

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

Attendees:

Voting Members: 23 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)	A	Soutir Bandyopadhyay (AMS)	A	Jamal Rostami (MN)	P	Michael Heeley (EB)
P	Jeffrey Shragge (GP)	P	Juan Lucena (EDS)	A	Jim Ranville (GC)	A	Luis Zerpa (PE)
P	Kester Clarke (MME)	P	Uwe Greife (PH)	A	Danica Roth (GE)	P	Dong Chen (CS)
P	Jay Straker (HASS)	P	Dave Marr (CBE)	A	Liam Witteman (GSG)	P	Lori Tunstall (CEE)
P	Christine Morrison (CH)	P	Atef Elsherbeni (EE)	P	Gabriel Walton (UCTE)		

Other Regular Attendees and Guests

P	Tim Barbari (OGS)	P	Carolyn Freedman (OGS)	A	Jenny Briggs (OGS)	A	Mara Green (AA)
A	Wendy Adams (HNRS)	A	D. Scott Heath (RO)	P	Paul Myskiw (RO)	A	Roxane Aungst (OGS)
A	Sam Spiegel (Mines Online)	A	Suzanne Beach (Payne)	P	Jen Gagne (Grad Admissions)	P	Kendra Stansbury (RO)

Special Guest(s):

Welcome

Tina Voelker

Briefings and Information Items

Office of Graduate Studies

Tim Barbari

Barbari reminded Councilors of the Dean’s Fellowship, a top off fellowship for domestic underrepresented groups; Barbari received ten as of the 2/1 meeting.

- **Question** on how much money is available; Barbari reported being able to afford twelve to fourteen top off fellowships. Barbari noted there is a yield rate of fifty percent at the PhD level. There may be twenty-five to yield twelve to fourteen as the applicants would be competitive.

Barbari provided a brief overview of the top off fellowship. The fellowship is ten percent on top of the normal twelve-month stipend.

Registrar’s Office

Paul Myskiw

Myskiw notified Councilors that Kendra Stansbury would attend Council meetings. Undergraduate Council will be meeting every week through February and March due to core curriculum changes; Stansbury would provide updates if Myskiw is unable to attend a Council meeting.

Graduate Student Government

Liam Witteman

No updates from Graduate Student Government.

Barbari noted the panel with GSG included discussions of topics such as disability services, DI&A profile of the institution, stipend levels, and overall transparency. OGS took notes during the panel to find actionable items and bring those items to Council and the GSG leadership.

Non-Compliance with HLC Assumed Practices

Tim Barbari

Graduate Programs and Combined Programs

Barbari provided an edited proposal of Catalog language to Councilors. The language would allow a policy to coexist with existing policy of allowing 400-level courses to count but still substitute only

graduate courses for undergraduate double counting while also remaining in line with requirements that the same 400-level course cannot count for both the undergraduate and graduate degree. Barbari added specific language to the Catalog, rather than providing a separate memorandum on grandfathering students into the policy:

“Combined students with graduate admit terms from Fall 2023 to Spring 2025 and who have earned at least 60 credits toward their BS degree by the start of the Fall 2023 semester may opt to use the policy in the 2022-23 Graduate Catalog under this heading.”

The paragraph could then be removed by the 2024-2025 or 2025-2026 Catalog.

Barbari paraphrased the HLC Assumed Practices language in the context of substitutions:

“Students accepted into a combined program may substitute up to six credits of graduate coursework to fulfill requirements of their undergraduate degree and then also use these credits to fulfill requirements of their graduate degree. These courses are referred to as “double-counted courses” and must be completed with a grade of B or better.”

Myskiw noted the use of double-counting 500-level courses had been discussed in Undergraduate Council; the consensus had been taking the route of cross-listing and undergraduates within combined programs would be advised to take the 500-level version of the cross-listed course to double-count.

- **Question** on the enrollment of the cross-listed course and if graduate students need to make fifty percent of the enrollment; Barbari noted this is not a rule but refers to the discourse of the classroom and the content required to earn a graduate credit.
- **Question** on undergraduate students taking a core curriculum course that is cross-listed and taking the 400-level; Barbari advised the students take the 500-level cross-listing for double-counting purposes. Barbari referenced the HLC Assumed Practices that allows advanced students to substitute graduate courses for required or elective courses in an undergraduate degree program.
- **Question** on students with federal financial aid that may be limited in how many 500-level courses can be taken; Barbari reported a 500-level double-counted course would be placed in the system as a UG course as it meets an undergraduate requirement, alleviating pressure on financial aid. Barbari noted this applies to any double-counted 500-level course, even if the course is not cross-listed with a 400-level course.
- **Question** on wording referencing satisfaction of undergraduate requirements being placed in the graduate Catalog; the language had been placed in the graduate Catalog rather than the undergraduate Catalog. The undergraduate Catalog references the graduate Catalog for 4+1 matters.
- **Question** on the following language:

“A specific 400-level course approved for graduate credit from outside of the undergraduate department may be used to substitute for an undergraduate technical or free elective and be double counted.”

Barbari reported this language referenced graduate programs that have approved a 400-level course as a graduate credit for their program, Barbari noted this appeared as primarily an IGP issue. Barbari removed “specific” from the language to provide additional clarity.

Council discussed the use of technical and free electives within the language; Council suggested removal of “technical or free” elective to only “elective”.

Barbari asked Councilors to review the “grade of B or better” for the double-counted courses; Councilor recommended using the grade policy of transfer courses from other institutions which is C/C- or better. Council discussed the language of “3.0 or higher”. Council agreed to maintain the “B- or better” language.

MOTION: To approve the proposed Catalog language by Greife, seconded by Heeley. Motion passed unanimously.

Items for Council Vote – from 1/4/23

1.1

PHYSICS

Uwe Greife

[CIM 12/13]

1 program change: MSPHD-PH: MS (with thesis) & PhD – Physics

Our new Graduate laboratory course is designed to provide first year graduate students with introductory skills necessary to carry out research in discipline specific laboratories – both in the physics department and post-graduate career industrial settings. Graduate laboratory is one step toward the goal of modernizing the Physics graduate curriculum, both content and pedagogy, and to target requirements of employers. In this effort, Classical Mechanics has been partially ‘absorbed’ into the other four core courses: Quantum Mechanics, Electricity and Magnetism, Statistical Mechanics, and Mathematical Methods. These four courses are, in turn, being integrated to avoid artificial siloing of information. In addition to providing students a rich, interactive learning experience, the new graduate laboratory course is intended to grow the scale and impact of research at Mines. Engaging first year graduate students in real-world research will better prepare them to join broader research communities and contribute at an earlier stage in their careers. Success of the revised physics graduate curriculum will further Mines’ goal to be a top-of-mind and first-choice university for students, public and private partners, and faculty and staff.

1.1.1

[CIM 12/9; Provost 12/9]

1 new course: PHGN515: GRADUATE LABORATORY

MOTION: To approve the items presented in 1.1 and 1.1.1 in an omnibus Council vote by Greife, seconded by Hildreth. Motion passed unanimously.

1.2

APPLIED MATHEMATICS & STATISTICS

Soutir Bandyopadhyay

[CIM 12/12]

1 program change: MSPHD-AMS: MS & PhD – Applied Math/Statistics

AMS recommends to revise the CAM graduate core coursework by removing MATH 515 from the required core coursework, instead offering 515 as one of the electives students may choose to take, and adding MATH 501 to the required core coursework. This will ensure that all CAM graduate students have a well-rounded theoretical skillset to complement their skills in mathematical modeling, calculations, and numerical methods.

MOTION: To approve the program change to MSPHD-PH: MS (with thesis) & PhD – Physics by Morrison, seconded by Tunstall. 12 for, 1 abstention.

Adjourn

Tina Voelker

Meeting adjourned: 4:56 pm.

Next meeting: February 15 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.

2.1 **Approval of Minutes – January 18, 2023**

Tina Voelker

2.2 **MECHANICAL ENGINEERING**

Owen Hildreth

[CIM 1/26; Provost 1/26]

1 new course: MEGN579: OPTIMIZATION MODELS IN MANUFACTURING
This course contributes to the Additive Manufacturing, Operations Research with Engineering, and Mechanical Engineering curriculum. Three fields with high interest at the undergraduate and graduate levels. Additionally, this will be an online course to support the online initiatives and students in industrial settings.

Cross List with MEGN 479. Was originally ORWE 581, but it should have been submitted to MEGN to match the undergraduate course prefix. The goal of this change to have the undergraduate and graduate cross-listed courses have the same prefix and number.

2.2.1 [CIM 1/26]

9 course changes: MEGN513: KINETIC PHENOMENA IN MATERIALS
MEGN540: MECHATRONICS
MEGN544: ROBOT MECHANICS: KINEMATICS, DYNAMICS, AND CONTROL
MEGN561: ADVANCED ENGINEERING THERMODYNAMICS
MEGN567: PRINCIPLES OF BUILDING SCIENCE
MEGN570: ELECTROCHEMICAL SYSTEMS ENGINEERING
MEGN583: ADDITIVE MANUFACTURING
MEGN585: NETWORK MODELS
MEGN592: RISK AND RELIABILITY ENGINEERING ANALYSIS AND DESIGN

Cleaning up terminology in Catalog description to match other courses.

2.3 **ELECTRICAL ENGINEERING**

Kelsie Diaz

[CIM 1/25]

1 program change: MSPHD-EE: MS & PhD – Electrical Engineering
Small wording change to electives list names.

2.4 **OPERATIONS RESEARCH WITH ENGINEERING**

Alexandra Newman

[CIM 1/20]

1 course deactivation: ORWE581: OPTIMIZATION MODELS IN MANUFACTURING

ORWE581 should be deactivated, then, we are activating MEGN479/579 in its place.