculty. Members shall be elected to two-year or three-year terms at the option of their respective departments. Vacancies created by unexpired terms shall be filled by special election.

Article V. Organization

SECTION 1: Officers

The officers shall consist of a Chairperson, Vice-Chairperson, and Secretary. These officers shall be elected from the total membership of the Faculty Senate at the initial meeting after its annual election.

SECTION 2: Duties of Officers

The Chairperson shall be the principal executive officer and shall have such powers as are appropriate to the office. The Chairperson shall appoint committees and shall be an ex-officio member of all committees except the Nominating Committee.

The Vice-Chairperson shall fulfill the duties of the Chairperson in the Chairperson's absence and shall, otherwise, serve as an assistant to the Chairperson.

The Secretary is responsible for the usual functions of the office, such as:

1. Keeping the minutes of all regular meetings of the Faculty Senate andmaking available copies to the entire professional staff and the Chancellor.
2. Maintaining archives of important papers of the Faculty Senate.
3. Furnishing notification of all Faculty Senate meetings to all faculty members.
4. Carrying on pertinent correspondence relative to the Faculty Senate and its activities.

March 11th , 2019

ITEM # XXX

Request for authorization to confer the title of Professor Emeritus of Mathematics on James Handley – Montana Technological University

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THAT

Upon the occasion of the retirement of Professor James Handley from the faculty of Montana Tech, the faculty wishes to express its appreciation for his 36 years of dedication and valued service by requesting the rank of Professor Emeritus be conferred upon him by the Board of Regents of Higher Education.

EXPLANATION

Professor James Handley came to Montana Tech in 1983. Professor Handley came to Montana Tech after finishing his Master's degree at Michigan Technological University. He has taught in the department for 36 years. Professor Handley is an excellent instructor with consistently high teaching evaluations. These high scores are both a testament to Professor Handley's skill and experience as an instructor and his availability to his students. Professor Handley understands that teaching is a highly personal activity. What works for one instructor may not work for another. Consequently, Professor Handley's approach is very data driven. Rather than focusing on trends or fads, Professor Handley looks for what works in his classroom. Although he doesn't succumb to fads, Professor Handley is not afraid to adapt his approach as times change. He included two syllabi in his evaluation this year, one from 1985 and one from 2018. The distinct differences between the two point to Professor Handley's ability to adapt to different contexts. Professor Handley's strong sense of self has allowed him to adapt without losing the essence of who he is as a teacher.

Over his career, Professor Handley has served on numerous campus and community committees. Professor Handley has always been willing to volunteer when needed. He has served on numerous search committees and has chaired several searches. He has volunteered for campus events like the Science Fair, Midnight Breakfast, and the Tech Ski Day. Professor Handley served on Inter Unit Benefit Committee for MUS for many years. His commitment to serving the university community as a whole, is laudable. Professor Handley is also deeply committed to bettering the Butte Community. He regularly serves as a judge for the Butte High Speech and Debate Competition, has volunteered with Big Brothers and Big Sisters, and has been a member of the Mai Wah Society.

For many years, Professor Handley has helped new faculty members assimilate to Montana Tech and the Butte community. Over the years, he has taught numerous faculty members from departments across campus to cross country ski. He has invited new faculty members to join him at community events, hikes, and/or events at his home. Professor Handley has often served as the heart of the

Department of Mathematical Sciences. When a faculty member has a death in the family, Professor Handley is the one that organizes the condolence card. When a faculty member needs transportation to a medical appointment or the airport, Professor Handley volunteers to provide it. For many years, Professor Handley has organized the department social events for faculty, staff, and students. He is the one that does the grilling on the day of our spring and fall department barbeques rain, shine, or snow. Professor Handley created a sense of family and community in our department. Professor Handley is to be praised for his exceptional efforts serving the students, the department, and Montana Tech as a whole for more than 30 years. He will be sincerely missed by the department, the students, and faculty and staff across campus.

Based on his accomplishments in teaching and service, the Mathematical Sciences Department of Montana Tech is pleased to nominate Professor James Handley as Professor Emeritus of Mathematics at Montana Tech together with all the rights, privileges, and honors thereto appertaining.

Date

ITEM

Authorization to Confer the Title of Professor Emeritus of Geological Engineering Upon Diane Wolfgram, Montana Technological University

THAT: Upon the occasion of the retirement of Professor Diane Wolfgram from the faculty of Montana Technological University, the faculty wishes to express its appreciation for her 27 years of dedicated and valued service to the university, the Department of Geological Engineering, and the State of Montana by recommending that the rank of Professor Emeritus be conferred upon her by the Board of Regents of the Montana University System.

EXPLANATION: Diane Wolfgram earned her B.S. degree in Geological Engineering, with Honors, from South Dakota School of Mines & Technology in 1962 and her M.A. and Ph.D. degrees in Geology from the University of California, Berkeley in 1974 and 1977, respectively. Her doctoral dissertation "Wall Rock Alteration and the Localization of Gold in the Homestake Mine, Lead, South Dakota" is credited with adding twenty years to the life of the Homestake Mine, the largest private employer in the State of South Dakota at that time.

Diane was employed as a petroleum engineer by Shell Oil Company from June 1962 to June 1963, when she entered on active duty as a 2nd Lieutenant in the United States Army. She was promoted to 1st Lieutenant a year later and to the rank of Captain in July 1966. Diane served two non-consecutive tours of duty in the Republic of Vietnam and was awarded two Bronze Star Medals for Meritorious Service and the Air Medal and Army Commendation Medal for Meritorious Achievement in that combat theater. After resigning her commission in December 1969, she was employed by engineering consulting firms in the San Francisco Bay Area before embarking on graduate studies at Berkeley in January 1971.

Diane joined Anaconda Copper Mining Company's Butte Operations as a mine geologist in 1978, where she was involved in the Deep Butte exploration drilling program. She was transferred to the Stillwater Platinum Group Metal underground exploration project in 1980, and a year later was placed in-charge of all geologic aspects of it. When responsibility for the project was transferred to Anaconda's mine development group, Diane was reassigned to Anaconda's Corporate Office in Denver, where she and a group of former Stillwater exploration

geologists conceived and organized a unique and successful Precious Metals Exploration Task Force. In late 1985, Diane left the Anaconda Company (which was dissolved by ARCO 6 months later) to form her own consulting firm in partnership with another former Stillwater exploration project geologist. In the ensuing seven years, Diane and her partner worked, for the most part, under contract to Stillwater Mining Company, but also conducted gold exploration in northern Nevada.

Diane joined the faculty of Montana Tech as an Assistant Professor of Geological Engineering in January 1992 and was promoted to the rank of Associate Professor in 1994. In 1996, she was appointed to the position of Head of the Department of Geological Engineering and promoted to full Professor with tenure in 1999. Her teaching duties included courses focused on the formation and identification of minerals and rocks, the characterization and formation of geologic structures, the practice of mining geology, geologic field mapping and the geological engineering senior design course. Diane was appointed to the position of Head of the Department of Mining Engineering, currently with Geological Engineering, in 2006 and remained in both until 2009.

Diane served on Montana Tech's Faculty Senate from 1992-1994 and chaired it from 1994-1996. While on the Senate she co-authored the founding documents for the Collegiate/Tenure and Promotion Evaluation Committee, which she subsequently served on and chaired (2010-2012). While on the Research Advisory Council (1992-1994) Diane perceived the need for and co-authored the documents that led to the establishment of competitive Research Seed Grants for newly hired faculty. She chaired the NWASC Accreditation Self-Study Steering Committee from 1998-2000 and served on Montana Tech's Strategic Planning Council from 1998-2011 and on the Graduate Council from 1996-2009. Diane also served on Montana Tech's Honorary Doctorate Degree Committee from 2008-2010 and chaired it from 2010-2011.

Diane served as an Engineering Accreditation Commission of ABET Program Evaluator from 1996-2011 and was the principal author of the revised criteria for geological engineering programs accredited under ABET 2000 criteria. She subsequently chaired the Society for Mining, Metallurgy and Exploration's Ad Hoc Committee on ABET Criteria for Geological Engineering Programs (2002-2004), which resulted in only one minor change. She served on and chaired the Society of Economic Geologists (SEG) Student Affairs Committee; paving the way for reduced dues for Student Members that led to significant increases in their membership in this global professional organization. She also served on

(2001) and chaired (2002) SME's Committee on Committees, whose members are selected annually by the society's President-Elect to formulate the membership of a number of standing committees; including the Distinguished Lecturer Committee, the Lindgren Award Committee, and the Thayer Lindsley Visiting Lecturer Committee. Diane organized and Co-Chaired the McLaughlin Symposium of Mining Geology which took place during the Geological Society of America's Cordilleran Section Centennial Meeting at the University of California, Berkeley in 1999, which was followed by a reception for the presenters at the Faculty Club courtesy of the Phoebe A. Hearst Endowment for Mining Geology.

Diane is the co-author of two publications and six abstracts, all related to platinum group mineralization in the J-M Reef of the Stillwater Complex, and one Montana Bureau of Mines and Geology open-file map of the Elkhorn Mountains volcanics north of the Golden Sunlight mine. She is also the author of 15 unpublished documents and the co-author of 5 more in the Anaconda Geological Document Collection that is available to the public at the Western History Center of the University of Wyoming in Laramie. These documents are in the range of 10-50 pages, but two are greater than 50 pages, and one is a large geologic map. Other documents remain in the private sector because they pertain to mining properties that Anaconda sold to other interests.

Diane is licensed as a Professional Geologist in California and as a Professional Engineer (Mining and Mineral Processing) in Montana. She is a Fellow of the Society of Economic Geologists, a Senior Member of the Society for Mining, Metallurgy, and Exploration, a Senior Member of the Geological Society of America, and the Founding Governor of Link 178 of the Order of the Engineer at Montana Tech.

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/26/2019
Dept. Several in CLSPS and SME
Program Earth Science and Engineering PhD

College Graduate School
CRC Representative Alysia Cox

Description of Request:
Offer a Ph.D. program in Earth Science and Engineering

Proposed Changes in Yellow

The Graduate School at Montana Tech seeks authorization to offer a Doctor of Philosophy (Ph.D.) in Earth Science and Engineering (ESE), building on existing engineering and science BS and MS programs and the Montana Bureau of Mines and Geology (MBMG). Graduates will be positioned for numerous careers important to Montana, including energy/mineral development, geological/geophysical exploration, environmental consulting/protection, land/resource management, state and federal government, academia, and non-profits. Specialties take advantage of Montana Tech's and MBMG's distinctive strengths in Geological, Environmental, Petroleum, Mining, Mineral and Metallurgical Processing, and Hydrogeological Engineering, along with Geochemistry, Geophysics, Hydrogeology, and Economic Geology.

List of supporting documentation attached:

1. Summary document of academic aspects of the Level II proposal to establish the ESE PhD program
2. Full level II Curriculum proposal to the BoR

Assessment Leading to Request
See level II proposal.

Anticipated Impacts to "Other" Programs
Low enrollment graduate courses in the participating departments will gain in enrollment. No changes are needed in curricula for other programs. Some M.S. students in other programs may elect to continue into Ph.D. study. Also see attached Level II proposal.

Impact on Library:
Library holdings are adequate, due to the program's relationship with existing B.S. and M.S. programs and MBMG.

Date to take effect: 2020 catalogue

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval Many Departments. Both deans coordinated Date _____

Dean Approval _____ Date 3/25/19

Graduate Council Approval _____ Date 3/26/19

CRC Approval _____ Date 3/28/19

Faculty Senate Approval _____ Date _____

VCAA Approval (see below) _____ Date _____

Chancellor Approval (see below) _____ Date _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
  Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing.
- ☐ Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☐ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- X Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit

SUMMARY OF MONTANA TECH'S
EARTH SCIENCE & ENGINEERING PH.D. PROGRAM PROPOSAL
Draft: March 2019

Introduction. Montana Tech proposes to offer a Doctor of Philosophy (Ph.D.) in Earth Science and Engineering (ESE), building on existing engineering and science BS and MS programs and the Montana Bureau of Mines and Geology (MBMG). Graduates will be positioned for numerous careers important to Montana, including energy/mineral development, geological/geophysical exploration, environmental consulting/protection, land/resource management, state and federal government, academia, and non-profits. Specialties take advantage of Montana Tech's and MBMG's distinctive strengths in Geological, Environmental, Petroleum, Mining, Mineral and Metallurgical Processing, and Hydrogeological Engineering, along with Geochemistry, Geophysics, Hydrogeology, and Economic Geology. This Ph.D. proposal and focus area builds naturally on Montana Tech's historic status as Montana's School of Mines; its current designation by the Board of Regents as a special focus institution, focused on science, engineering, technology, and health; its long-standing constituency of extractive and natural-resource-focused stakeholders; and the continuing economic importance of such industries to Montana. The program is planned to grow to a steady state enrollment in the range of 15 to 20 students. About three students per year would be admitted initially.

Justification. Earth science and engineering support Montana economic development and vital sectors of Montana's economy: agriculture, mining, transportation, manufacturing, energy, tourism and recreation. Earth scientists and engineers with doctoral degrees provide leadership in the quest to protect communities from natural hazards and to locate, develop, and manage water, energy, and mineral resources safely, sustainably, and in a manner that protects the environment. Geoscientists and engineers are in demand in industry, government agencies (e.g. BLM, EPA, USFS, Montana DEQ, Montana DNRC, and MBMG), and as consultants, professors, and teachers. Montana Tech's ESE PhD program will complement and collaborate with related doctoral programs at UM and MSU to provide Montana, the US, and the world with knowledgeable earth scientists and engineers prepared to handle environmental, energy, land, water, mineral, and natural-hazard challenges facing local communities, the state, nation, and world. The Ph.D. students will tackle significant earth science and engineering problems requiring concentrated effort and the specialized expertise of their Montana Tech faculty mentors. Such problems are out of reach for master's or bachelor's students, who lack the skills, knowledge, and most critically, the time needed for such projects.

By integrating earth science and engineering, the proposed ESE Ph.D. complements rather than duplicates the existing geoscience and environmental Ph.D. programs at Montana State University and the University of Montana. The ESE PhD program complements the existing programs by integrating modeling, design, and engineering with science, taking advantage of proximity to the Montana Bureau of Mines and Geology (MBMG) and campus strengths in engineering (Environmental, Mining, Petroleum, Metallurgical and Mineral Processing, Geotechnical, and Hydrogeological) and earth science (Hydrogeology, Hydrology, Geophysics, and Geochemistry). Immersion in both science and engineering and intrinsic

multidisciplinarity distinguish it from the other programs, thereby expanding the Montana University System's doctoral offerings in this broad economically important field. Distinctive strengths include application to extractive industries and natural hazard reduction. Montana Tech faculty developing this program are enthusiastic about pursuing research collaboration with the other geo-focused PhD program faculty and to boost Montana's competitiveness for federal research funding in these fields. Instructional collaboration could reduce costs by enabling higher enrollment in advanced courses shared among the three campuses.

Learning Outcome Goals. The proposed ESE-PhD program has five objectives that reflect the learning outcomes established by the Graduate School. The Assessment section below summarizes how these outcomes will be assessed. Students will

- Acquire up-to-date, advanced knowledge, skills, and understanding in and integrating earth science and engineering, as needed to meet the changing needs of society;
- Blend theory with practice and science with engineering to integrate, design, model, problem solve, and apply advanced knowledge, skills and understanding in earth science and engineering;
- Develop skills in communicating technical and complex material orally, in writing, and using various media for a broad range of audiences;
- Demonstrate leadership skills and ethical principles applicable to earth science and engineering as a discipline and profession, including the ability to enable the responsible and sustainable development and use of natural resources, and to address issues related to natural resources and to protecting and restoring the environment facing humanity today and in the future; and
- Make a significant and original contribution to advance knowledge in earth science and engineering.

Curriculum. The proposed ESE-Ph.D. is a research degree. Students would be required to earn at least 60 credits (beyond the bachelor's degree). The curriculum requires a minimum of 26 credits of course work (2 credits of Earth Science and Engineering seminar + eight 3-credit courses). At least five of the courses (15 credits) must be at the 500 level, and no credits can be accepted below the 400 level. Students entering with a master's degree would be allowed to petition to transfer up to 24 course credits (no research credits and no seminar credits) toward the Ph.D., subject to approval by the faculty, if they are applicable to the degree. Within the curriculum at least three courses (9 credits) must feature engineering content and skills and at least three courses (9 credits) must feature science content and skills. All PhD students must take a 1-credit Earth Science and Engineering seminar during their first semester, at which participating faculty introduce and present their research. ESE-PhD students will also take Montana Tech's graduate writing seminar. Each student could specialize and earn a degree concentration or option, such as geochemistry, geological engineering, hydrogeology, mining engineering, or any other earth science and engineering subdiscipline where Montana Tech offers a M.S. or Geoscience M.S. option. For the option, each department will have a specified set of at least four courses or a menu from which students seeking that option would select at least four courses. Montana Tech currently offers more than 70 different 400- and 500-level courses applicable to the

ESE-Ph.D at least every other year. Students would not be limited to these courses, but would be encouraged to seek out and enroll in specialized advanced graduate-level courses at UM, MSU, and other highly regarded institutions, where they can learn from leaders in the field about topics important to their specialties.

Students must pass three examinations to demonstrate their ability to be independent thinkers and scholars, along with a comprehensive foundation of earth science and engineering knowledge and understanding: the Qualifying Exam, the Candidacy Exam and the final Dissertation Defense. The Qualifying Exam tests the student's ability to be an independent thinker and scholar, as well as demonstrate knowledge breadth and depth in earth science and engineering. The student will write an independent research proposal unrelated to their dissertation research topic and present and defend it to their dissertation committee. During the oral defense, the student will be questioned on their proposal as well as breadth of knowledge in earth science and engineering. The Candidacy Exam is a dissertation proposal defense by the qualified student to the dissertation committee. This oral defense is designed to help the student have a plan to execute successful and original research. Finally, students will complete and defend orally a dissertation presenting the results of significant and original research that advances knowledge in earth science and engineering. Students must enroll in a total of at least 18 dissertation credits to complete the degree. To reach the total of 60 credits, students may take additional courses or additional research credits beyond the minimum amount required.

Admissions Criteria comply with Montana Tech's graduate admissions criteria. Briefly, students must have an earned bachelor's degree from a regionally accredited institution of higher education (or a recognized international equivalent) with a cumulative undergraduate GPA of at least 3.0 on a 4.0 scale. They must take and submit scores for the GRE General Test, provide three letters of recommendation, transcripts from all universities attended, and a statement of purpose for pursuing the degree. GRE scores will be considered holistically in combination with the other materials. Students educated outside the United States must provide additional materials (such as officially evaluated transcripts and English Proficiency Scores from IELTS (score of at least 7.0) or TOEFL (score of at least 85). Students will be admitted to the program in Fall semester only (August).

Admitted students are assigned an initial advisor in the admissions offer. Not later than the third semester, they will form a graduate committee, with at least five members. The Graduate Committee collaborates with the student to design, manage, and oversee the student's curriculum and progression through the program. The committee chair would be the research advisor. Two other committee members will be Montana Tech faculty affiliated with the ESE-Ph.D. program. At least one of the three program faculty on the committee will be an engineer, and at least one member will be a scientist. The fourth member of the committee is the "Graduate School Representative," a faculty member NOT involved with the ESE-PhD. The fifth member is an expert in the area of the student's research, who is NOT a faculty member at Montana Tech. Each member of the Graduate Committee must have a Ph.D. and at least four members of the Committee, including the external member, must be on the student's dissertation committee.

Assessment. The table summarizes the learning outcomes and programmatic objectives and provides sample measures and metrics that will be collected and reviewed annually and summarized into a formal report for Montana Tech's Program Review Cycle every two years.

Learning Outcomes and Programmatic Objectives	Measures and metrics
Acquire up-to-date, advanced knowledge, skills, and understanding in and integrating earth science and engineering, as needed to meet the changing needs of society;	• Qualifiying exam • Candidacy exam • Dissertation and defense • Special training: software, etc.
Blend theory with practice and science with engineering to integrate, design, model, problem solve, and apply advanced knowledge, skills and understanding in earth science and engineering;	• Dissertation and defense • Publications • Conference presentations
Develop skills in communicating technical and complex material orally, in writing, and using various media for a broad range of audiences;	• Dissertation and defense • Publications and presentations • Qualifying exam • Candidacy exam • Outreach participation
Demonstrate leadership skills and ethical principles applicable to earth science and engineering as a discipline and profession, including the ability to enable the responsible and sustainable development and use of natural resources, and to address issues related to natural resources and to protecting and restoring the environment facing humanity today and in the future.	• Dissertation topic and candidacy exam • Professional society membership • Service • Internships • Mentoring undergraduates • Placement rate and position • Grants/scholarships received
Make a significant and original contribution to advance knowledge in earth science and engineering.	• Dissertation & judgment of committee • Peer-reviewed publications • Invited talks at conferences
Programmatic: Impact, Enrollment, retention, completions, faculty & department engagement	• Evaluation of External Adv. Board • Applications & quality of students • Enrollment & Degrees granted • Time to degree • Active faculty & departments • Applicant demand • Program reputation • Employment in Montana • Alumni & employer surveys

Collaboration Opportunities with Related Doctoral Programs at UM and MSU.
We seek input from colleagues at UM and MSU on how Montana and all three campuses, their students, and MBMG can benefit maximally from synergies and collaborations? Research collaborations? Courses? Instrumentation?

ESE-PhD Faculty Program Development Team at Montana Tech (Many Others Also Involved)
Alysia Cox, Geochemistry, Team Leader
Chris Gammons, Geochemistry
Marvin Speece, Geophysics
Xiaobing Zhou, Geophysics
Abhishek Choudhury, Mining Engineering
Avimanyu Das, Metallurgical Engineering
Raja Nagisetty, Environmental Engineering
Chris Roos, Mining Engineering
Glenn Shaw, Hydrogeological Engineering
John Metesh, Montana Bureau of Mines & Geology
Madeleine Gotkowitz, Montana Bureau of Mines & Geology
Sue Schrader, Petroleum Engineering

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date: 3/6/19
Dept: Liberal Studies **College:** CLSPS
Program Interdisciplinary Arts & Sciences major **CRC Representative:** Dr. Isabel Campos

Description of Request: Revise curriculum for IAS major removing Career Planning (2 credits) and Special Topics (1 credit) requirements.

Current Course or Program Information:

Career Planning
L.S. 1006 - Career/Life Planning 2 credits
Capstone
L.S. 4916 - Internship (at least 3 credits) OR L.S. 4986 - Undergraduate Research (at least 3 credits)
L.S. 4956 - Special Topics (1 ore more credits)

Proposed Change

Course # Name	Credits	Pre-req.
Remove L.S. 1006 and L.S. 4956 from required courses.		
New catalog language:		
"Capstone		
L.S. 4916 - Internship (at least 3 credits) OR L.S. 4986 - Undergraduate Research (at least 3 credits)"		

Assessment Leading to Request
For the last three years the department has not had the staffing to offer L.S. 1006 and students have been substituting MTech Success for this course.
Similarly, the majority of graduates over the last two years have been fulfilling the capstone requirement (research presentation, resume portfolio construction, etc.) within the 3 required credits of either the internship or undergraduate research capstone courses.

Anticipated Impacts to "Other" Programs
These courses are primarily for IAS majors.

Impact on Library: No consultation is required.

~~**Date to take effect:**~~ As in all CRC changes, this request should take effect in future MTech catalogs

APPROVALS

Department Head Approval **SD Risser** **Date 3/6/19**

Dean Approval _____ **Date** _____

CRC Approval _____ Date 3/28/19

Faculty Senate Approval _____ Date _____

LEVEL of Request - *Faculty Approvals*

✓ Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/20/2019
Dept. Safety, Health and Industrial Hygiene
Program B.S. OSH
College School of Mines and Engineering
CRC Representative Theresa Stack

Description of Request:
The OSH 495 Practicum is offered as an alternative to an internship. Students spend a week in the field visiting various industrial sites the week before classes being (35hours) and then 2 hours a week through the rest of the semester. Class size has ranged from 5-13. The instructor drives the students to various sites the week before formal classes begin. The request is to designate this as a laboratory class by changing the name and modifying the description.

Current Course or Program Information:
This course provides students with internship experience in occupational safety and health. Students will visit numerous working establishments to learn from the site OSH manager how they implement programs to comply with regulatory requirements, train personnel, and strengthen their safety culture. Students will anticipate, recognize, evaluate and write recommendations for risk mitigation. (2 credit hours).
Prerequisites:
SR. standing, and C- or above

- OSH 2246 OSH 2266
- OSH 3236 OSH 3546
- OSH 4216 IH I (co-requisite).

Students are added by approval of the instructor.

Proposed Change

Course # Name	**Credits**	**Pre-req.**
OSH 495 Practicum Laboratory	**2 credit hours laboratory**	

This course provides students with internship experience in occupational safety and health. Students will visit numerous working establishments to learn from the site OSH manager how they implement programs to comply with regulatory requirements, train personnel, and strengthen their safety culture. Students will anticipate, recognize, evaluate, and write recommendations for risk mitigation. This course requires fieldwork to include standing, walking, or sitting for four or more hours.

Prerequisites:
SR. standing, and C- or above

- OSH 2246, OSH 2266
- OSH 3236 OSH 3546
- OSH 4216 IH I (co-requisite).

Students are added by approval of the instructor.

List of supporting documentation attached:

1. none

Assessment Leading to Request
Class incurs a cost to the department and there is not a means to replace lost or broken PPE used by the students. Class requires significate preparation time in addition to the lecture material covered throughout the semester. This laboratory class provides students with first-hand experience with concepts and with the opportunity to explore methods used by practitioners in their discipline. Leading a laboratory session has particular challenges and opportunities that differ from those in a standard classroom environment.
Anticipated Impacts to "Other" Programs None
Impact on Library: No consultation is required since changes are only in the course number, course name, or course pre-requisites.)
Date to take effect: 2019 catalogue

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ **Date** 3/20/19

Dean Approval _____ **Date** 3-25-19

Graduate Council Approval N/A **Date** _____

CRC Approval _____ **Date** 3/28/19

Faculty Senate Approval _____ **Date** _____

VCAA Approval (see below) _____ **Date** _____

Chancellor Approval (see below) _____ **Date** _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
- X Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing.
- ☐ Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☐ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit
- X Other: Adding a laboratory fee

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date March 26, 2019
Dept. Health Care Informatics **College** CLSPS
Program: Health Care Informatics **CRC Representative Kristi Bailey**

Description of Request: The request is due to the moratorium of the associates and bachelor's degree in Health Care Informatics and the transfer of some but not all of the courses to the new Business and Information Technology, Health Information Technology degree (BIT/HIT). With both the minor and the new

Current Course or Program Information: The minor is designed for students in another four year degree program at Tech. The HCI minor gives students additional skills and knowledge that they can apply to the health care industry (such as business students) or in the informatics field (such as nursing).

Proposed Change

Course # Name	Credits	Pre-req.
See attached worksheet. Courses to be removed are		
HIT 101 Introduction to Health Care Informatics- 3 Credits		
HCI 312 Health Care Delivery in the US II- 3 credits		
HCI 420 Public Health Informatics- 3 credits		
HCI 4946 Health Care Informatics Seminar- 2 credits		
Courses to be added are		
HIT 422 Health Care Finance and Revenue Cycle Management- 3 credits		
HCI 440 Data Integration and Exchange- 3 credits		

List of supporting documentation attached:

1. Curriculum worksheet

Assessment Leading to Request

As noted above, the moratorium of the HCI associate's and bachelor's degree led to a review of the HCI minor.

Anticipated Impacts to "Other" Programs

No impacts are anticipated- the courses listed will be part of the new BIT/HIT degree (no new courses expected).

Impact on Library: Charie Faught has consulted with Scott Juskiewicz (03/26/2019) at the Montana Tech library to ensure needed materials and media are available. (Or No consultation is required since changes are only in the course number, course name, or course pre-requisites.)

Date to take effect: Fall 2019

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ Date 3/26/2019

Dean Approval _____ Date 3/26/2019

Graduate Council Approval _____ Date _____

CRC Approval _____ Date 3/28/19

Faculty Senate Approval _____ Date _____

VCAA Approval (see below) _____ Date _____

Chancellor Approval (see below) _____ Date _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
- ☐ Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing.
- ☑ Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☐ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit
- ☐ Other:

Curriculum Worksheet

Curriculum Worksheet

Health Care Informatics Technology Certificate (HIT Certificate Program)

	Course #	Name	Credits		Semester Taken	Grade Received
	AHMS 144	Medical Terminology	3	Fall or Spring		
Track 1:	AHMS 252/BUS 0261	Computerized Medical Billing	3	Spring Semester		
for Information	~~HIT 101~~	~~Intro to Health Care Informatics~~	~~3~~	~~Fall or Spring~~		
Technology	~~HCI 215~~	~~Healthcare Facility Procedures~~	~~3~~	~~Fall Semester~~		
Professionals	HIT 265	EHR in Medical Practice	3	Fall or Spring		
		Total	15			
	~~HIT 101~~	~~Intro to Health Care Informatics~~	~~3~~	~~Fall or Spring~~		
	HIT 260	Workflow Process and Redesign (formerly Data, Information, and Knowledge)	3	Spring Semester		
Track 2:						
for Allied Health	HIT 230	Overview of HCI Systems	4	Fall Semester		
& Medical	HIT 265	EHR in Medical Practice	3	Fall or Spring		
Professionals	HCI 410	Project & System Management	4	Spring Semester (fall in 2015)		
		Total	17			

Curriculum Worksheet NEW!

Health Care Informatics Technology Certificate (HIT Certificate Program)

	Course #	Name	Credits		Semester Taken	Grade Received
	AHMS 144	Medical Terminology	3	Fall or Spring		
Track 1:	AHMS 252/BUS 0261	Computerized Medical Billing	3	Spring Semester		
for Information	HIT 230	Overview of HCI Systems	4	Fall Semester		
Technology	HIT 260	Workflow Process &Redesign	3	Spring Semester		
Professionals	HIT 265	EHR in Medical Practice	3	Fall or Spring		
		Total	16			
	HCI 310 or HCI 320	HC Delivery or Info Systems Sec	3	Fall		
	HIT 260	Workflow Process and Redesign (formerly Data, Information, and Knowledge)	3	Spring Semester		
Track 2:						
for Allied Health	HIT 230	Overview of HCI Systems	4	Fall Semester		
& Medical	HIT 265	EHR in Medical Practice	3	Fall or Spring		
Professionals	HCI 410	Project MGT & Systems Analysis	4	Spring Semester (fall in 2015)		
		Total	17			

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/15/2019
Dept. **Business and Information Technology** **College** CLSPS
Program Bachelor of Science **CRC Representative David Hood**

Description of Request: The Department of Business and Information Technology respectively requests the name of the BMIS 320 course be changed from *Business Modeling I to Business Modeling.*

Current Course or Program Information: The BMIS 320 Business Modeling I course has historically been the first course of a two course sequence in business modeling. BMIS 320 Business Modeling I was a prerequisite for our BMIS 375 Business Modeling II course. This spring the CRC approved the proposal to change of name of the BMIS 375 course from *Business Modeling II* to BMIS 375 *Data Analytics.*

Proposed Change

Course # Name	Credits	Pre-req.
BMIS 320 Business Modeling	3	

The proposal is to rename the course *Business Modeling*. Since the BMIS 375 Data Analytics course is no longer titled Business Modeling II, it appears appropriate to rename the BMIS 320 course from Business Modeling I to Business Modeling.

The content, and intended student learning outcomes, of the BMIS 320 course will remain intact.

List of supporting documentation attached:
No supporting documentation is provided.

Assessment Leading to Request
The assessment for this request was a part of the assessment for the previous BMIS 375 Data Analytics request.

Anticipated Impacts to "Other" Programs
None

Impact on Library:. It is believed there will be no incremental impact on library resources. Scott Juskiewicz was briefed on this proposal.

Date to take effect: **The change will be incorporated in the 2019-20 Catalog.**

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ **Date** 3/20/2019

Dean Approval Steven D. Gammon **Date** 03/25/2019

Graduate Council Approval _____ **Date** _____

CRC Approval _____ **Date** 3/28/19

Faculty Senate Approval _____ **Date** _____

VCAA Approval (see below) _____ **Date** _____

Chancellor Approval (see below) _____ **Date** _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
- ☒ Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing
  Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☐ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit
- ☐ Other:

Department of Business and Information Technology
Proposed Changes to the BAS Degree
March 2019

	Existing Requirements			Proposed Requirements		
Block Transfer (AAS degree):	**54 credits**			**54 credits**		
General Education:	**30 credits**			**30 credits**		
Communication:	WRIT 101 College Writing WRIT 222 Advanced Business Writing			WRIT 101 College Writing WRIT 222 Advanced Business Writing		
Humanities:	BGEN 363 Business Ethics Humanities Elective			BGEN 363 Business Ethics Humanities Elective		
Math (pick 2 of 3):	M 141 Math for Bus and SS I M 141 Math for Bus and SS II STAT 216 Introduction to Statistics			M 141 Math for Bus and SS I M 141 Math for Bus and SS II STAT 216 Introduction to Statistics		
Physical Science	Elective Elective with a lab			Elective Elective with a lab		
Social Sciences:	ECNS 203 Principles of Micro and Macro Elective			ECNS 203 Principles of Micro and Macro Elective		
Business Core:	**24 credits**			**18 credits**		
	ACTG 201 Principles of Financial Acct ACTG 202 Principles of Managerial Acct BGEN 235 Business Law I BMGT 335 Management and Organization BMKT 325 Marketing BFIN 322 Business Finance ACTG 321 AIS/BMIS 311 MIS BMGT 426 Strategic Management			ACTG 201 Principles of Financial Acct ACTG 202 Principles of Managerial Acct BGEN 235 Business Law I BFIN 322 Business Finance ACTG 321 AIS/BMIS 311 MIS BMGT 426 Strategic Management		
Track Requirements:	**Accounting**	**Construction Management**	**Management**	**Accounting**	**Construction Management**	**Management**
	12 Credits			**18 Credits**		
Required:	ACTG 301 ACTG 302 ACTG 410	BMGT 329	BMGT 329	ACTG 301 ACTG 302 ACTG 401 ACTG 410 ACTG 411	BMGT 329 or BMGT 362	BMGT 329 BMGT 335 BMKT 325
Electives	**Pick 1**	**Pick 3**	**Pick 3**	**Pick 1**	**Pick 5**	**Pick 4**
	ACTG 401 ACTG 402 ACTG 411 ACTG 412 ACTG 420 ACTG 436	ECIV 208 ECIV 304 EGEN 325 ECIV 307 ECIV 391	ACTG 410 ACTG 420 BGEN 236 BMGT 322 BMGT 353 BMGT 362 BFIN 455	ACTG 402 ACTG 412 ACTG 415 ACTG 436 ACTG 498	ECIV 208 ECIV 304 EGEN 325 ECIV 307 ECIV 391 ECIV 405 BMGT 322 HCI 410 BMGT 498	ACTG 410 BGEN 236 BGEN 360 BMGT 322 BMGT 353 BMGT 362 BMGT 448 BMKT 337 BMKT 342 HCI 410 BMIS 320 BMIS 415 BMGT 498

#3

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/15/2019
Dept. **Business and Information Technology** **College** CLSPS
Program Bachelor of Science **CRC Representative David Hood**

Description of Request: The Department of Business and Information Technology requests that the options in Marketing, Management, and Information Technology be dropped from the catalog and a new option titled Management of Information be created. The new option on Management of Information is designed to consolidate the current options in Information Technology and Management into a single option.

Current Course or Program Information: Business students studying under our bachelor of science program have historically been able to select a course of study in Marketing, Management or Information Technology as options of study. The marketing and management options have been relatively popular among our students whereas the Information Technology option has not. Additionally, the Program Prioritization Committee has recommended a reduction in the number of available options under our bachelor of science program.

Proposed Change

Course # Name	Credits	Pre-req.
The Department of Business and Information Technology requests that the Marketing, Management, and Information Technology Options under the Bachelor of Science program be removed from the University catalog starting with the 2019-20 academic year. It is also requested that a new option in Management of Information be introduced to University Catalog starting with the 2019 – 20 academic year.		

List of supporting documentation attached:
No supporting documentation is provided.

Assessment Leading to Request
The Department has engaged in internal discussions as well as informal discussions with its advisory board as to how it could best address the recommendations from the Program Prioritization Committee. These discussions led to this proposal related to the options under our bachelor of science program. It was decided to remove the marketing option from the catalog primarily because there is no real champion of the marketing program among the current Department faculty members. As for the current options in management and information technology, the Department has a vision to incorporate additional data analytics and analysis into the business program and it is believed that renaming the option *Management of Information* is a better description of the program of study than either *Management* or *Information Technology*. Additionally, this move works to incorporate the recommendation of the Program Prioritization Committee as it will remove two options from our bachelor of science program.

Anticipated Impacts to "Other" Programs
There are no anticipated impacts to other programs.

Impact on Library:. It is believed there will be no incremental impact on library resources. Scott Juskiewicz was briefed on this proposal.

Date to take effect: **The change will be incorporated in the 2019-20 Catalog.**

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ **Date** 3/20/2019

Dean Approval Steven D. Gammon **Date** 03/25/2019

Graduate Council Approval _____ **Date** _____

CRC Approval _____ **Date** 3/28/19

Faculty Senate Approval _____ **Date** _____

VCAA Approval (see below) _____ **Date** _____

Chancellor Approval (see below) _____ **Date** _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
  Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing
  Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☒ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☒ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit
- ☐ Other:

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/20/2019
Dept. **Business and Information Technology** **College** CLSPS
Program Bachelor of Science **CRC Representative David Hood** #4

Description of Request: The Department of Business and Information Technology respectively requests two changes to the business core required under its bachelor of science program. This core is required and common for all options under the bachelor of science program.
The first requested change in this proposal would remove the requirement of BGEN 360 International Business and replace it with a free/general elective. The second requested change is designed to reduce the number of course substitutions being processed by our department. Students from other departments on campus transfer to our department after completing different math, statistics, or communication courses than those required for our students. These different courses have always been accepted by the department but nonetheless require formal course substitution forms. The department requests that we be allowed to incorporate these commonly substituted courses into our catalog in order to bypass the formal course substitution process.

Current Course or Program Information: The current requirements under the bachelor of science program include the following required courses:

- BGEN 360 International Business
- M 141 Math for Business and Social Science I
- M 142 Math for Business and Social Science I
- STAT 216 Introduction to Statistics
- COMX 111 Introduction to Public Speaking

Proposed Change

Course # Name	Credits	Pre-req.

- Remove the requirement of BGEN 360 International Business as a requirement and replace it with a free/general elective.
- Expand the other requirements listed above to include common course substitutions as follows:
  - M 141 Math for Bus and Social Science I to M 141 or M 151 Precalculus
  - M 142 Math for Bus and Social Science II to M 142 or M 171 Calculus I
  - STAT 216 Introduction to Statistics to STAT 216 or STAT 131 Introduction to Biostatistics or STAT 332 Statistics for Scientists and Engineers
  - COMX 111 Introduction to Public Speaking to COMX 111 or COMX 230 Presenting Technical Information

List of supporting documentation attached:
This request includes a proposed general business curriculum under the bachelor of science program. The proposed changes are highlighted in yellow.

Assessment Leading to Request
This proposal has been thoroughly discussed by the department faculty members and has been presented to our Industrial Advisory Board (IAB). All parties support the proposal for similar reasons. Currently, the business program at Montana Tech is the only business program in Montana that requires a stand-alone course in International Business. It is believed the other courses required in the department's curriculum contain ample international business related topics in order to meet our accreditation requirements. This proposal will allow students the ability to elect a course of interest or transfer an additional free/general elective into their individual course of study. The BGEN 360 International Business course will be allowed as an option concentration elective course under our options of study for those students interested in additional international business coursework.
The primary purpose of the expansion of accepted math, statistics, and communication courses will be to reduce the number of formal course substitutions required by students. The courses included in the expanded list have always been accepted as course substitutions in the past.

Anticipated Impacts to "Other" Programs
There are no anticipated impacts to other programs.

Impact on Library:. It is believed there will be no incremental impact on library resources. Scott Juskiewicz was briefed on this proposal.
Date to take effect: The change will be incorporated in the 2019-20 Catalog.

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ Date 3/20/2019

Dean Approval Steven D. Gammon Date 03/25/2019

Graduate Council Approval _____ Date _____

CRC Approval _____ Date 3/28/19

Faculty Senate Approval _____ Date _____

VCAA Approval (see below) _____ Date _____

Chancellor Approval (see below) _____ Date _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

Establish a new course for the catalog (please contact the Registrar of MUS CCN information)

Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing

- [X] Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- [ ] New degree certification program of 29 credits or less
- [ ] Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

Placing a postsecondary educational program into moratorium

- [ ] Withdrawing a postsecondary educational program from moratorium
- [ ] Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- [ ] Establishing a B.A.S./A.A./A.S. area of study
- [ ] Offering an existing postsecondary educational program via distance or online delivery
- [ ] Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

Re-titling an existing postsecondary educational program

- [ ] Terminating an existing postsecondary educational program
- [ ] Consolidating existing postsecondary educational programs
- [ ] Establishing a new minor where there is a major or an option in a major
- [ ] Revising a postsecondary educational program
- [ ] Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- [ ] Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- [ ] Establishing a new postsecondary educational program
- [ ] Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- [ ] Forming, eliminating or consolidating an academic, administrative, or research unit
- [ ] Re-titling an academic, administrative, or research unit
- [ ] Other:

Department of BIT
Proposed Curriculum
Bachelor of Science - Common Core to all Options
March 2019

Freshmen

BGEN 105	Introduction to Business	3	COMX 111	Intro to Public Speaking **or**	3
WRIT 101	College Writing	3	COMX 230	Presenting Technical Information	
M 141	Math For Business or Soc Sci I **or**	3	M 142	Math For Business or Soc Sci II **or**	3
M 151	Precalculus		M 171	Calculus I	
	Physical Science Elective	3		Physical Science Elective and lab*	4
	Free Elective	3		Humanities Elective	3
				Free Elective	2
		15			15

Sophomore

Fall Semester			Spring Semester		
BGEN 235	Business Law I	3	ACTG 202	Principles of Managerial Actg	3
BGEN 285	Critical Thinking and Deci Making	3	ECNS 202	Principles of Macroeconomics	3
ACTG 201	Principles of Financial Actg	3	STAT 216	Introduction to Statistics **or**	
ECNS 201	Principles of Microeconomics	3	STAT 131	Introduction to Biostatistics **or**	3
	Free Elective	3	STAT 332	Statistics for Scientists and Engineers	
				Free Elective	3
				Free Elective	3
		15			15

Junior

Fall Semester			Spring Semester		
BGEN 363	Business Ethics and Decision Making	3	BMIS 320	Business Modeling	3
BMIS 375	Data Analytics	3	BMKT 325	Marketing	3
BMIS 311	Management Information Systems	3	WRIT 322	Advanced Business Writing	3
MGMT 335	Management and Organization	3		Concentration Requirement/Elective	3
	Concentration Requirement/Elective	3		Concentration Requirement/Elective	3
		15			15

Senior

Fall Semester			Spring Semester		
BFIN 322	Business Finance	3	BMGT 426	Strategic Management	3
MGMT 322	Operations Management	3	BMIS 453	Bus Intel and Big Data Anal	3
	Concentration Requirement/Elective	3		Concentration Requirement/Elective	3
	Concentration Requirement/Elective	3		Concentration Requirement/Elective	3
	Concentration Requirement/Elective	3		Concentration Requirement/Elective	3
		15			15

* Students studying under the Natural Resource Management Option are required to take GEO 101 Introduction to Physical Geology which qualifies as a physical science elective and lab

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/20/2019
Dept. Business and Information Technology **College** CLSPS
Program Bachelor of Science **CRC Representative** David Hood #5

Description of Request: The Department of Business and Information Technology respectively requests approval to update prerequisites for a number of its business courses.

Current Course or Program Information: A number of current business courses have prerequisites that are either no longer required by the department or prerequisites that have not been enforced. These courses include (along with their currently listed prerequisites:

Course		Current Prerequisites
ACTG 301	Intermediate Accounting I	ACTG 202
ACTG 428	CPA Review	ACTG 420, ACTG 302, ACTG 402, ACTG 412, ACTG 436, ACTG 415, ACTG 427
ACTG 436	Advanced Accounting	ACTG 302 and BFIN 322
BMGT 329	Human Resource Management	BMGT 335
BMGT 322	Operations Management	CAPP 156 and STAT 216
BMGT 426	Strategic Management	BMKT 325, BMGT 335, BFIN 322
ECNS 201	Principles of Microeconomics	M 121
ECNS 203	Principles of Micro and Macroeconomics	M 122
BMIS 311	Management Information Systems	CAPP 158
BMIS 416	Enterprise Systems	CAPP 156
BMIS 453	Business Intelligence and Big Data Analy	STAT 216 or STAT 131 and CAPP 156
BGEN 360	International Business	Senior standing or consent of instructor

Proposed Change

Course # Name **Credits** **Pre-req.**

Course		Proposed Prerequisites
ACTG 301	Intermediate Accounting I	ACTG 201
ACTG 428	CPA Review	ACTG 302, ACTG 401, ACTG 410, ACTG 411
ACTG 436	Advanced Accounting	ACTG 302
BMGT 329	Human Resource Management	none
BMGT 322	Operations Management	STAT 216 or STAT 131
BMGT 426	Strategic Management	Senior standing
ECNS 201	Principles of Microeconomics	none
ECNS 203	Principles of Micro and Macroeconomics	none
BMIS 311	Management Information Systems	none
BMIS 416	Enterprise Systems	Junior standing or consent of instructor
BMIS 453	Business Intelligence and Big Data Analy	STAT 216 or STAT 131
BGEN 360	International Business	Junior standing or consent of instructor

List of supporting documentation attached:
This request includes a one-page summary of the above listing.

Assessment Leading to Request
This proposal has been thoroughly discussed by the department faculty members. The prerequisites have not been reviewed for a number of years and these changes better reflect current requirements for the listed courses.

Anticipated Impacts to "Other" Programs
There are no anticipated impacts to other programs.

Impact on Library:. It is believed there will be no incremental impact on library resources. Scott Juskiewicz was briefed on this proposal.

Date to take effect: The change will be incorporated in the 2019-20 Catalog.

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ **Date** 3/20/2019

Dean Approval Steven D. Gammon **Date** 03/25/2019

Graduate Council Approval _____ **Date** _____

CRC Approval _____ **Date** 3/28/19

Faculty Senate Approval _____ **Date** _____

VCAA Approval (see below) _____ **Date** _____

Chancellor Approval (see below) _____ **Date** _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

Establish a new course for the catalog (please contact the Registrar of MUS CCN information)

Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing

- [X] Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- [ ] New degree certification program of 29 credits or less
- [ ] Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

Placing a postsecondary educational program into moratorium

- [ ] Withdrawing a postsecondary educational program from moratorium
- [ ] Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- [ ] Establishing a B.A.S./A.A./A.S. area of study
- [ ] Offering an existing postsecondary educational program via distance or online delivery
- [ ] Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

Re-titling an existing postsecondary educational program

- [ ] Terminating an existing postsecondary educational program
- [ ] Consolidating existing postsecondary educational programs
- [ ] Establishing a new minor where there is a major or an option in a major
- [ ] Revising a postsecondary educational program
- [ ] Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- [ ] Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- [ ] Establishing a new postsecondary educational program
- [ ] Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- [ ] Forming, eliminating or consolidating an academic, administrative, or research unit
- [ ] Re-titling an academic, administrative, or research unit
- [ ] Other:

Department of Business and Information Technology
Proposed Changes to the Prerequisites of Certain Courses
March 2019

Course		Current Prerequisites	Proposed Prerequisites
ACTG 301	Intermediate Accounting I	ACTG 202	ACTG 201
ACTG 428	CPA Review	ACTG 420, ACTG 302, ACTG 402, ACTG 412, ACTG 436, ACTG 415, ACTG 427	ACTG 302, ACTG 401, ACTG 410, ACTG 411
ACTG 436	Advanced Accounting	ACTG 302 and BFIN 322	ACTG 302
BMGT 329	Human Resource Management	BMGT 335	none
BMGT 322	Operations Management	CAPP 156 and STAT 216	STAT 216 or STAT 131
BMGT 426	Strategic Management	BMKT 325, BMGT 335, BFIN 322	Senior standing
ECNS 201	Principles of Microeconomics	M 121	none
ECNS 203	Principles of Micro and Macroeconomics	M 122	none
BMIS 311	Management Information Systems	CAPP 158	none
BMIS 416	Enterprise Systems	CAPP 156	Junior standing or consent of instructor
BMIS 453	Business Intelligence and Big Data Analy	STAT 216 or STAT 131 and CAPP 156	STAT 216 or STAT 131
BGEN 360	International Business	Senior standing or consent of instructor	Junior standing or consent of instructor

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

Date 03/15/2019
Dept. Business and Information Technology College CLSPS
Program Business Minor CRC Representative David Hood

Description of Request: Add one course to the list of acceptable courses for the Business Minor Management Track and change an error in the listed course rubric for one of the existing courses under the Management Track of the minor.

Current Course or Program Information: The current business minor is a relatively popular program among non- business majors. The Management track has been expanded to include PET 446 Petroleum Project Evaluation and MIN 458 Mine Management, two business based courses taught outside of the business department. These courses are considered to have a significant amount of business content and are also currently allowed as concentration elective courses for students studying under our bachelor of Science program.
Also the Business Minor, as currently listed in the catalog, includes the course BUS 3316 which is the previous rubric for the current BMKT 325 Principles of Marketing course

Proposed Change

Course # Name	Credits	Pre-req.
Add MIN 408 Valuation of Mineral Properties as an elective under the Management Track of the Business Minor. This course is currently accepted as a concentration elective, as is PET 446 and MIN 458, for a number of business students studying under our BS program. As such, it is believed the MIN 408 course has the appropriate amount of business content to be included under the Management Track of the business minor. Also, this request includes a proposal to change the rubric for the Marketing course, as listed in the Business Minor under the current catalog, from the BUS 3316 to the corrected BMKT 325 Principles of Marketing.		

List of supporting documentation attached:
The new proposed business minor advising sheet is attached.

Assessment Leading to Request
After a number of conversations with the faculty of the Mining Engineering Department, the inclusion of MIN 408 was deemed appropriate.

Anticipated Impacts to "Other" Programs
None

Impact on Library:. It is believed there will be no incremental impact on library resources. Scott Juskiewicz was briefed on this proposal.

Date to take effect: **The changes will be incorporated in the 2019-20 Catalog.**

MontanaTech *Curriculum Change Request Form Dated 6 September 2018*

APPROVALS

Department Head Approval _____ Date 3/20/2019

Dean Approval Steven D. Gammon Date 03/25/2019

Graduate Council Approval _____ Date _____

CRC Approval _____ Date 3/28/19

Faculty Senate Approval _____ Date _____

VCAA Approval (see below) _____ Date _____

Chancellor Approval (see below) _____ Date _____

LEVEL of Request

Please indicate the type of request(s) by selecting *all that apply*:

Faculty Approvals (directly to CRC, then Faculty Senate):

- ☐ Establish a new course for the catalog (please contact the Registrar of MUS CCN information)
- ☐ Changed course: addition, deletion or change of title, credit, course number, pre-req, description, or cross listing
- ☒ Amend an existing degree program. Making changes to programs such as adding a writing course to a major, changing the list of accepted electives or removing a requirement of a minor
- ☐ New degree certification program of 29 credits or less
- ☐ Other:

Campus Approvals (must be approved by the VCAA prior to CRC submission):

- ☐ Placing a postsecondary educational program into moratorium
- ☐ Withdrawing a postsecondary educational program from moratorium
- ☐ Establishing, re-titling, terminating or revising a campus certificate of 29 credits or more
- ☐ Establishing a B.A.S./A.A./A.S. area of study
- ☐ Offering an existing postsecondary educational program via distance or online delivery
- ☐ Other:

OCHE Approvals *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Re-titling an existing postsecondary educational program
- ☐ Terminating an existing postsecondary educational program
- ☐ Consolidating existing postsecondary educational programs
- ☐ Establishing a new minor where there is a major or an option in a major
- ☐ Revising a postsecondary educational program
- ☐ Establishing a temporary C.A.S. or A.A.S. degree program Approval limited to 2 years
- ☐ Other:

Level II *(must be approved by the VCAA and Chancellor prior to CRC submission)*:

- ☐ Establishing a new postsecondary educational program
- ☐ Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- ☐ Forming, eliminating or consolidating an academic, administrative, or research unit
- ☐ Re-titling an academic, administrative, or research unit
- ☐ Other:

Department of Business and Information Technology
Business Administration Minor
Worksheet

Proposed March 2019

Name:	

Accounting Track				Grade/ Transfer
Required	ACTG	201	Principles of Financial Accounting	
	ACTG	202	Principles of Managerial Accounting	
	BFIN	322	Business Finance	
	ACTG	321	Accounting Information Systems	
Select Two	ACTG	410	Cost/Managerial Accounting I	
	ACTG	420	Cost/Managreial Accounting II	
	ACTG	301	Intermediate Accounting I	
	ACTG	302	Intermediate Accounting II	
	ACTG	401	Principles of Federal Tax - Individual	
	ACTG	411	Auditing I	

Management Track				Grade/ Transfer
Required	ACTG	201	Principles of Financial Accounting	
	BFIN	322	Business Finance	
	BMKT	325	Principles of Marketing	
Select One	BMGT	335	Management and Organization	
	MIN	458	Mine Management	
Select One	BMGT	362	Labor Relations	
	BGEN	363	Business Ethics	
	BMGT	329	Human Resource Management	
	BMGT	353	Organizational Behavior	
Select One	ACTG	202	Principles of Managerial Accounting	
	ACTG	410	Cost/Management Accounting I	
	BGEN	235	Business Law I	
	BMGT	322	Operations Management	
	BGEN	360	International Business	
	BFIN	455	Money, Capital Markets and Institutions	
	MIN	408	Valuation of Mineral Properties	
	PET	446	Petroleum Project Evaluation	

Signatures of Approval:

Student:		Date:
Advisor:		Date:
Business Department Head:		Date:

Montana Tech - Montana's Premier STEM University **2018-2019 Catalog**

[ARCHIVED CATALOG]

Business Administration Minor

The mining, minerals and energy industries, as well as other production/engineering oriented industries, have clearly indicated the need to obtain graduates who are trained in business concepts as well as in the fundamentals of their respective disciplines. Students who elect to pursue a minor in business must be currently enrolled in an approved major area of study at Montana Tech. **BIT students are not eligible to earn the business minors.**

Accounting Track (18 credits)

- ACTG 201 - Principles of Financial Accounting *3 credits*
- ACTG 202 - Principles of Mangerial Accounting *3 credits*
- BFIN 322 - Business Finance *3 credits*
- ACTG 321 - Accounting Information Systems *3 credits*

Electives: 6 credits from one of

- ACTG 410 - Cost/Mgmt Accounting I *3 credits*
- ACTG 420 - Cost/Mgmt Acct II *3 credits*
- ACTG 301 - Intermediate Accounting I *3 credits*
- ACTG 302 - Intermediate Accounting II *3 credits*
- ACTG 401 - Principles of Federal Taxation - Individuals *3 credits*
- ACTG 411 - Auditing I *3 credits*

Management Track (18 credits)

- ACTG 201 - Principles of Financial Accounting *3 credits*
- BFIN 322 - Business Finance *3 credits*
- BUS 3316 - *3 credits*

Electives: 3 credits from one of

- BMGT 335W - Management and Organization *3 credits*
- MIN 458 - Mine Management *3 credits*

Electives: 3 credits from one of

- BMGT 362 - Labor Relations & Collective Bargaining *3 credits*
- BGEN 363 - Business Ethics and Decision Making *3 credits*
- BMGT 329 - Human Resource Management *3 credits*
- BMGT 353W - Organizational Behavior *3 credits*

Electives: 3 credits from one of

- ACTG 202 - Principles of Mangerial Accounting *3 credits*
- ACTG 410 - Cost/Mgmt Accounting I *3 credits*
- BGEN 235 - Business Law *3 credits*
- BMGT 322 - Operations Management *3 credits*
- BGEN 360 - International Business *3 credits*
- BFIN 455 - Money, Capital Markets, and Institutions *3 credits*
- PET 446 - Petroleum Project Evaluation *3 credits*

18 Total credits required for Business Administration Minor

Faculty Senate Survey 2018

Survey Flow

Standard: Welcome (2 Questions)
Standard: Chancellor (7 Questions)
Standard: Provost/Vice Chancellor for Academic Affairs (7 Questions)
Standard: Vice Chancellor for Research / Dean of the Graduate School (7 Questions)
Standard: Vice Chancellor for Development and University Relations; President, Montana Tech Foundation (7 Questions)
Standard: Vice Chancellor for Administration and Finance (6 Questions)
Block: Deans (14 Questions)
Standard: Campus Questions (17 Questions)
Standard: Senate (5 Questions)

Start of Block: Welcome

Q48 *Dear Montana Tech and MBMG Faculty, The Montana Tech Faculty Senate is once again conducting a Faculty Opinion & Satisfaction Survey. This survey will be open through Friday April 20th. If the Faculty Senate is to serve as the voice of all Faculty, we must understand what's working well and what needs improvement. Every voice matters and every opinion counts. Best, Your Faculty Senate Officers*

Q77 If you would prefer to complete a paper version of this survey, you can find the printable pdf here: http://www.mtech.edu/about/facultysenate/documents/Faculty_Senate_Survey_2018.pdf
These paper surveys can be submitted via campus mail anonymously to senate officers: S Risser (Psychology), G Southergill (PTC), or C Faught (HCI).

End of Block: Welcome

Start of Block: Chancellor

Q4
Please answer the following questions regarding the Chancellor of Montana Tech (Donald Blackketter):

Q52 The Chancellor is the chief executive officer of the Institution and of the Montana Bureau of Mines and Geology, a department of Montana Tech. The Chancellor reports to the President of The University of Montana for the internal administration of the Institution. Subject to the supervision of the President, the Chancellor shall (1) have the immediate direction, management, and control of the respective units, including instruction, practical affairs, and scientific investigation; (2) be the chief administrative officer of the general faculty and of

the special faculties of the departments or colleges and the executive head of the unit in all its departments; and (3) have the duties of one of the professorships as long as the interests of the unit requires it.

Q2 In what areas has Chancellor Blackketter excelled in the last year? Please check all that apply:

- [ ] Communication (1)
- [ ] External Relations (2)
- [ ] Leadership (3)
- [ ] Management (4)
- [ ] Planning (5)
- [ ] University Finance (6)
- [ ] Values (7)

Q3 In what areas should Chancellor Blackketter improve based on his performance in this last year? Check all that apply:

- [ ] Communication (1)
- [ ] External Relations (2)
- [ ] Leadership (3)
- [ ] Management (4)
- [ ] Planning (5)
- [ ] University Finance (6)
- [ ] Values (7)

Q1 What grade would you assign for Chancellor Blackketter for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q68 Grade Comments:

_____

_____

_____

_____

_____

Q53 Dr. Blackketter should be retained as Chancellor.

- O Yes (1)
- O No (2)

End of Block: Chancellor

Start of Block: Provost/Vice Chancellor for Academic Affairs

Q12 **Please answer the following questions regarding the Provost/Vice Chancellor for Academic Affairs of Montana Tech (Douglas Abbott):**

Q54 The Provost and Vice Chancellor for Academic Affairs (Provost) serves as the Chief Academic Officer for Montana Tech. The Provost reports directly to the Chancellor and acts in the capacity of Chief Executive Officer of the institution in the absence of the Chancellor. The Provost's duties include (but are not limited to):

Academic Leadership, Institutional Integrity, Accreditation (both regional and degree-specific), Curriculum, Campus representative to external constituencies, Management of the campus degree portfolio, Budget Planning and Fiscal Management, Staffing, Student Affairs, and Faculty Development/Personnel. The Provost works with the Chancellor, Vice Chancellors, Deans, and the faculty/staff to carry out the mission of Montana Tech.

Q13 In what areas has the Provost/Vice Chancellor for Academic Affairs (P/VCAA) excelled in the last year? Please check all that apply:

- [ ] Academic Management (1)
- [ ] Academic Planning (2)
- [ ] Budgeting (3)
- [ ] External Relations (4)
- [ ] Faculty Development (5)
- [ ] Institutional Integrity (6)
- [ ] Leadership (7)
- [ ] Communication (8)

Q14 In what areas should the P/VCAA improve based on his performance in this last year? Check all that apply:

- [ ] Academic Management (1)
- [ ] Academic Planning (2)
- [ ] Budgeting (3)
- [ ] External Relations (4)
- [ ] Faculty Development (5)
- [ ] Institutional Integrity (6)
- [ ] Leadership (7)
- [ ] Communication (8)

Q15 What grade would you assign the P/VCAA for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q69 Grade Comments:

_____

_____

_____

_____

Q55 Dr. Abbott should be retained as Provost and Vice Chancellor for Academic Affairs.

- O Yes (1)
- O No (2)

End of Block: Provost/Vice Chancellor for Academic Affairs

Start of Block: Vice Chancellor for Research / Dean of the Graduate School

Q16
Please answer the following questions regarding the Vice Chancellor for Research/Dean of the Graduate School for Montana Tech (Beverly Hartline):

Q56 The Vice Chancellor of Research and Dean of the Graduate School sets a climate that enables excellence and growth in research and creative scholarship and serves as the chief academic officer for graduate education. The Vice Chancellor also oversees institution-level Centers of Excellence, including the Center for Advanced Materials Processing (CAMP).

Q17
In what areas has the Vice Chancellor for Research/Dean of the Graduate School (VCR/DGS) excelled in the last year? Please check all that apply:

- ☐ CAMP Oversight (1)
- ☐ Grant/Funding Assistance (2)
- ☐ Grant/Funding Promotion (3)
- ☐ Graduate Education (4)
- ☐ Research Leadership (5)
- ☐ Communication (6)

Q18 In what areas should the VCR/DGS improve based on her performance in this last year? Check all that apply:

- [ ] CAMP Oversight (1)
- [ ] Grant/Funding Assistance (2)
- [ ] Grant/Funding Promotion (3)
- [ ] Graduate Education (4)
- [ ] Research Leadership (5)
- [ ] Communication (6)

Q19 What grade would you assign the VCR/DGS for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q70 Grade Comment:

_____

_____

_____

_____

_____

Q57 Dr. Hartline should be retained as Vice Chancellor of Research and Dean of the Graduate School.

- O Yes (5)
- O No (6)

End of Block: Vice Chancellor for Research / Dean of the Graduate School

Start of Block: Vice Chancellor for Development and University Relations; President, Montana Tech Foundation

Q20
Please answer the following questions regarding the Vice Chancellor for Development and University Relations/President, Montana Tech Foundation (Joe McClafferty):

Q58 The Vice Chancellor of Development and University Relations/President of the Montana Tech Foundation (VCDUR) serves as head of the campus' fundraising arm. In addition, s/he leads the offices of Alumni Affairs, Career Services and Public Relations. S/he works closely with Montana Tech's Chancellor, the Montana Tech Foundation Board, alumni, and other university constituencies, functioning as the campus chief advancement officer to raise private financial support for the campus, while marketing the university to generate interest in and raise the profile of its programs, faculty and students.

Q21
In what areas has the Vice Chancellor for Development and University Relations/President, Montana Tech Foundation (VCDUR/PMTF) excelled in the last year? Please check all that apply:

- ☐ Alumni Affairs Leadership (1)
- ☐ Campus Fundraising (2)
- ☐ Public Relations Leadership (4)
- ☐ Communication (5)

Q22 In what areas should the VCDUR/PMTF improve based on his performance in this last year? Check all that apply:

- [ ] Alumni Affairs Leadership (1)
- [ ] Campus Fundraising (2)
- [ ] Public Relations Leadership (4)
- [ ] Communication (5)

Q23 What grade would you assign the VCDUR/PMTF for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q71 Grade Comments:

_____

_____

_____

_____

_____

Q59 Mr. McClafferty should be retained as Vice Chancellor of Development and University Relations/President of the Montana Tech Foundation.

- O Yes (23)
- O No (24)

End of Block: Vice Chancellor for Development and University Relations; President, Montana Tech Foundation

---

Start of Block: Vice Chancellor for Administration and Finance

Q24
Please answer the following questions regarding the Vice Chancellor for Administration and Finance (Brant Wright):

Q60 The Vice Chancellor is responsible for the areas of budgeting, payroll, personnel, purchasing and accounts payable. This includes supervision, program development, problem resolution and policy development and oversight. Other areas of responsibility and supervision include the business office, grants and contracts accounting, telecommunications, the mail and copy center, the bookstore, environmental health and safety, network technology, information services and other computer related functions. The Vice Chancellor also acts as the EEO/AA and Title IX officer. Reports to the Chancellor.

Q25
In what areas has the Vice Chancellor for Administration and Finance (VCAF) excelled in the last year? Please check all that apply:

- ☐ Budgeting (1)
- ☐ Hiring (2)
- ☐ Payroll (3)
- ☐ Personnel Functions (4)
- ☐ Problem Resolution (5)
- ☐ Communication (6)

Q26 In what areas should the VCAF improve based on her performance in this last year? Check all that apply:

- [ ] Budgeting (1)
- [ ] Hiring (2)
- [ ] Payroll (3)
- [ ] Personnel Functions (4)
- [ ] Problem Resolution (5)
- [ ] Communication (6)

Q27 What grade would you assign the VCAF for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q72 Grade Comment:

_____

_____

_____

_____

_____

End of Block: Vice Chancellor for Administration and Finance

Start of Block: Deans

Q45 Is teaching one of your primary duties as a faculty member?

- O Yes (1)
- O No (2)

Q73 Are you a full time Montana Tech or Bureau employee?

- O Yes (23)
- O No (24)

Q44 Are you tenured?

- O Yes (1)
- O No (2)

Q5 In which College or School do you reside?

- O Highlands (1)
- O Letters, Sciences, and Professional Studies (2)
- O Mines and Engineering (3)
- O Graduate/Library/Bureau/Athletics (4)

Display This Question:

If In which College or School do you reside? = Highlands

Q28 **Please answer the following questions regarding Dean David Gurchiek**

Display This Question:

If In which College or School do you reside? = Letters, Sciences, and Professional Studies

Q29 **Please answer the following questions regarding Dean Douglas Coe:**

Display This Question:

If In which College or School do you reside? = Mines and Engineering

Q30 **Please answer the following questions regarding Dean Dan Trudnowski:**

Display This Question:

If In which College or School do you reside? = Graduate/Library/Bureau/Athletics

Q31 **Please answer the following questions regarding your Dean / Director:**

Display This Question:

If In which College or School do you reside? = Graduate/Library/Bureau/Athletics

Q74 Please provide the name of your Dean / Director:

_____

Q61 Deans at Montana Tech are the leaders and chief representatives of their school/college and, except in extraordinary circumstances, are the conduits through which communications flow to and from their school/college on policy and procedural matters of an academic or administrative nature. The Dean, in consultation with the Department Heads of the school/college, is responsible for setting goals and objectives for the school/college, for developing plans to achieve them, and for periodically assessing progress towards meeting them.

Q7 In what areas has your academic Dean / Director excelled in the last year? Please check all that apply:

- [ ] Communication (1)
- [ ] Fair & Reasonable (2)
- [ ] Grants Autonomy (3)
- [ ] Leadership (4)
- [ ] Represents College (5)

Q8 In what areas should your academic Dean / Director improve based on her/his performance in this last year? Check all that apply:

- [ ] Communication (1)
- [ ] Fair & Reasonable (2)
- [ ] Grants Autonomy (3)
- [ ] Leadership (4)
- [ ] Represents College (5)

Q6 What grade would you assign your academic Dean / Director?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q78 Grade Comment:

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End of Block: Deans

Start of Block: Campus Questions

Q32 **Please indicate your agreement with the following statements regarding Montana Tech:**

Q64 The charge given to the Workgroup for Institutional Realignment for Excellence (WIRE) by Chancellor Blackketter was to “define what it means to Montana Tech to be classified as the only Special Focus Four-Year University in the state.”
The efforts of WIRE have been beneficial for campus.

- O Strongly agree (8)
- O Agree (9)
- O Somewhat agree (10)
- O Somewhat disagree (12)
- O Disagree (13)
- O Strongly disagree (15)

Q63 The Workgroup for Institutional Realignment for Excellence (WIRE) has done a good job of communicating with the campus.

- O Strongly agree (7)
- O Agree (8)
- O Somewhat agree (9)
- O Somewhat disagree (11)
- O Disagree (12)
- O Strongly disagree (14)

Q66
Information concerning the charge of the Program Prioritization Committee (PPC) was sent to the campus on January 24th.

The efforts of the Program Prioritization Committee (PPC) have been beneficial for campus.

- O Strongly agree (7)
- O Agree (8)
- O Somewhat agree (9)
- O Somewhat disagree (10)
- O Disagree (12)
- O Strongly disagree (14)

Q65 The Program Prioritization Committee (PPC) has done a good job of communicating with the campus.

- O Strongly agree (7)
- O Agree (8)
- O Somewhat agree (9)
- O Somewhat disagree (11)
- O Disagree (12)
- O Strongly disagree (15)

Q33 I can openly express my concerns without fear of retribution.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q34 Montana Tech's online course management system ***(Moodle 2)*** is a useful and usable resource for faculty.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q35 Montana Tech's ***buildings and grounds*** are well-maintained.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Page Break

Q36 ***My Computer Support Specialist*** provides effective IT support to faculty (e.g. Workstations and Instructional Technology).

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q80 ***Campus Technology Services*** provide effective IT support to faculty (e.g. Network Performance).

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q37 The ***Library*** provides access to high quality resources.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q75 The ***Library*** provides excellent service to faculty.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q38 The ***Bookstore*** provides excellent service to faculty.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q39 The office of ***Enrollment Services*** provides excellent support to faculty.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q40 The office of ***Human Resources*** provides high-level support to faculty.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q41 The Montana Tech ***Dining Services*** provides excellent services and food.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

Q42 ***Campus Security*** maintains a safe and secure environment at Montana Tech.

- O Strongly agree (1)
- O Agree (2)
- O Somewhat agree (3)
- O Somewhat disagree (4)
- O Disagree (5)
- O Strongly disagree (6)

End of Block: Campus Questions

Start of Block: Senate

Q46 **Please answer the following questions concerning Faculty Senate:**

Q10 How often would you like Faculty Senate to call meetings of the full faculty?

- O Never (1)
- O Once a Year (2)
- O Once a Semester (3)
- O More Than Once a Semester (4)

Q11 What issues do you think Faculty Senate should prioritize? Please be specific.

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Q9 What grade would you assign Faculty Senate for the last year?

- O A (1)
- O B (2)
- O C (3)
- O D (4)
- O F (5)

Q76 Grade Comments:

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End of Block: Senate