

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
December 9, 4:00 – 5:00 pm, via Zoom

Attendees:

Voting Members: 19 total (10 - majority needed for quorum). Quorum was present

P	Jeff King (chair)	P	Becky LaFrancois (EB)	P	Mike Nicholas (AMS)	P	Jeff Schowalter (EE)
P	Michael Barankin(CBE)	P	Derrick Hudson (HASS)	P	Corinne Packard (MME)	A	Nicole Smith (MN)
P	Dylan Domaille (CH)	P	Ge Jin (GP)	P	Jeff Paone (CS)	P	Bruce Trudgill (GE)
P	Bill Eustes (PE)	P	Hongyan Liu (CEE)	P	Oyvind Nilsen (ME)	P	Sydney Marchando (USG)
A	Gyasi Evans (LB)	P	Carrie McClelland (EDS)	P	Todd Ruskell (PH)		

Other Regular Attendees and Guests

A	Fran Aguilar (MS)	P	Dixie Cirillo (PA)	A	Jennie Kenney (RO)	A	Ben Moore (CS, EE, ME)
A	Amy Argyris (CASA)	P	Vibhuti Dave (UGS)	A	Jane Ko (RO)	P	Paul Myskiw (RO)
A	Justin Bush (CEE)	A	Jen Drumm (CASA)	A	Cheryl Medford (GE)	P	Terri Snyder (PE)
P	Karla Perez-Velez (CASA)	P	Katie Ludwin (CASA)	P	Mara Green (AA)		

Additional Guests: Angel Abbud-Madrid, Jurgen Brune, Jamal Rostami, Rick Holz, Wendy Adams, Linda Battalora, Merrit Enders, Brian Trewyn, Emily Bongiovanni

Welcome

Jeff King

Approval of Minutes – November 11, 2020

Jeff King

MOTION: To approve the 11/11 Undergraduate Council minutes by King; seconded by McClelland. 1 abstention; Packard. APPROVED.

Briefings and Information Items

Office of Undergraduate Studies

Vihbuti Dave

The Faculty Senate has approved the undergraduate degree template. Dave states that work can be done in creating one similar or shorter for a minor if that is still the interest and request of the Councilors.

A question is asked regarding the benefits of a template for the minors. Dave responds that it will consider a Sunset Clause or surveying constituents if there is a demand for a minor.

A comment is brought up on the integration of the template into CIM, and that integration of the template in minors would circumvent confusion. Dave states that if what is currently in CIM is working well for minors, the degree template will be used and minors revisited at a later time in the 2021-22 Academic Year.

A question is asked on submission of interdisciplinary minors in CIM; Myskiw responds that this can be done.

Registrar

Paul Myskiw

Review of OER Requirements (HB 18-1331)

Emily Bongiovanni

Myskiw introduces Bongiovanni for discussion of the Open Education Requirements (OER) requirements taking affect in the 2021 Fall semester. Institutions are now required to disclose to students, prior to registration, courses that have low or zero cost.

Bongiovanni leads the OER initiative on-campus and is chair of the CDHE OER council. OER are open education resources that are free or openly licensed educational resources. Zero textbook cost (ZTC) includes openly licensed and freely available resources as well as library resources that students may subscribe and pay for access to.

OER saves students around half a million dollars a year. The memo sent by CDHE serves to help students plan their budgets and have the opportunity to make informed decisions. It provides transparency for higher education costs for course materials.

Bongiovanni explains that the memo requires courses that are free, ZTC, or utilize resources under twenty dollars notify students ahead of registration. Additionally, the Registrar's Office has discussed the benefit of providing this requirement for courses fifty dollars and below.

The Registrar's Office has created a plan for implementation by the Fall 2021 semester, but are also working on a plan that is sustainable. The timeline is expected to be flexible as course materials can change last minute. OER provides an incentive program that funds faculty up to \$5,000 for utilizing open education resources and developing their own.

A question is asked on course development if faculty are required to announce the costs prior to the Fall 2021 semester. Myskiw states that this requirement is for faculty that are already using OER or zero textbook costs, and a survey will be sent out to faculty to identify those that were not aware of their use of OER or ZTC resources.

A comment is brought up on the strategic plan for those departments that have significant incentives for developing textbooks, and these textbooks do not align with the ZTC/OER development. Bongiovanni provides a personal anecdote that the OER program has been able to fund some amount of money for instructors that are missing those royalties.

Myskiw states that this OER requirement should be brought back to Councilors' respective departments for discussion and feedback.

Conversation continues in the chat box following transition into the next topic, details of those questions and answers are below:

A question was asked regarding costs of online homework resources, Clickers, and others being counted in the costs needed to be disclosed. Myskiw states that all out of pocket costs to students such as textbooks, equipment, and homework access keys are to be disclosed.

Each course would need to be considered separately so students can understand why a course may or may not be labeled as ZTC or low cost.

Curriculum Items for Council Vote – from 11/11/20

Minor Curriculum Changes

The following minor course changes will not be discussed unless specifically requested by Council.

1.1 MECHANICAL ENGINEERING

Oyvind Nilsen

[status: CIM 10/21; Steering: 10/21]

2 course changes MEGN391: Automotive Design – SAE Collegiate Design Series (Formula SAE)
Changing to a 3 CH (contact hour) course vs. 1 CH course at request of instructor

MEGN408: Introduction to Space Exploration

This course will move to 3 CH to support the new minors associated with aerospace, including the newly proposed minor from ME, Aerospace Systems.

1.2 **HUMANITIES, ARTS, and SOCIAL SCIENCES**

Derek Hudson

[status: CIM 10/21; Provost approved: 10/21]

1 new course HASS468: Environmental Justice

Educate and inspire students from all backgrounds: By providing a forum for students to study current and emerging environmental justice issues, this course will make Mines more attractive to qualified students from all backgrounds (including groups that are currently underrepresented in the Mines student body).

MOTION: To approve the minor curriculum changes to two Mechanical Engineering courses and one new course in Humanities, Arts, and Social Sciences by King; seconded by Hudson. No abstentions. APPROVED.

Major Curriculum Changes

1.3 **MECHANICAL ENGINEERING**

Oyvind Nilsen

[status: CIM 10/21; Provost approved 10/21]

1 new course MEGN413: Aerospace Structures

This course has been offered twice as an MEGN498 technical elective. This course will continue to serve as an ME Tech Elective but also support the new Aerospace Systems minor.

MOTION: To approve the new course in Mechanical Engineering MEGN413 by King; seconded by Packard. No abstentions. APPROVED.

1.4 **INTERDISCIPLINARY**

Brian Trewyn

[status: CIM 10/22; Provost approved 10/23]

1 new program BS in Quantitative Biosciences and Engineering
(need to assign program & CIM codes)

As the traditional divisions between academic disciplines continue to blur, there is a need at Mines to offer students with the skills and education to address the next generation of challenges the world will encounter in treatment and healing of the environment, new energy, and in healthcare. This multi and interdisciplinary undergraduate program will give the students the skillset to tackle these challenges from every direction and opening up more employment opportunities. This will be a residential program.

MOTION: To approve the new BS in Quantitative Biosciences and Engineering by Barankin; seconded by Marchando. 1 abstention; Ruskell. APPROVED.

A comment was raised on Computer Science moving their bioinformatics course to the undergraduate level from a graduate level. If this is the case, it would make sense for there to be only one bioinformatics course at the undergraduate level.

The program approval does not necessarily mean that all courses under that program are approved. The courses will still move through the Council process if the course does not exist.

Curriculum Items in Progress – for vote 1/13/21

Minor Curriculum Changes from 11/11/20

The following minor course changes will not be discussed unless specifically requested by Council.

the students' benefit. It will allow students that take a 400-level course that score a B or above to count that course for their master's as well. This does not include the four required core courses.

Minor updates have been done to the program elective lists.

A question is asked regarding double-counting having been present previously for core courses. Barankin states that core courses were not allowed to be double-counted, but previously none of the courses were double-counted.

Barankin informs Councilors that the double-counting was brought to the attention of Council due to this being a change in the Catalog language for undergraduate students. The double-counting had not been present in the Catalog previously. It has been done to parallel what is already in the graduate Catalog.

A question is asked on the amount of credits in the master's program and if double-counting is limited by a certain amount of credit hours. The program is a total of thirty semester hours. Undergraduate Council does not need to delve into the specifics of double-counting for this meeting.

The application deadline for the course has been moved to July; a question is asked on this allowing enough time for foreign students to process a visa. This has been discussed in the graduate affairs department and it will allow time for the process.

An additional question on deadlines was brought up regarding deadline rolling or if the application decisions for all students will be held off until after the July deadline. Barankin responds that the department will most likely not roll the deadline, but this will be confirmed after discussion with the department.

Minor Curriculum Changes

The following minor course changes will not be discussed unless specifically requested by Council.

3.2 COMPUTER SCIENCE

Hua Wang

[status: CIM 11/12; Provost approved: 11/13]

1 new course CSCI478: Introduction to Bioinformatics

This is being considered as core course for the new Quantitative Biosciences and Engineering (QBE) program as well as discussion of a new, interdisciplinary undergraduate biological engineering program. Face-to-face interactions are of significant importance to addressing various students' needs.

The undergraduate version will emphasize student hands-on-experience and learning outcomes, students will be able to use computer algorithms to solve biological/medical problems; being able to use programming to solve a problem is the key point.

3.3 GEOLOGY and GEOLOGICAL ENGINEERING

Cheryl Medford

[status: CIM 11/30]

1 course change GEGN307: Petrology

When GEGN330 Geoscientists Thermodynamics was added to the GE curriculum and undergraduate program, prerequisites for GEGN307 were not updated. Course syllabus has been added, prerequisites have been updated in order to keep in line with the program. Assures that students that have taken the thermodynamic courses of GEGN330, CHGN209, or MEGN361 can register for the course.

3.4 **GEOLOGY and GEOLOGICAL ENGINEERING**

Cheryl Medford

[status: CIM 11/30]

1 course change GEGN401: Mineral Deposits

When GEGN330 Geoscientists Thermodynamics was added to the GE curriculum and undergraduate program, prerequisites for GEGN307 were not updated. Prerequisites have been updated in order to keep in line with the program. Assures that students that have taken the thermodynamic courses of GEGN330, CHGN209, or MEGN361 can register for the course. Alternate grade modes have been changed from non-graded to "Standard Letter (A-F, INC).

Major Curriculum Changes

3.5 **PETROLEUM ENGINEERING**

Bill Eustes

[status: CIM 12/02]

1 course change PEGN311: Drilling Engineering

PEGN311 was 4 credit hours, 3 lecture, and 1 lab. Recent PEGN curriculum changes have been shifted with the proposed new course PEGN201: Petroleum Engineering Fundamentals. To fit within the credit hour limits of the overall curriculum as well as within the semester the drilling course is required, 1 credit hour of lecture can be dropped without compromising the education of the petroleum engineer. Additionally, this course is then more in-line with the credit hour limits of the other petroleum engineering base classes (ex: completion, stimulation, production, and reservoir engineering).

The Petroleum Engineering department has been reviewing undergraduate curriculum for the past year and a half looking at ways to improve performance in various areas. Eustes states that additional courses are moving through the CIM submission process for presentation to the Council.

Eustes informs Councilors that one of the areas in the program that was weak was communications and softer skills, this was not covered well between the sophomore and senior years. There has been rearrangement of courses and moving information into a basics class called "Petroleum Engineering Fundamentals".

The credit requirement has been dropped from four to three. This has been a shift from three lecture hours to two, and one lab credit hour. Many changes outside of this course have been topical in nature. Additional courses will be added to the Petroleum Engineering program, as well.

Miscellaneous Business

Jeff King

The approval for the GPA Recovery Policy in Faculty Senate will initiate progression in the Registrar's Office. A question is asked regarding communicating this approval to the student body and Myskiw responds that in the Spring there will be communication to students on this new policy.

Adjourn

Jeff King

Meeting adjourned at 5:02.

Next Meeting: January 13, 4:00 – 5:00 pm, via Zoom.