

Colorado School of Mines – UNDERGRADUATE COUNCIL MEETING MINUTES
 October 27, 4:00 – 5:00 pm, via Zoom

Attendees:

Voting Members: 20 total (11 - majority needed for quorum). Quorum was present

P	Jeff King (chair)	P	Becky LaFrancois (EB)	P	Mike Nicholas (AMS)	P	Mona El Helbawy (EE)
P	Michael Barankin (CBE)	P	Derrick Hudson (HASS)	P	Corinne Packard (MME)	P	Nicole Smith (MN)
P	Dylan Domaille (CH)	P	Ge Jin (GP)	P	Jeff Paone (CS)	A	Bruce Trudgill (GE)
P	Linda Battalora (PE)	P	Hongyan Liu (CEE)	P	Oyvind Nilsen (ME)	P	Ethan Lewellin (USG)
P	Gyasi Evans (LB)	P	Chelsea Salinas (EDS)	P	Chuck Stone (PH)	P	Randy Haupt (EE)

Other Regular Attendees and Guests

A	Fran Aguilar (MS)	P	Dixie Cirillo (PA)	A	Jennie Kenney (AA)	P	Kendra Stansbury (RO)
P	Karla Perez-Velez (CASA)	A	Vibhuti Dave (UGS)	P	Mara Green (AA)	P	Paul Myskiw (RO)
A	Jen Drumm (CASA)	P	Josh Ramey (QBE)	A	Cheryl Medford (GE)	P	Terri Snyder (PE)
P	Katie Ludwin (CASA)						

Special Guest(s): Jim Crompton (PE), Suzy Beeler (QBE), Jeff Squier (PH)

Welcome

Jeff King

Approval of Minutes – October 13, 2021

Jeff King

MOTION: To approve the Undergraduate Council minutes of October 13, 2021 by Hudson, seconded by Jin. Motion passed unanimously. APPROVED.

Briefings and Information Items

Office of Undergraduate Studies

Vibhuti Dave

No updates from the Office of Undergraduate Studies.

Registrar's Office

Paul Myskiw

The schedule has opened for student viewing for Spring and Summer 2022. The self-service portal will allow faculty to access the schedule, please contact the Registrar's Office for assistance. The Registrar's Office will be monitoring the schedule closely to add additional sections, as needed. Sections have already been added to accommodate the larger class size.

Students can begin Spring registration 11/14.

Department heads and deans have been asked to identify approvers associated with course substitutions for degree audits. Around 600-600 course substations are processed by the Registrar's Office per semester; this process will be done electronically through OnBase and initiated by the student.

Curriculum Item(s) for Vote – From 9/22/21

Major Curriculum Changes –

1.1 **HUMANITIES, ARTS AND SOCIAL SCIENCES**

Tina Gianquitto

[CIM 9/15; Provost 9/15]

1 program change: MIN-ESS: Minor in Environment and Sustainability

Introduced the following potential credit option to align the program with signature student

experience opportunities: "Student involvement in campus sustainability initiatives, student environmental groups, and other activities that complement the ESS minor's coursework, may count as credit toward the minor (in consultation with the ESS director)."

Suggest (but do not require) students take Global Studies: Environment.

MOTION: To approve the program change to MIN-ESS: Minor in Environment and Sustainability by Hudson, seconded by Jin. 17 for, 1 abstention. APPROVED.

Minor Curriculum Changes –

The following minor course changes will not be discussed unless specifically requested by Council.

1.2 GEOLOGY & GEOLOGICAL ENGINEERING

Cheryl Medford

[CIM 9/10]

2 course changes: GEOL308: INTRODUCTORY APPLIED STRUCTURAL GEOLOGY
GEOL308 course description change from "Course require or all PEGN and GPGN students" to "Course required for all PEGN". Reflects updates from GP.

GEGN316: FIELD GEOLOGY

Removal of "or" in prerequisites list.

1.3 HUMANITIES, ARTS, AND SOCIAL SCIENCES

Seth Tucker

[CIM 9/10]

1 course deactivation: HASS300: CREATIVE WRITING: FICTION

This course number will be renewed as HASS302. HASS201 will become HASS300.

1.3.1 [CIM 9/21; Provost 9/22]

2 new courses: HASS303: FOUNDATIONS: THE ART AND CRAFT OF THE CREATIVE WRITING WORKSHOP

Has been taught as HASS201 for five years. Renumbering to solve problems with student expectations, and advisor and registrar issues.

[CIM 9/9; Provost 9/13]

HASS302: INTERMEDIATE SHORT FICTION WRITING WORKSHOP

Shifting HASS201 (300-level restricted HASS course) to course number HASS300. This course had haven taught under the course number HASS300 for 10 years. Being done to alleviate confusion from students, registrar, and advisors for recommendation of 300-level courses to students.

Once the course number is archived, HASS300 will be renewed as what was previously offered as HASS201.

1.3.2 4 course changes: HASS301: INTERMEDIATE POETRY WRITING WORKSHOP

Name change from "Creative Writing: Poetry I". Done to make clearer trajectory of learning and progression through the writing courses in HASS to assure consistency for students, faculty and advisors.

HASS400: ADVANCED SHORT FICTION WRITING WORKSHOP

Removal of co-requisites HASS301 and HASS401. Change made to ensure clear pattern for learning in writing courses and establish consistent offering from 300-levels (fall) to 400-levels (spring).

HASS401: ADVANCED POETRY WRITING WORKSHOP

Name change from "Creative Writing: Poetry II". Course description changed <10%. Done to ensure clarity of course progression and better pattern of offerings from 300-levels (fall) and 400-levels (spring).

HASS408: CREATIVE NONFICTION WRITING: LIFE STORIES

Name change from "Life Stores". Meant to clear confusion on what the course investigates and how it is tied to the progression of writing classes offered in HASS.

1.4 **HUMANITIES, ARTS, AND SCIENCES**

Derrick Hudson

[CIM 9/15; Provost 9/15]

4 new courses:

HASS319: INTRODUCTION TO VOICE, MOVEMENT AND IMPROVISION IN PERFORMANCE AND PRESENTATION

HASS317: ACTING, LOCUTION & PUBLIC PERFORMANCE

HASS318: THEATER TECHNOLOGY, PRODUCTION & PERFORMANCE

HASS484: INTELLECTUAL PROPERTY FOR ENGINEERS AND ARTISTS

Courses have been taught twice, seeking permanent course numbers.

1.5 **SYSTEMS**

Derrick Hudson

[CIM 9/15; Provost 9/15]

1 new course: SYGN469: SCIENCE AND SPIRITUALITY

This class was originally developed as a McBride class. It has been taught twice as a McBride class and it is taught now for the second time as SYGN498B where it is cross-listed as a McBride class. The SYGN498B course number was a placeholder for a new course. After the class has been taught four times, it is time to put it in the course catalog on a more structural basis.

MOTION: To approve the minor curriculum items presented in items 1.2 through 1.5 in an omnibus Council vote by Barankin, seconded by Nicholas. Motion passed unanimously. APPROVED.

New Curriculum Items

Major Curriculum Changes –

2.1 **PHYSICS**

Chuck Stone

[CIM 10/13]

1 new program: MIN-PH: Minor in Physics

Mines Department of Physics encourages the campus to create a Minor in Physics that can follow two different tracks: A Standard Physics Minor (Option One), and for the first time, an Honors Physics Minor (Option Two). By enabling two options, we go from having a minor that no one could complete (due to non-physics prerequisite courses that delayed a student's immersion into physics-rich courses ... which is where we are now) to a minor program that can effectively feature all of our undergraduate courses. The Standard Physics Minor can be completed in a minimum 18.0 credit hours while the Honors Physics Minor can be completed in a minimum of 18.5 credit hours.

Physics has reallocated courses already taught in the program to establish a cleaner minor for students interested in the program. The two options: Minor in Physics and Honors Physics Minor have different characteristics. The standard minor will be complimentary to the hand-on aspect while the Honors Physics Minor will be more mathematically rigorous and theoretical.

Question on when field sessions are offered; Physics offers field sessions in the summer through a 6-week

program.

The initial physics minor was undoable with 23.5 credits.

Comment made on the naming of the minor and contact Lefton regarding the Honors naming convention. Suggestion to create a single minor, condense the electives of both minors, and create a fully customizable minor for students. Squier explained the foundation of the Honors Physics Minor being PHGN311: Introduction to Mathematical Physics as this allows for students to continue into the higher-level courses.

Suggestion made to consider more distinct naming convention for the minors to benefit students' degrees, resumes, and employers.

2.2 PETROLEUM ENGINEERING

Jim Crompton

[CIM 10/20]

1 program change: MIN-PTDA: Minor in Petroleum Data Analytics

Due to the new pre-requisite requirement (CSCI 101 Introduction to Computer Science, 3 credit hours) for CSCI 261 Programming Concepts, 3 credit hours, the Petroleum Engineering Department's Undergraduate Curriculum Committee has reviewed the minor and proposes the following changes to the Petroleum Data Analytics minor. The changes will allow the student to obtain the minor and the BS degree without having to take three additional credit hours. The changes will also allow the students flexibility for scheduling classes and provide more choices for their particular interest.

The minor has been changed to adapt to the addition of the new prerequisite requirement for CSCI261 being CSCI101. Courses have been rearranged and removed to ensure students may obtain the minor and degree without addition of three-credits.

CSCI261 has been eliminated and replaced by CSCI101 and CSCI102. CSCI303 has been removed from required courses and added to the minor's elective list. PEGN305 has been added as a required course and is also required for the Petroleum Engineering major. EBGN425 has been moved from the required courses list to the minor's elective list due to student difficulty registering for the course.

Question on the enrollment of students in the minor; Crompton reported anywhere from six to fifteen students per year.

Economics and Business reported consideration for additional sections for EBGN425 due to high enrollment.

Applied Mathematics and Statistics noted concern for offering MATH334 as a requirement (it is now an elective for the minor) due to the high enrollment for the course.

Minor Curriculum Changes –

The following minor course changes will not be discussed unless specifically requested by Council.

2.3 MINING

Jurgen Brune

[CIM 10/13; Provost 10/13]

3 new courses: MNGN203: SOFTWARE FUNDAMENTALS FOR 3D DATA ANALYSIS AND MINE PLANNING
MNGN301: MINE SURVEYING

This is a re-organization of the existing Mining Engineering Summer Field Camp, MNGN300 MNGN300 (3 CR) will be broken up into MNGN203 (1 CR, 1 week) and MNGN301 (2 CR, 2 weeks). Sophomores will take MNGN308 (1 CR, 1 week, existing) and MNGN203 for the first two weeks of the Summer following the Sophomore year.

Juniors will take MNGN301 for the first two weeks of the Summer following the Junior year.

MNGN205: MINING ENGINEERING FIELD EXPERIENCE

The objectives of this course are to provide the student with a fundamental understanding of mine operations, exploration, mineral processing, and the importance of safety, social and community factors, and environmental stewardship through hands-on exercises and tours of mines, processing facilities, and industry-relevant sites. The curriculum within this course has been designed to expose students to a wide array of experiences and provide insights that will aid them in upper-division courses.

2.4 PHYSICAL EDUCATION & ATHLETICS

Dixie Cirillo

[CIM 10/15]

1 course change: PAGN202: SOCCER

Course title change “Indoor Soccer” → “Soccer” to allow for flexibility in offering the class indoors or outdoors depending on the instructor, season, or conditions.

2.5 PETROLEUM ENGINEERING

Linda Battalora

[CIM 10/20]

2 course changes: PEGN382: PROFESSIONAL SKILLS 2

Addition of PEGN282 Professional Skills 1 as a prereq.

PEGN482: PROFESSIONAL SKILLS 3

Addition of PEGN382 Professional Skills 2 as a prereq.

Continuing Curriculum Items – Continued Discussion (from 10/13/21)

Major Curriculum Changes –

3.1 CHEMICAL & BIOLOGICAL ENGINEERING

Michael Barankin

[CIM 9/29; Provost 9/29]

1 new course: CBEN372: INTRODUCTION TO BIOENERGY

Residential. The delivery of the course will continue the longstanding tradition of presenting the content in a classroom format. There will be a technical aspect to the content, but also economic, business, society aspects. Having in-person delivery allows the opportunity for discussion about all these aspects.

3.2 QUANTITATIVE BIOSCIENCES AND ENGINEERING

Josh Ramey

[CIM 9/28]

1 program change: BS-QBE: Quantitative Biosciences and Engineering

Moving CBEN120 to the spring semester of the students' 1st year will allow majors to experience a full year of biology versus splitting the two semesters by a year. This will also allow for innovative future curriculum changes such as adding a combined 110-120 honors section where students can be exposed to a yearlong course based undergraduate research experience. The move will also allow the QBE program to predict student enrollments earlier. To accommodate this move we have shifted the physics sequence back one semester. (PHGN1 fall sophomore year and PHGN 2 spring sophomore year). We have spoken with Physics about this change and are in support of their plans

to expand their Studio Physics capacity.

The faculty would like to have Math201 as a co-req for BIOL300, which deals with biological data analysis which aligns nicely with Math201. The QBE faculty have informed the Math department about the proposed move.

3.2.1 [CIM 9/28; Provost 9/28]

1 new course: BIOL300: INTRODUCTION TO QUANTITATIVE BIOLOGY I

Introduction to Quantitative Biology I (BIOL300) is the first semester of a two-semester sequence designed to explore the interface between biology, mathematics, and computer science. BIOL300 is the first degree-specific course for QBE majors and provides foundational knowledge in Python programming, allowing students to analyze and visualize biological datasets and gain intuition for the stochastic nature of many biological processes.

Minor Curriculum Changes –

The following minor course changes will not be discussed unless specifically requested by Council.

3.3 **COMPUTER SCIENCE**

Jeffrey Paone

[CIM 9/22]

1 course change: CSCI477: ELEMENTS OF GAMES AND GAME DEVELOPMENT

Students will have more experience with object-oriented programming and will be introduced to event driven engines from CSCI 306. CSCI 306 has CSCI262 as a pre-req so this change is advancing the pre-req one step down the chain. CSCI 477 is an upper-level elective course taken mainly by second semester seniors. This change should not have a practical impact on student registration.

3.3.1 [CIM 9/28]

1 course deactivation: CSCI447: SCIENTIFIC VISUALIZATION

The course was last offered Spring 2013 by a faculty member who is no longer at Mines. There are no plans to offer in the near future so would like to remove from the catalog to avoid student confusion.

3.4 **APPLIED MATHEMATICS & STATISTICS**

Mike Nicholas

[CIM 9/16]

1 course change: MATH310: INTRODUCTION TO MATHEMATICAL MODELING

Add MATH213 as a prereq.

We have MATH201 and MATH225 as prereqs for this class, but since MATH213 (Calc III) is not a prereq for MATH225, we could have students in MATH310 who have not yet had Calc III. This change should not affect many (if any) students.

3.5 **CHEMICAL & BIOLOGICAL ENGINEERING**

Michael Barankin

[CIM 9/28]

1 program change: BS-CHE: BS in Chemical Engineering

Allowance of additional electives to help student to complete graduation requirements.

3.5.1 **2 course deactivations:** CBEN306: ANATOMY AND PHYSIOLOGY: BONE, MUSCLE, AND BRAIN
Course not offered in at least two years; replaced by CBEN304.

CBEN309: ANATOMY AND PHYSIOLOGY: BONE, MUSCLE, AND BRAIN
LABORATORY

Course not offered in at least two years; replaced by CBEN305.

3.6 METALLURGICAL & MATERIALS ENGINEERING

Corinne Packard

[CIM 9/29]

2 program changes: BS-MME: BS in Metallurgical and Materials Engineering

Addition of one course to our distributed science list (CSCI101) allows student to broaden their technical experience in preparation for multidisciplinary careers. We were already approving this course on a case by case basis, but this change makes it clear to students that they have additional options.

MIN-MME: Minor in Metallurgical and Materials Engineering

This change deletes one course and renumbers one course in the minor to reflect changes that were approved in the major program two years ago. Not changing the minor program at the same time as the major was an oversight that we are correcting now. The change requires students to take at least 4 credits of 300- or 400- level electives (instead of 3 before) in order to meet the minimum credits for a minor. The course flow is only a suggestion, not requirement, and only non-majors can take the minor. The only expected impact is that students may have to take 1-2 more credits than 18 total credits for the minor depending on the number of credits granted by the courses they choose.

3.6.1 **14 course changes:** MTGN219: ART AND SCIENCE OF GLASSBLOWING

This adds wording to the course description to make it clear that the course does not count for MTGN elective credit to clarify routine confusion students in our major taking this course have. Students have assumed it counts, but our major description states that only 300+ level courses count towards electives. This change is to provide clarification to students registering to the course, but does not fundamentally change any requirements.

MTGN281: INTRODUCTION TO PHASE EQUILIBRIA IN MATERIALS SYSTEMS

Minor wording change to description to encompass more analysis techniques beyond Gibbs phase rule to more accurately reflect the current and historical content of the course.

MTGN315: ELECTRICAL PROPERTIES AND APPLICATIONS OF MATERIALS

Course description change to reflect current and future course content.

MTGN334: CHEMICAL PROCESSING OF MATERIALS

Grammar fix in course description.

MTGN348: MICROSTRUCTURAL DEVELOPMENT

Minor description change with modern terminology in field of materials engineering.

MTGN333: INTRODUCTION TO BLADESMITHING

Description change: removal of mention of summer offering. Course is not offered in the summer.

MTGN350: STATISTICAL PROCESS CONTROL AND DESIGN OF EXPERIMENTS

Minor course description edits to reflect current content of the course.

MTGN430: PHYSICAL CHEMISTRY OF IRON AND STEELMAKING

Course description updated to remove frequency of offering, which will depend on the department's ability to staff the course.

MTGN442: ENGINEERING ALLOYS

Updating course description to reflect current frequency of offering.

MTGN451: CORROSION ENGINEERING

MTGN464: FORGING AND FORMING

Updating course description for grammar.

MTGN465: MECHANICAL PROPERTIES OF CERAMICS
MTGN475: METALLURGY OF WELDING
MTGN475L: METALLURGY OF WELDING LABORATORY

Updating course description to reflect current offering schedule.

3.6.2 **11 course deactivations:** MTGN311: STRUCTURE OF MATERIALS

MTGN311L: STRUCTURE OF MATERIALS LABORATORY

Courses no longer offered. Replaced by MTGN211.

MTGN351: METALLURGICAL AND MATERIALS THERMODYNAMICS

Course no longer offered. Replaced MTGN251.

MTGN381: INTRODUCTION TO PHASE EQUILIBRIA IN MATERIALS SYSTEMS

Course no longer offered. Replaced MTGN281.

MTGN407: STEEL BAR MANUFACTURING

Course no longer offered.

MTGN412: CERAMIC ENGINEERING

Elective course is no longer offered. Replaced by lower-level ceramics course required in program, rather than elective.

MTGN415: ELECTRICAL PROPERTIES AND APPLICATIONS OF MATERIALS

Course no longer offered. Replaced by required course MTGN315.

MTGN450: STATISTICAL PROCESS CONTROL AND ADESIGN OF EXPERIMENTS

Course no longer offered. Replaced by MTGN350.

MTGN461I: TRANSPORT PHENOMENA AND REACTOR DESIGN LABORATORY

Course no longer offered.

MTGN463: POLYMER ENGINEERING

Course no longer offered.

MTGN466: MATERIALS DESIGN: SYNTHESIS, CHARACTERIZATION AND SELECTION

Course longer offered. Replaced by two-semester senior design course under numbers MTGN467 and MTGN468.

3.7 **ECONOMICS AND BUSINESS**

Becky Lafrancois

[CIM 9/29]

2 course changes: EBG437: REGIONAL ECONOMICS

We would like to change the pre-requisites for this course to enable more students to take it. The intermediate level pre-requisites are not really necessary for this course. The campus needs more 400 level writing approved H&SS courses, and this will help fulfill the need.

EBGN443: PUBLIC ECONOMICS

We would like to change the pre-requisites for this course to enable more students to take it. The intermediate level pre-requisites are not really necessary for this course. The campus needs more 400 level writing approved H&SS courses, and this will help fulfill the need.

3.8 **PETROLEUM ENGINEERING**

Terri Snyder

[CIM 10/5]

1 course change: PEGN440: INTRODUCTION TO THE DIGITAL OILFIELD

The Petroleum Engineering Department would like to change the name of this course to "Introduction to The Digital Oilfield" to better reflect the content of the capstone course for the

minor. This change would also eliminate confusion with the PEGN 438 "Petroleum Data Analytics" course which is a requirement for the PE major.

Subcommittees Updates

Common Exam and other exam scheduling

The subcommittee met 10/27 and has been made aware of ideas and duties. No updates from the subcommittee.

Tracks and Emphasis Definitions

The subcommittee had looked through the Catalog and found a number of departments with specializations within majors but an inconsistent naming scheme (use of emphasis, track, focus area, concentration). Some of these naming conventions were available on a student's transcript, others advised students on how to market these specializations on their resumes.

Subcommittee is reaching out to departments on how these specializations have been constructed, how many credit hours are asked for (this varies anywhere between 9-24 credits), and identifying consistent terminology for the Catalog and recordkeeping.

The subcommittee has recognized that this terminology applies to Graduate programs and certificates. Communication will be made with Graduate Council to build a dual-committee to discuss both graduate and undergraduate naming conventions for specializations.

Miscellaneous / New business

Jeff King

Faculty Senate has approved the revised Review and Finals Week Policy recommendation. The recommendation will be brought to the current Policies and Procedures committee for placement.

Faculty Senate had discussion on Council makeup and representation of IGPs within Councils; any changes to membership will result in an Academic Faculty Bylaw change.

Faculty Senate voted against pre-approval of new online course development or modality changes to existing courses.

Question on the status of the consistency in grading recommendations; King will work with Graduate Council chair, Voelker, to charge and form a joint subcommittee to address consistency in grading.

Adjourn

Jeff King

Meeting adjourned at 4:57 pm.

Next Meeting: November 11, 4:00 – 5:00 pm, via Zoom.