

Colorado School of Mines – FACULTY SENATE MEETING MINUTES  
February 13, 2024, 2:00 – 4:00 pm, in Zoom

**Attendees:**

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

P	Brandon Dugan (Chair)	P	Vaughan Griffiths (CEE)	P	Jamal Rostami (MN)	P	Cortney Holles (HASS)
P	Deb Carney (AMS)	P	Soutir Bandyopadhyay (AMS)	P	Ventzi Karaivanov (ME)		Lawrence Wiencke (PH)
P	Mansur Ermila (PE)	P	Pat Kohl (PH)	P	Sid Saleh (EDS)	P	Ning Wu (CBE)
P	Mark Eberhart (CH)	P	Shubham Vyas (CH)		Cristian Ciobanu (ME)		

**Other Regular Attendees and Guests**

P	Dinesh Mehta (Trustee)	P	Rick Holz (AA)	P	Paul Myskiw (RO)		Colin Terry (Student Life)
P	Sam Spiegel (Online)		Tim Barbari (OGS)		Lori Kester (EM)	P	Kristeen Serracino (AA)
	Mark Bowen (USG)	P	Deb Jordan (Trefny)	P	Andy Herring (AA)	P	Nicole Becwar (LB)
P	Lauren Guido (GSG)	P	Jon Johnson (Online)		Nichole Bigley (AA)		Karla Perez-Velez (CASA)

**Special Guest(s):** Vibhuti Dave, Jen Gagne

**Welcome**

Brandon Dugan

**GSG Announcement**

Lauren Guido

Hopefully, you have received emails from Research Tech Transfer and internal department emails announcing that GRADS is coming up on April 3<sup>rd</sup> and 4<sup>th</sup>. We are in need judges. Since COVID, judges have been sparse, and people have only gotten feedback from only one or two judges. The whole point of GRADS is for everyone to receive feedback on their independent study project, thesis research, or latest paper they are working on. Feedback is a lot less meaningful if it is only coming from one person that is probably already on their committee. The groups that are missing judges are Bio/Biochem as well as Computer Science. Please urge your peers to sign up to be a judge. It's a minimum hour commitment and provides a good opportunity to see some of the work that our students are doing on campus. This is also a good networking event as we are bringing in judges from different national labs locally. Our keynote speaker is former NASA astronaut, Ricky Arnold. I think this is going to be a good time and a good GRADS overall and your participation would make it that much better. Especially if you are in the room, please sign up to be a judge. If you have missed the emails or would like more information, please email me at [laurenmiller@mines.edu](mailto:laurenmiller@mines.edu).

**Comment:** Judging categories currently states Biological, Computation, Materials Science, Earth Systems, and Energy. There are many other fields on campus that students will be participating in than those listed.

**Comment:** We took all of the programs on campus, and they were sorted into these groups. The call for abstracts that was sent out to students describes what programs best fit into these different groups.



### **Approval of prior meeting minutes**

Brandon Dugan

**MOTION:** Motion to approve previous meeting minutes was made by Jamal and seconded by Shubham. The motion to approve the previous minutes was approved with zero opposition and one abstention.

### **Academic Affairs**

Rick Holz

The Handbook Town Hall occurred last week that talked about some of the requests that have come to the Handbook Committee and received feedback from faculty on those requests. Now that they have faculty input, the committee will have further conversation and provide direction on how to think about these issues. The Labriola ribbon cutting ceremony was held on Friday. They had T-shirts, mugs, leather work gloves, and cupcakes as giveaways. If you have not toured the building yet, I highly recommend you go over and look. The equipment in the building is amazing and the space that is now available for Cornerstone labs is incredible. I believe it is something that we all will want to utilize. Einstein Bagels is now open in the Beck Venture Center. Beck is also open. Six companies have already leased space in the building already, and there is more in conversation. The grand opening for that will be held April 4<sup>th</sup>. We also have a Nobel Prize winner who is speaking this afternoon at 4 pm in Friedhoff Hall.

**Question:** During the Handbook Open Forum, data was collected on feedback. How is this data going to be used?

**Answer:** We launched polls to see if there would be any opposition to the requests that were presented. Most of the responses we received were in favor or a “I don’t know” vote. This typically is not part of the process. Campus will still see the proposed changes 30 days before they are due to go to the Board of Trustees. The slides that were presented at the open forum are available on the Academic Affairs webpage along with contact information.

**Comment:** We are also working towards having separate handbooks for faculty and staff, but that will not happen for the Fall. It will be a much longer-term project because we have to write the staff handbook first. I think it will be better for faculty in general if there is a separate handbook.

### **Registrar’s Office**

Paul Myskiw

No updates.

### **Undergraduate Council Updates**

Ventzi Karaivanov

During our last meeting, we had two items that were voted on and approved and require a Faculty Senate vote as well.

#### **CSM102: Introduction of Technical Writing**

This new course will be used as a part of the new Success and Wellness category instead of a free elective. It will provide foundational skills in technical writing that apply to a wide range of STEM disciplines. By exposing students to a variety of genres within technical writing, they will be able to more confidently and quickly understand the discipline-specific communication skills needed in their upper-level classes, giving them a stronger foundation for academic success.

**Question:** Since this is not being run through the department, do we have commitment for the resources to have instruction for this course?

**Answer:** Yes.

**Question:** Are they going to circulate a syllabus?

**Answer:** There is a syllabus that can be accessed through CIM.

**Comment:** There are other aspects that are being pushed that we cannot put in a regular course such as business acumen, communication, or professional development. Could we use a course like this to tag on as a topic to show ABET reviewers?



COLORADO SCHOOL OF  
**MINES**  
@ 150 | 1874-2024

**Comment:** We now require engineering econ for every student so that should be something we can show ABET accreditors directly. There are also lots of things going on around campus that students can participate in to develop professional development. This will all be captured in the new TRAIL system which is being piloted right now. We currently do not have something we can show such as the percentage of students who are engaged in these types of activities, but we will in the fall.

**Comment:** Allyce might be open to customizing this course and getting input on what we can with the class and add some of these concepts. I do want to remind people that this is not going to be a course that can be used for evaluating ABET outcomes because it is not a required course. Right now, we are only offering one section and then possibly upping it to two sections per semester, so there is no way that it will hit every single student. We can use it to demonstrate one of the many ways that students get oral and written communication, but it is not something that we can rely on for ABET or meeting ABET requirements.

**Comment:** We do have many options on campus for students to address these concepts. For example, thinking about what is happening in the world, we have FUTURES. We can also look at what these new courses are offering to our students and how we can add onto it or be additive in our own degree programs. I would be concerned about adding anything additional to a one-credit hour course like this one because you can only do so much.

**MOTION:** Motion to approve CSM102 by Cortney and seconded by Jamal. The motion to approve CSM102 was passed unanimously with zero opposed and zero abstentions.

#### **BS-IBIO: BS in Quantitative Biosciences and Engineering**

This was a program change adding INNO444/544 as a technical elective.

**MOTION:** Motion to approve the BS-IBIO program change by Mansur and seconded by Mark. The motion to approve the BS-IBIO program change was passed unanimously with zero opposed and zero abstentions.

Additionally, we had new curriculum items such as 4 course changes in Electrical Engineering adding Honors Differential Equations and updating modality for EENG437, a new course CBEN424, a course number changes for CEE (CEEN471 to CEEN478), and eight course deactivations and update to Cornerstone Design course (EDNS251). There was additional discussion and pushback regarding the deactivation of EDNS325: Cultural Anthropology on why we no longer want to offer this course.

**Question:** For the eight course deactivations for CEE that have not been offered in a while, where have students been doing their Cornerstone Design course?

**Answer:** I will reach out and ask.

**Comment:** The faculty member who originally taught Cultural Anthropology within HASS moved to EDNS and taught it there. I would assume that this course, if no longer taught in EDNS, should be offered in HASS. Comment: This may be an opportunity to get cross departmental integration. Maybe we could ask EDNS to reach out to Nicole to see how she might be involved or how she could get students involved.

**Question:** When was it offered last? Is the deactivation based off student interest?

**Answer:** I will follow up on this and bring it back.

**Question:** Is there anything that you are aware of that should be coming through the system that is not there yet?

**Answer:** One thing that is coming up is a Core Curriculum change which updates the language regarding CSM102 and CSM301 and to clear the advising piece about EBG321 and EBG201 as it is already laid out for Success and Wellness and Computer Science.



Question: For the EBGN change, will there be a process for an exception? Are there any cases with students needing an exception? Is there a committee in charge of this?

**Answer:** We do not have an Exceptions Committee. Given that these are core requirements, we typically do not sign off on exceptions if it is a requirement for the catalog that the student is graduating from.

**Answer:** We have seen exceptions to core requirements and the area in which the exception is made is the one that would approve the exception. Usually, they are extenuating circumstances that would require such approval. There have been a few for HASS, but within the last 5 years, there have only been 5-6 exceptions made.

**Question:** Who makes the exceptions?

**Answer:** It would be the department to which the course is being offered. However, there are exceptions that are never crossed such as total hours for a degree. That is an accreditation requirement that faculty do not have the purview to make an exception for. The same applies to cumulative GPA. We have never graduated anyone with the cumulative GPA below the threshold. For course-by-course substitutions, the departments and faculty have the purview to make exceptions for their own courses in their areas. For the Core, there is not a process or group to do that evaluation.

**Question:** Is there an appeal process?

**Answer:** We haven't had a situation where an appeal was needed.

**Comment:** There was a situation where this did happen and, in that case, the Senate came up with a solution to deal with it since they approved the graduation list.

**Comment:** It seems like we do have some process where it starts with the home departments and in cases for PE, it would be Student Life. If a student wants to appeal, they can do so through Senate. This may be something we should formalize.

**Comment:** This is not an issue we did will on a daily basis. However, with the core change we made last year, we will encounter more disruptions from students who will not easily be able to get through the curriculum. For example, we no longer offer half credit PE courses. The Core Committee last year created a list of viable exceptions for these students to have a pathway forward and so far, we have not encountered any significant issues with students questioning what the requirements were or how to get through them.

## Graduate Council Updates

### Electrical Engineering Online Professional Master's Degree

Soutir Bandyopadhyay

Peter Aaeen

I think you all understand the financial challenges that we are under as a university. As such, we would like to bolster the master's non-thesis numbers, specifically online. CS and EE have been charged with going ahead and developing this program so that we can get about 1,500 to 2,000 students. It may seem insurmountable to develop a program in a year, but this is something the EE department has had on their strategy. We had 3-4 certificates already developed. Unfortunately, we could not teach those all because of COVID and the reductions in faculty members with retirement. This year, we can go ahead and take that on. We have hired seven faculty so far over the last two years and we are moving towards starting this program in the fall with three stackable certificates – RF/Microwave, Power and Energy, and Information Systems Sciences. The idea is that students can enroll in any of the certificates, and if they combine this with an engineering math course, they have 30 credits to earn their professional master's degree. We have also been working OGS to provide an option for students to enroll for the master's degree. They would be able to take these in any order but would not get the certificates along the way. We have been circulating this program in the department and have received support from the Industrial Advisory Board. This program would also be advantageous from a competitive perspective. CU nor CSU has a specific degree in this area especially the RF/Microwave area.

We are currently in the development phase of the program. We have one course done in the Power and Energy certificate. The other two are resourced and being developed. We are also developing another



COLORADO SCHOOL OF  
**MINES**  
@ 150 | 1874-2024

course currently in the RF/Microwave certificate and have commitment from the faculty to finish the development over the summer. At that point, we will be clear to launch assuming we get all the necessary approvals. We have been interfacing with Mines Online along with the Registrar and Marketing and are preparing to have a full advertising campaign as soon as we get permission to advertise outside of Mines. Once we receive approval, we will launch this in fall of 2024. The order of how we will offer the program is still under discussion so there may be a little bit of change. However, we are comfortable with being able to launch soon. We have the faculties invested and resources, but we want to make sure to go through all the necessary critiques and approvals, so we welcome any constructive criticism and observations to make these programs better.

**Question:** Of these nine courses, how many will be taught by teaching faculty and research faculty?

**Answer:** Most of the courses will be taught with a mix of faculty. Some will be taught by teaching faculty members; others will be taught by our tenure-tenure track faculty because it is their area of specialty. We will also layer adjuncts as well.

**Question:** Are they 8-week modules?

**Answer:** Yes. That was recommended by Mines Online.

**Question:** What is the timeline to complete the program?

**Answer:** We are trying to enable it with 18 months to 2 years for the full master's. But the idea we are trying to pursue, based on recommendations from Mines Online, is that students can complete any of these certificates back-to-back. When students enroll in a program, we hear that they do not want pauses between the certificates but be able to complete them from one step to the next.

**Question:** Will the admission requirements be the same for someone enrolling in the certificates as it would be for the master's program?

**Answer:** It is going to be very similar to our master's non-thesis requirements. You do have to have a degree in Electrical Engineering or a closely related field with a certain grade point average. We will set those automated rules so that the Registrar can automatically accept candidates. We really want to minimize the time from when students apply to when they are accepted.

**Question:** Will you be marketing just to our students?

**Answer:** There are multiple areas where we can market this towards. Some of this will be our students that doing 4+1 programs. Some will be from local companies that are interested in this. For example, we have had extensive conversation with Lockheed Martin during the summer who have expressed their critical skills shortages in, for example, RF measurements. They mentioned that if we had offered a course in this, they would send a lot of people here to do it. Since we have the RF certificate, we are hoping it will attract them in this area. We anticipate things will evolve over time and we can tailor the program even more with the Industrial Advisory Board and input from companies in the network.

**Question:** Are the courses in the program all new or are they existing courses?

**Answer:** Many of them are existing courses that we will offer in the residential format and online. If students sign up for the residential program, they will take residential courses. Some will apply to online students. They will have the option to take in-person courses but can't cross the 50% threshold. We feel this will give them an opportunity, if they choose an in-person course, to come to campus and maybe tell their friends to come too.

**Question:** Do you have budget information for the program?

**Answer:** Budget-wise, this is light. We are going to charge \$8k for an adjunct and we will only need a few. I



will get more detailed numbers to you, but no more than \$50-60k to get the program up and running and for the first year. After that, it will depend on the loads we have in our academics, the number of courses we are introducing for our residential students, and how many adjuncts we need to maintain these courses going forward.

**MS-DSCI-NT: MSNT in Data Science**

The inclusion of the online Innov8x course (INNO544).

**MOTION:** Motion to approve the MS-DSCI-NT program change by Vaughan and seconded by Jamal. The motion to approve the MS-DSCI-NT program change was passed unanimously with zero opposed and zero abstentions.

**MSPHD-ME: MS & PhD in Mechanical Engineering**

Update in language to allow 400-level courses to align with HLC accreditation requirements.

**MOTION:** Motion to approve the MSPHD-ME program change by Mark and seconded by Shubham. The motion to approve the MSPHD-ME program change was passed unanimously with zero opposed and zero abstentions.

**MSPHD-MLAS: MS & PhD in Materials Science**

Program change to eliminate redundant testing. Eric presented this to the Senate a few weeks ago.

**MOTION:** Motion to approve MSPHD-MLAS program change by Shubham and seconded by Mark. The motion to approve the MSPHD-MLAS program change was passed unanimously with zero opposed and zero abstentions.

**MEMSPHD-GEE: ME, MS & PhD in Geology & Geological Engineering**

Program change to clarify number of required course credits.

**MOTION:** Motion to approve the MSPHD-GEE program change by Mansur and seconded by Jamal. The motion to approve the MSPHD-GEE program change was passed unanimously with zero opposed and zero abstentions.

**CRTG-GISG: Grad Cert in GIS & Geoinformatics**

Program change adding two newer online courses to the program.

**MOTION:** Motion to approve the CRTG-GISG program change by Mansur and seconded by Jamal. The motion to approve the CRTG-GISG program change was passed unanimously with zero opposed and zero abstentions.

**INNO544/INNO598: INNOV8X CREATE DSCI/INNOV8X STUDIO**

We are working on a formal course number.

**MOTION:** Motion to approve INNO544/INNO598 course by Mark seconded by Vaughan. The motion to approve INNO544/INNO598 was passed unanimously with zero opposed and zero abstentions.

**Research Council Updates**

Mark Eberhart

We have two things going on. First, we had the committee settle on the junior and senior research awards.



The committee forwarded a letter listing what criteria was used to decide when choosing the award winners.

**Comment:** Since we did have strong candidates, it would be nice if the Research Council sent out a short letter congratulating them on being a nominee.

**MOTION:** Motion to approve the junior/senior research awards nominees by Shubham and seconded by Vaughan. The motion to approve the junior/senior research award nominees was passed unanimously with zero opposed and zero abstentions.

The call for REI proposals has gone out. The deadline for this is at the end of February. So far, we have only received one proposal submission.

**Comment:** Could you recirculate the announcement on Monday of the deadline week to remind people of the upcoming deadline.

### **Board of Trustees Update**

Dinesh Mehta

The Board of Trustees met February 2<sup>nd</sup>. We had a new trustee sworn in. The Board also approved financing for the sophomore housing project, which is on the south side of 19<sup>th</sup> and is part of the parking lot. There were some additional presentations and discussions on the annual report on graduates. The numbers reported employment outcomes of Mines graduates. The point was made that more students are getting employment offers after graduation. Lastly, there was a report about integrity issues specifically academic and research integrity, but nothing seemed unusual.

### **Upcoming Items and Adjourn**

Brandon Dugan

GenAI survey results (February) – Estelle is still working on the AI survey data from faculty in the fall. She’s also been working with students reviewing the data and re-submitting reports. She is also working with Vibhuti and Justin and Undergraduate Studies to look at GenAI surveys related to how we are using them in the classroom.

By-laws revisions (online document sent to Senators for input) – Please read through and flag anything worth discussion within the next 3-4 weeks.

Resources, campus space, well-being (March) – We have been discussing teaching resources and Mines@150 to figure out the best way to present the information we have received.

Campus Budget Forum (May 1) – Dinesh has been working with the President’s Office to have a broader budget discussion across campus. We scheduled a forum for May 1<sup>st</sup> at 4 pm. We may solicit questions beforehand. Look out for an announcement soon.

*Next meeting: February 27, 2024, in the Guggenheim Boardroom. Please send agenda items [faculty\\_senate@mines.edu](mailto:faculty_senate@mines.edu) 1 week prior.*



**COLORADO SCHOOL OF  
MINES**  
@ 150 | 1874-2024



**COLORADO SCHOOL OF**  
**MINES**  
@ 150 | 1874-2024