

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
 October 14, 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 (MIME)	A	Nicole Smith (MN)
P	Dylan Domaille (CH)	A	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)	P	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)	P	Kendra Stansbury (RO)		

Guests: Wendy Adams, Jared Breakall, Savannah Logan, Scott Houser

Welcome

Jeff King

Approval of Minutes – September 23, 2020

Jeff King

MOTION: To approve minutes of September 23, 2020 by Barankin; seconded by LaFrancois.
 No abstentions. APPROVED.

Briefings and Information Items

• **Office of Undergraduate Studies**

Vibhuti Dave

Revised New UG Degree Proposal template uploaded to Canvas
 (Files → 2020-2021 UGrad Council Meetings → 2020-10-14 → Agenda Items)

Dave revised the template based on Council feedback to include a section on overlaps between existing programs and the recommended impact statement, in addition to letters of support. The two questions can be found on page 6 of the updated proposal. Dave would like to get this approved, to Senate, and published in CIM as soon as possible.

Dave clarified this template only applies to new program proposals. Council briefly discussed the creation of a detailed template for proposing minors in the future, to guide and standardize that process as well.

• **Registrar**

Paul Myskiw

Myskiw updated Councilors on class scheduling projections for Spring 2021. Registrar received all the schedules back from departments and currently 49% have been requested as face-to-face (F2F). There was more interest in F2F than spaces available and accommodating all these classes will present a challenge.

The goal is to have 50% F2F instruction. Students are being surveyed on whether they want or need to take all classes remotely and it will be presented as a binary yes or no, not by individual courses. The class schedule itself will be better at describing the delivery modality, so students are better informed during registration to make their decision to be entirely remote or not.

Dave clarified that the F2F label is specifically for on-campus courses where most students are scheduled to meet in person. Whether or not students actually attend in person does not change the delivery method as scheduled.

Councilors were curious about the percentages from the Fall semester. 57% of courses were delivered as F2F in Fall, but this count included hybrid delivery and labs, which were not used in the Spring 2021 calculations. The 49% projected for Spring 2021 is in-person lecture only so the numbers will be closer to the Fall's 57% with hybrids and labs. Some lectures may need to switch formats depending on actual registration.

Council members questioned the definition of "hybrid" and Myskiw explained that it is currently open to interpretation and what works best for each department to organize their classes. Examples could be splitting up sections for when students attend in-person, having half the class in-person and half via Zoom, etc.

This discussion will be continued.

Additionally, Myskiw advised Councilors of two new tools for faculty advisors and students:

1. DegreeWorks – new degree audit systems, much more user-friendly, rolling out at the end of October
2. Advising Student Profile – self-service comprehensive page that includes student's history, course of study, etc.

Further announcements will be coming via email in the weeks to come.

Miscellaneous Business

Jeff King

- **Steering Committee**

Steering Committee met for the first time last Wednesday. They are still working on criteria to categorize what are major, minor, and admin changes. This is only for new or changes to courses. Steering will not review program proposals. Those will appear on the standard agenda for Council review.

Curriculum items must be submitted and **workflow started in CIM by 2:30 pm the Wednesday (1 week) before the next UGC meeting** to give the Steering Committee time to review and Admin to prepare the agenda. Items submitted after the deadline will be bounced to the following UGC meeting. This deadline is now reflected on the Curriculum Timelines and Approval Dates document in Canvas.
(Files → Reference Materials).

Continuing Curriculum Items – Request for Vote (from 9/23/20)

1.1 ENGINEERING, DESIGN and SOCIETY

[status: CIM 9/10/20]

1 course change: EDNS491: Senior Design I

Prereq and coreq changes for ME and EE Departments.

CJ McClelland

MOTION: To approve the 1 EDS course change as presented by McClelland; seconded by Packard. No abstentions. APPROVED.

New Curriculum Items

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.

All of the above courses have been taught twice before. They contribute to the Mines@150 initiatives by providing students with opportunities to engage in subject areas outside their chosen fields of study, like art, history, social context, culture, and music. Students can explore personal interests while fulfilling HASS requirements. Hudson confirmed all proposed courses are writing intensive with the exception of HASS227.

2.2 COMPUTER SCIENCE

Jeff Paone

[status: CIM 10/2]

1 course change

CSCI470: Introduction to Machine Learning

Updating prereqs

Previously, there was no programming prerequisite, which was likely an oversight. Adding either CSCI101 or CSCI261 as prerequisite options to provide an introduction to programming. The only impact outside CS would be for students doing the Data Science minor. CSCI470 and CSCI261 are both part of that minor so it would just be enforcing an order to those courses.

Council raised a question about the major differences in programming background provided by CSCI101 vs. CSCI261. Paone confirmed they are very different and use different languages but CSCI101 covers the necessary structures needed for CSCI470 and CSCI261 goes into greater depth.

Steering Committee asked why prereqs for CSCI303 were updated to include CSCI102 (minor curriculum change below), but not added for CSCI470. Paone believes this might be another oversight. He will check with his department to verify.

2.3

ECONOMICS and BUSINESS

Becky LaFrancois

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

3 new courses EBGN230: 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.

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.

EBGN435: Economics and Water Resources

This course proves 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.

Two are business focused (EBGN230 & EBG543) and one is economics focused (EBGN435)

EBGN230 – previously taught as special topics and creating a permanent course could improve advertisement and increase registration for first and second year students. It does not have any prerequisites.

Part of the strategic initiatives to expand business course offerings at a lower level. Mines has upper level business courses like accounting and finance but did not provide a comprehensive introduction of functional areas of business. This could potentially be a draw for students to enter the Minor or Master's program, or serve as recruitment once the UG business major is launched.

EBGN453 – many Econ majors and students in general become project managers in some capacity. Project Management is currently offered at the ETM graduate level. EB would like to offer it as an official undergraduate course as well. They will continue to cross-list with the graduate course until there is enough interest to have separate undergraduate sections.

EBGN435 - also cross-listed for Grad and UG students. Examines topic of water from the lens of an economist. It is currently an elective in the major and minor and has been offered as a 400 level writing intensive to satisfy H&SS requirements. Seeking an official course number as it has been offered as special topics twice.

King requested a few sentences explaining the differences between the UG and Grad versions of the cross-listed courses (EBGN453 & EBG435). LaFrancois will gather this information from those who teach the courses and report back.

2.4

CHEMICAL and BIOLOGICAL ENGINEERING

Michael Barankin

[status: CIM 10/8]

1 program change Minor in Biomedical Engineering

Updating electives lists

Old requests from Chemistry and MTGN, will be updating more programs before next meeting. Already checked with related departments on these and expecting to hear back before submitting.

2.6 ECONOMICS and BUSINESS

Scott Houser &
Becky LaFrancois

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

1 new program 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.

UG degree focused on quantitative business has been percolating for few years. EB has a successful Master of Science in Engineering and Technology Management so this builds on the scope of what Mines already does.

Aligned with Mines@150 goals, this is another way of developing leaders in educating stem students and professionals with a different focus, applying data and quantitative tools to business decisions. Moving toward intersection of technical training with business acumen and connecting with students' passions.

Program proposal and presentation slides outlining programmatic outcomes and curriculum available on Canvas. (Files → 2020-2021 UGrad Council Meetings → 2020-10-14 → Agenda Items)

Tried using the new program proposal template draft as much as possible but there was some dissonance with CIM entering the required information.

Houser clarified this degree would function more as a substitute for an ETM graduate degree rather than a complement. ETM has some of the same topics at the graduate level for students with UG STEM training and builds in business decisions making tools on top of that. The BS in Engineering and Management is a different animal, with students more likely to move on to masters programs in data science or operations research.

King inquired about the estimated resources and support required to launch this program. Would be useful to have this information on the new degree proposal template with line items.

Estimates are available in the proposal documents. Houser shared there have been substantial discussions with administration on the investments and resources required. Rick and Paul have assured EB it will be available.

Councilors raised a question about accreditation for this program. Houser specified it is business degree (not engineering or social science) and would be accredited as such. The Accreditation Council for Business Schools and Programs is an option or there is an accreditation for engineering management programs, which could be explored. The curriculum qualifies it as a BS degree and should be able to get a STEM designation as well. Houser is unsure of how the ETM is accredited.

Councilors pressed on why Financial Engineering was emphasized/important among the other tracks available. Houser responded that this track was a priority for the administration.

Administrative Changes to Curriculum (for vote on 10/28/20)

The following course changes will be administratively processed in the system unless additional discussion is requested

3.1 **HONORS**

Wendy Adams

[status: CIM 10/8, Provost approved 10/8]

2 new courses SCED262 / MAED262 (cross-listed): K-12 Field Experience and Building Student Relationships

Creating an opportunity for Mines students to become highly-qualified science, math, and computer science teachers lies at the heart of the Mines@150 goals. Bringing students with technical backgrounds into our local classrooms allows these students to share their passion in a way that meets societal needs and at the same time builds their leadership and communication skills.

Part of Teach@Mines. Approved by UGC in January 2018 but prefixes were not created in CIM until now. Previously offered as Special Topics. Would like to offer in Spring as official course.
(Moved from New Curriculum Items)

Minor Changes to Curriculum (from 10/14/20, for vote on 11/11/20)

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

4.1 **COMPUTER SCIENCE**

Jeff Paone

[status: CIM 10/2]

1 course change CSCI303: Introduction to Data Science
Adding prereq option

Continuing Curriculum Items (from 9/23/20, **ON HOLD per Provost until 10/28**)

5.1 Every Oredigger Policy sub-committee and Readmissions

Colin Terry

Proposal for GPA Recovery Policy & summary of feedback from CEE

Kristine Callan

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

Meeting adjourned at 5:08 pm.

Next Meeting: October 28, 2020 | 4:00 – 5:00 pm, via Zoom.

Please send all agenda items request to Jane Ko (jko@mines.edu) one week prior to meeting.