Minutes of the Engineering Undergraduate Studies Committee (EUSC)
February 12, 2014

Present, EUSC: Rothwell (ECE), Lyles (CEE), Sticklen (AES), Brereton (ME), Lee (CHE), Masten (ENE), Owen (CSE), Wolff (DE), Mena-Lapaix (Student), Al Dhaneem (Student)

Absent, EUSC: Liao (BAE), Mahapatra (ECE, UCC)

Also present: Idema (DE), Lunt (ChEMS)

1. Agenda: Approved, with the exception of deferring discussion of the Teaching Effectiveness Task Force report to a later meeting.

2. Minutes of January 22, 2014 were approved as written.

3. Student Concerns. The student representatives provided an outline of topics for consideration by the committee. These covered three topics below.

   - Request that we require an Engineering Economics course to cover micro and macroeconomics, accounting, engineering economics, analysis, decision making, ethics, managerial finance, and international financial management, using spreadsheets, case studies, applications in each major and presentation skills.
   - Concerns with EGR 102, requesting better integration of the lecture and lab, discussion of the role of linear algebra and differential equations in the course, more use of MATLAB in higher courses, and removing the EGR 100 prerequisite.
   - Posting minutes of the EUSC online.

Regarding the Engineering Economics proposal, it was noted that topics that would be taught by the economics department (micro, macro, etc.) needed to be considered separately from “Engineering economics,” sometimes called cost engineering, which focuses on decision making among alternatives.

It was noted that various departments address this in different ways, with CEE having a one credit module in CE 272, ME having a substantial component in ME 481 (a sample was circulated), but other departments doing little to nothing in their curricula. It was further stated (Lyles) that faculty understand the importance of the subject matter for certain if not all majors, and a large enrollment course was in place on the quarter system and briefly into the 1990s on the semester system. However, a problem is that this is not a research area for any faculty, and we have not hired instructors to do this.

The committee will take back to their departments for further consideration.

Regarding the EGR 102 concerns, Wolff noted that these were raised in past years and the EGR 102 instructional team has been working to address them. The instructional team will be invited to present at a future meeting this spring. The EGR 100 prerequisite is to be removed in a proposal to the EUSC yet this spring.

Regarding posting minutes online, this has been done.

4. Review of Directors and Associate Dean. Dr. Sticklen stepped out of the room during the discussion. Concerns focused on the volume of constituents that might be contacted, whether the review should be by the supervisor only, and not the committee, and was the effort worthwhile if the incumbents were most likely to be reappointed. Pending a discussion with Dean Kempel, Wolff suggested that the committee approach the review from a programmatic viewpoint, rather than a
personnel viewpoint, and comment as to how the activities relate to the missions of the office and the college.

5. Proposal for an Energy Minor in the College of Engineering. With only a few minutes left in the hour, Richard Lunt of ChEMS described a proposed college-wide energy minor. While it uses a large number of courses in the engineering majors, he described paths for each major that would involve the minimum 15 credits of non-required courses. However, some of these would require overrides for students to access classes in other majors and without some specific prerequisites. As the proposal would be college wide, and involves course seat access, the proposal needs to be brought back to departments for discussion.

Meeting adjourned at 4:00 pm

Respectfully submitted,

Thomas F. Wolff