

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES  
 March 15, 4:00 – 5:00 pm, via Zoom

**Attendees:**

**Voting Members:** 19 total (10 needed for quorum). Quorum was present.

P	Joseph Horan (chair)	P	Andrew Pederson (EB)	P	Mike Nicholas (AMS)	P	Chuck Stone (PH)
P	Michael Barankin (CBE)	P	Cortney Holles (HASS)	P	Corinne Packard (MME)	P	Nicole Smith (MN)
P	Dylan Domaille (CH)	P	Ge Jin (GP)	A	Rob Thompson (CS)	P	Dave Benson (GE)
P	Linda Battalora (PE)	P	*Shiling Pei (CEE) proxy for Hongyan Liu (CEE)	P	Oyvind Nilsen (ME)	P	Emmelia Ashton (USG)
A	Chelsea Salinas (EDS)	P	Brianna Buljung (LB)	P	Hisham Sager (EE)		

**Other Regular Attendees and Guests**

A	Sam Spiegel (Mines Online)	P	Dixie Cirillo (PA)	P	Mara Green (AA)	A	Kendra Stansbury (RO)
A	Karla Perez-Velez (CASA)	P	Vibhuti Dave (UGS)	A	Deb Jordan (Trefny Center)	A	Paul Myskiw (RO)
A	Katie Ludwin (CASA)	P	Danielle Boileau (CASA)	A	Cheryl Medford (GE)	A	Rachel McDonald (PE)
P	D. Scott Heath (RO)	A	Colin Terry (SL)				

**Special Guest(s):** Scott Houser (EB), Sandy Woodson (HASS)

**Welcome**

Joe Horan

Horan provided an update on discussions in Faculty Senate regarding the revised core curriculum. Clarifying questions arose in Senate regarding the Futures (previously Sociotechnical Futures or CASES) course. Dave updated table eight which had included information on the current Catalog, the proposed changes for 2023-2024, and the ideal implementation of the Catalog; the ideal implementation column was removed from the table to avoid confusion.

**Approval of Minutes – March 8, 2023**

Joe Horan

**MOTION:** To vote to approve the Undergraduate Council minutes of March 8, 2023 by Barankin, seconded by Nilsen. Motion passed unanimously.

**Update on Sociotechnical Futures and H&SS electives**

Sandy Woodson  
 Scott Houser

Woodson provided information on the Futures’ course pilot structure. The lecture would accommodate seventy-five students led by a theme instructor, seminars would contain twenty-five students each with four-week rotations led by a seminar instructor. The pilot of Futures would begin Fall 2023; the theme for the course is Global Energy Futures. Woodson reported a coordinator was hired for the course to help develop it.

As of Spring 2023, a budget request was submitted to AA and four pilot faculty were identified. The four faculty include: Ali Kerr (HASS, coordinator), Adrienne Kroepsch (HASS faculty lead), Marie Stettler Kleine (EDS faculty lead), and Ben Gilbert (EB faculty lead). Theme instructors would then coordinate pilot development and course content in Summer 2023 in preparation of the pilot to seventy-five first-semester students in Fall 2023. Following successful piloting, the course could be expanded to two

sections with new students and faculty in Spring 2024. Houser noted the structure of the course would allow faculty to “swap out” for a semester with another interested faculty member from their department. Houser reported the expertise and competency outcomes from HASS100 would be drawn on for the course.

- **Question** if there are more specific competencies for the course; Houser reported the competencies are to be determined. Broad competencies are being pulled from the core competencies.

Councilor requested brief overview of a week in Futures from the student perspective; Houser reported a typical week would have students in three, fifty-minute seminar sessions with their seminar instructor. Some weeks may have a single meeting where all seventy-five students meet and hear from someone with technical expertise in a particular area or broader perspectives on the course theme.

- **Question** if the pilot faculty were signed up for the core assessment workshop at the Trefny Center; the course coordinator would be signed up, the other individuals may not.

Houser reported H&SS leadership support of renaming H&SS to Culture and Society (CAS) electives. Horan had volunteered to lead a comprehensive review of the CAS electives for Fall 2024 and, based on review, may submit a proposal for changes to the CAS electives for 2024-2025.

CEE recommended engineering economics remain within the electives list.

#### **Curriculum Item(s) for Vote** – from 3/1/23

##### Core Catalog Language Draft

Vibhuti Dave

Dave reported the column containing information on ideal implementation of the Catalog had been removed due to confusion.

Comment raised by CH on interim core and students operating under multiple Catalogs and the burden this may place on advisor. Dave noted each program had adjusted program course flowcharts in their own way, Dave recommended that advisors should be communicated with and provided the flowchart changes. Course substitutions for CSCI128 would occur administratively. Conversations around changing the Catalog should be assessed between advisor and student. Dave noted the Catalog draft has outlined options for students which would be accessible to students, faculty, and advisors. Councilor noted the appendix appeared substantial and may create an issue for advising students.

- **Question** on rush for Fall 2023 release when MINES@150 is for 2024; Dave noted Mines was founded February of 1874 and the change would occur over Fall 2023 and Spring 2024.

Comment raised that, procedurally, the revision felt rushed. Note made that submitting program changes March 1<sup>st</sup> and approving language now felt backwards and may have stifled discussions.

Horan noted the Senate had been advised that implementation should be questioned if there is evidence that substantive changes have been made to what had been agreed upon in the resolution ([click here to view the Core Curriculum Resolution passed by Faculty Senate and Undergraduate Council](#)). One major change was to the Futures course, which was planned as a first-semester course but is now in the second-semester.



1.5

**HUMANITIES, ARTS, AND SOCIAL SCIENCES**

Cortney Holles

[CIM 2/22; Provost 2/22]

**2 new courses:** HASS417: INDIGENOUS LITERATURE

*One of the stated goals of Mines@150 is to expand offerings and diversify delivery. Mines and HASS students would gain a better understanding of cultural diversity and the world through the literature of the native descendants of those who inhabited regions before settlers colonized them. Their exposure to other cultures and ways of life add cultural and historical knowledge and awareness of the diversity of human experiences.*

HASS465: THE GOOD LIFE, FROM ARISTOTLE TO THE ANTHROPOCENE

*This course will strengthen student affinity with Mines by giving them a distinctive and transformative learning experience. My goal when designing this course was not just to teach students about the history of ideas, but to provide students with opportunities to use course content to explore big questions of enduring importance in the semesters before they graduate; What do I want my life to look like? How can I be happier? What things matter most to me? What makes a life meaningful or “good”? I have done this by pairing readings on philosophy and history with complimentary readings and lectures on happiness from modern psychologists and cognitive scientists, and by designing several experiential assignments in which students put some of the theories of happiness we study into practice over two-week periods. Their final project also requires them to design a month-long experiment to test a hypothesis about some aspect of living a good life. The first group of students who took this class responded very positively to these experiences. Most reported that they found the class not just interesting, but useful, and some told me it was among the most impactful classes they had taken during their time at Mines.*

*This course also compliments other Mines at 150 goals. HASS lost one of our philosophy professors last year, and our other philosopher is currently department chair. As a result, students with an interest in philosophy have fewer curricular options. Since this course draws heavily upon philosophy, it helps fill this void, and in doing so makes Mines more attractive to students with these interests. Further, the first group of students who took this class reported that they had gotten to know their peers better in this class than in many other classes they taken because they spent so much time discussing questions that were personal, meaningful, and relevant. In this sense, this course also helps create a stronger sense of community among the students.*

- **Question** if the HASS465 course would focus only on Western philosophies; Holles reported the course is primarily western with the instructor’s expertise in medieval content. Holles later reported the course covers Daoist perspectives and uses the following books: Charles Guignon, *The Good Life*, Hackett Readings in Philosophy (Indianapolis: Hackett Publishing, 1999); Peter N. Stearns, *Happiness in World History* (New York: Routledge, 2021); Joel Kupperman, *Six Myths About the Good Life: Thinking About What Has Value* (Indianapolis: Hackett Publishing, 2006).

**MOTION:** To vote to approve the two (2) new courses in item 1.5 in an omnibus Council vote by Holles, seconded by Barankin. Motion passed unanimously.

1.5.1

[CIM 2/27]

**1 core course change:** HASS100: NATURE AND HUMAN VALUES



**1 course change:** PEGN438: PETROLEUM DATA ANALYTICS

*We want to add CSCI128 as a pre-req for PEGN438. This will ensure students have the skills need to be successful in this course. As CSCI128 is part of the core curriculum, this will not require additional course credits or create an undue barrier to students taking it*

**MOTION:** To vote to approve the course change to PEGN438: Petroleum Data Analytics by Barankin, seconded by Nilsen. Motion passed unanimously.

1.9

**PHYSICS**

Chuck Stone

[CIM 2/24]

**1 program change:** BS-PHE: BS in Engineering Physics

*These changes will better match our undergraduate Engineering Physics degree with the larger campus changes in our Core Curriculum.*

**MOTION:** To vote to approve the program change to BS-PHE: BS in Engineering Physics by Barankin, seconded by Nilsen. Motion passed unanimously.

1.10

**GEOLOGY & GEOLOGICAL ENGINEERING**

Dave Benson

[CIM 2/24]

**1 course change:** GEGN307: PETROLOGY

*Removing Thermodynamics (GEGN330 or equivalent) as it is being removed from our BS in Geological Engineering. Increasing to 4 CH (from 3) to add a 3rd hour of lecture, allowing content to be delivered more effectively and also to balance out a historic mismatch in defined credit hours between our two tracks.*

**MOTION:** To vote to approve the course change to GEGN307: Petrology by Benson, seconded by Barankin. Motion passed unanimously.

1.11

**GEOPHYSICS**

Ge Jin

[CIM 2/24]

**18 course changes:** GPGN228: INTRODUCTION TO GEOPHYSICS

*Updates made to catalog description; removed topics covered portion and minor updates to the rest of the description.*

GPGN229: MATHEMATICAL GEOPHYSICS

GPGN268: GEOPHYSICAL DATA ANALYSIS

GPGN318: APPLIED GEOPHYSICS I

GPGN319: APPLIED GEOPHYSICS II

GPGN328: PHYSICS OF THE EARTH – I

GPGN329: PHYSICS OF THE EARTH – II

GPGN404: DIGITAL SIGNAL PROCESSING

GPGN411: GRAVITY AND MAGNETIC METHODS

GPGN420: ELECTRICAL AND ELECTROMAGNETIC METHODS

GPGN436: GEOPHYSICAL COMPUTING

GPGN438: GEOPHYSICS PROJECT DESIGN

GPGN455: EARTHQUAKE SEISMOLOGY

GPGN458: SEISMIC INTERPRETATION

GPGN461: SEISMIC DATA PROCESSING

GPGN470: APPLICATIONS OF SATELLITE REMOTE SENSING



[CIM 3/1]

**1 program change:** BS-GLE: BS in Geological Engineering

*Changes are related to meeting the changes in core curriculum being implemented in 2023-24, also reducing required credit hours to 133 from 137.5.*

3.3.1

**5 course changes:** GEGN401: MINERAL DEPOSITS

*Update prerequisites to remove thermodynamics. Correct contact hours and lecture/lab breakdown.*

GEGN403: MINERAL EXPLORATION DESIGN

GEGN439: PETROLEUM EXPLORATION DESIGN

GEGN469: ENGINEERING GEOLOGY DESIGN

GEGN470: GROUND-WATER ENGINEERING DESIGN

*Change to prerequisites due to change in program requirements.*

3.4

### MECHANICAL ENGINEERING

Oyvind Nilsen

[CIM 3/1]

**1 program change:** BS-MECH: BS in Mechanical Engineering

*1. Changes according to Mines CORE adjustment.*

*2. Electives list updated (added/removed).*

*3. GPA calculation course list trimmed down.*

*4. Tracks courses updated.*

*5. Minors and ASI text and credit hours corrections.*

3.4.1

[CIM 2/28]

**2 course changes:** MEGN441: INTRODUCTION TO ROBOTICS

*Added EENG307, MEGN200 to prereq list. Also clean up "modality".*

*List as 2 credit lecture and 1 credit studio, instead of lecture and lab.*

MEGN453: AEROSPACE STRUCTURES

*Remove CEEN241 as a prereq.*

*(CEEN is a prereq for MEGN212)*

3.5

### MINING ENGINEERING

Nicole Smith

[CIM 3/1]

**1 program change:** BS-MNE: BS in Mining Engineering

*Updates to the course flowchart reflecting core revisions.*

3.6

### CHEMICAL & BIOLOGICAL ENGINEERING

Michael Barankin

[CIM 3/1]

**1 course change:** CBEN360: BIOPROCESS ENGINEERING

*Re-aligning format/description with how the course is currently taught.*

CBEN412: INTRODUCTION TO PHARMACOKINETICS

*Updating title (more accurate to how course is taught) and updating pre-reqs.*

CBEN415: POLYMER SCIENCE AND TECHNOLOGY

*Updating pre-reqs (removing redundancy and enabling juniors to take this course)*

CBEN460: BIOCHEMICAL PROCESS ENGINEERING

*Making req's consistent with CBEN360 (to facilitate later substitution of the two courses).*



3.7

**PHYSICS**  
[CIM 3/3]

Tim Ohno

**1 program deactivation:** MIN-BPHYS: Minor in Biophysics  
No longer offering this program.

**Adjourn**

Joe Horan

Meeting adjourned: 4:57 pm.

Next meeting: March 29, 4:00-5:00 pm via Zoom. Please send agenda items to Mara Green ([mgreen1@mines.edu](mailto:mgreen1@mines.edu)) one week prior.