Department of Engineering Technology

Advisory Council Meeting

April 8, 2005

MIAMI UNIVERSITY SCHOOL OF ENGINEERING & APPLIED SCIENCE

ENGINEERING TECHNOLOGY

HAMILTON & MIDDLETOWN CAMPUSES

Presentation overview

- Engineering Technology--ENT
- Looking back…
- Looking forward…
- Questions/Discussion

MIAMI UNIVERSITY SCHOOL OF ENGINEERING & APPLIED SCIENCE
ENGINEERING TECHNOLOGY
HAMILTON & MIDDLETOWN CAMPUSES

Who are we?

- Housed on the regional campuses in Hamilton and Middletown (commuter campuses)
- Lab Facilities
  - Computers (CAD, engineering analysis, simulations, etc.)
  - Electrical/electronic/microprocessors/PLC's
  - Networking
  - Manufacturing/CNC/Robots
  - Materials (analysis and testing)
  - Process control
  - Fluids—including a wind tunnel
  - Thermodynamics/Heat transfer
  - Vibrations

Engineering Technology

- Faculty and Staff
  - Eight faculty positions (includes chair)
  - Two administrative support (shared with other units)
  - Two technicians

We usually employ two to three adjunct faculty per semester.

Engineering Technology Faculty

Hamilton	Middletown
Rob Speckert, Professor and Chair	
Gary Drigel, Assistant Professor, Mechanical	Suguna Bommaraju, Assistant Professor, Electrical and Computer
Dave Hergert, Professor, Electro-Mechanical	Ron Earley, Associate Professor, Mechanical
Mysore Narayan, Associate Professor, Electro-Mechanical	Vipul Ranatunga, Assistant Professor, Mechanical
Roger Seifried, Visiting, Electrical and Computer	

Engineering Technology Staff

Hamilton	Middletown
Rob Speckert, Chair	
Pam Webb, Administrative Assistant	Debbie Smith, Administrative Assistant
Frank Tonner, Technician	Don Becker, Technician

Current faculty profile

- 50% of our faculty have Ph.D., two others are essentially ABD.
- Typical teaching loads--3 to 4 courses per semester (9-12 credit hours or 11-15 contact hours)
- Considerable service expectations—especially departmental and campus (e.g., Recruiting, Tech Challenge, Business and Industry outreach, committees, etc.)
- Renewed emphasis on scholarship (application, pedagogy, and discovery)
  - Dr. Vipul Ranatunga recently received SEAS Outstanding Research Award for Regional Campuses

Our students

- Most of our students are part time.
- Approximately 200+ majors in four programs.
- More and more students are choosing co-op.
- We deliver our BS Completion degree by distance learning (IVDL, web, DVD, etc.) to five college partners—and growing—across Ohio.

Graduates

- Associate degree graduates typically start as paraprofessionals
  - Technician, engineering assistant, etc.
  - Average approximately $35,000/year
- BS graduates work as professional
  - Engineer, designer, manager, sales
  - Average about $45,000/year
- January 2005 we surveyed all of our graduates. We mailed 467 surveys and received 78 representing graduates from 1974 to 2004. Here are just two bits of information…

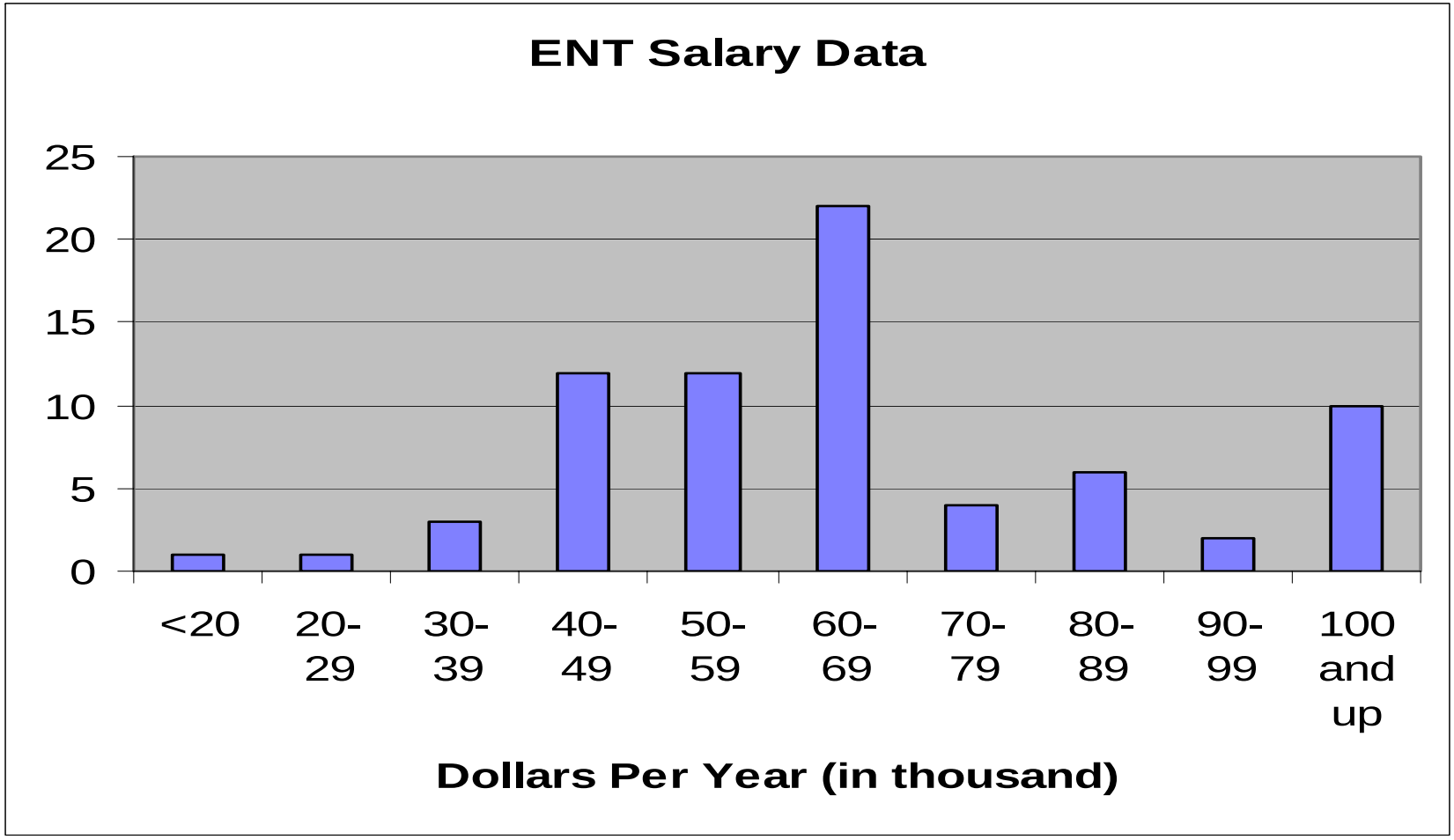
January 2005 survey—Job titles

In order of frequency

- Engineer
- Manager/Supervisor
- Technician/engineering assistant
- Technical sales

- Then other…
  - Owner
  - High school assistant principal
  - Quality assurance
  - GIS specialist
  - Director
  - Project engineer
  - Instructor
  - Unemployed
  - Retired

January 2005 survey—Salaries



Engineering Technology Programs

- Baccalaureate Degrees—"Plus Two"
  - Electro-Mechanical Engineering Technology (BS)
  - Mechanical Engineering Technology (BS)
- Associate Degrees
  - Electrical and Computer Engineering Technology (AD)
  - Mechanical Engineering Technology (AD)
  - Associate of Technical Study (AD)
- Certificates
  - Computer Maintenance (Certificate)
  - CAD/CAM (Certificate)

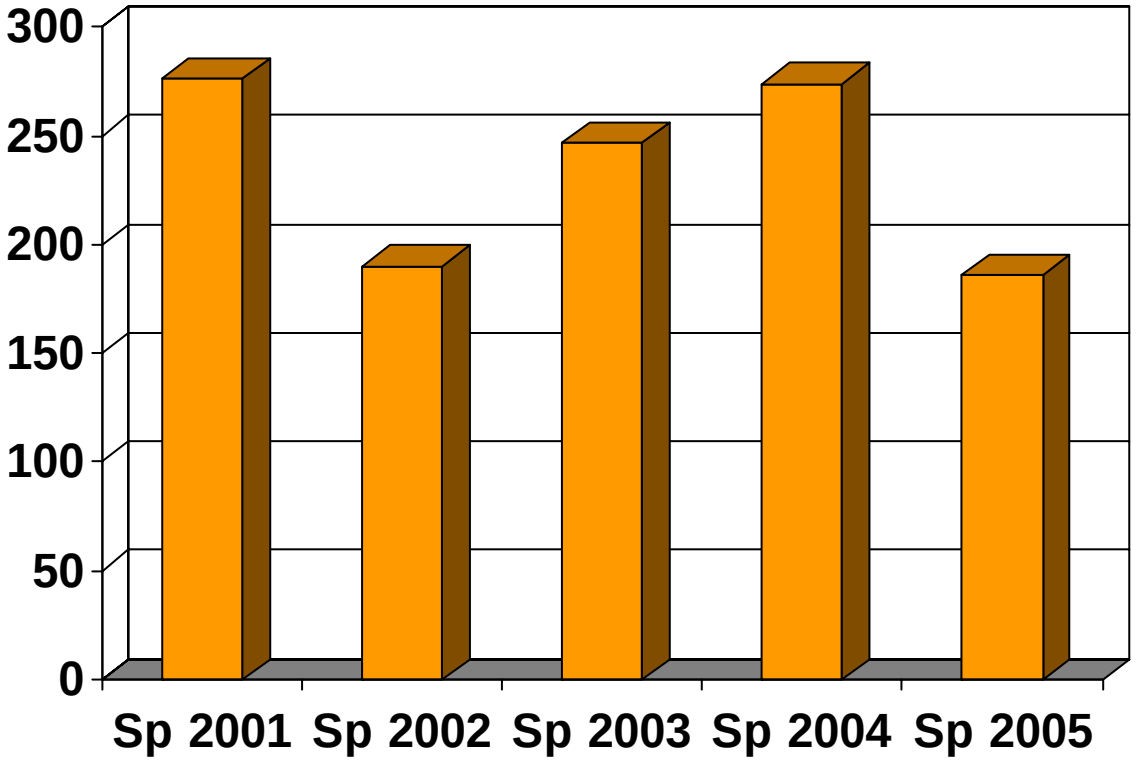
Distance Learning

- Connections between Hamilton and Middletown
- BS Completion-build on associate degree programs ("2+2")
  - Electro-Mechanical
  - Mechanical
- Electro-Mechanical offered by "distance" learning

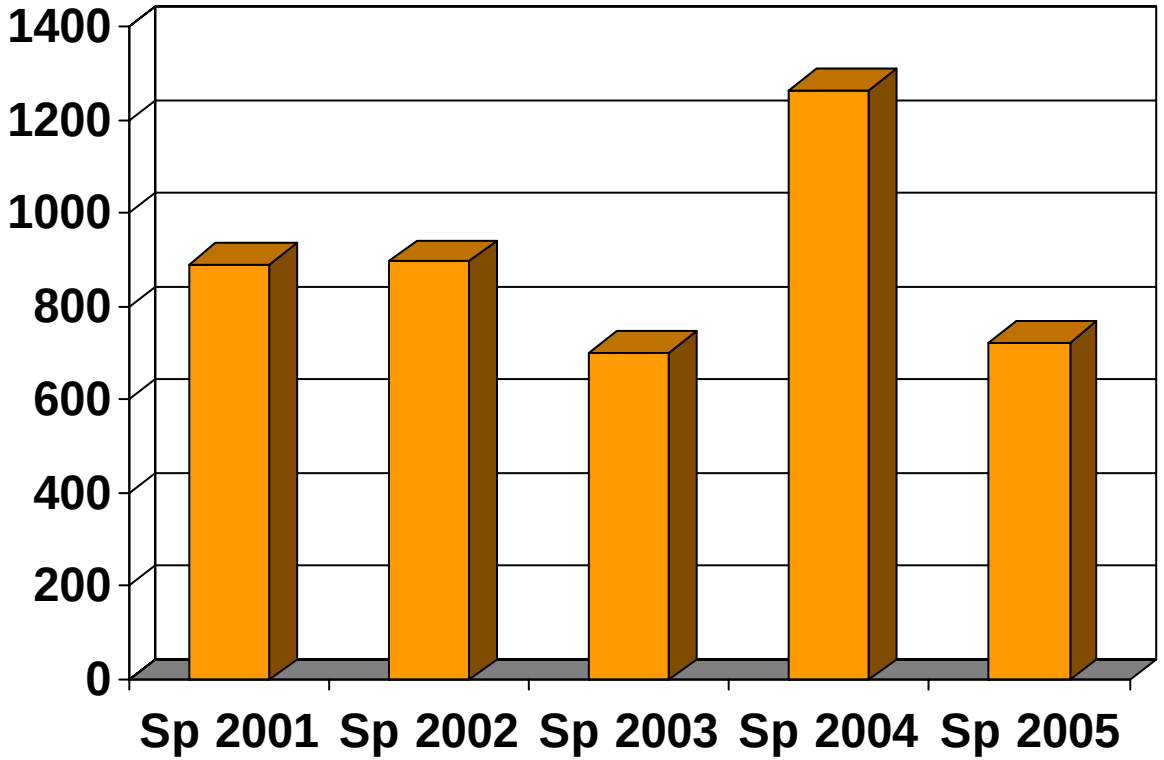
Distance Learning

- Five college partners
  - Columbus State Community College
  - North Central State College (Mansfield)
  - James A. Rhodes State College (Lima)
  - Washington State Community College (Marietta)
  - Shawnee State University (Portsmouth)
- We use a mix of IVDL, web, CD/DVD, and streaming. Mostly synchronous.
- Moving toward an asynchronous model.

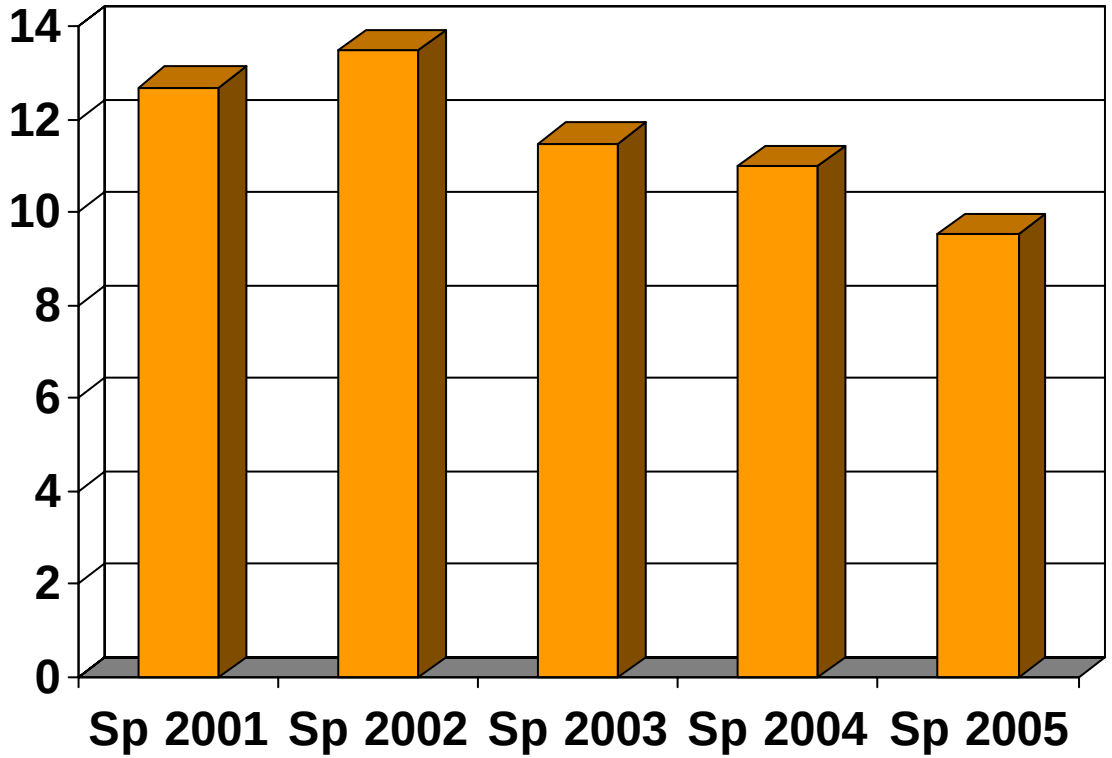
Department of Engineering Technology Majors



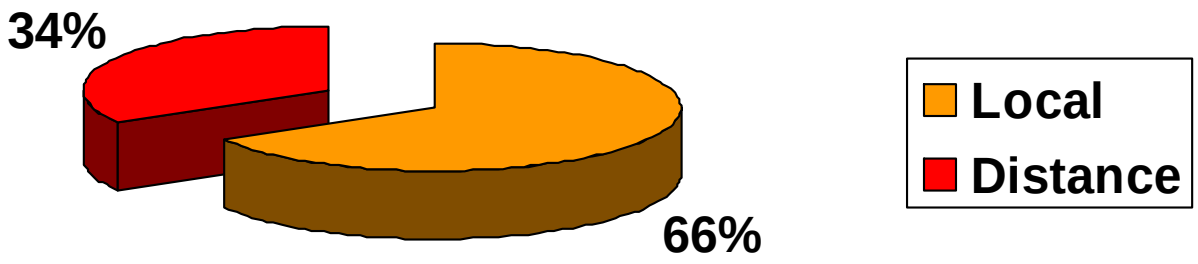
Department of Engineering Technology Student Credit Hours



Department of Engineering Technology Students per Section



Majors—Local vs Distance (est.)



Current Initiatives

- Assessment
- TAC/ABET accreditation preparation
- Senior Design—Thursday, April 28—Wilkes Conference Center, Hamilton campus
- Tech Challenge—Friday, April 29—Middletown Campus
- Chair position transition

Looking Back…

- Prior to 1995..
  - 5 faculty (includes chair), 1.5 staff
  - Two, non-accredited associate degree programs
- 1995-1996
  - TAC/ABET accreditation of associate degree programs
  - BS Approved
    - "Plus Two" Bachelor of Science in Applied Science. Major: Engineering Technology . Concentration": Electro-Mechanical
    - Articulates with two-year programs in Ohio
- Since 1996…
  - Added Mechanical Concentration to BS
  - Added three faculty positions (one is visiting)
  - AD programs reaccredited and seeking TAC/ABET accreditation of BS-Electro-Mechanical—Fall 2005
  - Active distance learning program across Ohio

Looking ahead…

- TAC/ABET accreditation of all programs
- Expansion of distance connections-we have several colleges requesting that we connect with them.
- Possible new programs?
  - Electrical and Computer concentration in BS
  - Electro-Mechanical AD
  - Graduate program in technology

Looking ahead…continued

- Increased emphasis on having Ph.D.
- Growing expectations for high quality scholarship.
- “Market” position—we were positioned as strictly two year program; now we are recognized as two and four year program; we want to become recognized as engineering technology leader in Ohio and beyond.

Department of Engineering Technology

Questions
and
Discussion

MIAMI UNIVERSITY SCHOOL OF ENGINEERING & APPLIED SCIENCE
ENGINEERING
ET
TECHNOLOGY
HAMILTON & MIDDLETOWN CAMPUSES