CCGB Meeting Agenda, November 12, 2010

1. Approval of minutes
2. Undergraduate announcements
3. Advisor Approved Electives
4. ENGRI Distribution
5. Biology Courses for Engineers

CCGB Minutes, October 29, 2010

Ex-Officio: K. Dimiduk, L. Schneider
Other: C. Pakkala

Approval of Minutes: The minutes of the 10/22/10 CCGB Meeting were approved as written.

Undergraduate Announcements: K. Dimiduk stated that Phillips 101, Kimball B11, and Upson B17 are getting AV equipment upgrades during January. She will have an open house sometime in January and will send out an announcement about it. D. Gries said that undergraduate education was discussed at the ECC Meeting last April, classroom technology was discussed, and the need for upgrades came out. K. Dimiduk and others spent two months making an inventory of needs in all classrooms in Engineering, and John Swanson and others came up with $200,000 to fund the upgrades.

Definition of an ENGRD Course: S. Baker said that he looked up the definition of engineering and thinks that it is broader than “design and analyze”. D. Gries agreed – he had looked it up during the last meeting.

E. Fisher said that using the term “common curriculum” seems ambiguous. D. Gries said that the Engineering Handbook defines what common curriculum courses are. S. Baker asked if the word “science” should be deleted from the definition. Adding “science” begs the distinction between engineering and science courses. N. Mahowald said that she was concerned that EAS courses would not be covered under this definition. S. Baker said that the definition doesn’t exclude any students from taking the courses; it just says what courses are intended to accomplish as ENGRDs.

There is a question of whether 2030 would remain an ENGRD course. W. Philpot said that 2030 will be in the department core curriculum so it doesn’t matter if it is an ENGRD. E. Fisher said that it can be eliminated as an ENGRD course without affecting departments for which the course is required.

S. Baker said that we are not trying to fit the ENGRD definition to courses that we already have; rather we are trying to find a definition that is appropriate to the goals and values of the college. D. Gries said that the existing ENGRD courses can be grandfathered in. S. Baker said that the BEE class ENGRD 2600 is a problem because it challenges the definition of an ENGRD. E. Fisher said that she feels the BEE major is counting on the course as an ENGRD and wondered whether we want to force them to change the course to meet the definition. W. Philpot said that the BEE course ENGRD 2510 is the one they really rely on. The Environmental Engineering major requires ENGRD 2510.

S. Baker stated that the Curriculum Task Force recommended that Engineering identify biology courses that could be used as substitutions in the engineering curriculum. D. Gries emphasized that existing courses should be grandfathered in and maybe they could change, but we won’t force them.

S. Baker said that he thinks we should add biology to the common curriculum. N. Mahowald suggested that we consider including biology in the math/science/computing core in some way. S. Baker said that students who take the core courses should be able to take the ENGRD courses. Courses should be accessible to as many engineering students as possible. The Common Curriculum includes lots of things.
N. Mahowald said that Engineering requires 2 ENGRD courses. Some BIO 1101, 1103, 1107 and physical chemistry courses count as an ENGRD. S. Baker said that BIOG 1101 seems more like a core science than an ENGRD. Counting it as an ENGRD means that an Engineering student could take only 1 ENGRD in Engineering and still graduate with an engineering degree. D. Gries said that in 1994 there was a motion to include CHEM 389 and BIO courses in the CHEM/BIO area. These courses weren’t given ENGRD numbers. S. Baker doubted if those courses fit the ENGRD definition. E. Fisher said that the CHEM/BIO Committee should look at that.

N. Mahowald moved to accept the proposed ENGRD definition. E. Fisher seconded the motion. The vote was unanimously in favor of adopting the proposed definition:

ENGRD courses are designed to provide depth in fundamental, but broadly applicable engineering and applied science topics. ENGRD courses build on the basic sciences (physics, chemistry, biology), computing, and math and make a first quantitative link to applications. Each ENGRD course should introduce students, in depth, to skills and concepts that will be broadly applicable in subsequent engineering courses and will allow them to describe the world in a quantitative way and to engineer devices and processes. Breadth may be accomplished by taking ENGRD courses from different disciplines. An ENGRD course must (1) require at least one prerequisite from the common curriculum math, science, and computing courses and (2) require no prerequisite outside the common curriculum math, science, and computing courses.

Discussion of an ENGRD Course Proposal (EAS 2200): N. Mahowald said that the course that EAS 2200 replaces was accepted as an ENGRD. Bill White is the instructor for this course. It introduces skills and concepts broadly applicable for subsequent courses. It also introduces students to specific skills.

B. Kusse asked if there are prerequisites for the course. N. Mahowald replied that Math 1110 or 1910 is a prerequisite. Physics should also be one, and she will ask Bill White about that. W. Philpot said that even with those prerequisites it should qualify as an ENGRD. S. Baker said that courses in this category should be fairly general for students. The ENGRD courses should not be used only as a path into a major. They should be courses that any engineering student could take. D. Gries said that the course will be useful for BEE, ENVE and CEE.

B. Kusse said that the category the course fits in should be stated. N. Mahowald said that it falls in Category 7, Earth & Life Sciences. It replaces ENGRD 2010, which isn’t offered right now. S. Baker said that the titles of the current ENGRD courses seem appropriate except for 2100, which suggests it is only for ECE students. Engineering students from various disciplines should take it; it should not just exist for the ECE majors. N. Mahowald said that the EAS 2200 course is listed under CALS and not Engineering, even though it should be cross-listed. S. Baker suggested that the online course description be modified to broadly appeal to Engineering students. W. Philpot said that the CCGB will revisit this topic next week.

The meeting adjourned at 9:00 a.m.