Colorado School of Mines – GRADUATE COUNCIL MEETING MINUTES
October 6, 4:00 – 5:00 pm, via Zoom

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)	A	Jamal Rostami (MN)	P	Michael Heeley (EB)
P	Ebru Bozdag (GP)	P	Juan Lucena (EDS)	A	Jim Ranville (GC)	P	Luis Zerpa (PE)
P	Geoff Brennecka (ML)	P	Jeramy 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)	P	Mara Green (AA)
A	Jennie Kenney (AA)	A	Denise Winn-Bower (PE)	P	Paul Myskiw (RO)	P	Deb Jordan (Trefny)
P	Roxane Aungst (RO)						

Special Guest(s): Linda Figueroa (CEE), Jennifer Briggs (OGS), Manika Prasad (GP)

Welcome Tina Voelker

Briefings and Information Items

Office of Graduate Studies Tim Barbari

Barbari proposed creation of a subcommittee to address PhD thesis committee membership and what would be a suitable process for Mines. The subcommittee will work on alignment between the Catalog description and thesis committee form.

Barbari raised issue of proxy of knowledge in the technical area of the thesis. Larger programs may have committee members that are from the department or program but have no affiliation with the thesis work. The committee chair is not required any knowledge of the technical area of the thesis and is outside of the students' doctoral home department; assumed due to impartiality. The chair acts as a representative of OGS, upholds standards, and ensures for no potential for conflicts of interest. Comment raised on co-advisors. Four members are part of the thesis committee; co-advisors not factored into committee membership.

Several approvals are needed, the committee process could be placed in a workflow tool to simplify the approval process. The subcommittee would work to identify workflow applications. The use of Banner for workflow processes would mean the form language would look similar to what is located in the Catalog. Barbari suggested other methods: approval at the department or IGP director level rather than the Graduate Dean.

Issues addressed are for the PhD thesis committee membership form; additional work will be done on the Masters thesis committee form.

PhD Thesis Committee
Volunteers:

- Tina Voelker
- Andy Osborne
- Owen Hildreth
- Jeramy Zimmerman

- Geoff Brennecka

Registrar's Office — Paul Myskiw

Spring and Summer 2022 schedules are due 11/1.

Myskiw reported tight room availability will continue into Spring due to the large freshman class. Any major disruptions will be reported to faculty. A major concern was the availability of conference services' rooms as classrooms without prior contact with the Registrar's Office. A main access point is being developed for all room contacts, including classroom scheduling and conferences.

Graduate Student Government — Maxwell Silver

No updates from Graduate Student Government.

Graduate Council Operation

GC Subcommittees from 20-21

Voelker noted that Faculty Senate will be made aware of the Advisor Advisee Recommendations form from 20-21 Graduate Council. Voelker will look to provide this as a recommendation directly from Graduate Council without issuance directly from Senate.

Comment made that guidelines for advisor and advisees were already present; the document made by the subcommittee will be reworked with that information. Councilors noted that faculty may not know these guidelines existed and Graduate Council would provide a cumulative means of disseminating information to increase the document's visibility.

OGS will work on centralizing this information. The current webpage was made to encourage advisors to review what guidelines are provided by other institutions and create a document to suit specific needs. An institutionalized document is not available; concern for enforcing and implementing an institutional document. The guideline document drafted by the Graduate Council subcommittee would remain as guidelines. The subcommittee met with Mines' legal offline, no issues with the document were mentioned.

Consistency in Grading, Plus/Minus Grading

Recommendation were brought to Faculty Senate by the Undergraduate Council subcommittee for Consistency in Grading. The subcommittee recommended consistency of plus/minus grading in course sections. Faculty Senate requested Graduate Council review this issue at a graduate level.

Councilors noted different departments provided suggestions and guidelines that are not mandatory, but are discussed often.

OGS suggested the use of plus/minus grading systems. Students with grades outside of the plus/minus system will struggle to achieve the 3.0 and will be on academic probation.

Departmental anecdote provided: curriculum being reviewed and identified inconsistencies in workload, Councilors noted issue of concealing patterns in student performance with curriculum adjustments to raise course score averages.

Councilors noted inconsistencies between online and in-person course workload and grading.

Guidelines for Formatting Theses

GSG has provided OGS with a LaTeX template; OGS has worked on revision of a Word template. OGS reported reviewing guidelines for theses with the Writing Center and welcomed input from Councilors and others.

Curriculum Item(s) for Council Vote – From 9/1/21

1.1 **CSM GENERAL** Geoff Brennecka

[CIM 7/28; Provost 7/28]

1 new course: CSM501: GRADUATE STUDENT SKILLS & SUCCESS

This course looks to support the following Mines@150 goals: 1) strengthening affinity for Mines among our students, 2) improving student success indicators, 3) making Mines accessible and attractive to qualified students from all backgrounds and 4) developing a signature student experience.

There is no existing cross-campus onboarding class for graduate students to help them transition to graduate school and to Mines. Course is first being taught as a 598 course in Fall 2021.

MOTION: To approve the new course CSM501: Graduate Student Skills & Success by Morrison, seconded by Heeley. Motion passed unanimously. APPROVED.

Continuing Curriculum Item(s) – From 9/15/21

2.1 **CARBON CAPTURE, UTILIZATION, & STORAGE** Manika Prasad

[CIM 9/1; Provost: 9/2]

1 new course: SYGN520: CLIMATE CHANGE AND SUSTAINABILITY

This course addresses several Mines@150 goals by fostering education of engineering solutions in the societal context of producing use-inspired research and innovation to address industrial and societal challenges, differentiated and desired STEM educated leaders, and providing STEM education for students and professionals in the climate change area – by combining individual department-level engagement to a school wide effort. The Mines CCUS Innovation Center (MCIC) will oversee and manage this program as one of its offerings – CCUS is a large part of the Mines@150 Mission.

This is a fully online course and has been approved by the Trefny Center 9/2/21.

Question raised on team-taught courses and how credit is being given to instructors in these courses; Prasad noted that credit is provided for faculty that took part in development but did not wish to be instructors. In order to provide a better experience, a maximum of two instructors per course has been suggested. This online module will then be supported by the Trefny Center.

Myskiw noted departments have the ability to provide the percentage of faculty instruction for courses in Banner and should contact the Registrar's Office with this information.

For developed course content, student questions are addressed by the instructors of record. Developers of the course are on standby for questions outside of the instructors' scope.

New Curriculum Item(s)

3.1 **MINING ENGINEERING** Linda Figueroa

[CIM 9/29; Provost 9/30]

1 new course: MNGN5XX: FUNDAMENTALS OF TAILINGS ENGINEERING

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 >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. The MN department requests approval to offer each of the six courses in a modular format for 1 academic graduate credit. The interest from the industry is high, and MN expects to recruit from the student registrants into the graduate degree programs in MN at Mines.

This course was developed in conjunction with the expectation of a Tailings Center for education. Current tailings courses being taught as six, non-credit courses. The first course of the six presented today would be an online course taken in three-weeks.

Concern brought forward on parts of term being developed outside of the normal eight weeks for online courses. The Provost and Executive Team are not in support of smaller parts of term due to administrative burden and financial aid issues.

Suggestion provided for development of course as a Summer offering, two units offered in eight weeks or one unit in 8-weeks.

Adjourn Tina Voelker

Meeting adjourned at 4:56 pm.
Next Meeting: October 20, 4:00 – 5:00 pm, via Zoom.

Consent Agenda The following proposals will <u>not</u> 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** – September 15, 2021

4.2 **GEGOLOGY & GEOLOGICAL ENGINEERING** Cheryl Medford

[CIM 9/14; Provost: 9/14]

1 new course: GEGN508: ADVANCED ROCK MECHANICS

Creation of GEGN 508 - Dr. Gabriel Walton will be taking over MNGN 508 (Advanced Rock Mechanics) from the professor in Mining Engineering who used to teach the course, and as such, the department heads of Geology & Geological Engineering and Mining Engineering, Wendy Bohrson and Steve Enders have agreed that creating a GEGN-coded cross-list is reasonable.

[CIM 9/23]

1 course change: GEGN588: ADVANCED GEOGRAPHIC INFORMATION SYSTEMS

Removing typo. ENDS264 → EDNS264.

4.3 **METALLURGICAL & MATERIALS ENGINEERING** Geoff Brennecka

[CIM 9/23]

2 course changes: MLGN544: ADVANCED PROCESSING OF CERAMICS

Minor name change to align with cross-listed MTGN414; initiated by an earlier introduction of MTGN314 that includes an introduction to ceramics processing. Removed pre-reqs that no longer exist.

MLGN550: STATISTICAL PROCESS CONTROL AND DESIGN OF EXPERIMENTS

Previously cross-listed with MTGN450, which was renumbered to MTGN350, so a cross-list is no longer appropriate. there are no plans to teach a separate 500-level course on this topic.

4.4 **MATERIALS SCIENCE** Geoff Brennecka

[CIM 9/18]

1 program change: MSPHD-MATSCI: MS & PhD – Materials Science

Removal of course no longer taught/available. Removal of MLGN550 (deactivated above).

4.5 **QUANTUM ENGINEERING** Geoff Brennecka

[CIM 9/18]

1 program change: QUE: Quantum Engineering

Addition of elective HASS423: Advanced Science Communication.

4.6 **CHEMICAL & BIOLOGICAL ENGINEERING** Dave Marr

[CIM 9/24]

2 course changes: CBEN522: CHEMICAL ENGINEERING FLOW ASSURANCE

Modality change. Course will be offered in Spring 2022 online. Trefny Center certification approved.

CBEN625: MOLECULAR SIMULATION

Minor course catalog description changes to reflect course content more clearly.

4.7 **APPLIED MATHEMATICS & STATISTICS** Karin Leiderman

[CIM 9/27]

1 course change: MATH588: INTRODUCTION TO QUANTITATIVE AND COMPUTATIONAL RESEARCH

Request for running course as independent study; removal of proposal writing from syllabus.