

University Committee on Courses and Curricula

Meeting Minutes – November 17, 2017

Present:

AbdulRahman Alsamman, Amanda Athey, Sarah Berry, Uttam Chakravarty, Janet Crane, Kraig Derstler, Kimberly Echols, Yvette Green, Dan Harper, Linxiong Li, Caroline Noyes, Adam Poyner, Martin Smith, Rajni Soharu, Thomas Wright

Absent:

Woohyun Cho, Erik Hansen, Jan Janz, Natalie Scott, Whitney West

Quorum was established for undergraduate and graduate voting members in attendance.

The meeting minutes from 10/10/17 were approved.

Representatives from the College of Sciences and the College of Engineering were invited to the meeting to discuss the proposal to create ENCE 2327 – Fundamentals of Engineering Chemistry. Dean Dr. Emir Macari, Dr. Enrique La Motta, and Guillermo Rincon attended on behalf of the College of Engineering. Dr. Mark Trudell attended on behalf of the Chemistry department and the College of Sciences.

Dr. Macari indicated that the College of Engineering was at a distinct disadvantage in connecting with their students because they traditionally do not take classes within the college until junior year. ENCE 2327 could serve as an entry point class. In considering courses to serve as an entry point, a Physics course as well as a Chemistry course were considered. The Physics course was ruled out because of the Calculus I requirement. A Chemistry course selected because there no prerequisites that would prevent students from enrolling. Dr. La Motta remarked that prior to former UNO President Fos' tenure, there was a Chemistry Engineering course in place along with close to \$4M of support. The course and its program have since been inactivated. Dr. Macari indicated that the creation of the course could also serve as the initial course for a future concentration. Dr. Rincon has the credentials to teach the new course and currently teaching water treatment and quality which includes principles and elements of Chemistry. Dr. Rincon indicated that the course would bring students in contact with the college sooner as well as better prepare them for future engineering courses. Within the College of Engineering, there have been questions regarding whether existing Chemistry courses are adequately preparing students for engineering courses. The creation of this course could resolve this knowledge gap. Per Dr. Macari, the college previously required 2 semesters of chemistry but the course load was reduced so that students only needed 127 credit hours to graduate from engineering.

Dr. Trudell conceded that he did not do his initial due diligence when he originally signed and approved the proposal. However, upon further review, he determined that the creation of the course would potentially result in a loss for his college. Additionally, he believes that courses should be taught within their corresponding discipline. The creation of this course could open the doors toward other cross college courses such as Biological Physics. The Chemistry department offers support to students by way of free tutoring and supplemental sessions. Dr. La Motta stated that teaching Chemistry for engineers is a challenge that is heavily documents in academic journals and that an engineer is best suited to teach a Chemistry course that caters to the needs of engineering students. Dr. Rincon remarked that when students finally take classes within the College of Engineering, they are underprepared and no longer seek out support from the Chemistry department. He indicated that the course could help in three ways: increased retention, increased connections with student organizations, and increased mentoring opportunities.

The college representatives answered questions from the committee. Dr. Derstler asked if shared teaching had been considered. Dr. Macari stated that it had not been discussed. He did indicate that the proposed course would include materials from the Fundamentals of Engineering exam which is part of the licensing process on the way to the Professional Engineering certification. Their accrediting body requires its' students to take the Fundamentals exam as a graduation requirement. They do not have to pass it, just simply take it. Dr. Derstler also inquired about a chance for more cooperation between the departments. Dr. Rincon stated that the course could be used in the creation of future minors and serve as a prerequisite for future courses. Dr. Trudell indicated that there are currently no prerequisites for Organic or Physical Chemistry. Dr. Li indicated that the descriptions for the proposed course and CHEM 1017 seem to overlap. Dr. Green asked if the intent is to swap this course for the current Chemistry requirement and if so, how are the courses different. Dr. Macari indicated that the course would be different from existing general chemistry courses because of the greater

emphasis on the applications of chemistry in engineering. Dr. Trudell countered that the topics mentioned in the description are covered in the existing general chemistry courses. Dr. Green inquired about stop gaps for failure. Dr. Macari believes that this new course could help students not just prepare to take the Fundamentals exam but to actually pass it. Dr. Macari and Dr. Rincon indicated that this course could be 1 of 4 potential new courses that lead to the creation of a new minor or concentration. Dan Harper asked about enrollment caps to which Dr. Macari responded that the course would have 20-25 seats. In response to Janet Crane, Dr. Macari confirmed that the course would only be open to engineering students. Kim Echols confirmed that the introduction of this course would have an effect on the curriculum for engineering students. Dr. Noyes indicated that the Board of Regents would reject the course for two reasons: 1) not being specific enough about why the course is needed, 2) being considered as part of the general education requirement. Dr. La Motta countered at that in years past that the Board of Regents had approved a Chemistry for Engineering course which has since been discontinued. Drs. Macari, La Motta, Rincon, and Trudell were thanked for their time while the committee further discussed the proposal.

Dr. Li recommended asking the departments to review the content of CHEM 1017 as all students, regardless of program, are required to take it. Dr. Chakravarty and Dan Harper agreed and called for a review of the syllabi for CHEM 1017 and the proposed course. Dr. Noyes raised concern regarding the proposed course's impact on the curriculum. She recommended that going forward, the Add A Course form be updated to require departments to indicate how a new course will fit within a given curriculum.

The committee voted on the proposal with the following result: Yays - 1, Nays - 6, Abstentions – 1. The course was denied.

The colleges will be informed of the committee's decision and provided with the following recommendations: 1) conduct a review of the syllabi of CHEM 1017 and ENCE 2327, 2) conduct a review of the prerequisites of the existing and proposed course, 3) confirmation if ENCE 2327 would be used to replace CHEM 1017 for engineering students, 4) determine how engineering applications can be included in existing CHEM 1017 course such as a 1 hour lab.

Proposals

Course/Number	Course Title/Degree Title	Action	Status
ENCE 2327	Fundamentals of Engineering Chemistry <i>Tabled from last meeting</i>	Add	Denied
ENCE 3318	Principles of Hydraulics	Change	Approved
FIN 6300	Financial Administration <i>Need to clarify the prerequisites</i>	Fast Track	Tabled
ECON 6200	Managerial Economics	Fast Track	Approved
FTA 4110	Scene Design	Fast Track	Approved
FTA 5110	Scene Design	Fast Track	Approved
TRNS 7000	Thesis Research <i>Tabled due to lack of syllabus</i>	Add	Approved
TRNS 7040	Examination or Thesis Only <i>Tabled from last meeting due to 0 credit policy</i>	Add	Approved
PHYS 4902	Materials Science Laboratory	Add	Approved

	<i>Tabled for more information is needed about the graduate assignments and grading scale</i>		
PHYS 5902	Materials Science Laboratory <i>Tabled for more information is needed about the graduate assignments and grading scale</i>	Add	Approved
IS	B.A. in International Studies <i>Tabled from the previous meeting due to courses not being offered</i>	Curriculum Change	Tabled
PLUS	M.S. in Urban Studies <i>Tabled from the previous meeting, missing signatures and course lists for concentrations</i>	Curriculum Change	Tabled