

MINUTES OF
GRADUATE COLLEGE COMMITTEE ON CURRICULA

October 6, 2023

Present: N. Bird, M. Bunker, M. Conrad, S. Coon, A. Johnson, N. Lehman, R. McNeal, S. Moore, G. Olivares, A. Shafer

Absent: R. Boody, R. Chowdury, C. Christopher, S. Huffman, M. Kline, R. Kidwell

Guests: D. Mupasiri, P. Shand, T. Spradling, B. Townsend, K. Tracey, C. Weeks

The meeting was called to order by Chair Olivares at 2:30 pm in Lang 115

I. Welcome & Introductions

Chair Olivares welcomed all present.

Chair Olivares called for a vote on the September 22 minutes. The motion passed unanimously.

II. Curriculum Review Procedures for College of Humanities Arts & Sciences

S. Coon moved, N. Bird seconded, to approve the consent agenda and Department of Biology proposals.

Consent Agenda Items – Course

- COMM 4558: Interactive Digital Visualization: (Topic) (edited)

S. Coon asked if the course could be repeated on different topics. It's a topic course, but it doesn't say in the description whether or not it can be repeated. N. Lehman said the course is repeatable up to 6 credits, but not in the same term. S. Coon wondered how students could repeat it in the same term. N. Lehman said it is possible.

Agenda Items – Courses

- BIOL 3109: Plants of North America (added)

N. Bird mentioned that it's a new course, and is replacing Biosystematics. M. Conrad stated that in the syllabus there are clear differences between undergraduate and graduate outcomes. G. Olivares asked if the course would be offered at the graduate level. M. Conrad replied yes. T. Spradling said the course currently has 15 undergraduates and 1 graduate student and is running under the experimental course number.

Chair Olivares called for a vote on the motion to approve the consent agenda and Department of Biology proposals. The motion passed unanimously.

S. Coon moved, N. Bird seconded, to approve the Department of Chemistry & Biochemistry proposal.

- CHEM 3305: Environmental Chemistry (added)

C. Weeks stated that the department has taught the course three times experimentally. The last time it was taught, there were over 20 students in it. It's mostly been taken by undergraduate students, however, the department is cross listing it as graduate course. C. Weeks mentioned that the MA Science Education students who need to take a certain number of content courses in the sciences for their degree could take this course as an option. N. Bird added in that the course will have appeal to several departments. N. Bird went on to ask if the experimental course only had undergraduate students in it. C. Weeks said yes, because it's taught in person.

Chair Olivares called for a vote on the motion to approve the Department of Chemistry & Biochemistry proposal. The motion passed unanimously.

S. Coon moved, N. Bird seconded, to approve the Department of Languages & Literatures proposal.

- ENGLISH 4795: Leadership in Literary Publishing (added)

K. Tracey said this course will be an advanced practicum that has become popular with undergraduate students. The department would like it to be available to graduate students in order to enhance their editing and publishing skills. G. Olivares asked if the course has only been taught as a 4000-level course. K. Tracey responded yes, saying the graduate students will take on the leadership role. M. Conrad wondered if the prerequisites for the graduate students would be permission of the graduate college. K. Tracey said that was true.

Chair Olivares called for a vote on the motion to approve the Department of Languages & Literatures proposal. The motion passed unanimously.

S. Coon moved, N. Bird seconded, to approve the Department of Mathematics proposals.

- ACT SCI 6735: Advanced Actuarial Mathematics (added)
- ACT SCI 6784: Predictive Analytics in Insurance I (added)
- ACT SCI 6785: Predictive Analytics in Insurance II (added)
- ACT SCI 6788: Advanced Loss Models (added)
- MATH 6520: Complex Functions and Solving Polynomial Equations (added)
- MATH-MA: Major in Mathematics
- STAT 4786: Statistics for Risk Modeling (added)

D. Mupasiri stated that most of the courses are proposals for an emphasis in Actuarial Science. The society of actuaries has changed its syllabi -- many of the courses they now have are not currently covered in the UNI undergraduate actuarial science program. D. Mupasiri went on to say UNI is now entertaining 4+1 graduate program proposals. The department thought it would be a good idea for undergraduate students to get a master's degree in 5 years. It would not only be attractive to students, but also save students time. All the courses proposed are intended to cover topics that the society of actuaries are now requiring. A student who takes these courses should be able to pass the exams needed to become associates of society of actuaries. The syllabi for these courses are driven by what the society of actuaries are requiring.

D. Mupasiri explained that MATH 6520 is not part of the Actuarial Science emphasis -- it's made necessary by an HLC requirement. Students that are teaching at community colleges with a master's degree must have 18 credit hours of regular math courses. With that in mind, they've added this course to replace a math education course. B. Townsend said the course they are replacing came from getting insight from recent graduates. The graduates were being asked about their number of content hours coming from the program. If there's mathematic education anywhere in the title or description, it's not being counted. Currently, their program is a 15-15 split, however, for some of their students they were deficient three hours of the mathematical content. B. Townsend went on to say that after speaking with students, math professors, and community colleges, they figured out what another content course would look like. There was an agreement that there's a gap between mathematical knowledge that's at post undergraduate and pre-graduate school. With that in mind, they created a course that would help fill that gap. The department is adding the course in their community college emphasis and removed a course in research to avoid adding an additional three hours to the program. The research course content has now been dispersed into the other courses.

D. Mupasiri explained that the Actuarial Science graduate program would be a non-thesis program, however, they will have to pass an exit exam. S. Coon wondered if MATH 6520 is considered remedial -- what's it doing at the 6000 level. B. Townsend said he wasn't sure, because he hasn't sat in on a course yet to see what's happening. S. Coon wondered if the department intended to have the entire community college emphasis at the 6000 level. D. Mupasiri stated that it's a core program, there are no cross listed courses. S. Coon said it's unusual to see a degree all at the 6000 level. G. Olivares said the department is adding an emphasis to the current MA, rather than a new program. D. Mupasiri brought up the fact that the department could partner with other schools and have students take courses at UNI. Doing so would give the department additional students. S. Coon wondered if the 4+1 would be on the actuarial science emphasis along with the math emphasis. D. Mupasiri said the Math 4+1 was already

approved, this is just for the actuarial science emphasis. S. Coon went on to ask if the department has one in secondary teaching as well. D. Mupasiri responded saying they don't due to the lack of faculty. B. Townsend said their applications procedures have become more stringent so they can service everybody.

N. Bird asked the Registrar's Office about the electives stating 'select nine hours including one or more of the 6000 level' -- due to actuarial science and stack courses, could there be an inset stating 'at least one of the 5000 and 6000 levels'. Even though there's different codes at the start, students may not get to the bottom to see there are other 6000 level courses they could take. The Registrar's Office will order the courses by 5000 and then 6000 level courses.

Chair Olivares called for a vote on the motion to approve the Department of Mathematics proposals. The motion passed unanimously.

S. Coon moved, N. Bird seconded, to approve the Department of Physics proposals.

- PHYSICS 4500: Biological Physics (added)

P. Shand explained that the courses being proposed are new courses. However, as far as PHYSICS 4500, a UNI Physics professor has always wanted a biological physics course to teach. They were unable to introduce the course until now because the department is introducing a new emphasis – BA Physics emphasis in Physical Chemistry. PHYSICS 4500 would satisfy an applied physics requirement for the new Physics emphasis.

N. Bird asked if the course has been taught as an experimental course. P. Shand said it has not been. N. Bird stated that he was concerned because there wasn't much undergraduate/graduate level differentiation. P. Shand said according to the professor who would be teaching the course, there's a huge scope for the introduction for advanced work. Readings will be introduced that go beyond the undergraduate level, assignments would have additional problems with more sophisticated expectations, and a project which would allow students to go beyond the undergraduate expectations. S. Coon suggested that the department put that in the syllabus.

A. Johnson asked about the proposal stating that there's budgetary changes/staff overload and what the department is doing with that. P. Shand said UNI is introducing a new Materials Science and Engineering program, where 2 or 3 of the courses required in the program will be taught by a Physics faculty member. P. Shand explained that the Physics faculty are already well occupied so this additional load will create overload situations.

- PHYSICS 4760: Computational Materials Science (added)

P. Shand said PHYSICS 4760 would be a required course in the new Materials Science and Engineering program. The department thought it would be a way to strengthen the new engineering offering if they had a specific course dedicated to that study. The course would introduce a unique requirement that would strength resumes for students because it is unusual for a Materials Science and Engineering program to have a computational materials science requirement.

N. Bird commented that one of the prerequisites is CHEM 4420, this course has prerequisites of CHEM 1120 or CHEM 1130 – these are in the new Physics emphasis, but the current Physics BS major doesn't have CHEM 1120 or CHEM 1130 in the program. N. Bird also brought up the fact that that the link to the course syllabus is broken. P. Shand passed around a similar course syllabus for the committee to review – they approved it.

Chair Olivares called for a vote on the motion to approve the Department of Physics proposals. The motion passed unanimously.

III. Next Meeting – Friday, October 13, 2:30 pm, Lang 115

The meeting adjourned at 3:15 p.m.

Respectfully submitted,

Ava Shafer

Office of the Registrar

cc: UCC

GCCC

Guests

Record Analysts