

FACULTY SENATE MEETING AGENDA  
March 9, 2021, 2:00 – 4:00 pm, via Zoom

---

<u>Time</u>	<u>Item</u>	<u>Presenter</u>
2:00-2:05 pm	<b>Welcome</b>	Andy Herring
2:05-2:15 pm	<b>Provost / Academic Affairs</b>	Rick Holz
2:15-2:25 pm	<b>Registrar's Office</b>	Paul Myskiw
2:25-2:30 pm	<b>Approval of Minutes</b> – February 23, 2021	Andy Herring
2:30-3:00 pm	<b>Committee Updates</b> <ul style="list-style-type: none"><li>• Senate Secretary</li><li>• Online Standards Committee</li><li>• Faculty Procedures Working Group</li></ul>	Alina Handorean Cynthia Norrgran John McCray
3:00-3:30 pm	<b>Briefings, Information Items and Updates</b> <ul style="list-style-type: none"><li>• Addition of Undergraduate and Graduate Council Minutes to the Faculty Senate Webpage</li><li>• Faculty IDP Recommendations Draft</li></ul>	
3:30-3:35 pm	<b>Undergraduate Council</b>	Jeff King
	<i>*Approved Undergraduate Council new courses and course changes have been added to the end of this agenda as informational FYI-only items.</i>	
1.1	<b>INTERDISCIPLINARY</b> [status: CIM 1/15; Provost: 1/15, UGC: 2/24] <b>1 new program:</b> Minor in Quantum Engineering (requires CIM code)  <i>This internationally distinctive program will differentiate our undergraduates by giving them a substantive background in the chemistry, computer science, electrical engineering, mathematics, materials science, and physics for quantum computing, communication, and sensing. Students with disparate backgrounds will gain experience with quantum hardware and theory that will prepare them for careers in the rapidly evolving quantum engineering industries. This minor will build directly upon the opportunities, infrastructure and industry partnerships that have made the Quantum Engineering MS program so successful already in its first year. <b>Championed by Geoff Brennecka.</b></i>	
1.2	<b>ENGINEERING, DESIGN, and SOCIETY</b> [status: CIM 1/19; UGC: 2/24] <b>1 program change:</b> BS-EGN: BS in Engineering  <i>Changing credit hours for EDNS 191 and EDNS 192 to reflect credit hour changes made to streamline equivalencies with EDNS 151 and HASS 100. Changed Program outcomes from ABET a-k to ABET 1-7. Edited the introductory overview to reflect current messaging, correct grammatical errors, and provide more specificity. (Note that nothing significant was altered). Changed the Credit Hours required for EDNS 191 and EDNS 192 to reflect course change requests</i>	

*made to better align these two courses with EDNS 151/NHV 100, which can substitute for EDNS 191/192 for students who enter the program after the freshman year. Also added STEM Teaching focus area, which is a program unique to Mines. It may help Mines to retain students wanting to go into teaching and will also help to address the nationwide K-12 STEM teacher shortage by offering a program that will help prepare students with STEM breadth and depth along with teaching fundamentals necessary to attain certification. **Championed by Carrie McClelland.***

1.3 **GEOLOGY and GEOLOGICAL ENGINEERING**

[status: CIM1/20; UGC: 2/24]

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

*Program changes reflect updates to the BS curriculum in GE agreed upon by the faculty in the Department. The faculty evaluated our program objectives, the sequencing of classes, and the connections among learning outcomes in our 200 and 300- level courses. The outcomes of that analysis include eliminating GEGN 206, incorporating select learning outcomes from GEGN 206 into GEGN 212, adding a new course, GEGN 217, and reducing credits for GEGN 317. Our new curriculum has the same number of total credits as the current curriculum. **Championed by Cheryl Medford.***

1.4 **ECONOMICS and BUSINESS**

[status: CIM1/19; UGC: 2/24]

**1 program change:** MIN-BUEN: Minor in Business and Entrepreneurship

*This edit to the minor adds 3 classes to the list of classes students may choose from to incorporate recent new course additions in Business. **Championed by Becky Lafrancois.***

1.5 **PETROLEUM ENGINEERING**

[status: CIM 2/25; UGC: 3/10]

**1 program suspension:** MIN-MDSTR: Minor in Midstream Engineering

- Undergraduate Council Subcommittee Updates

3:35-3:55 pm **Graduate Council**

Neal Sullivan

- Graduate Council Subcommittee Updates

3:55-4:00 pm **Adjourn**

Andy Herring

### **New Undergraduate Courses Approved**

AMFG423: Design and Analysis of Experiments  
CEEN442: Timber and Masonry Design  
CSCI425: Compiler Design  
EBGN444: Innovate X  
GEGN217: Geologic Field Methods  
MAED405: Mathematical Practices and the Social Context of Mathematics  
MAED425: Pre-Algebra and Algebra Teaching Techniques  
MAED435: Computer Science Teaching Techniques  
MAED464: Capstone Curriculum Design I  
MAED465: Capstone Curriculum Design II  
SCED333: Education Psychology and Assessment  
SCED363: Dynamic Teaching: Motivation, Classroom Management, and Differentiation of Instruction  
SCED415: Scientific Practices vs Engineering Design and the Nature of Science  
SCED445: Physics and Chemistry Teaching Techniques  
SCED464: Capstone Curriculum Design I  
SCED465: Capstone Curriculum Design II  
PHGN417: Fundamentals of Quantum Information

### **Undergraduate Course Changes Approved**

EDNS191: Integrative Design Studio IA  
EDNS192: Integrative Design Studio IB  
EDNS291: Integrative Design Studio IIA  
EDNS292: Integrative Design Studio IIB  
EDNS391: Integrative Design Studio IIIA  
EDNS392: Integrative Design Studio IIIB  
CSCI261: Programming Concepts  
MATH331: Mathematical Biology (deactivated)  
CBEN401: Process of Optimization  
CBEN408: Natural Gas Processing  
CBEN409: Petroleum Processes  
CEEN267: Design II: Civil Engineering  
CEEN303: Environmental Engineering Laboratory  
CEEN401: Life Cycle Assessment  
CEEN402: Project Engineering  
CEEN406: Finite Element Methods for Engineers  
CEEN410: Advanced Soil Mechanics  
CEEN446: Structural Loads  
CEEN461: Fundamentals of Ecology  
CEEN473: Hydraulic Problems  
CEEN475: Site Remediation Engineering  
CEEN480: Chemical Fate and Transport in the Environment  
CEEN411: Unsaturated Soil Mechanics

CEEN412: Unsaturated Soil Mechanics (deactivated)  
CEEN474: Solid Waste Minimization and Recycling (deactivated)  
CEEN476: Pollution Prevention: Fundamentals and Practice  
(deactivated)  
CEEN440: Timber and Masonry Design (deactivated)  
EDNS479: Community-Based Research  
GEGN212: Petrology for Geological Engineers  
GEGN317: Geologic Field Skills  
GEGN206: Earth Materials (deactivated)  
HNRS115: Innovation and Discovery in Engineering, Arts, and Sciences II  
MEGN300: Instrumentation & Automation  
MEGN301: Mechanical Integration & Design  
MEGN412: Advanced Mechanics of Materials  
MTGN219: Art and Science of Glassblowing  
CHGN431: Inorganic Chemistry I  
HNRS198A: Special Topics  
HNRS199A: Independent Study  
HNRS298A: Special Topics  
HNRS299A: Independent Study  
HNRS398A: Special Topics in the University Honors and Scholars  
Program  
HNRS399A: Independent Study