Members Term Expiring
Pablo Carrica May 2012
Soura Dasgupta May 2013
William Eichinger May 2012
Eric Nuxoll May 2013
Keri Hornbuckle (ex officio) May 2013
Caitlin Andersen (Student Representative) May 2011
David Wilder (Chair) May 2011

General Charge

The Curriculum Committee shall be responsible for reviewing and evaluating all existing and any proposed curricula within the college, for reviewing and evaluating all existing and any proposed courses taught within the college or required in any of its curricula, and for making appropriate recommendations to the dean and the faculty.

Specific Charges, Recommendations and Rationales

1. Review Course Activity Reports (CAR) for the College of Engineering core curriculum courses (59: xxx & non-college courses) in coordination with the core course coordinators. Include an analysis of the format and the level of detail that should be required in the CARs. If specific problems need addressing, either with the overall process or with individual courses, report these to the EFC.

Recommendations:

a) Instructors should receive a copy of the most recent CAR prior to the beginning of the semester. If this was routed through the Dean’s office it would reinforce the CAR’s perceived importance.

Rationale: In most cases instructors are not receiving a copy of the CAR until after they have completed the course. The instructor should know the desired outcomes of the course prior to teaching the course, and the history of changes and observations made in previous offerings of the course should help the instructor provide a more effective course.

b) The quantitative portion of the CAR should be removed.
Rationale: Only one core course had a current CAR with data that could even superficially be perceived as quantitatively assessing specific course outcomes. Even there, it is unclear that data from different semesters can be reasonably compared. Without systematic assessment of outcomes with prolonged semester-to-semester continuity, such data cannot be obtained. The numbers currently generated instead could possibly have a negative impact if mistaken for real data. There appears to be no use for the data external to the College. The qualitative portion of the CAR, detailing changes and observations about the course, appears to be universally valued. It is likely that this part of the CAR will be completed more promptly and thoroughly without the burden of supplying quantitative data.

2. Work with the reformed Leadership, Ethics, and Professionalism (LEAP) committee to implement the recommended strategies within the College Core Course Curriculum. Monitor the results of the strategies for sustainability and effectiveness of the initiative.

**Recommendations:**

a) Develop a 1-hour LEaP course sponsored by the Professional Development Center. Phil Jordan has agreed to teach the course. This course would be intended for the 2nd semester of a student’s sophomore year. The course would be a part of the coop/internship program and would cover topics in leadership, interviewing, ethics, and transition skills.

Rationale: The Dean wants to do this. Phil intends to offer the class next spring. Phil and William Eichinger will coordinate to create the course.

b) An emphasis be put on the standard format for problem solving developed by EPS I. This format or a variant should be used by core level courses.

Rationale: This is a long term effort to encourage professors to use the EPS1 format (or some equivalent). The EPS1 format was sent to all of the course coordinators last year and will continue to be sent.

c) We also recommend to the university the adoption of an Honor Commendation for Leadership. This commendation would recognize student activities (Concrete Canoe, SAE race cars, etc), regional meetings, leadership of professional organizations, and membership in College committees (Undergraduate Curriculum for example).

Rationale: Kelli DelFosse has been charged with supporting and promoting the honors commendations and related honors activities. That these activities are appropriate for honors commendations has been confirmed, and all a student must do is to discuss the activity with the honors program. The Honors Program makes the decision but Keri Hornbuckle has spoken with them. Our goal now is to make this more obvious and straightforward to our students.

This summer, the Student Development Center (SDC) is reorganizing the SDC website. The honors commendation procedures will be included in our redesign to better serve our students. In the meanwhile encourage students to apply their leadership activities to the Honors Program for commendation. You can also point them to Kelli for specific advice.
d) The committee would like to open a dialogue with the faculty during the spring meeting to begin an effort to emphasize professionalism in the classroom.

Rationale: Simply put, we believe that professors should emphasize the attitudes and practices that our graduates will maintain in their professional careers. For example, homework should be done to the standard that an engineering company would require. Requiring the kind of behavior in the classroom that they will be expected to deliver when they graduate is not only good preparation, but also an opportunity to raise the standards of the classroom.

3. Monitor the progress of and provide input to the Math Department as it considers ALEKS for math placement, especially taking into account the effects of mandatory placement on engineering student time-to-degree, transfer students, and AP credits.

**Recommendation:**

a) That ALEKS (Assessment and LEarning in Knowledge Spaces) replace the Math Placement Test (MPT).

Rationale: The College of Liberal Arts and Sciences (CLAS) is doing a pilot this year and all their students will take the ALEKS test. CLAS new students (except transfers) will be required to take the course they place into (or rather, cannot take a course at a higher level than they place).

College of Engineering incoming students are taking the old MPT this spring, not ALEKS. Megan Allen is retrieving the results for each student as soon as it is available and starting May 1 will inform students that do not place into Engineering Math I that they should take review courses over the summer and retake the MPT to try to get into Math I. We will evaluate the effectiveness of this approach this summer.

Next year, CoE incoming students will take ALEKS. The Associate Dean is comfortable with this. She has learned a lot about the ALEKS process. It is much better than the MPT process and will be more useful for our students. It also includes review and learning online modules. She looks forward to seeing how those work for CLAS this summer.

4. Continue to monitor the issue of instructor continuity and course quality for the math, physics, and chemistry courses in the College of Engineering curriculum.

**Recommendations:**

a) Add to the CAR of classes directly dependent on these classes a description of student preparedness in these areas.
Rationale: In a survey distributed to the appropriate instructors, insufficient numbers of responses were returned to make any meaningful assessments.

b) Obtain electronic copies of exams and syllabi from the math, chemistry and physics courses for review by the College of Engineering Curriculum Committee.

Rationale: We continue to hear stories from students who are comfortable with their skills in these classes, only to be surprised by the style of the exams. We would like to determine whether students must take a “high-stakes” multiple choice exam (with 7 questions in one case) or are they given an opportunity to show their work in the exams?

c) Work with the CoE Dean’s Office to determine how to capture information on how to keep the “best instructors” teaching math, physics, and chemistry courses.

Rationale: If we can determine the characteristics of the best instructors for those courses, the CoE can encourage the relevant departments to ensure their instructors have those characteristics.

5. Develop an action plan (timeline and tasks) to implement the recommendations to improve the Rhetoric experience of and usefulness for engineering students. Continue discussions with the Rhetoric Department and the Center for Technical Communication as part of shaping this plan.

Recommendations:

a) That the Director of the College of Engineering, Hansen Center for Technical Communication (CoE CTC) use his discretion in working with Rhetoric to optimize the Rhetoric experience of and usefulness for engineering students. At the end of every academic year, the CTC Director will report (to the CoE associate dean for academic programs) on the improvement of communication skills in the engineering students and to interact with Rhetoric as needed.

Rationale: The action plan has been developed and set in motion. We (David Wilder, Scott Coffel and Jennifer Ambrose of the CTC) met with Steve Duck (Interim DEO of Rhetoric and Communication Studies) and Cinda Coggins-Mosher to discuss the interaction between engineering students, rhetoric and the CoE CTC. Rhetoric were receptive to our proposal to speak at the orientation of their TA’s (PDP) about the engineering students as a unique constituency. They welcomed the opportunity because they value the opportunity to work with perspectives unique to engineering students. It is useful that both Coffel and Ambrose have a long-standing affiliation with rhetoric, having both been rhetoric instructors. In addition, Coffel and Ambrose understand the unique needs of goal-oriented communications that engineers practice. They promise to be an effective bridge and plan to continue working with Rhetoric.

b) Provide to Rhetoric examples of communications in the engineering arena
Rationale: The TA’s in Rhetoric do not have a background in communication in technical areas. Rhetoric would greatly appreciate examples of typical communications that occur between engineers, between engineers and non-engineers, between engineers and materials suppliers, etc.

6. Monitor the progress of and provide input to the committee developing a motion this semester for the College of Engineering Faculty to implement the Engineering Grand Challenge Scholars Program.

This has been implemented. We are now one of 11 certified programs in the United States and students have applied to it.

7. Propose new names for EPSI and EPSII that reflect course content and avoid misconceptions of sequential course material.

**Recommendation:**

a) Starting in the Fall of 2012, rename EPS-I to be “Introduction to Engineering Practice” (with a possible nickname of “IEP”) and EPS-II to be “Engineering Problem Solving” (with a possible nickname of “EPS”).

Rationale: This is to reduce confusion in advising (EPS-I and EPS-II sound as if they are sequential and that EPS-I is a pre-requisite for EPS-II).


a) Consider development and adoption of an Honor Code, especially with respect to cheating and ethics.

b) Create Honors Sections for classes

c) Follow up on implementation of prior charges