

Colorado School of Mines – GRADUATE COUNCIL MEETING MINUTES  
November 3, 4:00 – 5:00 pm, via Zoom

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**Attendees:**

**Voting Members:** 21 total (11 - majority needed for quorum). Quorum was present

P	Bettina Voelker (Chair)	P	Lisa Dunn (LB)	P	Andy Osborne (NSE)	P	Owen Hildreth (ME)
P	Eric Anderson (HSE)	P	Karin Leiderman (AMS)	P	Jamal Rostami (MN)	P	Michael Heeley (EB)
A	Ebru Bozdag (GP)	P	Juan Lucena (EDS)	A	Jim Ranville (GC)	P	Luis Zerpa (PE)
P	Geoff Brennecka (ML)	P	Jeremy Zimmerman (PH)	P	Danica Roth (GE)	P	Qi Han (CS)
P	Elizabeth Davis (HASS)	P	Dave Marr (CBE)	P	Maxwell Silver (GSG)	P	Lori Tunstall (UCTE / CEE)
P	Christine Morrison (CH)						

**Other Regular Attendees and Guests**

P	Tim Barbari (OGS)	P	Carolyn Freedman (OGS)	A	Jane Ko (AA)	A	Mara Green (AA)
A	Jennie Kenney (AA)	A	Denise Winn-Bower (PE)	A	Paul Myskiw (RO)	P	Kendra Stansbury (RO)
P	Deb Jordan (Trefny)						

**Special Guest(s):**

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**Welcome**

Tina Voelker

**Briefings and Information Items**

Office of Graduate Studies

Tim Barbari

Roxane Aungst has rejoined the Office of Graduate Studies from the Registrar’s Office; hope to assist graduate students, staff, and faculty. All actions and services remain the same, this move has been done as an internal change to improve communications.

The Registrar’s Office has worked on converting all forms to web-enabled forms and no longer exist in spreadsheets. These will be expected to roll out over the next weeks and will coincide with the launch of the Graduate School of Mines’ website to have all forms in one location.

Registrar’s Office

Kendra Stansbury

Reminder that registration will begin 11/15. For questions or concerns, reach out to the Registrar’s Office. Stansbury is reviewing spring petitions and asked Council to encourage students to submit those as soon as possible. Student questions can be directed to [residency@mines.edu](mailto:residency@mines.edu). The final deadline is 12/1.

Graduate Student Government

Maxwell Silver

No updates from Graduate Student Government.

**Graduate Council Operation**

Graduate Council Membership

Voelker outlined the functions of Council as defined by the Academic Faculty Bylaws:

- Provide recommendation to Faculty Senate on changes to graduate education policy.
- Approve or deny changes to courses or programs, or new courses and programs and assure departments and programs are aware of potential opportunities or problems.

An issue for Council to address is Council representation of IGP programs. Council discussions affect IGPs

and departments, but expansion of membership may make quorum difficult and could result in discussions being prolonged and conclusions remaining unreached.

Voelker presented a minimalistic model to approach Council membership:

- Allow each department/division one voting representative
- Departments are then encouraged to work with IGPs to find representatives of both the IGP and department
- IGPs that are unrepresented as a voting member in a given year remain as non-voting members

Comment made on the availability of Council minutes; Council minutes are available on the Faculty Senate webpage ([click here](#)).

Suggestion made to reach out to IGPs to find if representation is needed, also suggested to consider IGP representation for programs that offer PhD and/or thesis programs.

There are seventeen IGPs at Mines, four of which contain PhD programs.

Comment made on misrepresentation of an IGP through a home department representative due to the differences between some programs and departments; comment made on the time commitment needed of the faculty involved in being a representative for multiple programs and a department. Suggestion made on finding thresholds based on program size, type, number of students, or other factors to distinguish IGP membership. Comment made on faculty holding multiple representations having a variable number of votes; a conflict of interest could develop between the department and IGP an individual is representing.

#### Curriculum Item(s) for Council Vote – from 10/6/21

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|-----|---|------------------|
| 1.1 | <b>MINING ENGINEERING</b><br>[CIM 9/29; Provost 9/30]<br><b>1 new course:</b> MNGN5XX: FUNDAMENTALS OF TAILINGS ENGINEERING<br><i>Due to recent, catastrophic tailings dam failures, mining constituents have a significant interest in tailings facilities design and engineering. This is the first of a sequence of six short courses that has been offered with very good registrations (25 to &gt;50 students per class) twice during 2021. Registrants were from around the world, including Australia, Brazil, Canada, Chile, Cote d'Ivoire, DRC, Mexico, New Caledonia, Peru, South Africa, Suriname, Tanzania, and the U.S. The course delivery has been virtual using Zoom and Canvas, and student satisfaction has been assessed as high</i> | Priscilla Nelson |
|-----|---|------------------|

**MOTION:** To approve the new course in Mining Engineering, MNGN5XX: Fundamentals of Tailings Engineering by Hildreth, seconded by Brennecka. Motion passed unanimously. **APPROVED.**

**NOTE:** This course will not be entered into the Catalog as 5XX, a permanent number will be developed with the program prior to submission into the Catalog.

#### New Curriculum Item(s)

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| 2.1 | <b>CIVIL &amp; ENVIRONMENTAL ENGINEERING</b> | Lori Tunstall |
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[CIM 10/26; Provost 10/26-27]

**3 new courses:** CEEN526: DURABILITY OF CONCRETE

*Industry is shifting away from strength-only considerations for concrete design and is moving toward designing for both durability and sustainability as well. This course will prepare students for this inevitable shift in design. As such, it will not only expand the current offerings, but will also support two Mines@150 goals: 1) to be a leader in educating STEM students and professionals and 2) to be an accessible and attractive option for qualified students from all backgrounds.*

The department has approved this course. The course will focus on a material science perspective of concrete, looking at how microstructure effects macroscopic properties of concrete and how these properties affect the long-term durability of concrete.

This course has been piloted twice with an enrollment of about twenty students, eighteen undergraduate students and two graduate students. The course is structured to be more challenging and focused on current research for graduate students with some differences in homework and project assignments.

Question on which majors are able to take the course; Tunstall stated there will not be prerequisites for the course. Civil engineers do not take many materials science courses and the course is developed to begin with basics of materials science principles. All are welcome to take the course.

Suggestion made to advertise to materials science graduate students.

Comment made on CIM email notifications. The course had been submitted as CEEN549, due to the cross-listing nature CEEN449 was not available for the undergraduate level course. The CIM email notification still lists the course as CEEN549.

**MOTION:** To suspend the month rule in order to approve CEEN526 in two weeks at the following Graduate Council meeting on 11/17 by Zimmerman, seconded by Hildreth. Motion passed unanimously. **APPROVED.**

CEEN547: DESIGN OF PRESTRESSED CONCRETE STRUCTURES

*The addition of this graduate course will provide our students the opportunity for exposure to increasingly important design concepts that have the potential to significantly reduce the amount of concrete required for construction versus the traditional reinforced concrete design methods and in doing so reduce the impact new construction has on the environment. Such a course is required to maintain our ability to produce structural engineering graduates with knowledge of the most current design technologies.*

CEEN597: PRACTICES AND PRINCIPLES OF ENVIRONMENTAL CONSULTING

*The course introduces students to the business concepts, tools and terminology used in the environmental consulting industry. Depending on Mines requirements, this course may be delivered as a person-to-person (preferred), hybrid, or remote class.*

*A large share of Mines undergraduate and graduate students find employment, either temporarily or permanently in the environmental/engineering consulting arena. Many*

*are not fully prepared for this line of work, as they've not been exposed to the project-driven, business-oriented implementation aspects of this workplace. This course allows students to explore this field of employment before committing to it and prepares the for success if his is their chosen career.*

*Class is taught by two highly-regarded industry experts with 50 years of environmental consulting experience between them. Additionally, guest lectures are a key part of the course, with a diverse group of experienced people bringing their perspectives on the environmental consulting industry from municipal, state and federal government, small business ownership, and private sector clients.*

2.2                    **GEOLOGY & GEOLOGICAL ENGINEERING**                    Cheryl Medford  
[CIM 10/21]

**1 course change:**            GEOL520: NEW DEVELOPMNETS IN THE GEOLOGY AND  
EXPLORATION OF ORE DEPOSITS

*Course last taught in 2019. Has been enhanced to become a 3-credit course (formerly 2-credit).*

### **Miscellaneous Business**

Tina Voelker

#### Graduate Seminars

Question brought forward on graduate seminar methods. Issues brought forward include how to provide credit for the work being done and how much credit is provided. Anecdotes from departments were provided from Councilors including:

- Offering a graduate seminar as a PRU/PRG every semester, when the students graduate a letter grade is provided with a credit total
- Sending an email to all graduate students in the program and stating that all thesis-based masters and PhD students are required to attend with valid reason provided to the advisor if attendance cannot be made

Suggestion made for offline discussion and creation of a template. This template does not require use from all departments, but would provide best practices for graduate seminars.

#### Graduate Stipends

Voelker made request for volunteers to assist in the discussion of graduate stipends with Research Council.

### **Adjourn**

Tina Voelker

Meeting adjourned: 4:58 pm.

Next meeting: November 17, 4:00-5:00 pm via Zoom. Please send all agenda items to [mgreen1@mines.edu](mailto:mgreen1@mines.edu) 1 week prior.

### **Continuing Curriculum Item(s)** – From 10/20/21

3.1                    **ECONOMICS AND BUSINESS**                    Ian Lange  
[CIM 10/14]

**1 program change:**            MSPHD-ECO: MS & PhD – Mineral & Energy Economics  
*4+1 language added for Western Colorado.*

*This program will encourage applicants to the Mineral and Energy Economics (MEE) program by facilitating applications from Western Colorado University's Bachelors of Energy Management program. The program will allow these students to complete the non-thesis Masters in MEE in one year by setting specific course requirements at Western Colorado University.*

*The program will provide more opportunities and partnerships with Western Colorado through the partnership with Western Colorado University. Western Colorado recruits a different type of student than Mines generally does and thus our program will help give Mines exposure to a new market.*

*Finally, this program will lead to larger numbers of non-thesis Masters students attending Mines. This increased revenue source will help diversify Mines overall revenue streams.*

Lange met with Barbari on policies regarding number of 400-level content and transfer limitations. Inconsistency was found in the previously approved program with Mesa and the memorandum of understanding with the institution and the Mines Catalog. A program change for the existing Mesa program will be underway along with changes to the currently submitted program change for Western Colorado. A new program may be submitted as the Catalog does not display the language.

**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** – October 10, 2021

Tina Voelker