

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
February 28, 4:00 – 5:00 pm, via Zoom

Attendees:

Voting Members: 15 total (10 needed for quorum). Quorum was present.

P	Ventzi Karaivanov (chair)	P	Andrew Pederson (EB)	P	Mike Nicholas (AMS)	P	Chuck Stone (PH)
P	Michael Barankin (CBE)	P	Jay Straker (HASS)		Gerald Bourne (MME)	P	Rennie Kaunda (MN)
P	Dylan Domaille (CH)	P	Ge Jin (GP)	P	Zibo Wang (CS)	P	Mathias Burisch Hassel (GE)
P	Linda Battalora (PE)	P	Hongyan Liu (CEE)	P	Jeff Wheeler (ME)		Mark Bowen (USG)
P	Jack Bringardner (EDS)	P	Lisa Nickum for Brianna Buljung (LB)	P	Hisham Sager (EE)		

Other Regular Attendees and Guests

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

Special Guest(s):

Welcome

Ventzi Karaivanov

Approval of Minutes – February 14, 2024

Ventzi Karaivanov

MOTION: Motion to approve previous minutes was moved by Micha and seconded by Jeff. The previous minutes were approved with 10 approved, 0 opposed, and 2 abstentions.

Briefings and Information Items

Registrar's Office

Paul Myskiw

Earlier this week, I sent out to the deans and department heads an Excel spreadsheet that had nine tables/reports embedded inside of it in hopes that it will make their way to departmental meetings. The idea behind the spreadsheet is to help fulfill the request to provide data around planning and building out the schedule of classes that we ask for every term. We built a workbook that we think might be useful in planning. Our plan for moving forward is we want to hear feedback from that and maybe to add some additional things that would be more useful for you in planning. This can then be sent to the departmental scheduler at the time of the call of schedule so that you have enough time to review the data from the previous term and build out the protected seats. It seems that in recent years, given the increase in class sizes that are now juniors and seniors, some departments have done well in planning and others have seemed a bit surprised. There are suddenly many more majors that are juniors and seniors and under the purview.

Registration is opening in a few weeks, which means the schedule of classes will be released publicly for the fall semester. We are anticipating 1,550 freshmen and based on enrollment numbers, it looks like we are going to meet that goal. It is a large class which we all know means that there is more pressure on us to add additional sections and increase capacity. Hopefully, you have taken that into consideration and had that passed on to you already.

Question from Dylan: Do you know the expected number of transfer students?



Answer from Paul: In the fall, we have averaged about 110 transfer students. The goal of Admissions is to make sure that they were through the Core or very close to being through the Core. The deadline for transfer student deposits is May 1st so we will have a better sense of what those numbers look like in May.

1 Curriculum Item(s) for Council Vote

1.1

CSM General		Vibhuti Dave
CIM 2/1		
1 program change:	CORE: Core Curriculum	
	Improvements, corrections, and additions to Catalog language	

This agenda item was introduced during the last meeting but when I looked at the proposal, all the items had already been approved. We approved CSM102 and CSM301 as well as EBG321. In essence, these are all minor changes so I am requesting we vote on this today so that Faculty Senate can vote in two weeks, and it will be ready in time for catalog publication.

MOTION: The motion to approve the CORE: Core Curriculum changes was moved by Micha and seconded by Jeff. The motion to approve the CORE: Core Curriculum changes was approved with 14 approved, 0 opposed, and 0 abstentions.

1.2

Electrical Engineering		Hisham Sager
CIM 1/3/24		
4 Course Change:	EENG307: INTRODUCTION TO FEEDBACK CONTROL SYSTEMS	
	Adding Honors Differential Equations to prerequisites.	
	EENG310: INFORMATION SYSTEMS SCIENCE I	
	Adding Honors Differential Equations to prerequisites.	
	EENG386: FUNDAMENTALS OF ENGINEERING ELECTROMAGNETICS	
	Adding Honors Differential Equations to prerequisites.	
	EENG437: INTRODUCTION TO COMPUTER VISION	
	Updating modality to both in-person and online.	

MOTION: The motion to approve EENG307, EENG310, and EENG386 as one vote was moved by Micha and seconded by Jeff. The motion to approve EENG307, EENG310, and EENG386 as one vote was approved with 13 approved, 0 opposed, and 0 abstentions.

MOTION: The motion to approve the EENG307, EENG310, and EENG386 course changes was moved by Micha and seconded by Jeff. The motion to approve the EENG307, EENG310, and EENG386 course changes was approved with 14 approved, 0 opposed, and 0 abstentions.

MOTION: The motion to approve the EENG437 course change was moved by Micha and seconded by Linda. The motion to approve the EENG437 course changes was approved with 13 approved, 0 opposed, and 0 abstentions.

1.3

CBE		Michael Barankin
CIM 1/17/24		
1 New Course:	CBEN424: COMPUTER-AIDED PROCESS SIMULATION	
	This course will add an elective to our UG program which already exists in the G program (but has not been offered in many years), and enable undergrads to take a course along with grad and certificate students. This course has direct applications in industry.	

MOTION: The motion to approve the CBEN424 course was moved by Micha and seconded by Jeff. The motion to approve the CBEN424 course was approved with 14 approved, 0 opposed, and 0 abstentions.

1.4

CEE		Hongyan Liu
CIM 1/11		
1 Course Deactivation:	CEEN471: WATER AND WASTEWATER TREATMENT SYSTEMS ANALYSIS AND DESIGN	
	Changed this course number to CEEN478 to cross-list with CEEN578.	
1 New Course:	CEEN478: WATER TREATMENT DESIGN AND ANALYSIS	
	This is not a new course; I am attempting to change the course number of CEEN 471 to CEEN 478 which necessitates this form. The course educates students on advanced aspects of water treatment engineering with a focus on system design. Students will learn core aspects of water system design enabling success in industry.	

PLAN: Ventzi planned to vote on the CEE deactivation and new course as a bundle and asked for any objections. There was no objection from those present.

MOTION: The motion to approve the CEEN471 deactivation/CEEN478 course was moved by Micha and seconded by Jeff. The motion to approve the CEEN471 deactivation/CEEN478 course was approved with 14 approved, 0 opposed, and 0 abstentions.

1.5

EDNS		Jack Bringardner
CIM 1/11/24		
1 Course Change:	EDNS251: CORNERSTONE DESIGN II	
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum. The course description addresses the inclusion of some introductory business tools in the real-world client-sponsored student team projects. Discipline specific versions of EDNS251. Corresponding to the EDNS26X courses, will be deactivated. Prerequisite changes include removing EDNS192, a course no longer offered, and adding HNRS120 to recognize both honors tracks that satisfy EDNS151 and NHV.	
8 Course Deactivations:	EDNS261: DESIGN II: GIS	
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum.	

	Discipline specific versions of EDNS 251, corresponding to the EDNS 26X courses, will be deactivated.
	EDNS262: DESIGN II: AUTOCAD
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum. Discipline specific versions of EDNS 251, corresponding to the EDNS 26X courses, will be deactivated.
	EDNS263: DESIGN II: MATERIALS
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum. Discipline specific versions of EDNS 251, corresponding to the EDNS 26X courses, will be deactivated.
	EDNS264: DESIGN II: GEOLOGY GIS
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum. Discipline specific versions of EDNS 251, corresponding to the EDNS 26X courses, will be deactivated.
	EDNS269: DESIGN II: ENGINEERING PHYSICS
	This change is part of the revitalization of Cornerstone Design II to align with Mines@150 and the integration of business acumen into the curriculum. Discipline specific versions of EDNS 251, corresponding to the EDNS 26X courses, will be deactivated.
	EDNS325: CULTURAL ANTHROPOLOGY
	Mines Faculty Senate Fall 2023 request to deactivate courses no longer offered.
	EDNS375: ENGINEERING CULTURES
	Mines Faculty Senate Fall 2023 request to deactivate courses no longer offered.
	EDNS475: ENGINEERING CULTURES IN THE DEVELOPING WORLD
	Mines Faculty Senate Fall 2023 request to deactivate courses no longer offered.

MOTION: The motion to approve the EDNS251 course change was moved by Micha and seconded by Jeff. The motion to approve the EDNS251 course change was approved with 13 approved, 0 opposed, and 1 abstention.

PLAN: Ventzi planned to vote on all EDNS Design II course deactivations as a bundle and asked for any objections. There was no objection from those present.

MOTION: The motion to approve the EDNS251, 261, 262, 263, 264, 269 - Design II course deactivations was moved by Micha and seconded by Jeff. The motion to approve the EDNS251 course change was approved with 14 approved, 0 opposed, and 0 abstentions.

MOTION: The motion to approve the EDSN251 Design II course deactivations was moved by Micha and seconded by Jeff. The motion to approve the EDNS251 course change was approved with 14 approved, 0 opposed, and 0 abstentions.

There were two documents distributed yesterday regarding the EDNS325 deactivation. One was from EDS, and the other from Micha.

Comment from Micha: I was hardened at the suggestion that the learning outcomes could be found in other courses in EDNS. However, I was unable to find any such courses, so I provided the learning outcomes from the last offering of EDNS325 and found that two of them could most likely be covered by other EDNS courses currently offered in the catalog. However, the other three that are fundamental to Cultural Anthropology are not. Also, the voting to remove all EDNS325, EDNS375, and EDNS475 would remove three of the four courses that we have in the catalog that mentioned anthropology or culture in their title and this has me concerned because a lot of CBE and QBE students as well as from other departments go on to medical school and take the MCAT. There is a social science portion on the MCAT so I worry that removing sociology from the curriculum will be a disservice to students in terms of applying to medical school. I understand that these courses are not currently offered and there are no plans to offer them in near future, however, I would point out that the last time EDNS325 was offered, it had more than twice the enrollment of the course that purports to offer the same learning outcomes. If EDS had examples of how these learning outcomes are covered in other courses, I would like to see them listed. Unfortunately, in their document, they did not list that. In summary, I would like to strongly urge my fellow councilors to vote against this motion even if it just to keep these courses on the books so that it shows that we intend to offer our students an education in culture and topics that are culture-related.

Comment from Paul: I would add along with what Micha said that I think it is important that we pay attention to the number of sections that we offer that fulfill mid-level electives. Currently, we do not offer enough seats. We have way more juniors and seniors going outside of Mines to fulfill that requirement, which does not sound like a signature experience at Mines to me if we are not able to meet capacity. I have been having lots of conversations with Sandy, but I know that mid-level electives go beyond just her department. Whether we keep these on the books or not, the bottom line is that those of you teaching mid-level electives, we need more sections and more seats to meet the current demand.

Question by Chuck: I was curious if we knew if the Cultural Anthropology course was taught by regular Mines faculty, or did we rely on adjunct for this course?

Answer from Micha: The last time the course was offered, it was taught in 2020 by a regular Mines faculty member. I think it was Jessica Smith. We have three PhD anthropologists on campus – Beth Reddy, Jessica Smith, and Nicole Smith. All are in different departments, but I think two of them are in EDS.

Question from Andrew: Is the reason that these courses are being removed is to clean up the catalog?

Answer from Jack: Yes, that is correct. This is in response to the Faculty Senate's request to remove courses that are no longer offered to make sure that it is clear to students what is going to be a potential course that they could take in their degree. Because these courses have not been offered in quite some time and have no intention of being offered in the future, we want to respond to that request to make sure that it is clear to the students.

Comment from Paul: I think the key for us here is to find the balance between what Micha said and cleaning up the catalog. The catalog should be truthful to our students who do peruse it and look at courses that we offer. If courses are never offered and they are in the catalog, it is a bit misleading. Best practice is if a course has been taught in four years, they simply inactivate. However, it can always come back. I think Micha raises a more fundamental question about the philosophy and approach of what we are offering, and we should not lose that. I agree with that, but I also want a clean and accurate catalog. So how do we balance those together?

Comment from Ventzi: Here is my thinking and let me know if you agree with me. How about we table this for two weeks to allow time for additional discussion. I will bring this to Faculty Senate as well and I

invite everyone who has a certain opinion on these courses to join us in the next Faculty Senate meeting so we can further discuss.

MOTION: Ventzi motioned to table the agenda items for EDNS325, EDNS375, and EDNS475 for further discussion. The motion was moved by Micha and seconded by Jeff. The motion to table these agenda items was approved with 13 approved, 1 opposed, and 1 abstention.

1.6

MECH		Jeff Wheeler
CIM 1/11/24		
1 Course Deactivation:	MEGN361: THERMODYNAMICS I	
	Changing the course number to MEGN 261 to reflect that this is a sophomore level class. The new MEGN 261 is already proposed in CIM. per Dr. Jeffrey Wheeler 01/11/2024 - rlb	
1 New Course:	MEGN261: THERMODYNAMICS I	
	This is a course number change proposal. This new course proposal should be considered one change with the MEGN 361 deactivation. This is a sophomore level course and ME students are advised to take it in their section year. A 261 course number establishes the expectation that this is a sophomore class.	
1 Course Deactivation:	MEGN458: INTRO TO SPACE EXPLORATION AND RESOURCES	
	This is a course number change. Deactivate MEGN 458 and replace with MEGN 452 . Intro to Space Exploration is the first course in a series but currently has the highest course number of those classes. The new course number will convey that this is the start of a sequence	
1 New Course:	MEGN452: INTRO TO SPACE EXPLORATION AND RESOURCES	
	This is a course number change. Deactivate MEGN 458 and replace with MEGN 452 . Intro to Space Exploration is the first course in a series but currently has the highest course number of those classes. The new course number will convey that this is the start of a sequence	
1 Course Change:	MEGN441: INTRODUCTION TO ROBOTICS	
	EEGN307 recommended but not required as a prerequisite per the course instructors. Added clarification to show that one programming course (MEGN200, CSCI200, or CSCI261) and one circuits course (EEGN281, EEGN282, or PHGN215) are required as prerequisites.	

PLAN: Ventzi planned to vote on the Thermodynamics I deactivation and new course as a bundle and asked for any objections. There was no objection from those present.

MOTION: The motion to approve the MEGN361 deactivation/MEGN261 new course was moved by Micha and seconded by Jeff. The motion to approve the MEGN361 deactivation/MEGN361 new course was approved with 13 approved, 0 opposed, and 1 abstention.

PLAN: Ventzi planned to vote on the Intro to Space Exploration and Resources deactivation and new course as a bundle and asked for any objections. There was no objection from those present.

MOTION: The motion to approve the MEGN458 deactivation/MEGN452 new course was moved by Micha and seconded by Jeff. The motion to approve the MEGN458 deactivation/MEGN452 new course was approved unanimously with zero opposition and zero abstentions.

MOTION: The motion to approve the MEGN441 course change was moved by Micha and seconded by Jeff. The motion to approve the MEGN441 course change was approved unanimously with zero opposition and zero abstentions.

1.7

CS		Zibo Wang
CIM 1/18/24		
10 Course Changes:	CSCI220: DATA STRUCTURES AND ALGORITHMS	
	Updating learning outcome language.	
	CSCI303: INTRODUCTION TO DATA SCIENCE	
	Cleaning up prerequisites – CSCI128 is the necessary prerequisite. Currently leaving CSCI101 for historical/existing students.	
	CSCI404: ARTIFICIAL INTELLIGENCE	
	Prerequisite update: Adding MATH201 or MATH334 for flexibility.	
	CSCI425: COMPILER DESIGN	
	Cleaning up prerequisites – Removing explicit CSCI210 prerequisite since it is already a prerequisite for both CSCI306 and CSCI341.	
	CSCI432: ROBOT ETHICS	
	Downgrading prerequisites from CSCI220 to CSCI200	
	CSCI437: INTRODUCTION TO COMPUTER VISION	
	Updating modality.	
	CSCI442: OPERATING SYSTEMS	
	Cleaning up prerequisites – Removing CSCI210 as an explicit prerequisite since it is already a prerequisite for CSCI341.	
	CSCI470: INTRODUCTION TO MACHINE LEARNING	
	Updating prerequisites for added flexibility.	
	CSCI475: INFORMATION SECURITY AND PRIVACY	
	Prerequisite update; Adding new CSCI210 as alternative to CSCI274.	
	CSCI478: INTRODUCTION TO BIOINFORMATICS	
	Cleaning up prerequisites – CSCI128 is the necessary prerequisite. Currently leaving CSCI101 for historical/existing students.	

MOTION: The motion to approve the CSCI220 course change was moved by Micha and seconded by Jeff. The motion to approve the CSCI220 course change was approved unanimously with zero opposition and zero abstentions.

MOTION: The motion to approve the CSCI437 course change was moved by Micha and seconded by Hisham437. The motion to approve the CSCI course change was approved unanimously with zero opposition and zero abstentions.

PLAN: Ventzi planned to vote on the remaining CSCI course changes as a bundle and asked for any objections. There was no objection from those present.

MOTION: The motion to approve all remaining CSCI course changes was moved by Micha and seconded by Hisham. The motion to approve all remaining CSCI course changes was approved unanimously with zero opposition and zero abstentions.

1.8

MT	Metallurgical & Materials Engineering (MT)	Gerald Bourne
CIM 1/19/24		
1 New Course:	MTGN480: ADVANCED WELDING METALLURGY	
	<p>Very few institutions offer welding metallurgy courses at all, and even fewer offer courses focused on microstructure and property prediction of welds. By offering this course, Mines will be top of mind for students interested in welding and additive manufacturing related careers after graduation. The Metallurgical and Materials Engineering department has thematic strengths in welding and additive manufacturing, and this course supports those areas, which also improves the scale and impact of Mines in these focus areas.</p> <p>This course will explore microstructural development that occurs during welding. Solidification in the fusion zone as well as solid-state microstructural changes in the heat affected zone will be discussed. We will use the understanding of microstructural changes during welding to interpret cracking mechanisms and unique behaviors of specific alloy systems. The interrelationship between modeling/simulation and experiments will be emphasized. Throughout the course, we will think about how the people to who actually weld (welders) can provide critical insight to solve welding metallurgy problems.</p>	

MOTION: The motion to approve the MTGN480 new change was moved by Micha and seconded by Jeff. The motion to approve the MTGN480 course change was approved unanimously with zero opposition and zero abstentions.

Minor Changes – to be considered as a single vote

CBE		Michael Barankin
CIM 11/16		
1 Course Change:	CBEN472: INTRODUCTION TO ENERGY TECHNOLOGIES	
	Semester varies	

Electrical Engineering		Hisham Sager
CIM 1/3/24		
1 Course Change:	EENG391: FE ON COMPUTATIONAL FUNDAMENTALS OF ENGINEERING ELECTROMAGNETICS	
	Adding Honors Differential Equations to prerequisites.	

MOTION: The motion to approve all minor changes was moved by Micha and seconded by Jeff. The motion to approve the minor changes was approved unanimously with zero opposition and zero abstentions.

2. New Curriculum Item(s)

2.1

CEE		Hongyan Liu
CIM 2/19		
2 course changes:	CEEN267: Design II: Civil Engineering	
	Need to update the prerequisites to expand eligible courses. HRNS115 and HNRS198B	
	CEEN473: Hydraulic Problems	
	Need to add an additional prerequisite option as the curriculum grows. CEEN310 or CBEN307	

2.2

AMS		Mike Nicholas
CIM 2/22		
6 course deactivations:	MATH113: CALCULUS FOR SCIENTISTS AND ENGINEERS II – SHORT FORM	
	This course is not offered and will not be offered again.	
	MATH214: CALCULUS FOR SCIENTISTS AND ENGINEERS III – SHORT FORM	
	This course is not offered and will not be offered again.	
	MATH224: CALCULUS FOR SCIENTISTS AND ENGINEERS III HONORS	
	This course is not offered and will not be offered again.	
	MATH340: COOPERATIVE EDUCATION	
	This course is not offered and will not be offered again.	
	MATH348: ADVANCED ENGINEERING MATHEMATICS	
	This course is not offered and will not be offered again.	
	MATH492: UNDERGRADUATE RESEARCH	
	We do not teach this anymore, and we don't anticipate teaching it again. Also, there is a MATH491 with the same title/description that is repeatable for credit.	

These deactivations are responding to the call to clean up the catalog. These courses have been offered for some time and we do not anticipate offering them again.

Question from Micha: Is MATH113 an online course or do you offer an online version equivalent to Short Form?

Answer from Mike: This course is not online, and we do not offer an online version. We do not anticipate offering any of the courses again. They were useful in the past, but we have rearranged the calculus curriculum, so they are no longer necessary.

Comment from Vibhuti: For MATH340, I am guessing there are not a lot of international students, but I think the International Center and Megan Abbey would like to know that this is going away because she must report to the federal agencies on how international students, if they get a job, how that counts towards the curriculum. Sometimes, students sign up for coops to get that to count toward the program so I think it would be good to inform her about this.

2.3

EE		Hisham Sager
CIM 2/13		
1 course change:	EENG429: Active RF & Microwave Devices	
	<p>Our EENG430/EENG530 course introduces the design of passive microwave circuits. These circuits are essential components of all modern communications and radar systems. While EENG429/529 appears to be a separate topic on active devices, the ability of the students to design and understand an active device, for example, a power amplifier, requires to the ability to design and understand passive devices, e.g., a matching network. Traditionally, students have self-selected or have been advised to take the courses in the 430/530 then 429/529 sequence and pre-reqs haven't been an issue. However, with increasing interest in the course we have recently run into situations where students enrolled in 429/529 have not been properly equipped to handle the course contents. These pre-req changes are requested to ensure that students are not overloaded and can be successful in their studies.</p>	

2.4

CEE		Hongyan Liu
CIM 2/19		
16 course changes:	CEEN241: Statics	
	Delete "virtual work" from catalog description.	
	CEEN311: Mechanics of Materials	
	Updating semester offered.	
CIM 2/22	CEEN315: Civil and Environmental Engineering Tools	
	Updating semester offered.	
	CEEN350: Civil and Construction Engineering Materials	
	Updating semester offered.	
	CEEN381: Hydrology and Water Resources Engineering	
	Updating semester offered.	

	CEEN401: Life Cycle Assessment
	Updating semester offered.
	CEEN405: Numerical Methods for Engineers
	Updating semester offered.
	CEEN406: Finite Element Methods for Engineers
	Updating semester offered.
	CEEN410: Advanced Soil Mechanics
	Updating semester offered.
	CEEN411: Unsaturated Soil Mechanics
	Updating semester offered.
	CEEN419: Risk Assessment in Geotechnical Engineering
	Updating semester offered.
	CEEN421: HIGHWAY AND TRAFFIC ENGINEERING
	Updating semester offered.
	CEEN425: Cementitious Materials for Construction
	Updating semester offered.
	CEEN426: Durability of Concrete
	Updating semester offered.
	CEEN461: Fundamentals of Ecology
	Updating semester offered.
	CEEN470: Water and Wastewater Treatment Processes
	Updating semester offered.
	CEEN475: Hazardous Site Remediation Engineering
	Updating semester offered.

For the CEEN241 course, we have not covered virtual work in a long time, so we are deleting this wording to be more precise about what is being taught in Statics. For the remaining courses, we are changing the semester offered based on historical enrollment and the faculty willing to offer this course.

Comment from Ventzi: These as not listed as minor changes since they are referenced in other programs. Please review them to see if your program is using any of these courses and whether they align correctly in the 4-year plans.

Minor Changes – to be considered as a single vote

MECH		Jeff Wheeler
CIM 2/22		
1 new course:	MEGN385: INTRODUCTION TO CNC AND CAM PROGRAMMING	
	<p>The course has been offered twice as special topics. Applying for a permanent number.</p> <p>This is a 1 credit hour elective course within Mechanical Engineering focused on providing students with hands-on experience programming and operating CNC milling machines. CNC machines are an essential manufacturing method for many products today. Providing hands-on instruction on these tools prepares students to design manufacturable and economically efficient parts. Using real CNC machines to fabricate parts of their own design is a signature experience for mechanical engineering students.</p>	

This proposed new course has been taught twice as 398 so we are asking for a permanent course number. It is a 1-credit elective course that is taught by our machine shop manager on CNC machining and CAM programming. It has been popular so far. Last year, it had 11 students. Word started to get out and they had 22 students this past semester. It has 24 seats in total, and we anticipate it being full in the fall. A lot of mechanical engineering students are interested in it and end up using this in their careers.

Comment from Ventzi: Because this course is only referenced in the ME program, this will be considered a minor change and will be voted on during our next meeting in hopes that it will be approved and will be open for registration.

CEE		Hongyan Liu
CIM 2/19		
2 course change:	CEEN210: Introduction to Civil Infrastructure	
	Updating semester offered.	
	CEEN402: Project Engineering	
	Updating semester offered.	

These changes are only updating the semester offered. CEEN402 has been approved by the Trefny Center. It is an online course which is why we can offer it in the regular semester (not just summer).

Comment from Ventzi: These course changes are the same as the other CEE changes but are not referenced in any other program so these are considered minor and will be voted on during our next meeting.

4:50-5:00 pm

3. Continuing Curriculum Item(s) for Discussion

3.1

Computer Science		Zibo Wang
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CIM 1/22	
1 program change:	BS-CS: BS IN COMPUTER SCIENCE
	<p>- All tracks: Added CSED435 and INNO444 to list of acceptable CS Electives.</p> <p>- CS + Business track: Updated list of Business electives to reflect courses that moved to Mines core or are no longer offered; replaced with new courses that have recently been added.</p> <p>- CS + Data Science track: Removed MATH439 (no longer offered) and replaced with MATH433</p>

3.2

CEE		Hongyan Liu
CIM 2/7		
1 course deactivation:	CEEN477: SUSTAINABLE ENGINEERING DESIGN	
	Cross-list with graduate course CEEN593.	
1 New course:	CEEN493: SUSTAINABLE ENGINEERING DESIGN	
	<p>Cross-list with graduate course CEEN593.</p> <p>This is the graduate version of an existing undergraduate course. The course provides a comprehensive introduction into sustainability concepts from an engineering point of view, incorporating the quantitative consideration of environmental and health impacts as well as social considerations throughout the design analysis. These concepts and approaches are embedded in our disciplinary educational expectations and advance Mines' mission, vision and strategic plan.</p>	

3.3

AMS		Mike Nicholas
CIM 1/31		
1 course change:	MATH440: PARALLEL SCIENTIFIC COMPUTING	
	Changing from Spring to Fall.	

Comment from Paul: It seems that when Mines was much smaller 5-6 years ago, it was important to make a distinction on which courses were offered in which term. I am not sure we still need this within the catalog if we know within your own departments when courses will be offered. It seems like a bit of a stranglehold in the sense of when courses are needed, when they are wanted, when it can be taught, etc. From our standpoint, it is not as relevant as it might have once been. It is also not common among institutions to specify in the catalog the specific term in which a course is taught. It is more important to offer an accurate course listing than the specific term that requires a vote. The specific term that courses are offered are found in the advising plans.

Comment from Micha: Students looking for specific electives might care about when a course is being offered. However, when we have courses that we cannot guarantee that we are going to consistently offer

then we always write “semester varies”. I think, in general, the only courses that we have in our department with a specific pinned down semester are the core courses.

Comment from Ventzi: From my personal experience working with students, especially those approaching graduation, having terms listed helps them select among the options of required elective courses. Core courses are offered every semester, but it is nice to have the terms listed for electives. I wonder if the departments have a more concise view on this.

Comment from Paul: That is true, but we find examples of courses that are on the books being taught in a specific semester, but they haven’t been taught in a while. It is the schedule of classes that we make available 2-3 weeks before registration that is the reality of what is offered. To me, I see it as an artificial limitation that we are placing on ourselves and in some cases, we haven’t followed the term that is written so it is not something that we are enforcing.

Comment from Ventzi: Please bring this up to your departments and I want to follow up on this during our next meeting for additional discussion. If we decide this is something that we do need, we can remove it from the catalog and/or the course description.

Comment from Paul: That is my recommendation. The new tools that we have (flowcharts) are newer than what we have done in the past in publishing this within the catalog. Right now, we have Degree Works which also has degree/course plans, so things have shifted and our course description in the catalog has not caught up to where we are. Also, most students do not know what the S and F mean at the beginning of the course description, so it is not abundantly clear to the end user.

Comment from Micha: The prior course descriptions also used to have I or II listed to represent fall or spring respectively and I think a lot of the catalog descriptions still have that.

5. Adjourn

Meeting adjourned: 4:59 pm.

Next meeting: March 13, 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.