Graduate Council Minutes
May 8, 2024

Present: Benner, Bremmer, Chorpenning, Hackett, Hendricks, Limbu, Lubitow, Randol, Rissi, Sandberg, Wern, Woods, Morris, Hanson, Holmes, Treece

Absent: Holz, Ozioko, Wooster

Guests: Andrew Rice, Physics
Raj Solanki, Physics

Agenda

Minutes from April 24 meeting

Old Business

Panel 1
Maseeh College of Engineering and Computer Science
- CS 416P/516 Computers, Sounds and Music, 3 credits - new course
- CS 423/523 Rust Programming, 3 credits - new course
- CS 429/529 Exploring Fractals, 3 credits - new course
- CS 444/544 Natural Language Processing, 3 credits - new course
- CS 483/583 Introduction to Quantum Computer Science, 3 credits - new course

New Business

Panel 1
College of Urban and Public Affairs
- CRTGR in Gerontology - request for program moratorium

Panel 2
Business School
- CRTGR in Human Resource Analytics - program elimination
- CRTGR in Business Blockchain - program moratorium
- BTA 525 Applied Data Science for Business Capstone Consulting Experience, 4 credits - change credit hours from 4 to 1-4

Panel 3
College of Liberal Arts and Sciences
- MS in Semiconductor Technology - new degree program
- CH 452/552 Technology of Photoresist, 4 credits - new course

- CH 453/553 Surface Chemistry, 4 credits - new course
- PH 448/548 Electronic Materials and Device Characterization, 4 credits - new course

- ESM 458/558 Snow Hydrology, 4 credits - new course
- NAS 424/524 Cultural Ecology: Indigenous Science and the Natural World, 4 credits - new course
- WS 482/582 Topics in Global Sexuality Studies, 4 credits - new course

The meeting was called to order at 12:01 p.m.

Minutes from April 24 meeting

It was moved (Chorpenning) and seconded (Hendricks) to approve the April 24 minutes as submitted. The motion was approved unanimously.

- MS in Semiconductor Technology - new degree program
- CH 452/552 Technology of Photoresist, 4 credits - new course
- CH 453/553 Surface Chemistry, 4 credits - new course
- PH 448/548 Electronic Materials and Device Characterization, 4 credits - new course

Rissi provided an overview of the new degree program and related courses. Semiconductors is a growing field, and the Physics department already has industry connections in this area. The degree is 45 credits intended to be completed in one year, including an internship in the summer. Rissi stated that her panel determined the degree and course proposals were solid, including a good assessment plan and DEI goals. They noted overlap with other units at PSU, but not duplication of effort. Wern stated that there is too much overlap with programs provided by the Mechanical and Materials Engineering department and that MCECS does not support this proposal.

Rice and Solanki joined the meeting. Rice stated that the semiconductor industry is a bedrock in the state, employing over 30,000 people with an anticipation of 3,000-6,000 new jobs in the next five years. The program is an applied master's degree with a heavy emphasis on internship. The Physics department has existing connections and collaborations with industry, and both the curriculum and internship component were developed with industry input. These industry connections will also help with internship placements, which in many cases could lead directly to permanent positions.

Hanson asked about the internship requirement, which at 12 credits exceeds the University limit of 9 credits for a 45-credit degree. Solanki said the internship was full time for three months in the summer. A question was raised about the definition of a credit hour and whether it was possible to earn 12 credits of internship in one term; Morris will consult with the

Registrar on this issue. Rice noted that the internship could be stretched over multiple terms if needed.

Rice and Solanki were excused.

Wern again raised concerns about duplication of effort, stating this was not the best use of reduced resources. Rissi restated that some overlap was noted by her panel, but that they did not consider this a dealbreaker in a growing field. Morris noted that the FS Budget Committee has also raised concerns about the degree proposal and that it would likely not be moving to the full Senate for consideration soon.

It was moved (Chorpenning) and seconded (Hendricks) to table the proposal for the MS in Semiconductor Technology. The motion was approved unanimously.

Morris asked that the three courses still be considered as they are dual-level courses.

- CH 452/552 Technology of Photoresist, 4 credits - new course
- CH 453/553 Surface Chemistry, 4 credits - new course
- PH 448/548 Electronic Materials and Device Characterization, 4 credits - new course

It was moved (Wern) and seconded (Bremmer) to approve these three proposals. The motion was approved unanimously.

- CS 416P/516 Computers, Sounds and Music, 3 credits - new course
- CS 423/523 Rust Programming, 3 credits - new course
- CS 429/529 Exploring Fractals, 3 credits - new course
- CS 444/544 Natural Language Processing, 3 credits - new course
- CS 483/583 Introduction to Quantum Computer Science, 3 credits - new course

It was moved (Bremmer) and seconded (Hendricks) to approve these five proposals. The motion was approved unanimously.

- CRTGR in Gerontology - request for program moratorium

It was moved (Hendricks) and seconded (Bremmer) to approve this proposal. The motion was approved unanimously.

- CRTGR in Human Resource Analytics - program elimination
- CRTGR in Business Blockchain - program moratorium

It was moved (Bremmer) and seconded (Hendricks) to approve these two proposals. The motion was approved unanimously.

- BTA 525 Applied Data Science for Business Capstone Consulting Experience, 4 credits - change credit hours from 4 to 1-4

It was moved (Bremmer) and seconded (Hendricks) to approve this proposal. The motion was approved unanimously.

- ESM 458/558 Snow Hydrology, 4 credits - new course

It was moved (Chorpenning) and seconded (Bremmer) to approve this proposal. The motion was approved unanimously.

- NAS 424/524 Cultural Ecology: Indigenous Science and the Natural World, 4 credits - new course

It was moved (Bremmer) and seconded (Randol) to approve this proposal. The motion was approved unanimously.

- WS 482/582 Topics in Global Sexuality Studies, 4 credits - new course

It was moved (Bremmer) and seconded (Hendricks) to approve this proposal. The motion was approved unanimously.

The meeting was adjourned at 1:15 p.m.