UT Engineering Complex

A Unique Role among Ohio’s 16 Engineering Colleges

UT Engineering Complex
Advanced Energy & Materials Theme Park

Choice, not Chance

"Greatness is not a function of circumstance. Greatness, it turns out, is largely a matter of conscious choice, and discipline."

Jim Collins
Author of "From Good to Great"

Undergraduate Overview
Brian W. Randolph, Ph.D., P.E.
Professor & Associate Dean

dean@eng.utoldeo.edu
UT Engineering

**Fall 2009 Demographics**
- 2,642 Undergraduate Students
- 371 Graduate Students
- ~90 Full-time Faculty
- ~40 Professional Staff
- ~13,000 Alumni

**Engineering Programs**
- BSEE 12%
- CHME 14%
- CSE 16%
- CVLE 14%
- ELCE 12%
- INDE 1%
- MECE 31%
- MIOE 12%

1,645 Undergraduates Fall 2009

**Engineering Technology Programs**
- ITCE 3%
- UNDT 6%
- CET 20%
- MET 30%
- CSET 25%
- EET 16%

997 Undergraduates Fall 2009

**College of Engineering Outstanding Students**
(2009 statistics)
- 59 valedictorians (26% of all UT's)
- 31% in the top 10% of their HS Class
- 67% in the top 25% of their HS Class
- 33% of all UT's Honors Students

**Freshman Profile:**
- ACT: 26.0 (84th percentile)
- Ave. ACT math score: 27.3 (89th percentile)
- Ave. High School GPA: 3.68/4.00

Facts & Figures

- **Six Departments**
  - Bioengineering
  - Chemical and Environmental Engineering
  - Civil Engineering
  - Electrical Engineering and Computer Science
  - Engineering Technology
  - Mechanical, Industrial and Manufacturing Engineering

- **21 Academic Degree Programs**
  - 12 Bachelors, 7 Masters, & 2 PhD degrees

dean@eng.utoledo.edu
Recruitment/Outreach/Engagement Efforts
- 800 High Schools visited in last 5 years
- Met with 56,000+ HS students face to face
- K-4 and minority outreach
- On-campus programs

Academic Pipeline to Engineering
- Introduction to Engineering Course
  - St. Francis and St. Ursula Students
  - Since 2006-07 School Year
  - Developed by Professor Steven Kramer
  - Nominated for UT Outstanding Teacher and UT Outstanding Adviser Awards
  - Taught by Professor Isabel Escobar
  - Coordinator of Women in STEM (WIST) Mentor Program
  - College Credit by PSEOP

Guiding Philosophy
We recruit a graduating class, not a freshman class.

Recruitment & Retention
- Enrollmen
  - New Engineering DHS students have steadily increased since 2004 (+46%).
  - Total college enrollment up 7.8% since 2008.
- Retention
  - 83% retention of Engineering students at UT from 1st to 2nd year compared to less than 50% in early 1990's.
- Graduation
  - 5 year FYF/2b graduation rate increased from 32% to 55%.

Commitment to Student Success
1. Admission standards with the expectation of student success.
2. Direct admission to the major.
3. One-stop, dedicated student services area in every department
   - Undergraduate Director (Academic Advisor) and Academic Program Coordinator (full time staff support).
4. Freshman Interest Groups (FIGs).
5. First Year Rocket Engineers (FYRE).
6. Center for Academic Success in Engineering (CASE).
7. Award winning faculty in early engineering classes.
8. Mandatory co-op program with intensive career guidance and integrated professional development/Engineering Career Management Center.
9. Thriving Honors Program with student research requirement.
10. Minors in Business Administration, Chemistry, Computer Science.
11. Engineering Library and Librarian.
12. Commitment to an outcomes based assessment culture.

Cooperative Experience Plans

<table>
<thead>
<tr>
<th>Plan A</th>
<th>Plan B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>Year 1</td>
<td>Course</td>
</tr>
<tr>
<td>Year 2</td>
<td>Course</td>
</tr>
<tr>
<td>Year 3</td>
<td>Coop</td>
</tr>
<tr>
<td>Year 4</td>
<td>Coop</td>
</tr>
<tr>
<td>Year 5</td>
<td>Course</td>
</tr>
</tbody>
</table>

- One of 3 mandatory engineering co-op programs in the U.S. (started in 1981).
- Minimum 1 year of co-op experience required.
- Work begins in sophomore year.
- College-based Career Management Center identifies placement opportunities for our students.

dean@eng.utoledo.edu
2009 Average Coop Wages
Average of $16.29/hr full time for 16 weeks
~$10,425 per Co-op Term
Estimated 2009 Payroll ➔ $9.6M
Estimated 2009 Economic Impact ➔ $24M

Employers with Co-op in Chemical Engineering

Employers Prior to Co-op in Chemical Engineering

Continental U.S. Student Coop Placements
- ~8,500+ placements with ~1,000 employers
- 40 States, Puerto Rico, Washington, DC & 26 foreign countries
- ~67% in Ohio & ~33% in Fortune 500 companies

Global Presence – UT Engineering Co-op Program
- Continued inclusion in "The Best of Co-op" publications

Academic Enhancement Opportunities
- Senior Design Clinic
- Undergraduate research
- Senior Design & Undergraduate Research Exposition twice yearly
- Business minor
- Honors Program
- MBA, MD & JD degree opportunities post graduation
- Freshmen entrepreneurship

dean@eng.utoledo.edu
Thank You
For more information, please contact:
Office of the Dean
Attn: Mrs. Patty Mowery
Tel: (419)530-8000
dean@eng.utoledo.edu
Please visit our college website at
www.eng.utoledo.edu