

Engineering Faculty Council

Meeting Minutes

August 25, 2015

11:00 a.m.

202 Hammond, Stavelly Conference Room

Present: Amr Elnashai, Harsha Garimella, Chris Giebink, Esther Gomez, Gary Gray, Igor Jovanovic, Megan Marshall, Blaine Prichard, Christine Masters, Peter Butler, Ronald Land, Sven Schmitz, Terry Speicher, Conrad Tucker

1. Approval of minutes for the meeting of April 14, 2015
Unanimously approved.
2. Updates from the Undergraduate Studies Committee (Megan Marshall)
 - Last meeting in April 24
 - 3 proposals: 1 new course AE 468, 2 program change proposals with minor changes: i) Nuclear Engineering: change in CMPSC requirement in major, and ii) Civil and Environment Engineering: Drop electrical engineering service requirement EE 211 or 212 because no longer required in Fundamentals in Civil Engineering exam.
 - All course program proposals approved by Undergraduate Studies Committee.
 - EFC unanimously approved the suggestion by the Undergraduate Studies Committee.
3. Updates from the Graduate Studies Committee (Esther Gomez)
 - No updates.
4. Updates from the Engineering technology Committee (Ronald Land)
 - No updates.
5. Updates from Faculty Senate (Igor Jovanovic, on behalf of Peter Butler)
 - No faculty senate meeting since last EFC meeting.
 - Senate council short of 1 senator from CoE as Peter Butler transitions to new appointment as Assoc. Dean.
 - The new person will report to EFC on resumed senate activities at the next meeting.
6. Dean's Report (Amr Elnashai)
 - 1-Year M.S./M.Eng Degrees:
Programs were approved in Jan./Feb. 2015. A total of approx. 2300 applicants across all 13 programs. There were 119 people accepting offers as a result of more than 400 offers that were made. One of the reasons for less students accepting offers is associated with a limited time that had been available for advertisement after the program was approved by the university earlier this year. The 1st-year target (as stated in original proposal to Provost) was 85 students, hence 119 is up to target. This year, the departments of EE and AERSP have most students entering 1-year M.S./M.Eng. programs. The CoE hopes to offer 2 additional programs next year (15 programs total), one of which is Nuclear Engineering and a professional degree in nuclear security. As the program expands, there may be the need for a CoE academic coordinator of the programs. The CoE expects about 190 students next year and up to 500 students in five years. The 1-year M.S./M.Eng. programs are financially significant to the CoE as 80% of the tuition is split between the CoE and the academic units offering the program(s). It is the only new revenue stream for the CoE in the foreseeable future.

- Blueprint for Global Preeminence in Engineering:
 This document is currently in preparation and comprises a 5-year plan for the CoE. The purpose of this document is to present it to the Provost as a single request from the CoE. It is anticipated that the document will be submitted by the end of the year. Over the past 2 months, academic units have contributed 1 consolidated page on the status of the department and 1 page from each department on desired number of new faculty lines and the expected impact of investment from the CoE and the university. The document further contains 1 educational and 4 research thrusts that were developed by small committees (as posted on the CoE websites). The CoE has further sent a questionnaire to the top 25 engineering colleges asking for voluntary data on office/lab space, the number of undergraduate/graduate students, tenured vs. non-tenured faculty, etc. to be added to the document. A technical editor has been hired for composition and graphical design.
 New engineering building: The CoE will present shortly plan for the new building to the PA governor with stated benefits to the commonwealth. At present, the idea is to have \$80m from the state, \$40m from the university, and \$30m from CoE fund raising.
- Faculty Hiring Update:
 Hired 31 people (30 externally) after 40 offers that required approximately \$25m in startup. There will be significantly less hiring next year. The CoE has hosted a hiring workshop for departments where experiences and suggestions have been shared. The slides are available on the CoE websites.
- Entrance to Major:
 Department heads & Assoc. Deans investigate pros/cons of students entering major upon start as most universities do. There are 2 major pros: i) exceptional students may be lost otherwise to other majors/schools ii) more control on student numbers in college, The Provost supports this, if the CoE approves. The CoE will be asking EFC to be heavily involved in reaching out to unit faculty and reporting back to EFC. Challenging issues at campuses have to be discussed.
- Climate Survey:
 We do not have a systematic level of assessment on satisfaction of undergraduate/graduate students as well as faculty and staff. The CoE is working with Rankin & Associates and a planning committee chaired by Tom Litzinger to design surveys. After meetings between committee and consulting firm, a survey is now being developed and to be launched in Spring 2016. The results will be comprehensive including students/faculty/non-tenured etc. Recommended actions will be based on survey. The first survey is to establish a baseline that will be assessed again after 2-3 years. The survey encompasses educational, personal, work environment, harassment, equal-opportunity and other measures for well-being. A website is being designed; a draft survey will be available for CoE faculty for comment.
- Project-Based Learning Initiative:
 Dean Elnashai visited the Franklin W. Olin College of Engineering in Boston MA. This is a small college (3 departments, 350 students total) dedicated to education based on project-based learning. The benefits of this type of education and learning are well documented. The Dean visited and followed classes and sessions to help universities to teach students in this way. The idea is to run a small program at Penn State CoE and to attract high GPA students. A project-based learning committee was formed that decided on what universities they want to survey globally who are following this type of teaching philosophy. This committee will recommend to Dean's office, if there is a system that suits Penn State CoE; the Provost is willing to review CoE proposal of class of 40-50 students.

- Multi-Campus REU:
The first round of REUs between the campuses and UP was a success. A total of 33 students from 6 campuses participated with 24 campus and 22 UP faculty involved. The programs lasted 6 weeks, with students spending the first and last weeks at UP. Students presented posters, and short research papers will follow. The feedback was very positive, a meeting will be held in October to discuss PSU-wide REUs.
- BEU – Business Experience for Undergraduates:
The idea is that a very small group of (10-12) students would learn how to do a business plan for an emerging product. The program is estimated to be approx. \$200k per year shared between the Provost and the Colleges of Business and Engineering.

7. Other Business (Igor Jovanovic)

- EFC Roster:
 - New IE and AERSP representatives still pending, should be filled at next EFC meeting
 - Graduate student representative still pending election in graduate student council
 - Ester Gomez has agreed to chair GS&R; Chris Giebink will chair USC
 - Zoubeida Ounaies and Gary Gray agreed as additional 2 members of USC
 - Still 2 USC and 2 GS&R members missing; suggestions/nominations welcome