Monthly Faculty Meeting  
Department of Electrical Engineering  

Present:  Roger Dougal, Chair
Mohammad Ali  Krishna Mandal  
Seongtae Bae  Enrico Santi  
Andrea Benigni  Grigory Simin  
Charles Brice  Jamie Steadman  
MVS Chandrashekhar  Guoan Wang  
Yinchao Chen  Xiaofeng Wang  
Herbert Ginn  Bin Zhang  
Asif Khan

Absent:  David Matolak, Paul Huray

Recorder:  Nat Paterson

The meeting was called to order by Dr. Roger Dougal at 3:30 p.m. in EE Conference Room 3A75 on August 16, 2016.

1. Announcements –

- Welcome Dr. Steadman as full-time Instructor (102, 321, 331, plus outreach activities)
- Dr. Moinul Islam continues as part-time instructor (551, 371)
- New Student Convocation – Encourage exhaustion!
- USC New Policies –
  - UNIV 1.51 Data and Information Governance (NEW)
  - UNIV 1.52 Responsible Use of Data, Technology, and User Credentials
- GSSM Accelerate class – hosted 40 excited students in July
- Report from CEC Executive Committee
  - Hiring – themes identified, expect to develop ads soon
  - More coordination on Capstone Design Projects
- New EE Research Webpages (partial) are LIVE!

2. Report of Chair – Start of the Semester

Fall 2016 New Student Demographics:

Undergraduate Program

- Total # of new students = 53 (18% less than Fall 2015)
- New freshmen who declared EE as major = 37 (15% less than Fall 2015)
- New Transfers = 13 (23% less than Fall 2015)
- Honors College – 5 (almost 50% less than Fall 2015)
- SC Resident = 42 (14% less than Fall 2015)

Though fall 2016 number has shown a downward trend in enrollment; the overall enrollment number for the undergraduate program over the last four years is up 40%. (See Appendix A & B).

- SAT score –
  - While there are students in the high range (1400 to 1600) and in the middle range (1200 to 1350), many are still in the low end of the spectrum. (See Appendix C)

The faculty raised a concern regarding low quality of students and would like to propose a way for the department to admit our own students separately from the general undergraduate admission process to be able to increase the quality of students.
Undergraduate Course Enrollment

- Overall enrollment this semester is comparable with fall 2015. A few courses, notably those in Power and Energy Systems (ELCT 551 and ELCT 572) exceed capacity. These two courses are offered as APOGEE courses but have very few APOGEE enrollments. This poses a problem for on-campus students because of limited seating in the studio classrooms. The department scheduled overflow sections to accommodate the student demand, but we have a challenge in the way content should be deliver and possibly compromising the teaching quality. For the future, we must either advertise widely and attract enough APOGEE enrollment to make the online sections worth offering, or we should discontinue them. The Graduate Committee will investigate the situation and make a recommendation. (Chair comment: Grad Committee – please review the potential for student demand in SC, how that demand is being met by other competitors if not by us, and whether there should be a role for us in online graduate education. If so, what is it?)
- Enrollments are low in many 500 level courses not in the power area. We must evaluate the situation – are enrollments low because of student disinterest in the technical areas, because of (perceived or real) lack of job opportunities in the technical areas, because of the way courses are taught? The Graduate Committee was tasked with reviewing our course offerings to understand if our courses offerings reflect relevant skills and knowledge for jobs today. (Chair comment: for 500-level classes, this review should also involve the undergrad program committee.)

Graduate Program

- Enrollment has increased from last fall with 19 new graduate students
  - 12 US citizens (PhD = 3, MS = 4, ME = 5)
  - 10 received Graduate Assistantships (RA = 8, TA = 1, IGERT = 1) and 9 are self-supporting
  - Only 2 new students are APOGEE

Dr. Dougal raised a concern regarding the APOGEE program and how we could increase the enrollment to sustain the program.

Graduate course enrollment

- Enrollment in 700-800 level courses are up to due to more courses offered and more new students

Goals for 2016-2017

- Increase research activity and funding
  - More individual proposals
  - More team-oriented proposals (intra-and extra- EE)
  - Increase utilization of major facilities & equipment – complete the ongoing project for utilization of microelectronics fabrication equipment
- Hire new faculty – optimistically expect to offer/fill two-three positions in the new future
- Facilitate faculty effectiveness – meeting and mentoring as needed. Identify ways to help. Use staff help where possible.
- Increase quality and quantity of students
  - Undergraduates –
    - Increase fundraising for scholarships
    - Aggressively recruit through a variety of outreach activities, especially for top-end students, via GSSM, and other summer camps, etc.
    - Increase appeal of our program (student satisfaction (or dissatisfaction) spreads by word of mouth). Establish a stronger positive vibe.
  - Graduates –
    - Increase research funding to support more Graduate Research Assistants
    - Dept continues to offer “visit funds” to recruit top-quality PhD students from other institutes
    - Prepare to offer, and advertise to populate, the MS program in System Design program starting fall 2017
- Enhance Programs
  - Offer greater course variety: one or more of 700-800 level and 2 or more 500 level courses per semester
Action Items:

- Faculty please continue providing information for their research webpage to Richard Floyd so the second level of research information can be published.
- Faculty please run “Identify Finder” and follow up to eliminate or encrypt sensitive data on their computers.
- Each research group consider offering at least one 700-800 level course each semester. Communicate wishes to Grad Committee via long-term course offering plan. Make plan realistic with respect to enrollment figures.
- The Graduate Committee review 500, 700-800 level course offerings to ensure relevance to our target audience and to increase enrollments.
- The Chair will schedule individual meetings with faculty to discuss their service assignments for 2016-2017.

3. Committee Reports –

I. Undergraduate Committee – Dr. Simin

Dr. Simin presented a summary of the fall 2015- spring 2016 Course Assessment Data Collection process (see appendix D) and asked the course instructors with missing data to complete the process in Blackboard or in an Excel spreadsheet and email it to the Blackboard Coordinator.

Dr. Simin informed the faculty of the upcoming tasks the Undergraduate Committee will focus on for fall semester.

<table>
<thead>
<tr>
<th>Task</th>
<th>Details</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete updating syllabi</td>
<td>Complete updating some 200, 300 and 500 level syllabi</td>
<td>09/15/2016</td>
</tr>
<tr>
<td>Outcome Assessments</td>
<td>Complete collection of all Fall 15 and Spring 16 assessment data</td>
<td>09/15/2016</td>
</tr>
<tr>
<td>Develop a pool of rubrics to be used for assessments</td>
<td>Various rubrics TBD to meet the specific of different course levels and types.</td>
<td>10/15/2016</td>
</tr>
<tr>
<td>Synced information on UG bulletin, EE website, and other sources</td>
<td>Develop procedures to tracking the Bulletin updates and to following up and updating the information on other resources (e.g. EE website)</td>
<td>11/15/2016</td>
</tr>
<tr>
<td>Capstone projects</td>
<td>Develop approaches to define research type of capstone projects. Develop procedures to assign mentors to capstone projects</td>
<td>12/15/2016</td>
</tr>
<tr>
<td>Develop the first draft of ABET Self-Study Report</td>
<td></td>
<td>TBA</td>
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</table>

Action Items:

- Complete fall 2015- spring 2016 assessment data collection
- Start preparing for fall 2016 assessment process

II. Graduate Committee – Dr. Ginn – No Report. Committee is working on their action plan for the year.

III. Faculty Development Committee – Dr. Ali (on behalf of Dr. Matolak)

Dr. Ali presented the key activities for 2016-2017 as followed

- Committee members –
Current members –
  • Dr. Matolak – T & P Chair
  • Dr. Ali – Faculty Hiring
  • Dr. Huray & Dr. Chandra – Awards

Member selection for T & P committee – Once the size of our faculty is up to 20 or more, should the department plan to select only a handful of faculty to serve in the T & P committee instead of all tenured faculty at or above rank of candidate being reviewed?

Reviews Scheduled this year:
  • T & P Review – Dr. Guoan Wang
  • 3rd Year Review – Dr. Benigni

T & P Unit Criteria Document –
  • Received UCTP comments – mostly minor changes but some will require further discussion
  • Consider adding more incentive for outstanding teaching
  • Need to develop appointment and promotion criteria for non-tenure-track research faculty – as required by USC
  • There may be some attempt to harmonize T&P criteria across the college

Hiring Committee – Dr. Ali
  • To be ready for the future hiring, committee needs to be formed and start preparing ads, reviewing applications, and conducting interviews

Annual Reviews
  • Consider delegating a faculty meeting to coordinate

Meeting adjourned at 4:48 PM
Appendix A

Undergraduate Enrollments

Gain of 75 or 40% over past 4 years
## Fall 2016 New Student Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of New Students</td>
<td>65</td>
<td>65</td>
<td>53</td>
</tr>
<tr>
<td>New Freshmen</td>
<td>50</td>
<td>44</td>
<td>37</td>
</tr>
<tr>
<td>New as Transfers</td>
<td>9</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Change of Campus</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Change of major</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>52</td>
<td>58</td>
<td>49</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Youngest</td>
<td>19 years old</td>
<td>18 years old</td>
<td>17 years old</td>
</tr>
<tr>
<td>Oldest</td>
<td>47 years old</td>
<td>445 years old</td>
<td>46 years old</td>
</tr>
<tr>
<td>Honors College</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>SC Residents</td>
<td>54</td>
<td>49</td>
<td>42</td>
</tr>
<tr>
<td>Non Residents</td>
<td>10</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Internationals</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</table>
Appendix C

SAT Score – New Enrolled Students

Fall 2014
Fall 2015
Fall 2016
## Missing Assessment Data by courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Fall 2015</th>
<th>Spring 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELCT 102</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 221</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 222</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 201</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 301</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 321</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 331</td>
<td>Completed</td>
<td>Outcome A, G</td>
</tr>
<tr>
<td>ELCT 350</td>
<td>Not offered</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 361</td>
<td>Not offered</td>
<td>Outcome A</td>
</tr>
<tr>
<td>ELCT 363</td>
<td>Completed</td>
<td>Outcome F</td>
</tr>
<tr>
<td>ELCT 371</td>
<td>Outcome A</td>
<td>Outcome A</td>
</tr>
<tr>
<td>ELCT 302</td>
<td>Outcome B, C, G, K</td>
<td>Completed</td>
</tr>
<tr>
<td>ELCT 403</td>
<td>Outcome I</td>
<td>Outcome A, B, C, D, E, G, I</td>
</tr>
<tr>
<td>ELCT 404</td>
<td></td>
<td>Outcome D, G</td>
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