



COLLEGE OF ENGINEERING
THE UNIVERSITY OF TOLEDO



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Undergraduate Overview

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

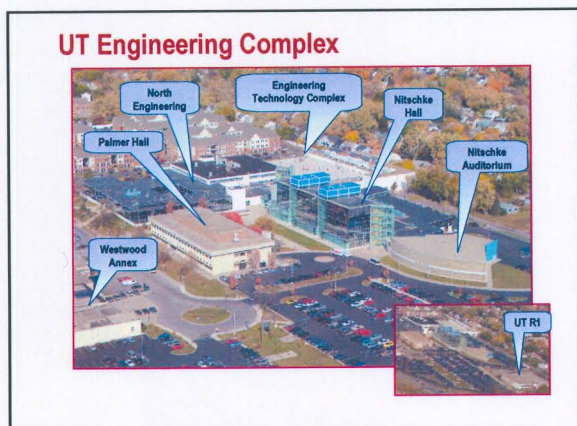
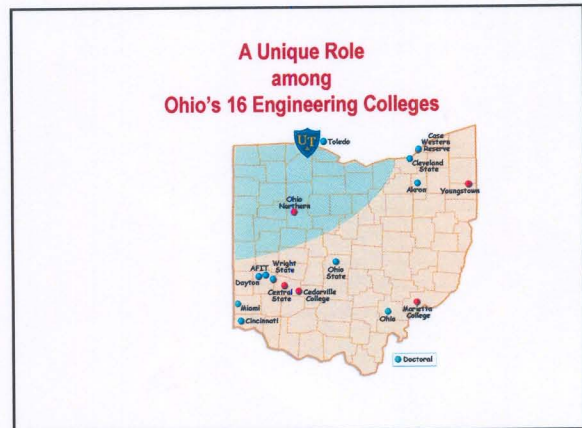



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Choice, not Chance

- “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”



UT Engineering

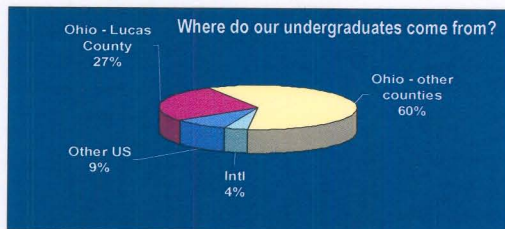


Facts & Figures

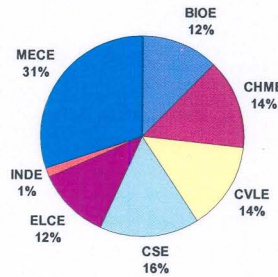
- Six Departments**
 - Bioengineering
 - Chemical and Environmental Engineering
 - Civil Engineering
 - Electrical Engineering and Computer Science
 - Engineering Technology
 - Mechanical, Industrial and Manufacturing Engineering
- 21 Academic Degree Programs**
 - 12 Bachelors, 7 Masters, & 2 PhD degrees

Fall 2009 Demographics

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

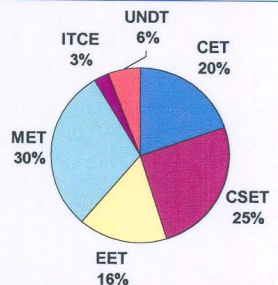


Engineering Programs



1,645 Undergraduates Fall 2009

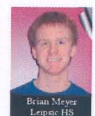
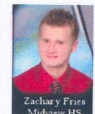
Engineering Technology Programs



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



UT Engineering

Recruitment/Outreach/Engagement Efforts

- 800 High Schools visited in last 5 years
- Met with 56,000+ HS students face to face
- K-8 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
 - Recipient of UT Outstanding Teacher and UT Outstanding Advisor Awards
 - Taught by Professor Isabel Escobar
 - Coordinator of Women in STEMM Excelling (WISE) Mentor Program
 - College Credit by PSEOP

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Guiding Philosophy

**We recruit a graduating class,
not a freshman class.**

Recruitment & Retention

- Enrollment
 - 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 FYFTb 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

Plan A				Plan B			
	Fall	Spring	Summer		Fall	Spring	Summer
Year 1	Course Work	Course Work		Year 1	Course Work	Course Work	
Year 2	Course Work	Coop Exp.	Course Work	Year 2	Course Work	Course Work	Coop Exp.
Year 3	Coop Exp.	Course Work	Coop Exp.	Year 3	Course Work	Coop Exp.	Course Work
Year 4	Course Work	Coop Exp.	Course Work	Year 4	Coop Exp.	Course Work	Coop Exp.
Year 5	Course Work			Year 5	Course Work		

- One of 8 mandatory engineering co-op programs in the U.S. (started in 1997).
- Minimum 1 year of co-op experience required.
- Work begins in sophomore year.
- College-based Career Management Center identifies placement opportunities for our students.

UT Engineering

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

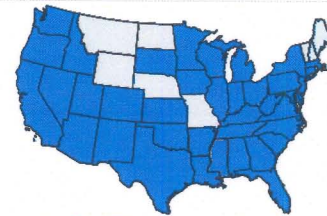
Employers Prior to Co-op in Chemical Engineering



Employers with Co-op in Chemical Engineering

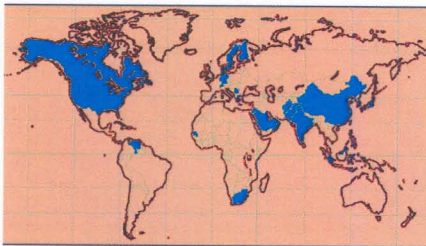


Continental U.S. Student Coop Placements



- ~8,500+ placements with ~1,000 employers
- 40 States, Puerto Rico, Washington, DC & 28 foreign countries
- ~67% in Ohio & ~33% in Fortune 500 companies

Global Presence – UT Engineering Co-op Program

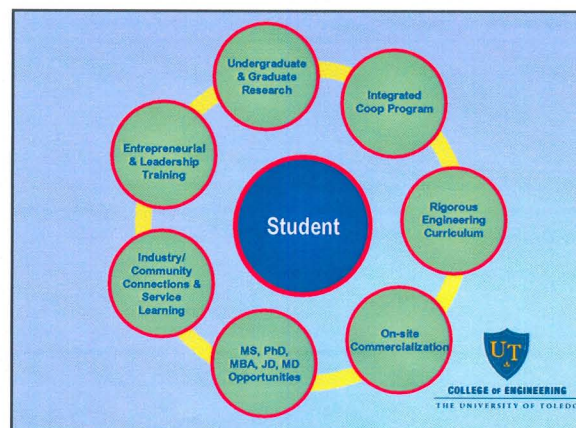
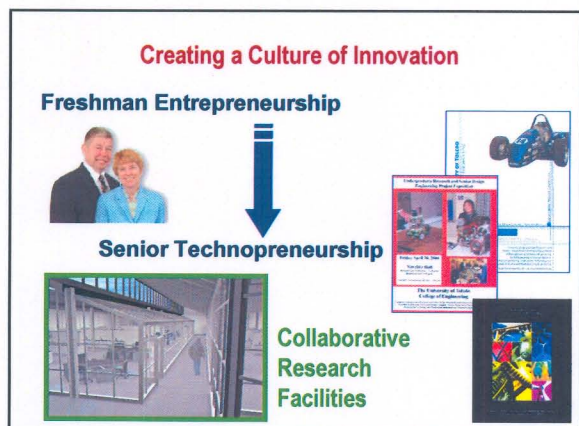


- Continued inclusion in "The Best of Co-op" publications.

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

UT Engineering



Thank You

For more information, please contact:

Office of the Dean

Attn: Mrs. Patty Mowery

Tel: (419)530-8000

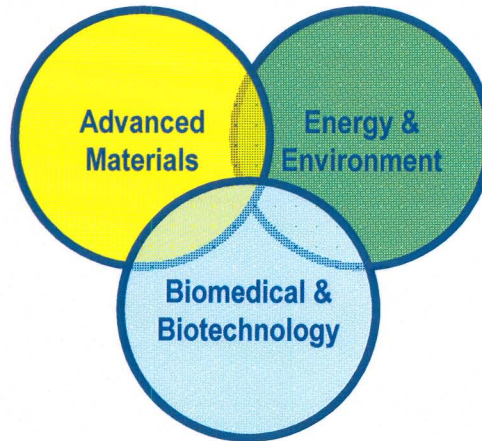
dean@eng.utoledo.edu

Please visit our college website at
www.eng.utoledo.edu

dean@eng.utoledo.edu



Engineering Research Focus



Research Highlights



EXAMPLES	Energy & Environment	Advanced Materials	Biomedical & Biotechnology
Fuel Cells			
Bio-Fuels			
Sustainable Nanomaterials			
Hybrid Vehicles			
Helmet Project			
Spine Research			