Engineering Faculty Council

Meeting Agenda
April 5, 2016
11:00 a.m.
202 Hammond Building

1. Approval of minutes for the meeting of March 15, 2016

2. Dean’s Report (Peter Butler for Amr Elnashai) – Peter must leave at 11:30 a.m. for another commitment

3. Updates from Undergraduate Studies Committee (Chris Giebink) – no items to report

4. Updates from Graduate Studies Committees (Esther Gomez)

5. Updates from Engineering Technology Committee (Ron Land)

6. Updates from Faculty Senate (Doug Wolfe)

7. Other Business
Engineering Faculty Council

March 15, 2016, 12:00 noon
202 Hammond


Meeting Minutes

1. Approval of minutes for the meeting of February 16, 2016
   - Unanimously approved.

2. Updates from Undergraduate Studies Committee (Chris Giebink)
   - Drop CMPSC 202 - Programming for Engineers with FORTRAN
   - Change ME 455 - Automatic Control Systems: addition of long description
   - Add a new course ENGR 422 - Leadership of International Virtual Engineering Teams
   - Add a new course ME 109S – Explore Mechanical Engineering Research
     - All course proposals are approved unanimously.

3. Updates from Graduate Studies Committees (Esther Gomez)
   - No report

4. Updates from Engineering Technology Committee (Ron Land)
   - No report.

5. Updates from Faculty Senate (Doug Wolfe)
   - LEGISLATIVE REPORTS
     - Implementation of the New Integrative Studies Requirement in General Education
     - Implementation of Updated General Education Learning Objectives
     - Policy 42-10 Course Uniformity
     - Revisions to Senate Policy 59-00 Requirements for the Minor
     - Revision to Senate Policy 42-23: Credit Requirements by Types of Instruction
     - Graduating with Distinction and Honors
     - Revision to Bylaws, Article II, Section 1
     - Revision to Standing Rules, Article II, Section 6b (Committee on Admissions, Records, Scheduling, and Student Aid)
     - Revision to the Standing Rules, Article III, Section 7(b) Faculty Athletics Representatives (other than University Park).
   - ADVISORY/CONSULTATIVE REPORTS
     - Revision to HR21 Definition of Academic Ranks
     - Changes to Family Leave Provisions in HR23 (Promotion and Tenure)
     - Principles for the Design of Penn State Health Care Plans
     - Joint Diversity Awareness Task. Moving Forward.
   - INFORMATIONAL REPORTS
     - Educational Equity and Campus Environment. Joint Report from the Presidents Commissions for Equity (The commission on Lesbian, Gay, Bisexual, and Transgender Equity; the Commission on Racial/Ethnic Diversity and the Commission for Women).
     - Faculty Affairs. Faculty Tenure Rates: 2015-16 Annual Report.
6. Dean’s Report (Amr Elnashai)

- Invited the Provost to attend the unit executive meeting with department heads and associate deans to discuss the five-year expansion plan of COE.
- Faculty hiring still continues (until a formal hiring freeze is announced). 6-7 professors have been hired so far. Still a lot more to go. Departmental heads were asked to accelerate the hiring process.
- Submitted a relatively ambitious plan for the expansion of the online component of our programs to the Provost and World Campus through the office of Dean Peter Butler. The plan includes both undergraduate degrees online and master degrees online. Plans to launch four degrees over the next 5-7 years. An 80/20 revenue sharing plan was proposed in the plan.
- Six M.S./M.Eng degree proposals have been submitted this year. Most of them have been discussed at Graduate Curriculum Committee at Graduate School. Concerns from Graduate School include no distinction between MS and MEng degrees, and no significant research effort in either degree.
- The University Faculty Senate is modifying HR21 regarding non-tenure track faculty promotion policy at the university level. The modification referenced the document from COE. The policy modification will be voted at University Faculty Senate on 03/15/2016.

7. Other Business
None.
A total of 1 item was reviewed:

- Graduate Credit Certificate in Engineering Leadership and Innovation Management: Via On-Campus, Off-Campus, and Online Delivery - Approved
<table>
<thead>
<tr>
<th>Proposal Type</th>
<th>Program Name</th>
<th>Number of Degree</th>
<th>Action Requested (Add/Change)</th>
<th>Vote</th>
<th>Summary of Discussion Points</th>
</tr>
</thead>
</table>
| Certificate   | Engineering Leadership and Innovation Management (ELIM) | Graduate Certificate | Add | Approve | - Accrediting bodies, like ABET, continue to stress the importance of both the technical and non-technical components of successful engineers in engineering curriculum. The attention of professional societies is also calling for development of leadership competencies within the already packed engineering curriculum.
- The ELIM certificate program fills an unmet need of engineering leadership education for students in engineering specific disciplines such as ME, EE, etc. at the graduate level to supplement PSU's excellent technical education with courses designed to educate and develop important leadership competencies.
- The ELIM certificate aligns with the College of Engineering's strategic initiatives:
  - Supports six of the seven attributes of a world-class engineer (technically broad, globally engaged, ethical, innovative, excellent collaborator, and visionary leader).
  - Supports the mission of the College of Engineering to "nurture and train world-class socially aware, globally connected, diverse engineers, educators, and researchers with rigorous core knowledge and problem-solving skills, who understand complex, interacting engineering and societal systems".
  - Directly aligns with the strategic goals of the College of Engineering to enhance the educational experience with leadership training, global awareness, and cultural sensitivity and provides relevant elective credits that align with the college's strategy to offer and continuously expand one-year non-thesis Master of Engineering degree.
- As noted on ASME's website, "Engineering leadership programs are becoming a part of modern universities, and courses on enhancing leadership abilities have become a critical part of the business world in general and the engineering field specifically." (Emphasis added)!
- For these reasons, the Engineering Leadership and Innovation Management certificate has a home in the Penn State College of Engineering.
- The development of this certificate has been in collaboration with the Smeal College of Business, Work Force Education in the College of Education, and Engineering Management at Great Valley with ongoing conversions with other relevant established programs.
| EFC Proposal Report | Recommendation of Proposal Actions | from the GS&R Committee | Prepared for April 5, 2016 EFC Meeting | Summary of Discussion Points | The postbaccalaureate credit certificate programs description under graduate faculty policies states that certificate programs are typically 10-15 credit hours (minimum allowed 9 credits). Some justification should be provided for the 9 credit hours rather than 10-15. Perhaps a comparison to number of credit hours required by other programs in Table 1 would help to address this?
- The following sentence on page 6-7 is a little confusing: "The ELIM certificate program provides customization by allowing students to choose two out of the three optional courses based on professional needs to complete the certificate."
- I agree with XXX comments. A comparison with the credit requirements in other top schools would be highly helpful.
- Provide a justification for a nine credit basis: seems a bit light, considering the dimensions of learning involved; one course suffic e per se in each of the dimensions namely innovation, leadership, and management? I would think a requirement closer to 12-15 would make sense. (We grant minors with 18 credits as a comparison.) Why is a graduate certificate sounding more diluted than a minor?
- Some baselining would help: what are the credit requirements of the other institutions listed? A table of credits along with a description of what the other institution's goal is for the certificate provides for a coherent justification for PSU's request.

*Approve U = Unanimously Approved