Our College of Engineering

Fall 2017
- 97.55 (100) Faculty
- 3,626 students
Undergraduate Program
Engineering Undergraduate Enrollments

<table>
<thead>
<tr>
<th>Year</th>
<th>CSE</th>
<th>EE</th>
<th>ETEC</th>
<th>MEE</th>
<th>MSE</th>
<th>BME</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>820</td>
<td>566</td>
<td>342</td>
<td>286</td>
<td>452</td>
<td>95</td>
<td>1132</td>
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<tr>
<td>2014</td>
<td>905</td>
<td>597</td>
<td>365</td>
<td>306</td>
<td>432</td>
<td>88</td>
<td>1132</td>
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<tr>
<td>2015</td>
<td>1028</td>
<td>756</td>
<td>391</td>
<td>322</td>
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<td>108</td>
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<tr>
<td>2016</td>
<td>1085</td>
<td>794</td>
<td>444</td>
<td>322</td>
<td>444</td>
<td>149</td>
<td>1132</td>
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<tr>
<td>2017</td>
<td>1132</td>
<td>793</td>
<td>452</td>
<td>324</td>
<td>452</td>
<td>218</td>
<td>1132</td>
</tr>
</tbody>
</table>
Undergraduate Student Diversity

- White: 44%
- Hispanic: 23%
- Non-Res: 10%
- Other: 1%
- Asian/Pacific Isl.: 8%
- Amer. Indian: 2%
- African-Amer.: 12%
88% of the 2016 graduates had a job or went to grad school or military.
• Enrollments have stabilized
• Our student body continues to be very diverse
• Signed 1+3 agreement with Dalian Jiaotong’s MTSE department
• We have implemented our Foundation courses and tweaked them
• We have introduced new internal and external transfer rules
  – Internal: completion with C or better and 2.5 GPA of the first year Foundation courses
  – External: Calculus I eligibility plus 2.5 minimum GPA on Math-Science-Engineering coursework
• The Engineer’s Aerie is going strong; MEE had more project sponsors than capstone teams
• We have implemented new lab safety rules, and hired undergraduate lab monitors for F157, J105, J130, and ETEC
• Some equipment locks have been installed
• Female enrollment still only 15%
• Not all departments have had success attracting capstone project sponsors
• We may experience a drop in enrollments
• Risk management has yet to install new door locks

<table>
<thead>
<tr>
<th>Department</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>BME</td>
<td>43%</td>
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<tr>
<td>CS</td>
<td>15%</td>
</tr>
<tr>
<td>CE</td>
<td>10%</td>
</tr>
<tr>
<td>IT</td>
<td>12%</td>
</tr>
<tr>
<td>EE</td>
<td>12%</td>
</tr>
<tr>
<td>MEE</td>
<td>12%</td>
</tr>
<tr>
<td>MTSE</td>
<td>30%</td>
</tr>
<tr>
<td>CNET</td>
<td>10%</td>
</tr>
<tr>
<td>ELET</td>
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</tr>
<tr>
<td>MEET</td>
<td>10%</td>
</tr>
<tr>
<td>CENG</td>
<td>15%</td>
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### Student pipeline

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>So</th>
<th>J</th>
<th>Sr</th>
<th>F+So</th>
<th>J+Sr</th>
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<tr>
<td>BME</td>
<td>36</td>
<td>58</td>
<td>53</td>
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<td>16</td>
<td>17</td>
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<tr>
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<tr>
<td>MEET</td>
<td>47</td>
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<td>94</td>
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<tr>
<td>MEE</td>
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<tr>
<td>MTSE</td>
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<td>17</td>
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<td>1</td>
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<td>567</td>
<td>802</td>
<td>1248</td>
<td>937</td>
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Undergraduate admits yield

<table>
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<tr>
<th>Year</th>
<th>Yield</th>
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<tbody>
<tr>
<td>2006</td>
<td>42.6%</td>
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<tr>
<td>2007</td>
<td>44.8%</td>
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<tr>
<td>2008</td>
<td>44.9%</td>
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<tr>
<td>2009</td>
<td>41.9%</td>
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<tr>
<td>2010</td>
<td>48.2%</td>
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<tr>
<td>2011</td>
<td>51.8%</td>
</tr>
<tr>
<td>2012</td>
<td>52.0%</td>
</tr>
<tr>
<td>2013</td>
<td>58.7%</td>
</tr>
<tr>
<td>2014</td>
<td>60.3%</td>
</tr>
<tr>
<td>2015</td>
<td>53.5%</td>
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<tr>
<td>2016</td>
<td>51.3%</td>
</tr>
<tr>
<td>2017</td>
<td>61.0%</td>
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</table>
Percentage of transfer students in incoming cohort

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>29%</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>2011</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>28%</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>2013</td>
<td>29%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>32%</td>
<td></td>
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<tr>
<td>2015</td>
<td>44%</td>
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<tr>
<td>2016</td>
<td>44%</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
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</tbody>
</table>

What effect will the new transfer admission rules have? Based on 3 years data we expect a drop of 25-30% in transfer student admissions.
Issues

• How do we increase applicants?
  – How do we make PREP a recruiting target?

• How do we increase our yield?
  – We have better applicants and we compete with many other Universities
  – Can faculty play a role in improving the yield?

• Retention is key
Graduate Program
Doctoral Graduates

- EE
- MEE
- MSE
- CSE

- 2012: 2
- 2013: 12
- 2014: 10
- 2015: 2
- 2016: 4
PhD Trends

- **Applied**
  - 2013: 142
  - 2014: 102
  - 2015: 132
  - 2016: 129
  - 2017: 154

- **Admitted**
  - 2013: 75
  - 2014: 55
  - 2015: 78
  - 2016: 66
  - 2017: 90

- **Enrolled**
  - 2013: 26
  - 2014: 19
  - 2015: 37
  - 2016: 19
  - 2017: 50

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EST. 1890
The chart shows the selectivity and yield for Ph.D. programs from 2013 to 2017.

- **Selectivity**
  - 2013: 52.8%
  - 2014: 53.9%
  - 2015: 59.1%
  - 2016: 51.2%
  - 2017: 58.4%

- **Yield**
  - 2013: 34.7%
  - 2014: 34.5%
  - 2015: 47.4%
  - 2016: 28.8%
  - 2017: 55.6%
• Less pressure on our graduate courses
• GradTrack still going strong: 69 students enrolled; 11 graduated
• Working on a number of international 3+2 agreements with China and India
  – Worked with the TGS to improve the international GradTrack language
• Significant increase in Ph.D. enrollments
  – President’s new 26 TA lines helped
  – Yield 56%
• First BME MS and Ph.D. students
  – BME concentrations under EE, MEE and MTSE Ph.D.s
• Graduate recruiting plan and timeline completed
• 35% drop in MS new enrollments
  – Back to where we were 3 years ago
• 38% drop in MS applicants; 44% in new MS enrolled
• MS yield 30%
• Drop in graduate SCHs
  – Fee impact
Research and Scholarship
Funded Research Performance

- FY2013: 2,000,000
- FY2014: 4,000,000
- FY2015: 6,000,000
- FY2016: 8,000,000
- FY2017: 12,000,000

Awards
Expenditures

FY2013 FY2014 FY2015 FY2016 FY2017

Graph showing funded research performance from FY2013 to FY2017 with awards and expenditures.
• In FY16 our research expenditures per faculty member were higher than:
  – Oklahoma St., Arkansas-Little Rock, Temple, SMU, U of New Hampshire, URI, South/North Dakota St., Villanova, W. Michigan, etc.
• Within 10% of Texas Tech, UNLV, Kansas St.
• FY17 will be much better
- New research discovery workshop organized
- First PDS grants submitted; one awarded
- “Red Team” used
- Program director visits scheduled
- Continuing to organize visits to funding agencies
- We still cover all trips to meet with collaborators or visit PMs
- We still have a consultant to look at and evaluate proposals
- FY17 expenditures and awards very strong
- Leyla resigned; Liz filling in
- Research space at a premium
- FY16 expenditures and awards not very strong
• 18 new faculty
  – PACCAR Professor: Dr. Kaul
• Cybersecurity Summit organized
• Executive MS in CS offered through Frisco
• Two UG CS courses offered through Frisco
• CSE phase I & II renovations completed
• BME and MTSE lab renovations completed
• Advising Office renovations completed
• BME extension moving fast
  – Three new classrooms: 60, 80, 200 students
• Homecoming – Be there!!
Questions?