Laboratories
There is a great emphasis on hands-on experience throughout this program. Most electronics courses divide time equally between lectures and labs, with more emphasis on lab work at the senior level. There are five laboratories equipped with state-of-the-art instruments:

- Basic electricity and electronics lab
- Advanced electronics lab
- Microprocessor lab
- Local area networks lab
- Industrial electricity and control lab

There are other laboratories housed within the department to support the Computer Engineering Technology and other programs.

For more information
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mtsu.edu

Accreditation

1216-1878 / Middle Tennessee State University does not discriminate on the basis of race, color, national origin, sex, or disability. See our full policy at mtsu.edu/titleix.
The curriculum
The following are curriculum requirements for the Computer Engineering Technology concentration. Students are required to complete a minimum 124 credit hours, 53 of which are in Engineering Technology.

General education
A total of 41 hours in the General Education program is required. The program includes courses in Communication (9 hours), Humanities and/or Fine Arts (9 hours), Social/Behavioral Sciences (6 hours), Natural Sciences (8 hours), Mathematics (3 hours), and History (6 hours). Please refer to the current MTSU Undergraduate Catalog for more details.

Engineering Technology Core (22 hours)
ENGR 1100 Engineering Fundamentals
ENGR 3915 Technical Project Management and Soft Skills
ENGR 3920 Engineering Safety
ENGR 3970 Engineering Economy
ET 3601 Electrical Circuit Analysis I
ET 3602 Electrical Circuit Analysis II
ET 4801 Computer Engineering Technology

Computer Engineering Technology Concentration (31 hours)
ET 3620 Digital Circuits Fundamentals
ET 3630 Electronics
ET 3640 Digital Circuits Design
ET 3650 Introduction to Microprocessors
ET 3670 Computer-Assisted Printed Circuit Board Design
ET 4600 Programmable Logic Controllers
ET 4610 Instrumentation and Controls
ET 4630 Local Area Networks
ET 4640 Industrial Electricity
ET 4660 Microprocessor Interfacing
ET 4670 Microprocessor Design

Supporting courses
CSCI 1170 Computer Science I
CSCI 2170 Computer Science II
CSCI 3160 Introduction to Assembly Language
CSCI 3180 Introduction to Numerical Analysis
ENGL 3620 Professional Writing
MATH 1910 Calculus I
MATH 1920 Calculus II
PHYS 2020/2021 Non-Calculus-Based Physics II

Optional minor
CET students may choose to minor in Computer Science by taking an approved 3-credit-hour CSCI course at the upper division level.

The department
The Engineering Technology (ET) Department prepares students for a wide range of technical and applied engineering positions in industry. Through nationally accredited programs, a project-based learning environment, and extensive collaboration with industry, the department offers opportunities for students to acquire the technical and scientific knowledge required for success in their chosen fields.

The program
The Computer Engineering Technology (CET) concentration is a four-year program leading to the B.S. degree in Engineering Technology. This fast-growing program offers the opportunity to develop strong, applied technical skills in:

• electric and electronic circuits
• embedded and digital systems
• computer hardware and software
• local and wide area networks
• internet of things (IOT)
• microprocessor and microcontroller applications
• automation and control
• data acquisition, transfer, and analysis
• instrumentation and measurements

The Computer Engineering Technology program offers students conceptual and working knowledge needed to design, program, install, maintain, and upgrade systems based on microprocessors and complex digital logic circuits. Microcomputer applications in the areas of control and automation and in data acquisition, transfer, and analysis also are emphasized. The program’s mission is to produce graduates with solid backgrounds in electronics and computer technology, the sciences, and the humanities who possess critical thinking, problem-solving, and effective communication skills and who are ready to work, reliable, adaptable, and team-oriented.

Employment opportunities
Graduates may find employment as computer engineers, electronics engineers, electronics engineer managers, automation and control engineers, project engineers, design engineers, manufacturing engineers, and networking engineers.

Transfer students
Students with associate degrees or those with credits from other higher education institutions may choose to apply for transfer credit evaluation. The College of Basic and Applied Sciences evaluates general education and supporting courses. The ET student technical advisor evaluates technical courses for possible transfer credit.

The prevalence of computers and their applications in our everyday lives has created a great demand for computer engineering technologists. Employment opportunities exist in various industrial fields that require the design and application of embedded systems and computers. These areas include manufacturing; medicine; aerospace; digital instrumentation, control, and measurement; sales; and installation and maintenance of computers and their networks.

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