Richard T. Schoephoerster
Dean and Riter Professor
College of Engineering

November 6, 2014
• UTEP Roots in engineering
• 1st degrees offered
  – Engineer of Mines (1914) TSSMM
  – B.S. in Mining Engineering (1919) TCMM

• Now striving to be the first National Research University with a 21st Century Demographic
UTEP Enrollment: Student Race/Ethnicity Trends

- % White
- % Black
- % Hispanic

[Graph showing trends from 1981 to 2013]
UTEP Doctoral Enrollment Growth

Students Enrolled

- Ecology and Evolutionary Biology
- Biomedical Engineering
- Nursing Practice
- Physical Therapy
- Teaching, Learning and Culture
- Computational Science
- Chemistry
- Computer Sciences
- Interdisciplinary Health Sciences
- Eng. Rhetoric and Composition
- International Business
- Civil Engineering
- History
- Biological Sciences
- Education Leadership & Admin.
- Environmental Science and Engineering
- Psychology
- Materials Science and Engineering
- Electrical and Computer Engineering
- Geological Sciences
Growth in Total Research Expenditures

Source: UTEP's Office of Research and Sponsored Projects
National Recognition

- Department of Education
  - Lowest Net Price in Research University category
- Washington Monthly 2014 National University Rankings
  - UTEP #8
  - #1 Social Mobility (graduating low income students)
  - Research (funding, scholarship, doctoral production)
  - Service (by students, local, national, global)
- Top 10 producer of Hispanic engineers
  - BS #2, MS #1, PhD #1
- Hispanic Business
  - Top Engineering Graduate School for Hispanics
  - 2005-2014 top 5 or better ranking
Facilities

Science and Engineering Neighborhood

Campus Transformation
MS PROGRAMS
- Civil Engineering
- Computer Science
- Computer Engineering
- Electrical Engineering
- Environmental Engineering
- Industrial Engineering
- Information Technology
- Manufacturing Engineering
- Mechanical Engineering
- Metallurgical & Materials Engineering
- Construction Management
- Systems Engineering
- Biomedical Engineering
- Software Engineering

UNDERGRADUATE PROGRAMS/DEPARTMENTS
- BS in Engineering Leadership

PhD PROGRAMS
- Civil Engineering
- Electrical & Computer Engineering
- Computer Science
- Environmental Science & Engineering
- Materials Science & Engineering
- Computational Science
- Biomedical Engineering
Degrees Awarded

Engineering Degrees Awarded by Level

<table>
<thead>
<tr>
<th>Year</th>
<th>DR</th>
<th>MS</th>
<th>UG</th>
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<tbody>
<tr>
<td>2007-08</td>
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<td>261</td>
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<td>2008-09</td>
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<td>2012-13</td>
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<td>543</td>
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<tr>
<td>2013-14 Prelim</td>
<td>152</td>
<td>543</td>
<td>543</td>
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</table>
### Degrees to EPCC Transfers

#### UG Degrees to EPCC transfers, %

<table>
<thead>
<tr>
<th>Year</th>
<th>CoEng Degrees</th>
<th>EPCC Transfers</th>
<th>% EPCC</th>
<th>AVG Earned Hrs</th>
<th>AVG SCH before Transfer</th>
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<tr>
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<td>261</td>
<td>40</td>
<td>15%</td>
<td>153</td>
<td>52</td>
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<td>316</td>
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<td>18%</td>
<td>151</td>
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<tr>
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<td>299</td>
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<td>19%</td>
<td>156</td>
<td>54</td>
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<td>AY 2011-12</td>
<td>301</td>
<td>63</td>
<td>21%</td>
<td>152</td>
<td>64</td>
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<tr>
<td>AY 2012-13</td>
<td>306</td>
<td>66</td>
<td>22%</td>
<td>150</td>
<td>63</td>
</tr>
</tbody>
</table>
Pre-Professional Experiences

Coop/Intern/REU

AY 08-09
AY 09-10
AY 10-11
AY 11-12
AY 12-13
AY 13-14 Prelim
Any type of experience:

- AY 08-09: 20%
- AY 09-10: 40%
- AY 10-11: 60%
- AY 11-12: 80%
- AY 12-13: 60%
- AY 13-14: 80%
Global Experiences

Global Programs

- Incoming
- Outgoing

Year:
- 2008-09
- 2009-10
- 2010-11
- 2011-12
- 2012-13
- 2013-14
- 2014-15
Diversity of Students – Gender

Female Enrollment by Level (%)

- FL09
- FL10
- FL11
- FL12
- FL13

- UG
- GR
- DR
Diversity of Faculty – Gender

Budgeted: TN, TT, PP

<table>
<thead>
<tr>
<th>Year</th>
<th>M</th>
<th>F</th>
<th>Total</th>
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<tr>
<td>FL14</td>
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<td>14</td>
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Research Expenditures
As reported to NSF
Doctoral Enrollment

Year | Enrollment
--- | ---
FL 07 | 86
FL 08 | 84
FL 09 | 90
FL 10 | 132
FL 11 | 150
FL 12 | 168
FL 13 | 164
FL 14 Prelim | 158
Doctoral Graduates

Doctoral Degrees Awarded

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Doctoral Degrees Awarded</th>
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<tbody>
<tr>
<td>AY 07-08</td>
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<tr>
<td>AY 08-09</td>
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<td>AY 09-10</td>
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<tr>
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<tr>
<td>AY 12-13</td>
<td>32</td>
</tr>
<tr>
<td>AY 13-14</td>
<td>29</td>
</tr>
</tbody>
</table>
Emphasis Areas

- **Infrastructure and Sustainability**
  - Desalination
  - Clean and renewable energy
  - Transportation infrastructure
  - Commercial space transportation
- **Biomedical and Health Systems**
  - Technology for low-resource settings
  - Bioprinting
- **Information and Security**
  - Border security
  - Cyber infrastructure
- **Advanced Manufacturing and Materials**
  - Additive manufacturing/3D printing
  - Systems Engineering
- **Engineering Education Innovation**
  - Personalized Learning
  - Medical School Model