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<td>2:00-2:05 pm</td>
<td>Welcome</td>
<td>Andy Herring</td>
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<td>2:05-2:15 pm</td>
<td>Provost / Academic Affairs Update</td>
<td>Rick Holz</td>
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<td>2:15-2:25 pm</td>
<td>Registrar Update</td>
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<td>2:25-2:30 pm</td>
<td>Approval of Minutes – December 8, 2020</td>
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<td>2:30-3:00 pm</td>
<td>Need for MOU on Interdisciplinary programs</td>
<td>Andy Herring</td>
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<td>3:00-3:20 pm</td>
<td>Committee Updates</td>
<td>Alina Handorean</td>
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<td>3:20-3:40 pm</td>
<td>Undergraduate Council Updates</td>
<td>Jeff King</td>
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Undergraduate courses (new and changed) that have been approved in 2020 are listed at the end of this agenda, these are informational items.

**Up for Senate Vote:**

1.1 **INTERDISCIPLINARY**

[status: CIM 10/22; Provost: 10/23; UGC: 12/9]

1 new program BS in Quantitative Biosciences and Engineering
(need to assign program & CIM codes)

As the traditional divisions between academic disciplines continue to blur, there is a need at Mines to offer students with the skills and education to address the next generation of challenges the world will encounter in treatment and healing of the environment, new energy, and in healthcare. This multi and interdisciplinary undergraduate program will give the students the skillset to tackle these challenges from every direction and opening more employment opportunities. This will be a residential program.

**New Program Presentation:**

1.2 **MECHANICAL ENGINEERING**

[status: CIM 10/29; Provost: 10/29]

1 new program: Aerospace Engineering Minor
(need to assign program & CIM codes)

This minor was proposed by our industry constituents and requested by students in mechanical engineering. Aerospace industries continue to grow in Colorado, and they represent five of the top ten employers for mechanical engineering. Aerospace industries do not require a full degree in aerospace engineering, but they feel that Mines students will be better prepared and more competitive with additional courses and practice in the aerospace field.
1.3 MINING  Jurgen Brune  
[status: CIM 11/4; Provost: 11/4]  
1 new program: Minor in Space Mining  
(need to assign program & CIM codes)  
This minor is expected to draw students from non-traditional mining disciplines and increase enrollment in the department. The minor will also provide a pipeline of students who may be interested in pursuing Post-Baccalaureate certificates or MS and PhD degrees in the Space Resources graduate program.

1.4 HONORS  Wendy Adams  
[status: CIM 11/5; Provost: 11/5]  
1 new program: Minor in Teaching  
(need to assign program & CIM codes)  
This minor has demonstrated student interest with approximately 40 students per semester taking courses. With the coursework bundled within the minor, it will provide clear communication to the campus about this opportunity to become a well-prepared educator and it will provide transcript-ready recognition of the students’ preparation to teach. It provides Mines students the opportunity to become highly qualified science, math, and computer science teachers which addresses the heart of Mines@150 goals.

3:40-3:55 pm  Graduate Council Updates  Neal Sullivan  

Up for Senate Vote:

2.1 CHEMICAL and BIOLOGICAL ENGINEERING  David Marr  
[status: CIM 11/12]  
1 program change: MSPHD-CBE: MS & PhD – Chemical and Biological Engineering  
As the size of the MS program increases and educational (undergraduate) backgrounds grow more diverse, this will provide options for the MS core separate from the PhD requirements. Additional options have been added to the core course requirements for the MS degree.

2.2 HUMANITIES, ARTS, and SOCIAL SCIENCES  Elizabeth Davis  
[status: CIM 11/30; GC: 1/6]  
1 program change: CERT-NREP: CERT – Natural Resources and Energy Policy  
Changes to program requirements such as reducing 12 credit-hours to 9, requirements of 4 of 5 required courses has been changed to 2 of 5, as well as requirement of an additional elective approved by the NREP director.

1 program change: MS-NREP: Natural Resources and Energy Policy  
Changes made to the course requirements: addition and removal of courses. Minor changes were made to reflect the small influx and outflow of courses.

New Program Presentation:

2.3 CHEMISTRY  James Ranville  
[status: CIM 12/2; Provost: 12/3]  
1 new program: Certificate in Analytical Geochemistry  
(need to assign program & CIM codes)
The addition to the existing Geochemistry Program of a PM and a Certificate in Analytical Geochemistry supports the Subsurface Frontiers Initiatives by training professionals with skills needed in groundwater resources, mineral exploration and recovery, environmental protection, and basic earth science research. Global challenges to address climate change, more efficient energy production, and discovery and utilization of critical materials all can be more fully addressed by a workforce trained in state-of-the-art methods of analysis.

2.4 Graduate Council Subcommittees:
- Advisor / Advisee Procedures and Expectations
- Stipends for Graduate Students
- Interdisciplinary Graduate Programs

3:55-4:00 pm  New Business / Adjourn

Andy Herring
New Courses Approved by Undergraduate Council in 2020
HASS466: Science, Technology, and Confucian Ethics
EBGN230: Introduction to Business
EBGN435: Economics and Water Resources
EBGN453: Project Management
SCED262: K-12 Field Experience and Building Student Relationships
MAED262: K-12 Field Experience and Building Student Relationships
HASS422: Art and Environmentalism
HASS227: Beginning Orchestral Strings and Fundamentals of Music
HASS372: History of Medicine
HASS463: History of Epidemics
MEGN413: Aerospace Structures
HASS468: Environmental Justice
MEGN417: Vehicle Dynamics and Powertrain Systems
CSCI478: Introduction to Bioinformatics

Course Changes Approved by Undergraduate Council in 2020
GEGN473: Geological Engineering Site Investigation
EDNS491: Senior Design I
CSCI470: Introduction to Machine Learning
CSCI303: Introduction to Data Science
MEGN391: Automotive Design – SAE Collegiate Design Series (Formula SAE)
MEGN408: Introduction to Space Exploration