Department of Engineering Technology

Overview Briefing for
LICA: Association of Dutch
Higher Education Professionals

Dan Solarek, Professor and Chairman
October 13, 2009

One of Six Engineering Departments

- Bioengineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering & Computer Science
- Mechanical, Industrial & Manufacturing Engineering
- **Engineering Technology (ET)**

How Do We Compare?

- College of Engineering
  - Twice as big as any other department
  - Almost 40% of the undergraduate population
- University
  - Twice as big as any other department
  - Nearly as big as some colleges, bigger than some

999 undergrads

How Do We Compare?

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- Universi
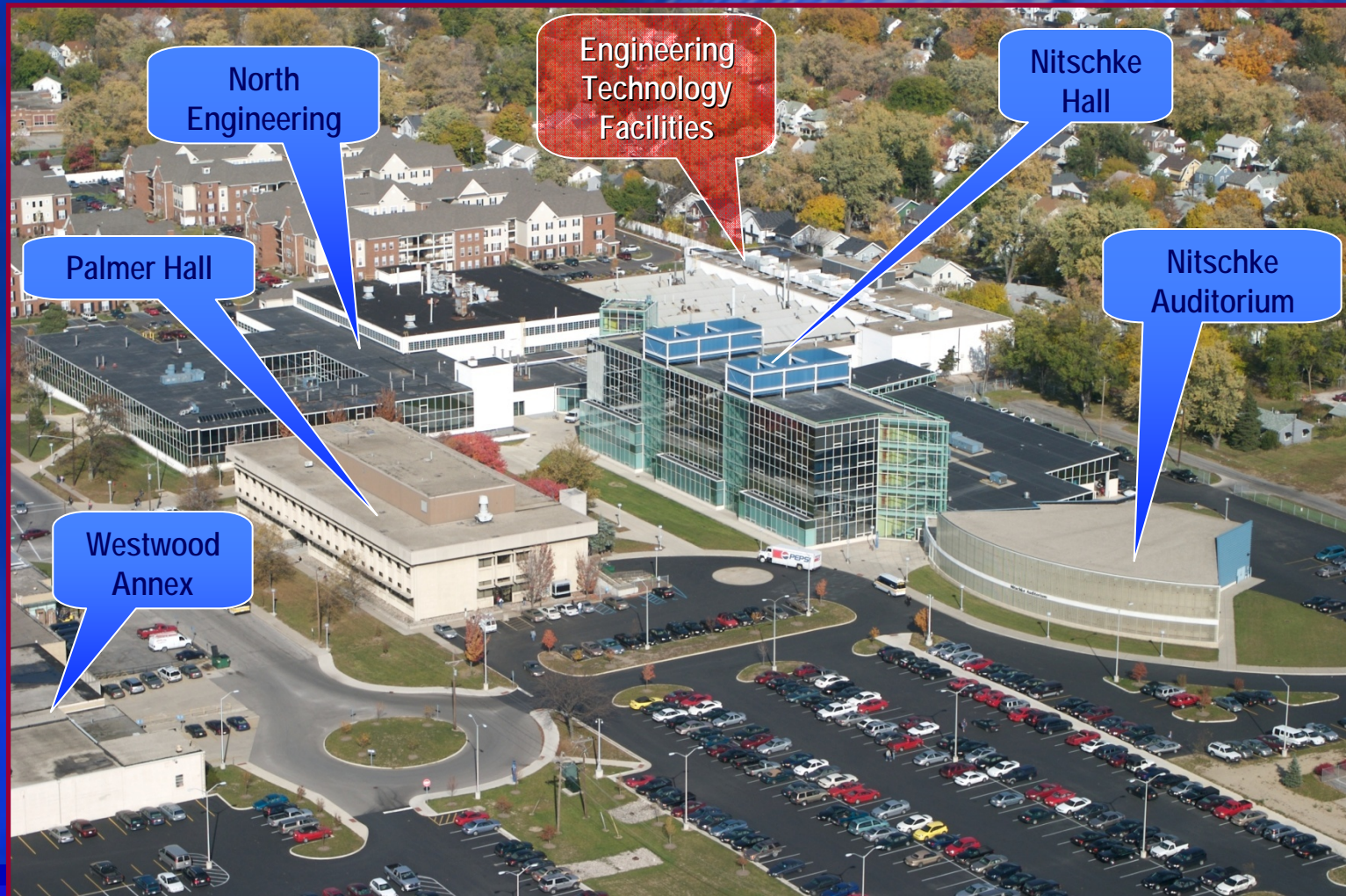 - Twice a   ment
  - Nearly
    bigger

| College	Department	Fall 09 Enroll
COE	ET	999
HSHS	Criminal Justice	543
COE	MIME	495
A&S	Psychology	486
HSHS	Exercise Science	456
JHCOE	Early Childhood	447
A&S	Biology	413
COE	EECS	407
A&S	Communication	384
JHCOE	Ad & Young Adult	368
UC	Indiv Programs	358
COBA	Marketing	350

999 undergrads

ET Location

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ET Facilities

- Our recent move from Scott Park has had a positive impact on faculty and students

- Achieves physical integration with the rest of the College

Entrance

Faculty Offices

Department Office

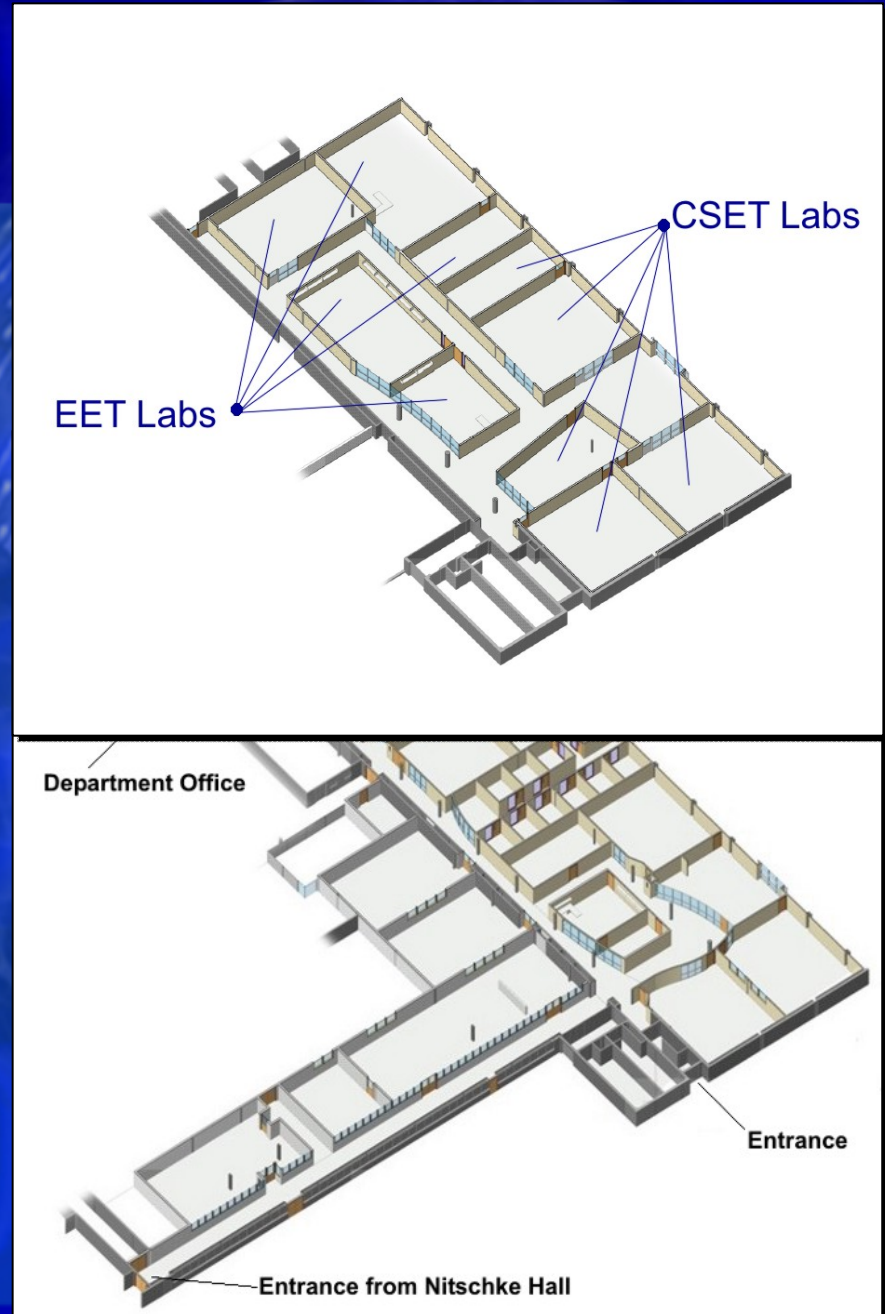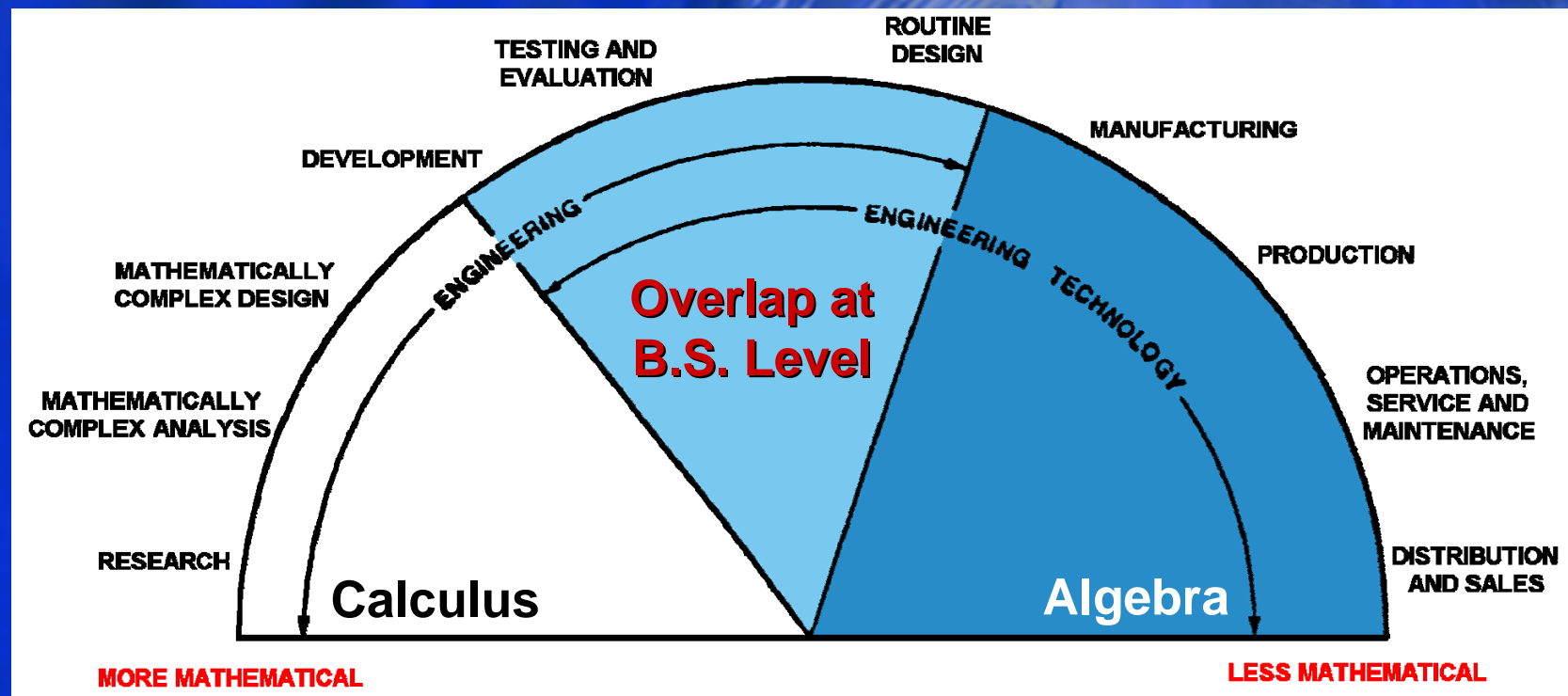Entrance

Entrance from Nitschke Hall

ET Facilities

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CSET Labs

EET Labs

Department Office

Entrance

Entrance from Nitschke Hall
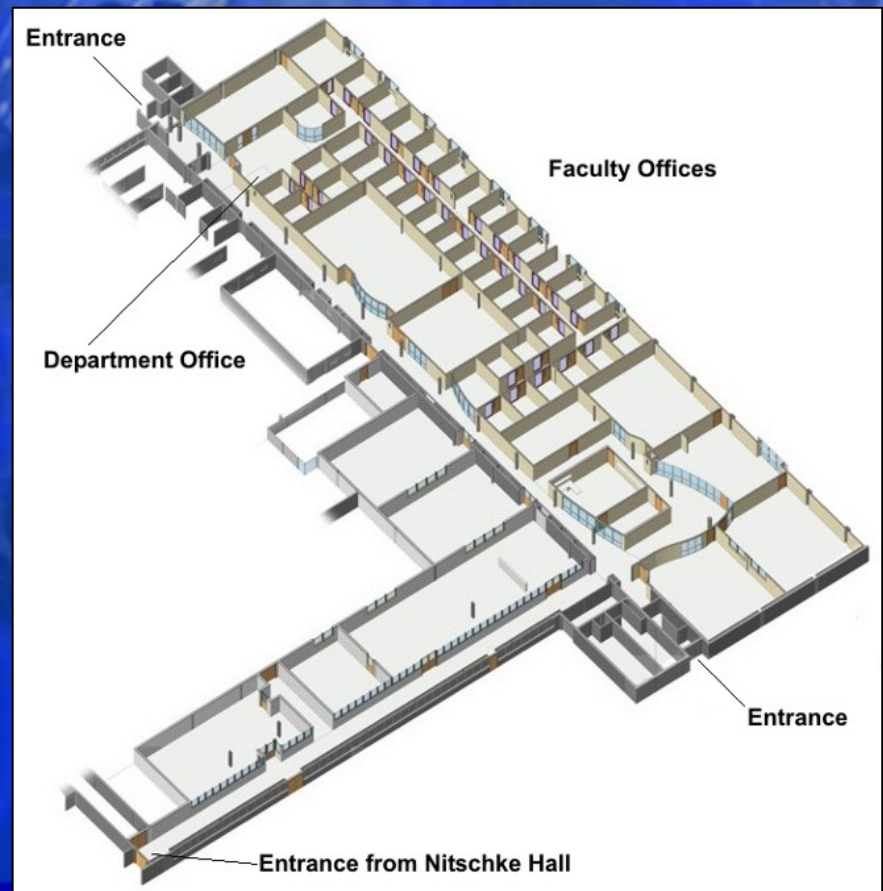
Engineering and Engineering Technology

… ET course emphasis is on applications ⟶

Degree Programs Offered by ET

- Undergraduate, BS Degrees
  - Computer Science & Engineering Technology (CSET)
  - Construction Engineering Technology (CET)
  - Electrical Engineering Technology (EET)
  - Information Technology (IT)
  - Mechanical Engineering Technology (MET)

DHS

transfer

AAS

adult

BS

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ET Faculty and Staff

- 16 T/TT Faculty
  - average 10 years of industrial experience
  - 8 P.E., 1 Arch.

- 4 Staff
  - 1 secretarial
  - 2 computer/lab support
  - 1 advising/retention

Degree Programs Offered by ET

- **Graduate, MS Degree**
  - General engineering
    - Practice oriented
    - Project, not thesis
    - Business component
    - Available online
  - Admits
    - Employed "engineers"
    - ET or engineering BS grads

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Professional Technical Programs

Construction
Engineering Technology

Computer Science &
Engineering Technology

Mechanical Engineering
Technology

Electrical Engineering
Technology

ABET

B.S. Degrees

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Accreditation

- Programmatic accreditation
  - All programs within the College of Engineering are accredited by the Accreditation Board for Engineering and Technology (ABET) :

CSE

ABET Board

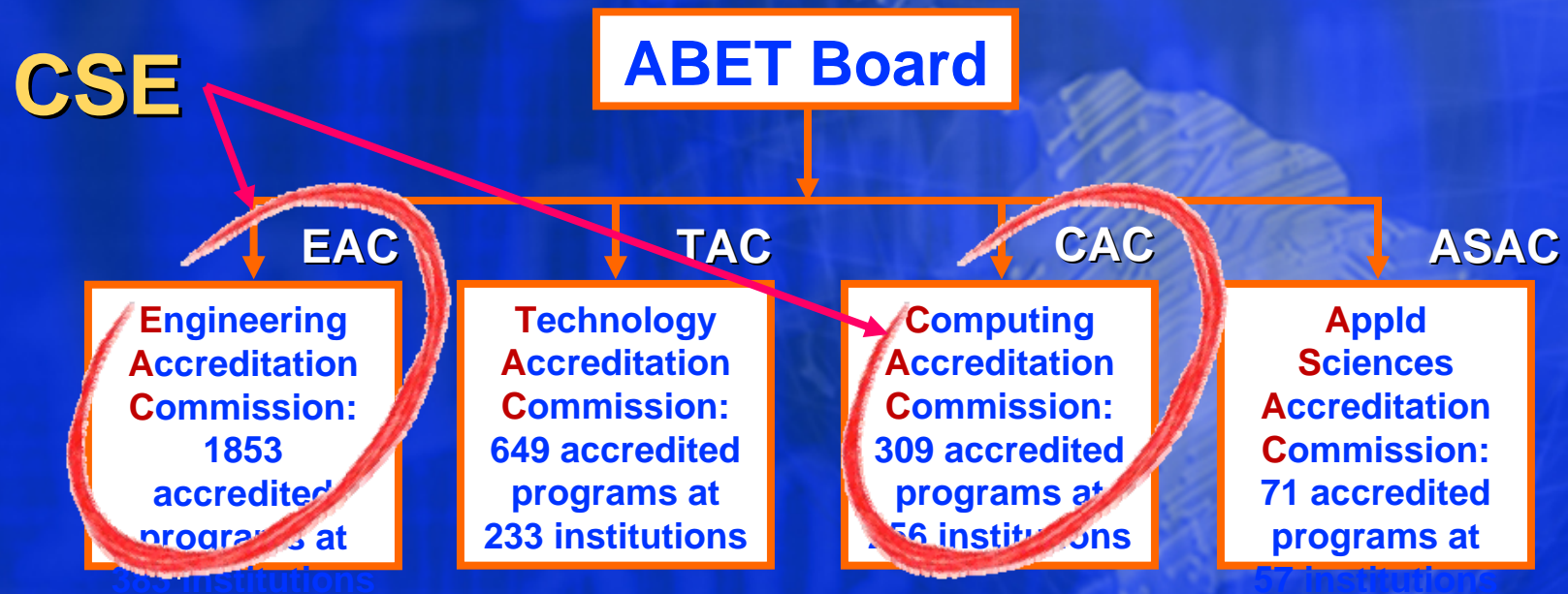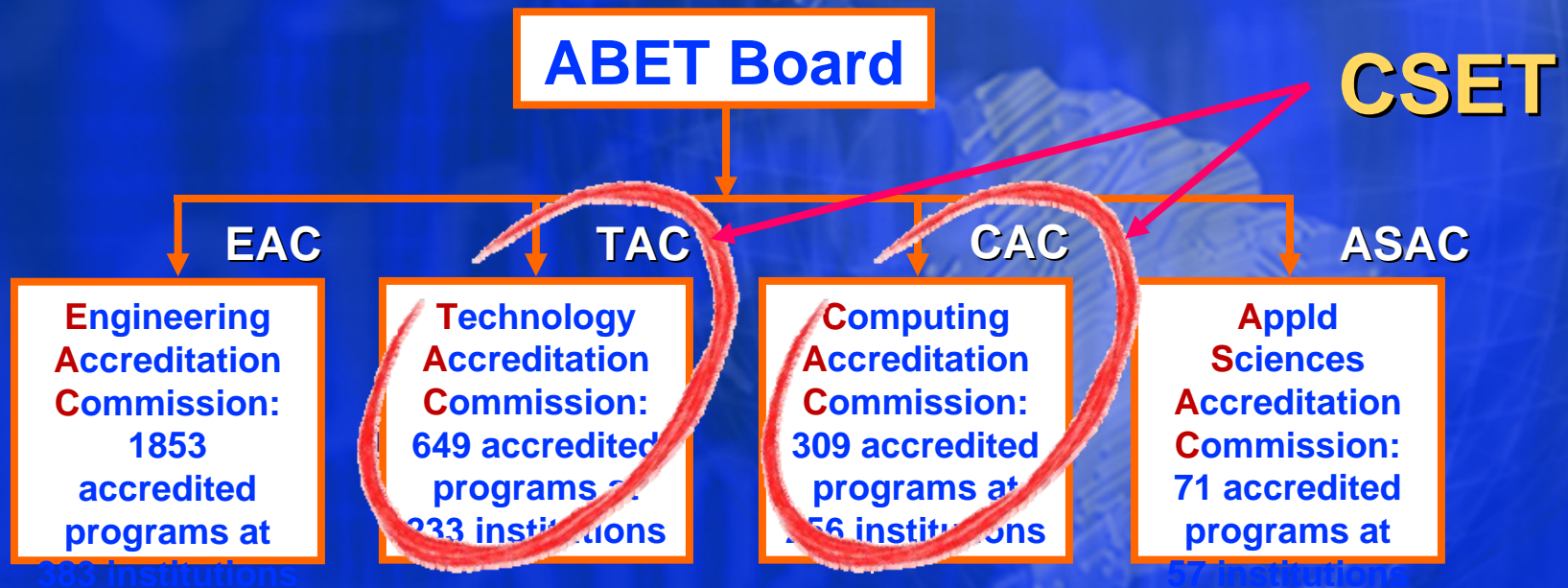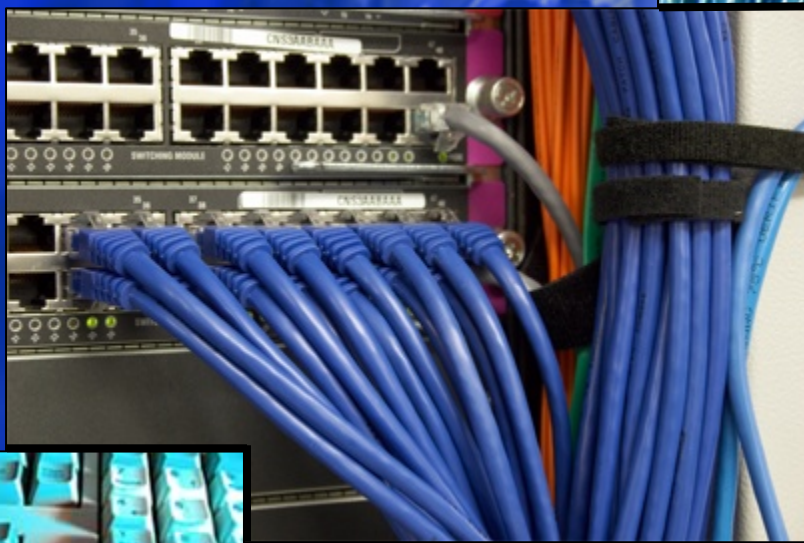| EAC	TAC	CAC	ASAC
Engineering Accreditation Commission: 1853 accredited programs at 309 institutions	**Technology Accreditation Commission: 649 accredited programs at 233 institutions**	**Computing Accreditation Commission: 309 accredited programs at 256 institutions**	**Appld Sciences Accreditation Commission: 71 accredited programs at 57 institutions**

Accreditation

- ## Programmatic accreditation
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ABET Board

CSET

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Information Technology

B.S. Degree

ET Enrollment By Program

Fall 2009

CET	193
CSET	253
EET	153
MET	299
IT	46
Other	79
Total	1023

MET 28%

Other 8%

IT 5%

EET 15%

CET 19%

CSET 25%

ET Enrollment By Program

Fall   2009

MET

CET	193
	253
	153
	9
	79
Total	**1023**

40% transfer students

|	College or Department	Fall 08 DHS
1	Undecided	620
2	Pre-Pharmacy	391
3	Nursing	329
4	Pre-Business	292
5	ET	133
6	Pre-Medical	129
7	Exercise Science	128
8	Pre-Major	120
9	Mechanical Engineering	109
10	General Studies	100

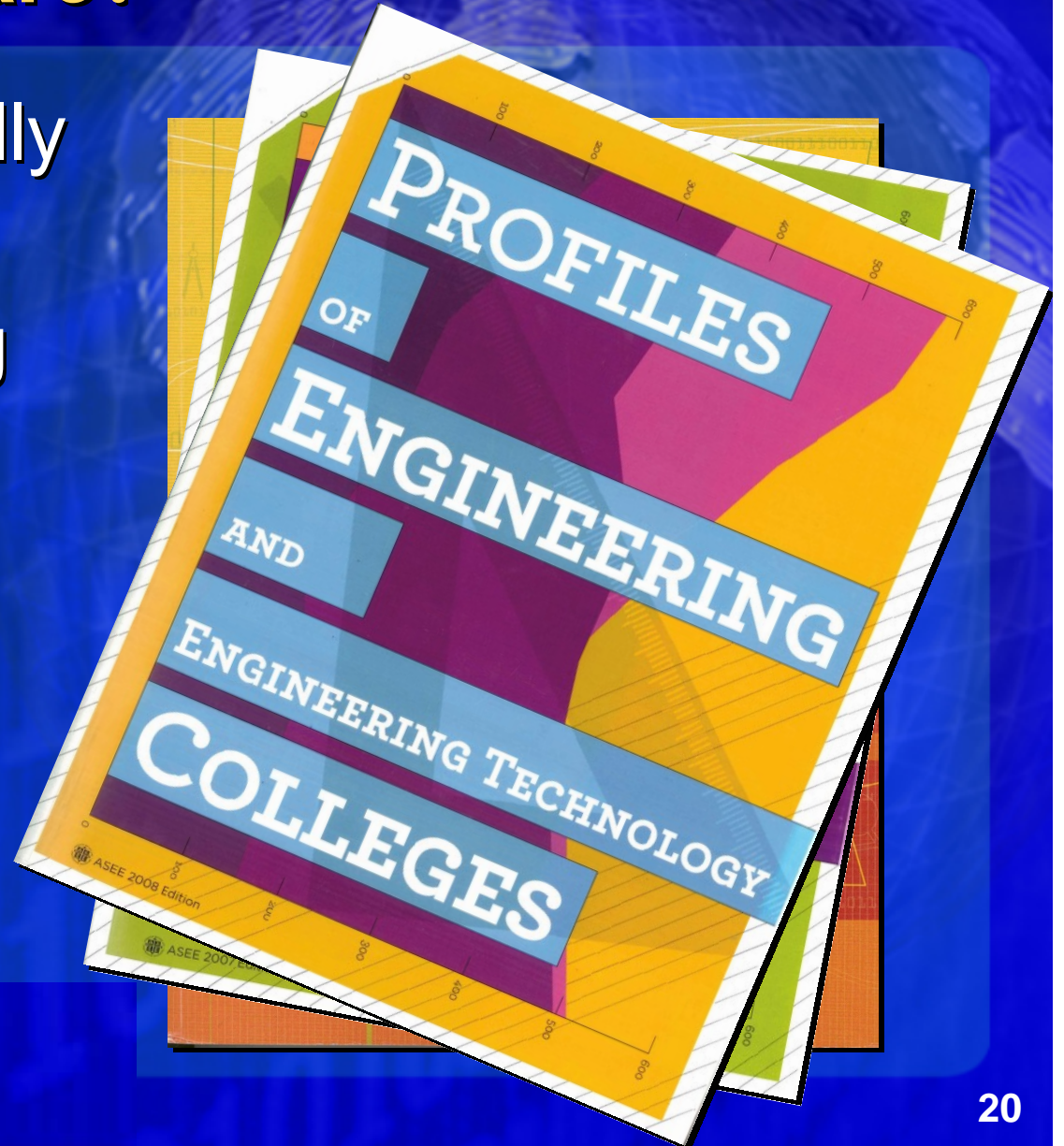# Engineering Undergraduate Enrollments
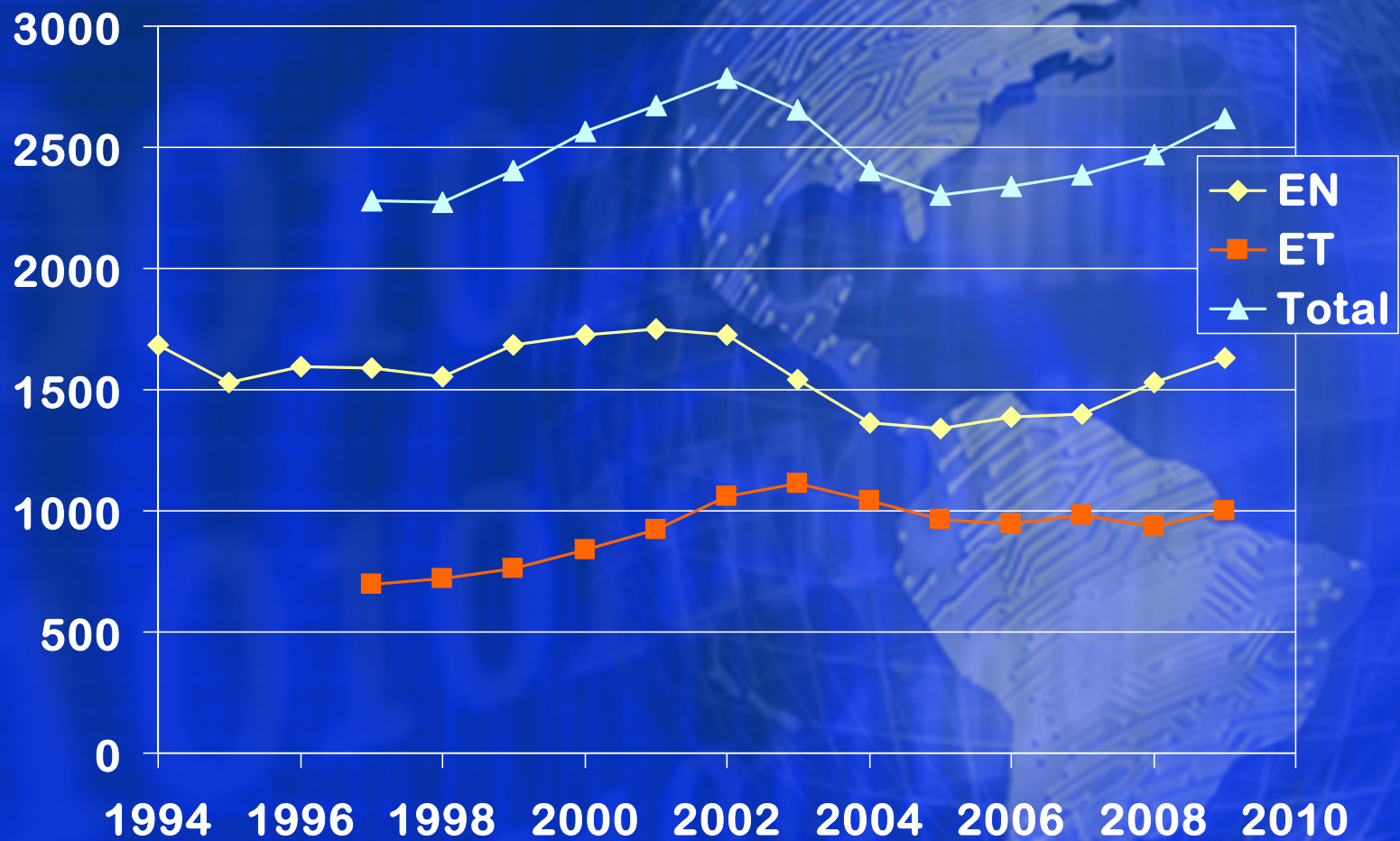
How Do We Compare?

- We are the only institution in NW Ohio to offer the BS degree in ET

- We enroll more ET students than any other institution in the state

- We award more ET degrees
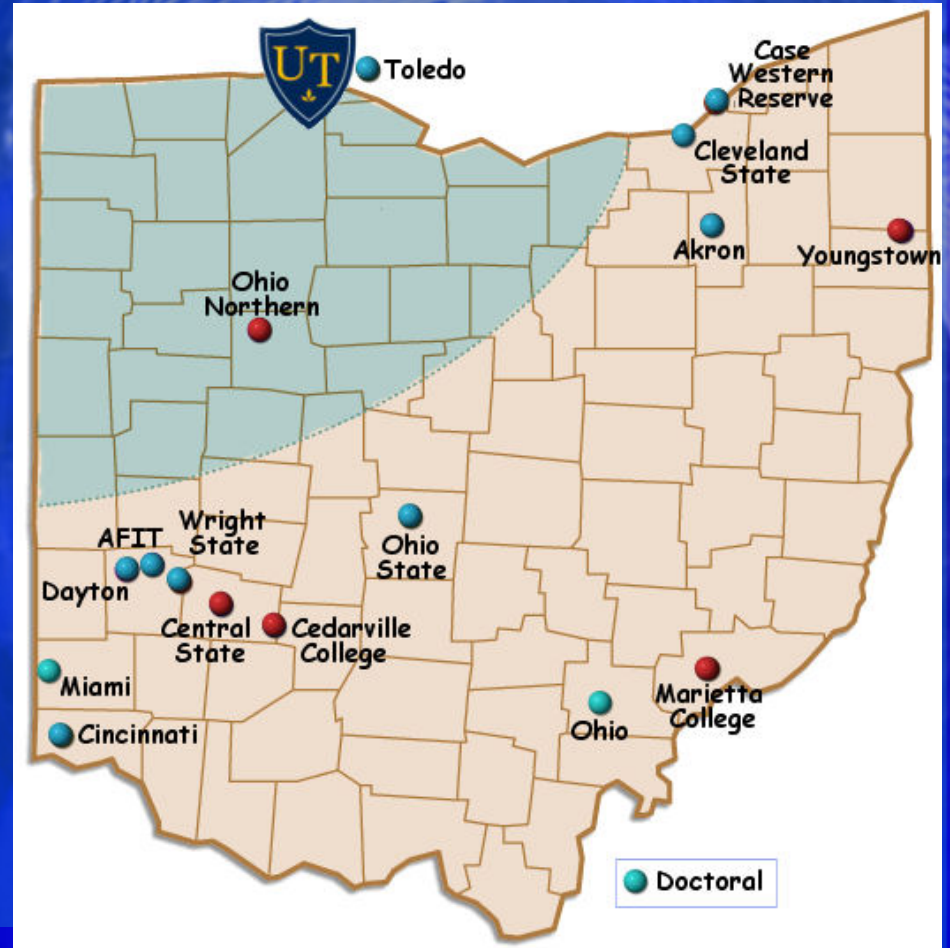
How Do We Compare?

- Published annually by ASEE

- Both Engineering and Engineering Technology

- Widely used by students and parents

How Do We Compare?

- Undergraduate Enrollment in ET
- Ranked 7th
- Poised to move up
  - IT marketing
  - expanded degree completion
  - additional staff and faculty resources

ENGINEERING TECHNOLOGY ENROLLMENT BY SCHOOL*

#	School	Enrollment
1.	Ferris State University	2,046
2.	Southern Polytechnic State University	1,646
3.	Indiana U. Purdue U., Indianapolis	1,417
4.	Rochester Institute of Technology	1,279
5.	Purdue University	1,062
6.	Wentworth Institute of Technology	941
7.	University of Toledo	911
8.	Old Dominion University	899
9.	University of Houston	821
10.	University of Cincinnati	817

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How Do We Compare?

- Bachelor's Degrees Awarded in ET

- Now 8th

- None have significantly better productivity

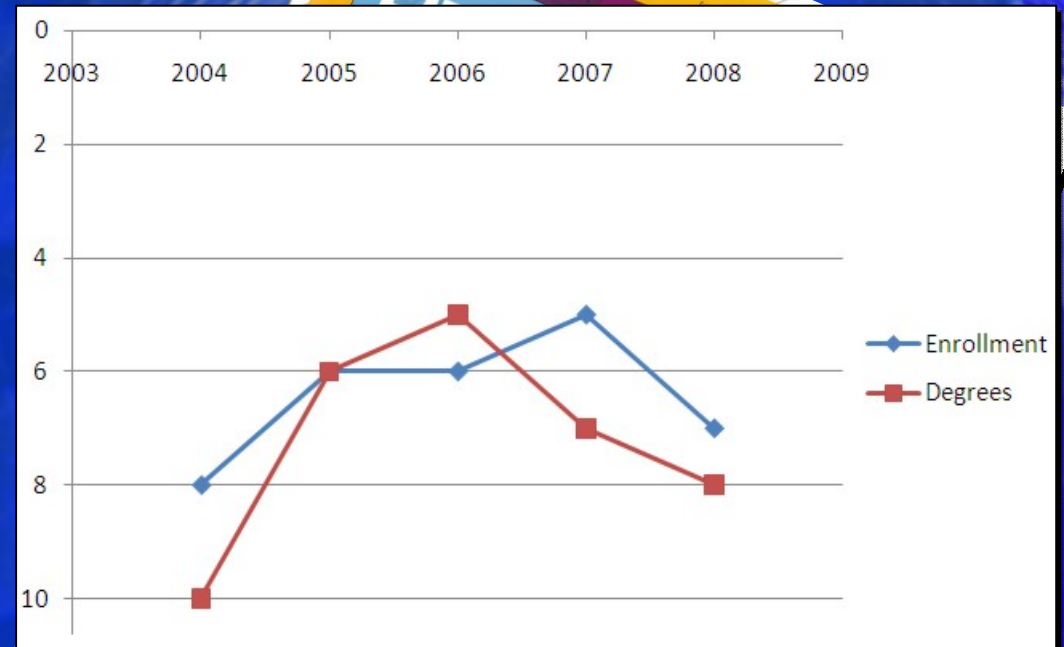 – degrees per enrollment

  – most have a better student/faculty ratio

ENGINEERING TECHNOLOGY BACHELOR'S DEGREES AWARDED BY SCHOOL

	School	
1.	Ferris State University	408
2.	Southern Polytechnic State University	246
3.	Indiana U. Purdue U., Indianapolis	225
4.	Purdue University	224
5.	University of Houston	210
6.	Rochester Institute of Technology	208
7.	Wentworth Institute of Technology	183
8.	University of Toledo	180
9.	University of Cincinnati	172
10.	Old Dominion University	163

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How Do We Compare?

- Our ET department has consistently ranked in the top ten

- Past five years shown at right

- Slight drop when we eliminated our AAS offerings

Serving Students

DHS
transfer
AAS
adult

BS

	Fall Semester	Spring Semester
Freshman Year	MATH 1340 College Alge ENGT 1000 Intro. To Eng ENGT 1050 Computers f ENGL 1110 College Com EET 1010 Resistive Circ Total 15 hours	
Sophomore Year	TSPS 1010 Tech. Physic MATH 2450 Technical Ca CSET 2100 Small Comp EET 2210 Digital Logic F Total 16 hours	
Junior Year	ENGT 3010 A MATH 2890 EET 3150 Uf Communicati Hum./Soc. Sc Total 17 hou	
Senior Year	CSET 4650 F EET 4250 Mi CSET 4100 CGI Prog Wf Hum./Soc. Sci/Multicultu Total 14 hours	

Full-time Day

	Fall Semester	Spring Semester	Summer Semester
Year 1	MATH 1340 College Algebra & Trig. 4 cr. ENGT 1000 Intro. To Engin ENGT 1050 Computers for Total 8 hours	CSET 1200 GUI Programming 3 cr.	ENGL 1110 College Composition I 3 cr.
Year 2	MATH 2450 Technical Calc EET 2010 Electronic Princi		
Pre-J Ye	Multicultural Elective (U.S.)		
	Total 7 hours		
Year 6	CSET 4250 Applied Prog. L CSET 3200 Client-Server C Total 6 hours		

Part-time Night

	Fall Semester	Spring Semester	Summer Semester
Freshman Year	MATH 1340 College Algebra & Trig. 4 cr. ENGT 1000 Intro. To Engineering Tech. 1 cr. ENGT 1050 Computers for Eng. Tech. 3 cr. ENGL 1110 College Composition I 3 cr. EET 1010 Resistive Circuits 4 cr.	CSET 1200 GUI Programming 3 cr. EET 1020 Reactive Circuits 4 cr. EET 2010 Electronic Principles 4 cr. ENGL 2950 Sci. & Tech. Report Writing 3 cr. Social Science Elective 3 cr.	OPEN
Pre-J Ye	Communication Elective 3 cr. Multicultural Elective (U.S.) 3 cr. Total 17 hours	ENGT 3940 Co-op Experience #2	Experience #1 Total 15 hours
Junior Year	ENGT 3940 Co-op Experience #3	EET 3050 Digital Systems Design 4 cr. CSET 4650 Field Prog. Logic Dev. 4 cr. CSET 4100 CGI Prog With Perl & Java 3 cr. Professional Development Elective 3 cr. Total 14 hours	...echnology 4 cr. ...Net. & Data Comm 4 cr. ...opment Elective 4 cr. Social Science Elective 3 cr. ENGT 3940 Co-op Experience #4
Senior Year	ENGT 4050 Senior Tech. Capstone 3 cr. EET 4250 Microcomputer Architecture 4 cr. CSET 3200 Client/Server Computing 3 cr. CSET 4250 Applied Prog. Languages 3 cr. Multicultural Elective (non-U.S.) 3 cr. Total 16 hours		

and …

BS degree-completion programs for CSET and IT programs
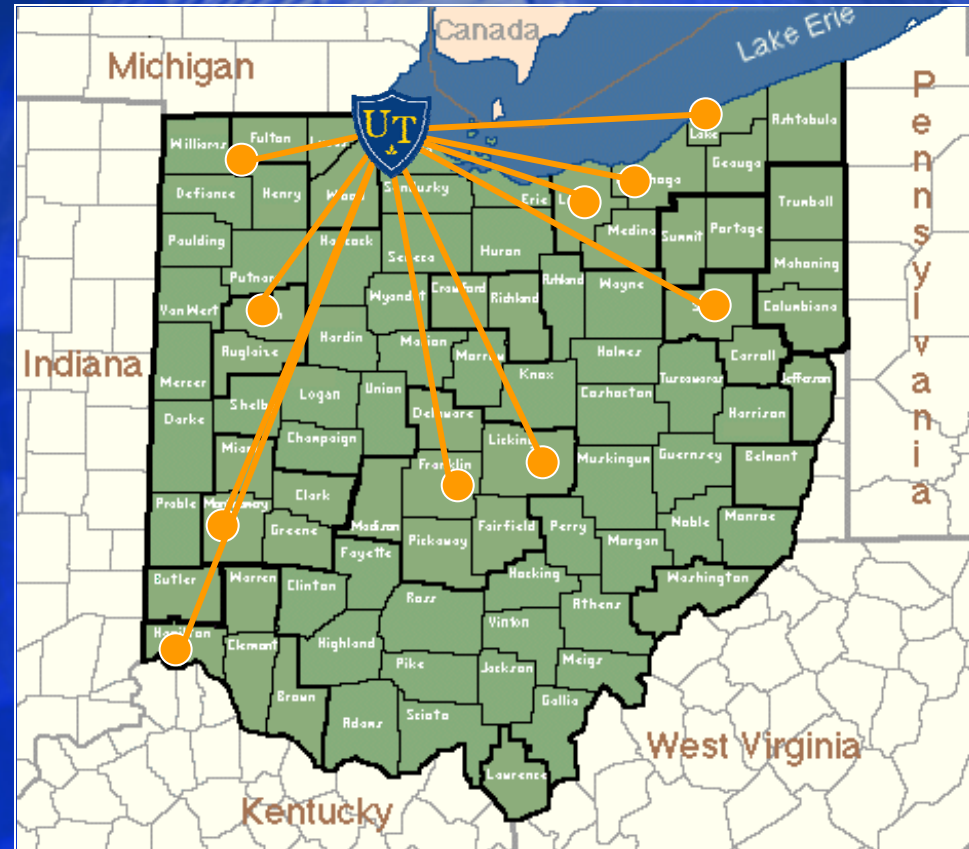
Optional Co-op

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Degree Completion Partners

- Central Ohio
- Cincinnati State
- Columbus State
- Cuyahoga
- Lakeland
- Rhodes
- Lorain County
- Northwest State
- Sinclair
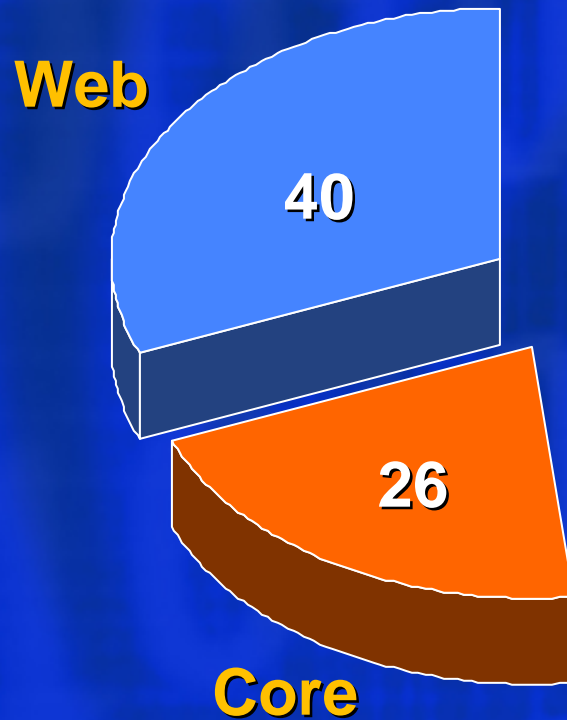- Stark State

Degree Completion Program

Web-based Distance Learning Courses

- Dual admission: UT and CC
- First two years:
  - Articulated AAS program
- Second two years:
  - Social sciences, etc. at CC
  - Technical web-based courses
    - Taught by full-time faculty
  - Optional on-site courses
- Earn a UT BS in Engineering Technology Degree
- All without leaving home!

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Questions / Discussion

Your questions and comments are welcome

Dan Solarek
daniel.solarek@utoledo.edu

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