

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
September 25, 4:00 – 5:00 pm, via Zoom

Attendees:

Voting Members: 19 total (12 needed for quorum). Quorum was present.

P	Ventzi Karaivanov (chair)	P	Erik Menke (CH)	P	Adam Olsen (LB)	P	Rennie Kaunda (MN)
P	Jason Ganley (CBE)	P	Jeremy Suiter (EB)	P	Gerald Bourne (MME)	P	Mathias Burisch Hassel (GE)
P	Rob Thompson (CS)	P	Ge Jin (GP)	P	Jeff Wheeler (ME)	P	Eliza Buhner (HASS)
P	Linda Battalora (PE)	P	Hongyan Liu (CEE)	P	Hisham Sager (EE)		Elizabeth Prescott (USG)
P	Jack Bringardner (EDS)	P	Gus Greivel (AMS)	P	Chip Durfee (PH)		

Other Regular Attendees and Guests

	Sam Spiegel (Mines Online)	P	Vibhuti Dave (UGS)		Kristeen Serracino (AA)	P	Paul Myskiw (RO)
P	Karla Perez-Velez (CASA)		Danielle Boileau (CASA)		Cheryl Medford (GE)	P	D. Scott Heath (RO)
	Katie Ludwin (CASA)		Megan Sanders (Trefny Center)		Colin Terry (SL)		
	Luke Contreras (UA)		Julia Cable (UA)				

Special Guest(s): Katy Armstrong, Christina Leedham, Sandy Woodson, Dean Nieuwsma, Scott Houser

Welcome

Ventzi Karaivanov

Starting today, V. Karaivanov will implement a discussion board for every course or program change to facilitate questions/answers in the 2-week period between meetings. This will help streamline communication and make meetings more efficient. Additionally, V. Karaivanov requested volunteers to serve as chair and co-chair for the Analysis of Minors and ASIs Committee and the Core Curriculum Completion Committee.

Approval of Minutes – September 11, 2024

Ventzi Karaivanov

MOTION: The motion to approve the previous meeting minutes was moved by G. Greivel and seconded by H. Sager. The motion to approve the previous meeting minutes was approved with 14 approved, 0 opposed, and 0 abstentions.

Briefings and Information Items

Registrar's Office

Paul Myskiw

The migration of the student information system is scheduled for October. The Registrar's Office will send out campus-wide messages with more details. The Banner 8 self-service pages will not be part of the migration as they are not cloud-compatible. GEODE will also be retiring because it is also not Saas-compatible and will not be available for the Spring semester. Schedules will be released one week earlier so that students have additional time for schedule planning. P. Myskiw requested that departments review their Spring schedules as the scheduling coordinator is currently out on maternity leave. Lastly, the Registrar's Office is working with HAAS and EDNS to pilot pre-registration for freshmen into core classes they have not yet completed. Students are able to drop these courses, but the hope is to encourage students, who did not get into a core class in the Fall, to finish them in the Spring to keep them on track.

- **Question:** J. Suiter asked is it possible for summer classes to span both sessions (June to August)?
- **Answer:** P. Myskiw answered that historically, the full 14-week session was only available for research courses. However, over the past years, a few undergraduate courses have been offered

for the full 14 weeks. There is not a rule in place that restricts faculty or departments from offering courses to be taught for the full 14 weeks.

Undergraduate Studies

Vibhuti Dave

V. Dave reminded the Council to start updating and submitting course level learning outcomes for all courses. Please refer to the guiding document provided. Program Overview Pages also need to be updated. Please refer to the template provided to ensure consistency across all programs. V. Dave encouraged departments to start thinking about and be more creative about what the path to graduation for students looks like given that more students are now entering degree plans with more credits (at Calc I). Lastly, V. Dave added that the Core Curriculum Committee will work on creating something in writing that encourages students to finish the curriculum the way it is intended to be completed and encouraged the Council to join both committees and provide input.

- **Question:** E. Buhner asked if the course level learning outcomes need to be added to core curriculum courses only or all courses? Is there a specific deadline?
- **Answer:** V. Dave answered that core curriculum courses are a priority but, ideally, all courses need to be updated. The hope is to have all courses updated by the end of 2025-2026.

Don't Cancel Class

Katy Armstrong
Christina Leedham

The Vallejo Irvine Program for Professional Development and the Career Center are partnering to host a variety of workshops as part of the Don't Cancel Class initiative and provide a resource to faculty if they are traveling or are sick. The workshops cover a variety of topics but can be tailored and adjusted to students at any level or degree program. A flyer with available topics can be found on the UGC Canvas page.

1 Curriculum Item(s) for Council Vote

1.1

EE		Hisham Sager
CIM 4/18		
1 new course:	EENG484: ADVANCED DIGITAL DESIGN	
	This new EE elective has been offered as a special topics course the past couple years, hugely complementing our Integrated Circuits and Electronics emphasis area (the largest emphasis area in the EE department). Advanced Digital Logic is a continuation on EENG284: Digital Logic and gives students an opportunity to further specialize in that interest area.	

- **Question:** C. Durfee added that the Physics department also has a Digital course. Could students who have taken the Physics digital course also take this course?
- **Answer:** H. Sager answered that there are students who have taken the Physics Digital course that are currently in EENG284 so it would be fine for students to also take this course.
- **Comment:** P. Myskiw added that if content between two courses have 50% overlap, Banner is able to make the courses mutually exclusive meaning that if a student takes one, they couldn't take the other course because of substantial overlap in course content. H. Sager added that EENG284 would possibly overlap with the Physics course but because EENG484 is an advanced course, there would be no overlap.
- **Question:** R. Thompson asked if EENG484 could be added as an elective in a CS major focus track?

- **Answer:** H. Sager answered that some of the CS tracks require EENG383, Embedded Systems, so this course would work well with CS students.

MOTION: The motion to approve the EENG484 new course was moved by J. Ganley and seconded by G. Jin. The motion to approve the EENG484 new course was approved with 17 approved, 0 opposed, and 0 abstentions.

Minor Changes – to be considered as a single vote

HASS		Eliza Buhrer
CIM 9/4		
1 course change:	HASS422: ART AND ENVIRONMENTALISM	
	<p>Art & Environmentalism fills an important gap in course offerings while simultaneously aligning with Mines’s focus on earth, energy, and the environment. This is currently the only course on campus that engages with Art History and one of very few that engages with visual culture. Art History is a course that students expect to be able to find on a college campus; this version uniquely serves Mines students by focusing on how perceptions of humans’ place in the natural world have changed over time.</p> <p>Art & Environmentalism also strengthens essential skills that successful graduates will need in their careers. An understanding of art history enhances competencies that are important to our students' abilities to communicate their ideas. Visual culture is an increasingly important facet of communication of all kinds and media narratives often affect what is politically possible. Art can tell us about how humans’ perceptions of their place in the natural world has changed over time; it can also tell us about how cultures currently relate to proposed solutions to climate crises and energy sectors.</p> <p>Mines @150 mandates that students understand the societal context and have the opportunity to pursue personal passions; Art & Environmentalism does this as it helps students to become hard-working, creative, and collaborative problem solvers with an awareness of global issues.</p> <p>Art & Environmentalism was piloted for the first time in the fall of 2018 and further developed in the spring of 2020. The class became a permanent part of the catalog in 2021, the same year I ran the class as a short-term faculty-led study abroad experience.</p> <p>Currently, I only offer the abroad version of this class which requires travel to Italy. Every summer, I have students asking if they can take the course without the trip. Having a fully online version of the course will allow me to offer it to any student, regardless of their location or work schedule.</p> <p>Dr. Mancus completed Foundations of Online Course Design in the summer of 2020. Course development will be completed on Dec 10</p>	

	2024. Summer 2025 is the anticipated first semester of delivery. Dr. Mancus would like the course to open for registration in February 2025.
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MOTION: The motion to approve the HASS422 course change was moved by J. Ganley and seconded by H. Sager. The motion to approve the HASS422 course change was approved with 16 approved, 0 opposed, and 1 abstention.

2

New Business

2.1

CS		Rob Thompson
CIM 9/17		
2 new courses:	CSCI413: ADVANCED DATA SCIENCE	
	<p>How will this course specifically advance Mines@150 Mission, Vision and Strategic Plans?</p> <p>We are upgrading the current CSCI 303 course by introducing both 400-level and 500-level CSCI designations. This update involves a comprehensive revamp of the course materials, sequencing, and pacing, along with a stronger emphasis on more complex thinking. Additionally, the new course will require a deeper focus on research and hands-on practice with computational challenges relevant to data science.</p> <p>In addition to allowing our computer science students to take this new course as a 400-level elective and explore solutions to computational challenges related to working with data, the interdisciplinary nature of the course will provide them with the opportunity to collaborate in diverse groups of students from various fields.</p> <p>This initiative supports the Mines@150 mission by fostering a strong relationship with the interdisciplinary data science program, certificates, and graduate students. Specifically, it aligns with the goal of 'expanding our offerings and diversifying delivery, particularly for professionally oriented pre- and post-graduate education.'</p> <p>Provide detail about how the course will be delivered: Residential (less than 50% of course delivered online) or Online.</p> <p>The course will be delivered in-person, residentially.</p> <p>Notes: there is currently an in-person and online version similar to this (DSCI 503) that has been developed during the summer of 2023. The course, learning outcomes, and overall content was reviewed closely and approved through Mines online. The big difference is the students in the CSCI version will have a “computational challenge project” and additional expectations within the research component of the project(s).</p>	
	CSCI421: INTRODUCTION TO HUMAN COMPUTER INTERACTION	
	<p>HCI is a subfield of Computer Science that is respected, large, and still growing. It is also currently entirely unrepresented both within the CS department and the university as a whole.</p> <p>This course advances the vision of Mines@150 by expanding and modernizing the topics made available for study at the undergraduate level. HCI as a topic also represents a unique synthesis of principles from cognitive and social sciences with computer science; one that emphasizes the potential for cross-disciplinary work within CS.</p>	

The CSCI413 new course proposal is a revamp of the current CSCI303 course, Introduction to Data Science. This course is in response to the new Mines core since the introduction of CSCI128 covers more material than the original CSCI101 and CSCI102 courses. It is being bumped up to a 400-level course. CSCI421 is a course that has been offered as a special topics elective and seeking a permanent course number. The course is tied to Introduction to Design but with a focus on software and interactive design.

- **Question:** G. Greivel asked will this course be replacing CSCI303?
- **Answer:** R. Thompson answered yes, this new course will replace CSCI303 and be offered at the 400 and 500-level with corresponding numbers and an online version is being planned as well.
- **Question:** C. Durfee asked what are the prerequisites for this course?
- **Answer:** R. Thompson answered the prerequisites are CSCI200 and MATH201 or MATH334

2.2

HASS		Eliza Buhrer
CIM 9/17: Provost 9/17		
1 new course:	HASS462: AMERICA DECLASSIFIED: THE SECRET HISTORY OF INTELLIGENCE	
	Mines@150 envisions students who are able to learn and adapt in a world where information and socio-technical innovation happens at unprecedented speed. For students to make sense of this world, they must be able to assess critically competing claims of truth and contradictory evidence. They must be able to seek out and make sense of new information constantly. And they must develop skills to understand their contemporary environment and anticipate future change. All of these core skills just happen to lie at the heart of the craft of intelligence. This course uses an item of innate fascination – the world of spies and lies – to engage students in the world around them, to develop their skills as analysts and communicators, and to build their information literacy. It also applies the insights of historical thinking to contemporary and future problems.	
HASS		Eliza Buhrer/Sandy Woodson
CIM 9/24: Provost 9/25		
1 new course:	HASS215: FUTURES	
	<p>Justification for Request (How will Mines@150 mission be advanced?):</p> <ol style="list-style-type: none"> 1. Expand offerings and diversify delivery—this is the new signature student experience in the Mines Core. 2. Encourage interdisciplinarity collaboration by incorporating different intellectual approaches from a variety of disciplines . 3. Strengthen affinity for Mines among our students, alumni, faculty, researchers, and external partners 4. Lays the groundwork for differentiated and highly desired STEM-educated leaders <p>FUTURES invites students to envision possibilities around critical issues related to the future of science and engineering. It is central to the Mines core curriculum and encouraged during the first years at Mines. Guided by four instructors who share perspectives from a wide range of humanities, social science, and applied disciplines, students will explore future-oriented themes at the forefront of advances in science, engineering, technology and society, such as Energy Futures,</p>	

	Technology Futures, and Critical Resource Sustainability, among others. By the end of the course students will gain skills in integrating multiple perspectives and connecting them to their own interests and trajectory at Mines and beyond.
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HASS462 is a course in which students will study intelligence and espionage history and work on a sustained research project that uses declassified intelligence documents to research secret intelligence operations.

FUTURES (HASS215) was a Mines@150 effort and was part of the revised core curriculum. The purpose of the course was to get students excited to be at Mines and at the possibilities for their future. There are no prerequisites for the course, so students can take this course their first semester. The course was originally proposed in December 2022 and A. Kerr was hired to develop the course in June 2023. The first pilot was in Fall 2023 (Carbon Futures) with 75 students and had three more pilots in Spring 2024 (Global Energy Systems, Carbon, and Water Futures). This Fall, the FUTURES course has four sections with 400 students (100 students per section) and will be the final pilot. The course is structured with students rotating through three seminar themes taught by different instructors with a theme instructor that creates integration between each of the three distinct seminar topics. In Week 6, the students have an Encounter which is a field trip or a special activity such as the NSF Ice Core Facility and Argo Gold Mine. The plan to is scale up to 8 sections in Fall 2025 so there is a need for more STEM faculty to help deliver this course.

- **Comment:** G. Greivel added that since this course is a signature component of Mines@150 and the core curriculum, it will be important to think about how Undergraduate Council can be supportive in resourcing this course.

2.3

EB		Jeremy Suiter
CIM 9/18		
1 course change:	EBGN310: ENVIRONMENTAL AND RESOURCE ECONOMICS	
	Since EBG201 is no longer in the core, we are removing the prerequisite for some of the 300-level economics courses that can be used to satisfy the CAS elective credit. The relevant learning outcomes from EBG201 will be introduced and integrated into this course.	

This course change relates to the removal of EBG201 from the core curriculum and the suspension of the undergraduate economics degree. The goal is to make economics courses more broadly available and to redevelop some of the mid-level courses that are offered.

Minor Changes – to be considered as a single vote

2.4

HASS		Eliza Buhner
CIM 9/13		
1 course change:	HASS412: LITERATURE AND THE ENVIRONMENT	

	<p>HASS 412 Literature and the Environment is a regular f2f class listed in the bulletin that will be turned into an online, asynchronous class. Literature and the Environment is the only course at Mines which considers literature as a lens to address environmental issues relevant today. 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 through the lens of world literature which considers nature and the environment. Their exposure to other cultures and ways of life adds cultural and historical knowledge and awareness of the diversity of human experiences. An online version of the course will thus diversify the delivery of the course and offer students flexibility.</p> <p>FOCD – taken in Summer 2020 Anticipated Date for Completion– March 2025 Anticipated first semester of delivery – Summer 2025 Anticipated date to be open for registration – March 31st 2025</p>
9 course deactivations:	HASS201: WORKSHOP FOUNDATIONS: THE ART AND CRAFT OF CREATIVE WRITING
	The contents of this course were absorbed into HASS 302.
	HASS221: INTRODUCTION TO RELIGIONS
	Teaching faculty the course has retired.
	HASS286: GLOBAL POLITICS & SOCIETY
	Course no longer taught.
	HASS303: FOUNDATIONS: THE ART AND CRAFT OF CREATIVE WRITING WORKSHOP
	Course content absorbed into HASS 302.
	HASS433: SHAKESPEARE AND THE SCIENTIFIC REVOLUTION
	The faculty member teaching this course retired and we do not have other faculty who can teach it.
	HASS450: POLITICAL RISK ASSESSMENT
	Course no longer taught.
	LIFL114: ARABIC I
	We no longer have the faculty to teach this course.
	LIFL124: ARABIC II
	We no longer have the faculty to teach this course.
	LIMU450: MUSIC TECHNOLOGY CAPSTONE COURSE
	Course no longer taught.

- **Question:** J. Wheeler asked if HASS has any intention of hiring someone such as an adjunct in the future to teach LIFL114 and LIFL124?

- **Answer:** S. Woodson answered that there has not been much luck in hiring an adjunct who can be consistent for these courses. HASS felt that if these courses could not be offered consistently, they should be removed.

EB		Jeremy Suiter
CIM		
3 new courses:	EBGN397: GLOBAL BUSINESS EXPERIENTIAL LEARNING	
	Expanding business education opportunities of Mines students.	
	EBGN447: FINANCIAL RISK MANAGEMENT	
	Elective course in Business Engineering and Management Science degree program.	
	EBGN458: DECISION ANALYTICS	
	Elective courses in Business Engineering and Management Science degree program.	

These three courses are undergraduate versions of graduate classes that are already being offered.

Additional Discussion

G. Bourne provided a sneak preview of the crossguard of the Mines@150 ceremonial blade that is being made in Bladesmithing. It will be on display at the Blaster's Bash on Friday in front of Guggenheim.

Adjourn at 5:03 pm

Ventzi Karaivanov

Next meeting: October 9, 4:00-5:00 pm via Zoom. Please send agenda items to Ventzi Karaivanov (vkaraiva@mines.edu) and Kristeen Serracino (kristeen.serracino@mines.edu) one week prior.