

Colorado School of Mines – GRADUATE COUNCIL MEETING AGENDA  
 May 8, 2024, 4:00 – 5:00 pm, via Zoom

**Attendees:**

**Voting Members:** 23 total (12 - majority needed for quorum). Quorum was present.

P	Soutir Bandyopadhyay (Chair)	P	Danielle Ostendorf (LB)	P	Andy Osborne (NSE)	P	Owen Hildreth (ME)
P	Adrienne Marshall (HSE)	P	Bettina Voelker (CH)		Jaeheon Lee (MN)		Jared Carbone (EB)
	Yaoguo Li (GP)	P	Juan Lucena (EDS)		Jim Ranville (GC)	P	Pejman Tahmasebi (PE)
	Suveen Mathaudhu (MME)	P	Nikki Farnsworth (CBE)	P	Ryan Venturelli (GE)	P	Dong Chen (CS)
P	Adrienne C. Kroepsch (HASS)	P	Yamuna Phal (EE)		Rena Zhu (GSG)		Samy Wu Fung (AMS)
			Lori Tunstall (CEE)	P	Gabriel Walton (UCTE)	P	Uwe Greife (PH)

**Other Regular Attendees and Guests**

P	Tim Barbari (OGS)		Carolyn Freedman (OGS)	P	Jenny Briggs (OGS)		Vibhuti Dave (UG)
	Wendy Adams (HNRS)		D. Scott Heath (RO)	P	Paul Myskiw (RO)		Roxane Aungst (OGS)
	Sam Spiegel (Mines Online)		Suzanne Beach (Payne)		Jen Gagne (Grad Admissions)		Valerie Holt (AES)
P	Jon Johnson (Mines Online)		Atef Elsherbeni (EE)	P	Richard Krahenbuhl (GP)		Kristeen Serracino (AA)
	Colin Schneider (RO)	P	Cadi Gillette (IGP)				

**Special Guest(s):** Sid Saleh, Nancy Progar

**Welcome**

Soutir Bandyopadhyay

**Agenda Discussion**

**MOTION:** The motion to table all online courses and online programs until the copyright issue has been resolved was moved by U. Greife, seconded by O. Hildreth. The motion to table all online courses and online programs until the copyright issue has been resolved was approved with 12 approved, 1 opposed, and 0 abstentions.

O. Hildreth shared that this motion was brought up as a response to the discussion regarding the copyright policy which would allow Mines to own all online content without royalties and have unrestricted licenses to any content that is created which goes against what is done traditionally with content creators and within faculty. This gives way to an additional issue that the technology now exists (generative AI) to extend videos created by faculty. T. Voelker added the need for clarification on whether programs can be approved before or after the courses have been

approved. P. Myskiw added that it has been done both ways in both councils of approving program before courses are fully developed and vice versa. U. Greife added by not approving courses and programs, this is an opportunity for faculty to take a stand on the issues they find with intellectual property and copyright policies.

- **Comment:** S. Saleh requested that the online certificate programs still be voted on but agreed that online courses could be tabled.
- **Question:** T. Voelker asked to what extent has this issue been discussed in Faculty Senate? If the Graduate Council does not approve these courses and programs today, what are the consequences for those programs?
- **Comment:** Y. Phal added that in the case of EENG585, it is a course that has already been developed and offered as a special topics course. However, the pilot was offered as an in-person course and the proposal below is to offer it fully online with the newly approved Electrical Engineering Online Professional Masters program. Since this is part of the online professional masters program proposed to be offered in the Fall, what are the implications of this proposed action?
- **Question:** P. Myskiw asked what balance can be found between addressing the faculty ownership of intellectual property but also not harming programs that are wanting to move forward. Some may not be impacted by the intellectual rights and copyright issues.
- **Comment:** U. Greife suggested suspending the rule regarding the number of times a course can be offered as a pilot until the copyright issue is addressed.
- **Comment:** J. Johnson added that the deans and council have requested that online courses be approved before online courses building begins.
- **Comment:** O. Hildreth added that once the courses start being built and are delivered to the Trefny Center, the faculty lose all copyright and associated rights. Even though this may be painful thing to do to these programs and courses and ask that they have a pilot course extension, it would be a disservice to our colleagues to let these go through.
- **Comment:** T. Voelker suggested that where the line is drawn is whether the courses have been built yet and/or offered as pilots will determine if the program gets voted on.
- **Comment:** J. Lucena added that while he is in support of standing together as faculty to figure out how the copyright issue can be solved in a fair and just manner, there has been significant pressure to increase enrollment in the graduate programs to avoid sunseting. It puts programs, especially smaller programs and IGP programs in a bind.
- **Comment:** R. Krahenbuhl added the consideration that individual IGP programs might not be able to hold out as long as departments while the copyright issue is being addressed. It is easier to sunset an IGP with small enrollment number than a department.

### **Briefings and Information Items**

*Office of Graduate Studies*

Tim Barbari

No update.

*Registrar's Office*

Paul Myskiw

No update.

*Graduate Student Government*

Rena Zhu

Not present.

**Curriculum Item(s) for Council Vote**

**1.1 De-listing the semester offered in the catalog**

**MOTION:** The motion to de-list the semester offered in the catalog was moved by G. Walton, seconded by T. Voelker. The motion to approve the de-listing the semester offered in the catalog was approved with 12 approved, 1 opposed, and 0 abstentions.

**1.2 ELECTRICAL ENGINEERING**

Yamuna Phal

[CIM 3/29]

**1 new course:**

EENG585: AI FOR POWER AND RENEWABLE ENERGY SYSTEMS

*This course “AI for Power and Renewable Energy Systems” has been selected for an on-line certificate program in the power and energy system area to be offered this coming Fall. It was first offered in person in the Fall semester of 2023. It received very good feedback and course evaluations (attached). AI is regarded as a transformative technology for power and renewable energy systems, and there is high demand for such a course in the industry. Thus, assigning a permanent number to this course (a requirement for having this course in the on-line certificate program) will help promote and increase enrollment of our on-line program.*

**1.3 CEE**

Lori Tunstall

[CIM 4/12]

**1 course deactivation:**

CEEN574: SOLID WASTE MINIMIZATION AND RECYCLING

**MOTION:** The motion to approve the CEEN574 deactivation was moved by O. Hildreth, seconded by D. Ostendorf. The motion to approve the CEEN574 deactivation was approved with 14 approved, 0 opposed, and 0 abstentions.

**1.4 CSM GENERAL**

Sid Saleh

[CIM 4/5]

**1 new program:**

CERTIFICATE OF INNOVATION ENGINEERING

*This innovation program will include credit-bearing courses leading to a graduate certificate. This program helps Mines become more accessible and attractive to non-traditional working professionals from all industries, with a signature Mines student experience in the entrepreneurial realm. The special topics course has already strengthened affinity for Mines among our students, alumni, and external partners.*

**1.5 EDS**

Richard Krahenbuhl

Elizabeth Reddy

[CIM 4/12]

**1 new program:**

COMMUNITY SOCIOTECHNICAL CLIMATE RESILIENCE

*This program specifically addresses several Mines@150 goals by fostering education related to science and engineering solutions in a societal context, and by (i) expanding offerings and diversifying delivery, in particular for professionally oriented pre and post graduate education, (ii) providing accessible and attractive degrees to qualified students from all backgrounds, (iii)*

positioning Mines as a preferred industry partner (public and private) for talent, solutions and life-long learning.

*This certificate will be offered fully online and will be available to a new targeted professional/nonresidential audience.*

**2 new courses:**

**EDNS501: COMMUNITY-CENTERED APPROACHES TO RESILIENCE**

*This course is one of three online courses that are proposed to comprise a new Online Certificate for the Humanitarian Engineering and Science (HES) IGP Program. This course, as well as the proposed new Online Certificate, align with the vision of Mines@150 by expanding offerings and diversifying delivery, in particular for professionally oriented pre and post graduate education. This is one of the strategic foci of Mines@150.*

*Course delivery: This course will be offered fully online. The instructor for this course completed the FoCD course through Mines Online on March 19, 2024.*

**EDNS502: MANAGING AND LEADING IN MULTISTAKEHOLDER ENVIRONMENTS**

*This course is one of three online courses that are proposed to comprise a new Online Certificate for the Humanitarian Engineering and Science (HES) IGP Program. This course, as well as the proposed new Online Certificate, align with the vision of Mines@150 by expanding offerings and diversifying delivery, in particular for professionally oriented pre and post graduate education. This is one of the strategic foci of Mines@150.*

*Course delivery: This course will be offered fully online. The instructor for this course completed the FoCD course through Mines Online on March 19, 2024.*

- Question: O. Hildreth asked if this will take additional faculty resources? If so, where are those resources being funded from? What is the proposed time to introduce the programs?
- Answer: R. Krahenbuhl answered the first course is already offered. The two other courses will be developed by someone hired within the HES program. The faculty member is a social scientist and has only been teaching and developing online courses. Once it is in place, HES has been working with Mines Online on the process of how to hire adjuncts and they would provide funding for that for the first couple of years. HES is shooting for Spring 2025 to launch the program as more time is needed to get the programs through the approval process.

**Adjourn**

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

**2.1**

**ROBOTICS**

[CIM 5/1]

**7 new courses:**

Cadi Gillette

**ROBO513: ROBOT PROGRAMMING AND**

Cross-listing with CSCI573.

Cross-listing with EENG519.

Cross-listing with CSCI534.

Cross-listing with MEGN540

Cross-listing with MEGN545.

Cross-listing with EENG517.

Cross-listing with CSCI532.

PERCEPTION

ROBO529: ESTIMATION THEORY AND  
KALMAN FILTERING

ROBO534: ROBOT PLANNING AND  
MANIPULATION

ROBO550: MECHATRONICS

ROBO565: ADVANCED ROBOT  
CONTROL

ROBO567: THEORY AND DESIGN OF  
ADVANCED CONTROL SYSTEMS

ROBO572: ROBOT ETHICS