Natural Sciences and Mathematics Council
Meeting Minutes for April 21, 2015
Student Union 2591 3:30 – 4:30 PM

Call to Order

- Roll Call – Edith Kippenhan
- Presiding – Gerard Thompson
- **Present:** Jim Anderson, Peter Andreana, Bruce Bamber, Jonathan Bossenbroek, Mike Cushing, Xiche Hu, Edith Kippenhan, David Krantz, John Plenefisch, Friedhelm Schwarz, Kathy Shan, Don Stierman, Sibylle Weck-Schwarz, Denis White, Yanfa Yan
- **Absent:** Hans Gottgens (excused), Tony Quinn (excused)
- **Others Present:** Dean K. Bjorkmann, Tim Mueser, Jacques Amar

Approval of Minutes of March 24, 2015 Meeting

The minutes for the meeting were presented to council via e-mail. The motion passed unanimously.

Report from Dean NSM

New Programs:

MS in Education and Science - for teachers already in the field. Started as joint project with Education and funding from the Battelle Corporation to help teachers in Appalachia to get more training in science teaching so they can teach college-level intro classes at their high school under the new College Credit Plus Program. It is now being expanded to include math and physical sciences. Courses are mostly online but there are some on-campus portions. Started with 8 students last year and have already received 20 applications for this fall.

MedTech program – received full accreditation on first attempt – congrats!

School of Green Chemistry and Engineering – is fully implemented with a budget and faculty lines

New Faculty hiring – high caliber of candidates

Pilot Bridge Program – kicked off this spring with the goal of improving retention of minority students (chosen based on application and GPA, ACT, interest, etc.). It is a joint-project between LLSS and NSM, with a cohort of 30 students. They will live on campus. They will take mock courses, study skills training, Math prep and ALEKS to get them acclimated to college. Tony Quinn is the NSM leader, Barbara Schneider the LLSS leader. It is already an incredibly successful program at University of Cincinnati. It is internally funded to start.

Challenges:

Budget – enough said, I'm optimistic about moving forward.

Retention – numbers of majors are down so we would like all faculty and staff to work on retention. We want to think of new and different ways, e.g. the Bridge program, to retain the students that are already here rather than recruiting new students.

Funding – still an issue in our current funding environment. NSM is still 3rd highest in external funding within the university.

Other issues:

New President and how we can work with her to meld goals

Provost wants everyone to look at Tenure and Promotion guidelines. In particular, there are currently no guidelines (expectations) for promotion from Associate to Full Professor.

Continue to review and streamline degree programs and keep or make them more attractive to our students. Possibly develop internships and more career-related experiences.

Promote more interdisciplinary projects and cooperations.
Recommendations for Outstanding alum are being solicited.

Curriculum Committee

Physics – a new Master's program – motivation of the proposal was to help students who were in PhD program and needed to change to the master's program, but they had to wait until next year when PHYS 6140 would be offered again. This meant they would not be supported the following year. The traditional program requires 6140. It is a project-based program; the students don't have to take PHYS 6140; they will have fewer research hours but more course hours for the degree. Once they select this option, they are no longer eligible for teaching assistantship support. See below for details of proposal.

This has been discussed in the department but not in the Curriculum Committee. The Committee, therefore, does not have a recommendation to share with council.

Environmental Sciences has something similar. An increasing number of students are getting the MS degree in this manner because all of their work is done except for research, so they are more easily able to change tracks.

Motion passes unanimously.

Graduate Council: (John Plenefisch) Alana Malik, UT Assessment Director, gave a presentation about assessment of graduate programs. Primary assessment tool are exams and tests. Publications are not as common.

Faculty Senate: (Gerard Thompson) Provost reported cost of InterLibrary Loan program. Please continue to use the program, but if you use it for your class, please download one copy and make it available to your class as each download costs money (approx. $9 per download). The amount of money spent on this is quite sizeable.

Council thanks all of those who served this past year and are leaving us. We welcome Bruce Bamber as the chair for the 2015/2016 academic year.

Meeting was adjourned at 4:40 pm.

Coursework-Intensive M.S. in Physics

For the coursework intensive M.S. in Physics the student must complete at least 30 hours of graduate credit including at least 24 hours of graduate course credit in physics, with at least 12 of the 24 hours numbered above 6000. Credit in PHYS 5900 (Research Techniques), 6010 (Colloquium), and/or 6020 (Journal Seminar) will not count toward the degree. No more than 6 hours of graduate research course credit may count towards the 24 hours. Additional hours to complete the 30 total required hours may be chosen from any courses approved for

graduate credit with the approval of the student's advisory committee.

In addition to the required coursework, a student must prepare a project report based either on literature research or independent research or a combination thereof, conducted under the supervision of the student's project advisor or co-advisors. The report should be prepared in accordance with the format specified by the advisory committee.

The advisory committee should consist of at least three members, including the project advisor who must be a full member of the University's Graduate Faculty. At least two of the committee members must be faculty in the Department of Physics & Astronomy as well as members of the Graduate Faculty. This option is only available upon consultation with the student's advisory committee.

In addition to the project report, the student should present an oral defense of the project results. The defense will involve an illustrated, public lecture by the student on his/her research before the advisory committee, interested faculty and students. This is followed by questioning from the committee, and approval of the project is contingent upon its successful defense during the questioning.

The student must maintain at least a 3.0 grade point average (on a 0-4.0 scale) for both the overall coursework as well as for courses taken within the Department of Physics & Astronomy. *Students selecting the coursework intensive M.S. in Physics will not be eligible for teaching assistantship renewal*.