Welcome

Briefings and Information Items
Office of Graduate Studies
No updates from the Office of Graduate Studies.

Registrar’s Office
Myskiw asked advisors to encourage graduate students to register. Over 540 students have not yet registered for classes; registration would assist in classroom allocation and budgeting.

Myskiw asked Councilors to remind faculty that grade entry submissions are coming up and are the responsibility of the faculty. Note made that there is a short turnaround for academic standing and the Dean’s list at the undergraduate-level. Myskiw reported Summer 2022, several hundred had not submitted grades. All grades must be submitted for processing to begin.

ITS and OGS working together with the RO to modernize fifteen different paper forms and move into a workflow product for thesis committees and other graduate-level form submissions.

Graduate Student Government
Voelker and Barbari met with ORA and HR to understand why a maximum stipend is in place for RAs. Graduate students do not fall under Equal Pay for Equal Work Act and are designated as students. Voelker noted that the Act has determined institutional policy and the maximum differential salaries given to individuals holding the same position. Uniform Guidance on Federal Grants asserts that payment must follow institutional policy.

Items for Council Vote – from 11/2/22

Non-Compliance with HLC Assumed Practices
Institution must provide evidence that the five criteria provided by HLC are being met. Criterion 3.A: “The rigor of the institution’s academic offerings is appropriate to higher education.” Barbari noted this criterion may raise a flag. HLC Assumed Practices assumes graduate-level courses are being double-
counted in a 4+1 program, not undergraduate-level courses.

Barbari researched twelve peer institutions with combined programs; Barbari reported all but one had language around 400-level courses counting toward a graduate degree with some form of constraint. The proposed Catalog language would provide constraints on 400-level courses being double-counted in a graduate degree. A proposed footnote was added to the Catalog under course numbering:

“Some 400-level courses have been approved for graduate credit by particular graduate programs. If a 400-level course is cross listed with a 500-level course, a student must register for the graduate level version to earn graduate credit. A student may not take both the 400-level and 500-level versions of a cross listed course.”

Barbari suggested the specific 400-level courses are listed within the Catalog with names and numbers to reference. Under “Academic Regulations” updated language was proposed to include:

“Such courses must appear in an approved list of allowable courses for a given program and must carry a prefix outside the program’s prefix. Students may register for undergraduate courses to remove deficiencies or satisfy prerequisites for graduate level work. In addition, students in thesis programs may register for undergraduate courses deemed necessary for their research progress. These courses will not count toward meeting graduate degree requirements unless it satisfies the requirement above for graduate credit.”

- **Question** on who approves 400-levels counting as credit, Councilor noted students may not be thinking about a 4+1 program for the future; Barbari proposed the program designates which courses would fulfill that role.
- **Question** on how many 400-level courses would be designated for graduate degrees; Barbari suggested this be a rare occurrence and proposed cross listing or elevating a course from 400-level to 500-level.

Councilor raised scenario where a 400-level course, required for students, were elevated to 500-level despite a large number of undergraduate students taking the course. Barbari suggested cross-listing with a 500-level course; Myskiw noted evaluators will look at the class structure regardless of course number. If the course content is taught the same for the audience and the majority of the students taught are undergraduate, the course is considered undergraduate-level. Additional content distinctive to graduate students differentiates the cross listing.

Barbari noted an undergraduate course that is required for a program could be considered as a deficiency or prerequisite to be in the graduate program.

Councilor noted students would need to be grandfathered in.

Councilor commented that students in more interdisciplinary degrees or research outside of the majority may be disproportionately affected.

- **Question** on prefixes for interdisciplinary programs that live within the department if a student would like to count a 400-level; Barbari suggested that the 400-level course elevate to 500-level especially if not required for the undergraduate degree.
Councilor noted 500-level courses can appear daunting to undergraduate students, some courses have one to two sections of thirty to sixty students that can create several overrides to process for faculty every semester; an additional issue is created for online courses, occurring multiple times in a semester. Myskiw noted there is a possibility to open a 500-level course to undergraduates without restrictions, or with specific restrictions, depending on faculty member preference.

Councilor noted that moving toward requiring all 500-level would remove flexibility for students.

Suggestion made to continue discussion on the proposed changes. Proposed language would then appear in the 2024-2025 Catalog, rather than the 2023-2024 Catalog currently open for edits.

Council did not vote on the proposed language and agreed to continue discussion both in Council and departments.

**New Business**

2.1 **ECONOMICS AND BUSINESS**

Michael Heeley

[CIM 12/4]

1 course change: EBGN525: BUSINESS ANALYTICS

*Change to the learning objectives and Catalog description to accurately reflect what is being taught in the course. This course is now focused on providing a foundation on descriptive analytics. The material on prescriptive analytics that was covered in prior versions will be covered in a new ETM elective course.*

2.1.1 [CIM 12/4; Provost 12/5]

1 new course: EBGN527: BUSINESS OPTIMIZATION MODELS

*This course provides skills on modeling business problems to obtain optimal decisions and insights, that mainly differentiates business analytics from data analytics. It contributes to Mines@150 Mission by contributing to the education in business, specifically by providing skills to solve “the world’s most pressing challenges”. The course will be delivered face to face. This course will teach the prescriptive analytics material (in more depth) that used to be taught as part of EBGN525 which now focuses on descriptive analytics.*

Core ETM class is business analytics and covered descriptive and prescriptive analytics. New terminology in the analytics space is descriptive, prescriptive, and predictive analytics. EBGN525 covered both descriptive and prescriptive, but faculty discussed increasing coverage of descriptive analytics to cover core statistics and visualization methods.

EBGN527 would take and expand prescriptive analytics material covered in 525.

**Continuing Business** – from 11/2/22

3.1 **ENERGY**

Suzanne Beach

[CIM 11/9]

1 program change: MSPHD-AES: MS and PhD in Advanced Energy Systems

*AES is cleaning up the catalog language, clarifying course/credit requirements and clarifying PhD requirements.*
3.2 CHEMICAL & BIOLOGICAL ENGINEERING

David Marr

[CIM 11/10; Provost 11/11]

1 new course: **CBEN532: TRANSPORT PHENOMENA IN BIOLOGICAL SYSTEMS**

This graduate CBE course will advance the Mines 150 mission by providing our graduate students with the fundamental and state of the art industry relevant modeling and experiment experience and application to contribute to “professionally oriented postgraduate education”, as well as strengthening the “affinity for Mines among our students, alumni, and external partners”.

3.3 COMPUTER SCIENCE

Bo Wu

[CIM 11/11; Provost 11/11]

1 new course: **CSCI500: GRADUATE SEMINAR**

Graduate seminars with mandatory attendance benefit students, the department and Mines in two major ways:

1) Seminars are often held by external people visiting Mines (either for interviewing a faculty position or collaboration opportunities). Making these seminars as part of the graduate curriculum will significantly improve attendance, which will in turn positively reflect on visitor’s impression of Mines.

2) Students often overlook the benefits they will obtain from such talks, and most of them end up not attending the seminars. By making the seminars mandatory, overall state-of-the-art knowledge that our graduate students will collect during their education will increase. Moreover, they will have more chance to make connections for their connections. Better educated grad students will benefit both the CS dept. and Mines positively.

3.4 CARBON CAPTURE UTILIZATION & STORAGE

Ali Tura

[CIM 11/15; Provost 11/17]

1 new course: **CCUS521: GEOLOGICAL CARBON CAPTURE UTILIZATION AND SEQUESTRATION (CCUS)**

This is one of the four courses for the new CCUS Certificate program at Mines. The program started recently and has been very successful for a graduate certificate degree. Over 30 students took the class in the first offering last semester. The credits can also be used towards a MSc or PhD degree.

3.5 MINING

Jamal Rostami

[CIM 11/14]

1 program change: **MP-MEM: MP – Mining Industry Management (MP-MIM)**

This program has been proposed and approved as an online program, and it is heavily focused on management aspects of the mining industry. It has quickly gained reputation in the first round of offering, making it to the top 25 technical professional masters programs in the US. We have had several applicants that do not have an Engineering background who want to enter the program, and since the contents are not very technical, they could be successful. But with the name Engineering in the title, students without an Engineering degree would be granted one in this program, and the MN faculty did not see that to be appropriate. So, with the change in name, we also propose changing the entry requirements and making the program available to all Mining and other Engineers, as well as to those who have worked in other disciplines in the mining
and minerals industry for at least five years. Also, the original program was a block model with all 33 credit hours prescribed, and we are changing it to allow up to two elective courses (6 credits) to be taken. This will offer flexibility to the student to take some other online courses to become more specialized in certain areas or to opt out of topics in which they already have competency. This also allows students to tap into other online content that Mines has to offer and is attractive to them.

Adjourn

Meeting adjourned: 5:00 pm.
Next meeting: Spring 2023 - January 4, 4:00-5:00 pm via Zoom. Please send all agenda items to Mara Green (mgreen1@mines.edu) 1 week in advance.

Consent Agenda The following proposals will not be discussed unless specifically requested by Council. Please review the following items. With no objections, approval is implied and items will be processed accordingly.

4.1 Approval of Minutes – November 16, 2022

4.2 CARBON CAPTURE UTILIZATION & STORAGE
[CIM 12/6; Provost 12/6]

1 new course

4.2.1 1 course deactivation: SYGN520: CLIMATE CHANGE AND SUSTAINABILITY

Prefix update from SYGN → CCUS.