

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
November 11, 2020 | 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)	P	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)
P	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 (AA)	A	Ben Moore (CS, EE, ME)
A	Amy Argyris (CASA)	P	Vibhuti Dave (UGS)	P	Jane Ko (AA)	P	Paul Myskiw (RO)
A	Justin Bush (CEE)	P	Jen Drumm (CASA)	A	Cheryl Medford (GE)	P	Terri Snyder (PE)
P	Karla Perez-Velez (CASA)	P	Katie Ludwin (CASA)	A	Kendra Stansbury (RO)	P	Mara Green (AA/RO)

Guests: Angel Abbud-Madrid, M. Stephen Enders, Brian Trewyn, John Spear, Masami Nakagawa, Jared Breakall, Wendy Adams, Savannah Logan, Scott Houser, Karin Leiderman, Melissa Krebs

Welcome

Jeff King

Introduced Mara Green - new Academic Affairs administrator supporting Faculty Senate, Councils, and Registrar

Approval of Minutes – October 28, 2020

Jeff King

MOTION: To approve minutes of October 28, 2020 by Barankin; seconded by Marchando. 0 oppose. No abstentions. APPROVED.

Briefings and Information Items

• **Office of Undergraduate Studies**

Vihbuti Dave

Dave noted Councilors' interest in potentially developing a separate template for proposing new Minors. No update yet, waiting on feedback from Faculty Senate on how to best proceed. Senate is discussing what curricular items they would like to approve and how they would use the template, which will inform whether one should be created.

• **Registrar**

Paul Myskiw

Class scheduling has been turned on and registration for the Spring semester begins on November 16. Just over 60% of classes have been scheduled as F2F. All requests for teaching space have now been assigned, there may be some minor tweaks, but everything at this point has been done.

Provost tasked UG Dean and Registrar to start a small working group focused on addressing scheduling issues and clarifying definitions of different class delivery methods. A call for working group volunteers was sent via email.

○ **DegreeWorks**

New degree-auditing software, **soft rollout Tuesday, November 10**

<https://www.mines.edu/registrar/degreeworksfag/>

The Registrar's Office gave a presentation to the campus community last week. DegreeWorks is a tool to help students understand and visualize their academic standing and progress. It will **not** be replacing the existing audit process or forms needed for graduation.

Presentation slides have been uploaded to Canvas.

(Files → 2020-2021 UGrad Council Meetings → 2020-11-11 → Agenda Items)

Should be visible to faculty in Trailhead and they are encouraged to test out the software.

Students matriculated under the 2020-2021 Catalog and after will have an active audit in DegreeWorks. Students who entered with older catalogs will still be under the current CAPP system in Trailhead.

Miscellaneous Business

Jeff King

- **Request for Council Vote** (from 9/23/20)

Every Oredigger Policy sub-committee and Readmissions

Revised proposal for GPA Recovery Policy & summary of feedback from CEE

(Files → 2020-2021 UGrad Council Meetings → 2020-10-28 → Agenda Items)

**Kristine Callan &
Colin Terry**

Councilors raised a few concerns about the execution of this policy but the particulars were not worth holding up a vote. General consensus was to move the policy forward to Faculty Senate as there would be future opportunities for revisions and fine-tuning.

Discussion points:

- Having a global cap limiting the total number of courses that could be retaken by a student
- By the time the policy is implemented, students will not have the option to drop their Spring courses. Is it unfair to change the rules after the drop period?
- Policy still considered an overall a positive for students, good for recovery, retention, and graduation rates
- Primary concern from students is that a student who fails, then retakes a course could potentially have a better/higher GPA than a student who never failed a course and kept their passing grade
- Some confusion over drawing the line between D+ and C- and what grades are necessary to move forward in a program.

MOTION: To approve the Every Oredigger GPA Recovery Policy as presented by Hudson; seconded by Barankin. 1 opposed. No abstentions. **APPROVED.** **Will be placed on next Faculty Senate agenda.**

Curriculum Items for Council Vote

Minor Changes to Curriculum – Request for Council Vote (from 10/14/20)

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

1.1 **COMPUTER SCIENCE**

[status: CIM 10/2]

1 course change

CSCI303: Introduction to Data Science

Adding pre-req option

Jeff Paone

MOTION: To approve the course change in CS as presented by Paone; seconded by Barankin. 0 opposed. No abstentions. APPROVED.

Continued Discussion – Request for Council Vote (from 10/14/20)

2.1 HUMANITIES, ARTS, and SOCIAL SCIENCES

Derek Hudson

[status: CIM 9/30 & 10/8, Provost approved 9/30 & 10/8]

5 new courses HASS466: Science, Technology, and Confucian Ethics

This course will help expand course offerings and diversify delivery in professional ethics education. It will contribute to a more innovative and entrepreneurial culture that is focused on employing culturally diverse tools to solve increasingly globalized sociotechnical problems in engineering.

HASS422: Art and Environmentalism

This version of an Art History course uniquely serves Mines students by focusing on how perceptions of humans' place in the natural world have changed over time. Mines @150 mandate that students understand societal context and have the opportunity to pursue personal passions; Art & Environmentalism does this as it helps students to become hard-working, creative, and collaborative problem solvers with an awareness of global issues.

HASS227: Beginning of Orchestral Strings and Fundamentals of Music

This course advances the Mines@150 initiative by broadening the arts opportunities available at Mines in order to further students' passions. Like the beginning piano class, this provides an opportunity to develop a new passion for instrumental music and provides a new entry point not typically available at any university.

HASS372: History of Medicine

A course on the history of medicine would create a way for students considering careers in the biomedical and health sciences (including those who hope to attend medical school after Mines) to explore this interest while fulfilling their HASS advanced elective requirement.

HASS463: History of Epidemics

A course on the history of epidemics would create a way for students considering careers in the biomedical and health sciences (including those who hope to attend medical school after Mines) to explore this interest while fulfilling their HASS advanced elective requirement.

MOTION: To approve the 5 new courses in HASS as presented by Hudson; seconded by McClelland. 0 opposed. No abstentions. APPROVED.

2.2 COMPUTER SCIENCE

Jeff Paone

[status: CIM 10/2]

1 course change CSCI470: Introduction to Machine Learning

Updating prereqs

MOTION: To approve the course change in Computer Science as presented by Paone; seconded by Barankin. 0 opposed. No abstentions. APPROVED.

2.3 ECONOMICS and BUSINESS

Becky LaFrancois

[status: CIM 10/6, Provost approved 10/6]

3 new courses EBN230: Introduction to Business

This course is an introduction to business for early year students. Business education is a pivotal

piece of the Mines@150 mission. This class will introduce the students to all aspects of business, as well as expose our students to the other business classes that the Division of Economics and Business has to offer.

EBGN435: Economics and Water Resources

This course provides a forum for students to understand and analyze water policy and allocation utilizing economic models and analysis. The tools covered will advance students' economic and business acumen, including demand analysis, financial modeling, cost-benefit analysis, data analytics, and policy analysis.

EBGN453: Project Management

This course enhances our offerings in Undergraduate business education. It could also be a feeder for students in the ETM graduate program as well as upcoming online graduate certificate programs.

MOTION: To approve the 3 new courses in EB as presented by LaFrancois; seconded by McClelland. 0 opposed. No abstentions. APPROVED.

2.4 CHEMICAL and BIOLOGICAL ENGINEERING

Michael Barankin

[status: CIM 10/8]

1 program change Minor in Biomedical Engineering
Updating electives lists

MOTION: To approve the 1 program change in CBE as presented by Barankin; seconded by McClelland. 0 opposed. No abstentions. APPROVED.

2.5 ECONOMICS and BUSINESS

Scott Houser &
Becky LaFrancois

[status: CIM 10/13, Provost approved 10/13]

1 new program BS in Business Engineering and Management Science
(need to assign program & CIM codes)

*The new degree will expand on Mines' uniquely quantitative brand of business education that is evident in our very successful professional master's degree in Engineering and Technology Management and support our efforts to be a leader in educating STEM students and professionals. Second, the solutions to the challenges faced by industry are increasingly data-driven so leaders need to be equipped with the analytical tools that inform good business decisions. A new quantitative business degree program will complement the technical skills of Mines students and help Mines be a producer of differentiated and highly desired STEM-educated leaders.
(Supporting documents available on Canvas in Files → 2020-10-14 → Agenda Items)*

MOTION: To approve the 1 new program in EB as presented by LaFrancois; seconded by Nilsen. 0 opposed. 1 abstention. APPROVED.

Curriculum Items in Progress

Minor Changes to Curriculum (from 10/28/20, for vote on 12/9/20)

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

- 3.1 **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.

- 3.2 **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).

Major Changes to Curriculum (from 10/28/20, for vote on 12/9/20)

- 4.1 **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.

Steering Committee had questions as the CIM entry was lacking. Resolved with syllabus uploaded to CIM & Canvas.

- 4.2 **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.

Discussion points:

- Councilors requested more information about the quantitative bio sequence and course content, where students would be “housed,” and hiring faculty to teach the courses
- No syllabi yet, allowing flexibility for the hired faculty who will develop the courses
- Introduction to Quantitative Biology learning outcomes have been drafted by the QBE committee and uploaded to Canvas (*Files → 2020-2021 UGrad Council Meetings → 2020-11-11 → Agenda Items*)
- What is the market for students graduating with this BS degree?
- Mines has seen interest from companies for candidates who have big data capability with a biological background

- Why should a new program be approved if critical coursework has not been developed or piloted, and people have not been hired yet? Why is it necessary to have the program before the content?
- Difficult to pilot classes or hire new faculty when a program does not exist. New programs have been approved before without courses being fully developed. The BS in Business Engineering and Management Science that was just approved is one recent example.
- Councilors should discuss with their departments and reach out to the QBE committee with questions to prepare for vote at the next meeting (12/9).

New Curriculum Items

Supporting documents for all items below have been uploaded to Canvas Files → 2020-2021 UGrad Council Meetings → 2020-11-11 → Agenda Items

Minor Changes to Curriculum

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

5.1 MECHANICAL ENGINEERING

Oyvind Nilsen

[status: CIM 10/26; Provost approved 10/27]

1 new course MEGN417: Vehicle Dynamics & Powertrain Systems

Prof. Bogin has taught this course as an MEGN498 (Special Topics) for two years. This course is not a part of our Area of Emphasis in Automotive Engineering. It compliments other courses related to Automotive Engineering for our students.

Major Changes to Curriculum

6.1 MECHANICAL ENGINEERING

Oyvind Nilsen

[status: CIM 10/29; Provost approved 10/29]

1 new program Minor in Aerospace Engineering
(need to assign program & CIM codes)

This minor was proposed by our industry constituents and requested by students in mechanical engineering. Aerospace industries continue to grow in Colorado, and they represent five of the top ten employers for mechanical engineering. Aerospace industries do not require a full degree in aerospace engineering, but they feel that Mines students will be better prepared and more competitive with additional courses and practice in the aerospace field.

Presented but did not get to questions or discussion due to time constraints. Will be continued at the next meeting.

6.2 MINING

Stephen Enders

[status: CIM 11/04; Provost Approved 11/04]

1 new program Minor in Space Mining
(need to assign program & CIM codes)

This minor is expected to draw students from non-traditional mining disciplines and increase enrollment in the department. The minor will also provide a pipeline of students who may be interested in pursuing Post-Baccalaureate certificates or MS and PhD degrees in the Space Resources graduate program.

Presented but did not get to questions or discussion due to time constraints. Will be continued at the next meeting.

6.3 **HONORS**

Wendy Adams

[status: CIM 11/05; Provost Approved 11/05]

1 new program Minor in Teaching
(need to assign program & CIM codes)

This minor has demonstrated student interest with approximately 40 students per semester taking courses. With the coursework bundled within the minor, it will provide clear communication to the campus about this opportunity to become a well-prepared educator and it will provide transcript-ready recognition of the students' preparation to teach. It provides Mines students the opportunity to become highly-qualified science, math, and computer science teachers which addresses the heart of Mines@150 goals.

Presented but did not get to questions or discussion due to time constraints. Will be continued at the next meeting.

Adjourn

Jeff King

Meeting adjourned at 5:10 pm.

Next Meeting: December 9, 2020 | 4:00 – 5:00 pm, via Zoom.