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# Engineering Technology Department



## **Dynamic Career Options**

Engineering Technology offers preparation at graduate and undergraduate levels for a variety of exciting careers. Degrees are available in three areas.



## **Engineering Technology**

Graduates of the Engineering Technology program are in great demand. They possess a combination of technical skills and scientific and engineering knowledge. This enables them to support engineering activities in many industries. Students may concentrate in one of the following areas:

- Computer Engineering Technology
- Electro-Mechanical Engineering Technology
- Mechanical Engineering Technology

## **Environmental Sustainability and Technology**

Environmental Sustainability and Technology helps prepare graduates for positions in government agencies and as environmental consultants in manufacturing, construction, and agriculture. Jobs are in water and wastewater quality, recycling and waste minimization, noise and air pollution, and energy management. Students may concentrate in the following areas:

- Energy Technology
- Environmental Health and Safety

#### **Mechatronics Engineering**

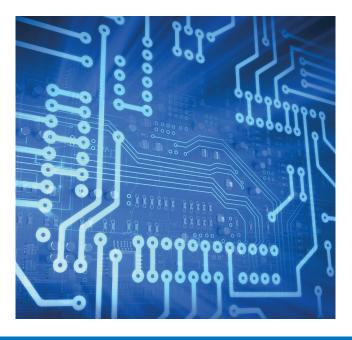
The field of mechatronics encompasses knowledge and skills in mechanical engineering, electronics engineering, digital controls, and computer programming to enable students to analyze and design automation and robotics systems used in advanced manufacturing environments. This program was created in response to industry needs

for engineering graduates who will adopt and use a systems approach in design and problem-solving. The Mechatronics Engineering program seeks to educate and train students in diagnostics, analysis, and design of integrated industrial automation systems.

## **Graduate Program**

A Master of Science in Engineering Technology degree is offered with concentrations in

- Engineering Technology
- Occupational Health and Safety







#### **Graduates**

Graduates of our programs hold many responsible positions in industry, education, and government.

"Staff in the Engineering Technology Department are very willing to assist students, and the faculty members provide a 'real world' education. The programs have given me the engineering tools needed for success in industry."

> Clint Adams Plant Manager Nashville Bun

"My MTSU and ET education strengthened me to be a significant contributor to my company's success in its intense focus on a pursuit of productivity and efficiency."

> Suzy Taylor Manufacturing Engineer Calsonic Kansei North America

"The foundation of the ET Department can be found by combining the classroom with hands-on labs and local industry involvement and support."

Daryl Davis
Project Manager
Medical Device Manufacturer

#### Curriculum

The curriculum in all programs focuses on an applied learning approach that combines essential theory with practical, hands-on experiences. A variety of learning opportunities supports traditional classroom instruction.

#### **Minors**

Electronics Engineering Technology Environmental Sustainability and Technology

#### **Laboratories**

Modern, well-equipped labs are in place for students to gain practical experience in areas such as robotics, hydraulics, CAD/CAM, manufacturing, and electronics.



## **Student organizations**

Organizations targeted to every major let students meet with professionals in their fields, develop teamwork and leadership skills, and network with other students with similar interests.

## **Senior capstone courses**

These courses give students the chance to apply four years of learning toward solving a practical problem. Students use an experimental approach to develop hypotheses, gather data, interpret results, and prepare formal oral and written reports.

## **Faculty**

Well-prepared faculty members with strong academic backgrounds and appropriate industrial experience provide individualized attention through instruction and advising.

#### **Accreditation**

Professional accrediting agencies assure that instructional programs **conform to high national standards** of excellence. Most of our programs are accredited by appropriate agencies. The Computer, Electro-Mechanical, and Mechanical Engineering Technology programs are accredited by the Engineering Technology Accreditation Commission of ABET, **abet.org**.

#### **Industrial involvement**

Strong relationships with businesses are essential to providing experiences that reflect current industrial practices.

#### The Russell Chair of Manufacturing Excellence

The Robert E. and Georgianna West Russell Chair of Manufacturing Excellence is designed to promote quality interaction with local industry. Students benefit from a variety of sponsored activities.

## **Industry partnerships**

Advisory committees comprising representatives of local industry help ensure that programs are current and relevant to industrial needs. Industry partners host projects that qualify students for Six Sigma and LEAN Manufacturing certifications.

## Cooperative education and industrial internships

Both paid and unpaid placements in actual work setings are available to all students through cooperative education and internships. Students apply concepts learned in the classroom and laboratory in real-world settings.



#### MIDDLE TENNESSEE STATE UNIVERSITY

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## The University and community

MTSU has been ranked by *Forbes* magazine as the best public university in Tennessee. The spacious campus features modern buildings that exist harmoniously with historic structures. New residence accommodations, a fully computerized library, a recreation center, and computer access make it possible to provide solid programs to over 22,000 students. Individual help and attention from faculty members is an important aspect of MTSU's educational philosophy.

The campus is in the historic town of Murfreesboro, only 30 miles southeast of Nashville and the center of manufacturing for the region. Living in Murfreesboro allows students to enjoy a metropolitan atmosphere without the impersonalization of a large city.

## **Financial aid**

Different kinds of scholarships and grant programs are available. Applications should be made through the Office of Student Financial Aid.

## **More information**

Engineering Technology Department 615-898-2776 Fax: 615-898-5697

#### mtsu.edu/et

Admissions Office: admissions@mtsu.edu 615-898-2111 1-800-331-MTSU (in Tennessee) 1-800-433-MTSU (out of state) mtsu.edu