

Minutes from the College of Engineering Curriculum Committee, Sept. 9, 2010

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Biology Requirement

1. Should the College require a biology course for graduation?
 - a. Determining the curriculum is a faculty prerogative.
 - b. The College curriculum committee would need to recommend this to the College faculty senate for approval by a majority of the engineering faculty.
 - c. This is not an issue for CEE students, who are already required to take a biology course.
 - d. It is less of an issue for ME students, who are allowed to use Biol 171 as a TE.
 - e. If the EE department allowed a biology course to be counted as a TE, no additional course would be required.
2. Do all community colleges offer an acceptable biology course? If not, then at least one acceptable biology course would need to be offered by distance.
3. **Is there sufficient capacity for the biology department, or biological engineering, to handle the demand of an additional 100+ students per semester in order to accommodate all the engineering and pre-engineering students who presently are not required to take a biology course?**

First Three-Semester Common Core

1. A common core is desirable to ensure that courses offered at the other nine campuses will have sufficient enrollment (as well as to facilitate UHM students changing majors). Presently, if one of the engineering programs do not require course X, and there are non-UHM students who want to transfer into that program, then there may not be sufficient demand to allow the other campuses to offer it. However, if course X is regularly offered by distance, then this is not an issue.
2. The courses that are not required by all three programs in the first three semesters are: EE 160, EE 211, and CEE 270. However, students who take EE 160, EE 211, or CEE 270 are allowed to have these courses credited towards graduation in all three programs. EE 160 is allowed as a replacement for Math 190 in ME, EE 211 is allowed as a TE in CEE, and CEE 270 is allowed as an EB (engineering breadth) in EE. Therefore, changing majors up until the start of the fourth semester should not result in a graduation delay.
3. All these three courses are, or will be shortly, offered by distance; consequently, the existing curriculum check sheets will not need to be changed to require these courses to accommodate the other campuses.

Entrance Exam for Admission to Upper-Division Engineering Courses

Bob Grace is developing an math-focused entrance exam that students would need to pass in order to be allowed to take CEE 3XX courses. EE and ME were interested in this concept. The question is how to administer this exam, which would presumably need to be offered every semester. The results would provide useful information to the math subcommittee

Math Subcommittee

(Anders Host-Madsen, Michelle Teng, Beei-Huan Chao, Marcelo Kobayashi)

An initial meeting was held at the beginning of summer 2010 with the Math department. A report from Anders and follow-up will be given at the next curriculum committee meeting. Primary concern is whether our students are being exposed to the appropriate curriculum for use in engineering classes. In the past, four math courses covered calculus through differential equations. Presently, five math courses are required. Given that chemistry used to be taught in one semester, and now requires two, this has resulted in two additional courses (6 credits) needed for graduation.

ENGR 101 Subcommittee

(Tep, and other interested faculty...)

This would be required course for all engineering students to take in their freshman year. It would be similar to what is being done now, but at a larger scale since it is entirely voluntary at the present time. Again, this would be subject to approval by the college faculty senate and, presumably, would need to be offered by distance to ensure access by all UH students unless we would waive it for transfer students.

Bruce Liebert