

Colorado School of Mines – GRADUATE COUNCIL MEETING MINUTES
December 1, 4:00 – 5:00 pm, via Zoom

Attendees:

Voting Members: 22 total (12 - majority needed for quorum). Quorum was present

P	Bettina Voelker (Chair)	P	Christine Baker (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)
A	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)	P	Salman Mohagheghi (EE)				

Other Regular Attendees and Guests

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

Special Guest(s): Angel Abbud-Madrid (ME)

Welcome

Tina Voelker

Briefings and Information Items

Office of Graduate Studies

Tim Barbari

Barbari reported on discussions in graduate admission recruitment events on whether or not non-thesis master's programs will require the GRE. Mines and other institutions had waived the GRE due to COVID and students being unable to access testing centers. Programs have the autonomy to decide what materials is necessary for admissions decisions, and this will remain. Some programs have noted no longer requiring the GRE. It is noted that there is an option to have the GRE be optional and not explicitly required.

Comment made on bias for optional GREs and students' submission of GREs leading to preference over those who have not; Barbari encouraged programs to speak with the undergraduate admissions office to work on those biases and improve and conduct a fair process. Anecdote provided for students that fell in lower quartiles in specific subjects struggling in graduate-level coursework; it was noted that GRE options will remain up to the discretion of the programs. Voelker encouraged Councilors to bring this discussion to departments and programs.

Comment made on some programs providing a holistic perspective while providing the GRE as an optional submission; the program would view the student transcript, coursework, any attached letters, and submitted test scores.

Registrar's Office

Paul Myskiw

Myskiw briefed Councilors on a discussion regarding graduate students taking undergraduate-level courses; these courses remain in the Catalog as undergraduate but are manually changed to appear on the graduate transcript. One suggestion made was cross-listing 400-level courses with 500-level courses; Councilors noted there may be an issue of additional workload for faculty to create graduate-level content in a cross-listed course. Graduate students that take non-cross-listed 400-level courses can count upwards of six credits. Additional suggestion made to have these non-cross-listed undergraduate

courses not have the same impact on the graduate GPA; these courses are currently changed in order to appear on the graduate transcript.

Graduate Student Government

Maxwell Silver

No updates from Graduate Student Government.

Graduate Council Operations

Graduate Council will meet 12/15; Voelker proposed Council does not meet on 1/5/22 as there may be lack of attendance due to travel and holiday.

Graduate Council Membership

Discussion continued on graduate council membership and inclusion of interdisciplinary programs; suggestion was made for smaller programs to have a represented position as a non-voting member. Suggestion raised on offering council membership to interdisciplinary programs that offer thesis and non-thesis degrees.

It was noted that many policies surround thesis and PhD degrees versus graduate certificates.

Councilor noted that restricting membership based on the growing size of Council would not be a good excuse for excluding representation. It was also noted that Council's ability to reach quorum is an additional factor to consider should Council's size increase.

Suggestion was made to provide programs with optional representation; programs would not be forced to attend Council. Topics of interest could be highlighted in the Council agenda and representatives can attend at their own discretion. With this suggestion, quorum could be defined as a percentage of the number of opted in representatives.

Councilors were encouraged to send thoughts and ideas to Voelker.

New Curriculum Items

- 1.1 **CHEMICAL & BIOLOGICAL ENGINEERING** David Marr
[CIM 11/19]
1 program change: MSPHD-CBE: MS & PhD – Chemical and Biological Engineering
In the current catalog, both Ph.D. and master students are required to register every semester for CBEN605 Colloquium; however, it is not currently specified how many colloquium credits can be counted towards each degree. Here, we are applying a three-credit maximum for counting towards the degree requirements.

Graduate students are required to attend seminar each semester; the number of credits that can be applied to the degree has been restricted to a maximum of three credits. This had been standard practice but had not been reflected in the Catalog.

- 1.2 **GEOLOGY & GEOLOGICAL ENGINEERING** Danica Roth
[CIM 11/18]
1 program change: MPMEMSPHD-GE: MP, ME, MS & PhD – Geology & Geological Engineering
Updating GE Ph.D. catalog language - the current language is unnecessarily vague about

Anecdote provided by Councilor in that AMS requires one letter upon application to identify the advisor of the thesis.

- 1.4 **CIVIL & ENVIRONMENTAL ENGINEERING** Lori Tunstall
[CIM 11/30]
1 program change: XCR-ENVMOD: Graduate Certificate in Environmental Modeling
Update to required courses from three to two courses (removal of CEEN566). Electives list added.

CEEN566 had been in the process of development for online format, but was not provided in time for Spring. Students are enrolled in the certificate, and the course has been removed from the required course list. An elective list was added to offset the removal of the required course; students can select from a list of four elective courses.

Councilor noted that if this course has not been developed for remote for Spring, a course substitution could be done for the Spring to avoid changes to the listed Catalog entry; Tunstall noted this course may not be developed for remote at all.

The certificate is fully online and CEEN566 remaining as a residential course on the required course list would cause concern. The status of CEEN566 will be monitored.

An expedited voting process was suggested for the program change requested. Program change will be up for Council vote on 12/15.

Adjourn

Tina Voelker

Meeting adjourned: 5:00 pm.

Next meeting: December 15, 4:00-5:00 pm via Zoom.

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.

- 2.1 **Approval of Minutes – November 17, 2021** Tina Voelker

- 2.2 **MECHANICAL ENGINEERING** Owen Hildreth
[CIM 11/24]

4 course changes: MEGN502: ADVANCED ENGINEERING ANALYSIS
 MEGN514: CONTINUUM MECHANICS
 MEGN551: ADVANCED FLUID MECHANICS
 MEGN571: ADVANCED HEAT TRANSFER

The Mechanical Engineering Department is adding an online modality to the Masters Non-Thesis (MSNT) program. This course is one of the key online courses necessary to enable this online modality

- 2.3 **MINING ENGINEERING** Jamal Rostami
[CIM 11/29]

1 course change: MNGN527: SOLID WASTE MINIMIZATION AND RECYCLING

The Space Resources fully-online graduate program is the first one in the world educating scientists, engineers, economists, entrepreneurs, and policy makers in the field of space resources. This one-of-a-kind, innovative, multidisciplinary program aims to take the 150-year-old, world-renown expertise at Mines in resource exploration, extraction, production, and utilization to its next frontier by identifying, extracting, and utilizing resources beyond Earth.

This online course provides a detailed look at planetary bodies, from atmosphere to surface to interior with a focus on the geological processes that have formed then transformed these bodies over time, with special attention paid to the formation of space resources.

THE COURSE WAS SUCCESSFULLY RUN AS A SPECIAL TOPICS COURSE IN SPRING 2021 and FALL 2021.

3.2

CIVIL & ENVIRONMENTAL ENGINEERING

[CIM 10/26; Provost 10/26-27]

Joe Crocker

2 new courses: 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.

[CIM 10/26; Provost 10/27]

Chris Higgins

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.