Big ideas.
Real-world thinking.

MINNESOTA STATE UNIVERSITY
MANKATO

COMPUTER ENGINEERING TECHNOLOGY
College of Science, Engineering & Technology

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING TECHNOLOGY

Computer Engineering Technology is a technological field requiring the application of scientific and engineering knowledge and methods, combined with technical skills, in support of computer activities. A computer engineering technologist is a person who is knowledgeable in computer hardware and software theory and design and who can apply them to a variety of industrial and consumer problems.

CAREER OPPORTUNITIES AVAILABLE FOR STUDENTS COMPLETING THIS DEGREE

Graduates of this program are prepared for entry into the engineering support work environment with well-developed laboratory skills and a broad foundation in the application of engineering technology, including computers, controls/ automation, robotics, instrumentation, and communications technology to engineering problems particularly those associated with computer and embedded systems technology. Graduates will also be ready for advancement into managerial/entrepreneurial endeavors.

ABOUT THE DEGREE

As an accredited engineering technology program, the Computer Engineering Technology curriculum requires students to complete courses in mathematics, physical sciences and engineering technology. Students will experience extensive hands-on laboratories throughout the program. Most of the coursework is completed concurrently with associated laboratory content. The curriculum starts with introductory engineering technology courses with laboratory content focusing on the fundamentals of digital systems and programming and fundamental circuit theory courses in preparation for more advanced electronics, communications and other computer interfacing and embedded systems courses. The curriculum proceeds to establish a foundation for applied embedded systems integration associated with analog and digital circuits and other computer technology and finishes with a creative capstone design project associated with automation during the senior year.

PROGRAM QUALITY INDICATORS

Faculty credentials
The faculty members have extensive educational and industrial experience. Some are licensed professional engineers. All tenured and tenure-track faculty have a terminal (PhD) degree. Many of our faculty members have active theoretical and /or applied research at the undergraduate and graduate levels.

Accreditation
The Computer Engineering Technology program at Minnesota State University, Mankato is accredited by ABET, www.abet.org.

Laboratories
The Computer Engineering Technology program is housed in Trafton Science Center, a facility with more than $9 million of modern laboratory equipment used in the support of departmental programs. The Department of Electrical and Computer Engineering and Technology maintains laboratories to support communications, integrated circuit design and fabrication, electronics, networking, digital system design, microprocessor design and interfacing, and antenna design.

Alumni Successes
Many successful engineering technicians have received their degrees from Minnesota State University, Mankato. Some have continued on to pursue advanced degrees and others have joined the ranks of engineering technology professionals in circuit test rig development, automation technology development, embedded design and in other industries.

FOR MORE INFORMATION PLEASE CONTACT

Department of Electrical and Computer Engineering and Technology
Minnesota State University, Mankato
242 Trafton Science Center N
Mankato, MN 56001

Phone
507-389-5747
800-627-3529 or 711 (MRS/TTY)

Fax
507-389-6280

Website
cset.mnsu.edu/ecet

You are encouraged to visit the campus.
To arrange for a visit, please call:
Office of Admissions: 507-389-1822
Toll-free: 800-722-0544

SAMPLE FOUR-YEAR CURRICULUM (COMPUTER ENGINEERING TECHNOLOGY, BS)

First Year (Fall)	First Year (Spring)
ENG 101 English Comp (4) EET 113 DC Circuits (3) MATH 115 Pre-Calculus (4) EET 141 Integrated Computer Technology I (4) EE105 Introduction to Electrical & Computer Engineering and Technology (1)	CMST 102 Public Speaking (3) EET 107 Intro to Electrical and Computer Engineering Through Software Development (3) EET 114 AC Circuits (3) MATH 121 Calculus I (4) General Education Course (3)
Second Year (Fall)	**Second Year (Spring)**
MATH 127 Calculus II for Engineering Technology: Integration (2) EET 143 Integrated Computer Technology III (4) PHYS 211 Principles of Physics I (4) EET 221 Electronic CAD (3) EET 222 Electronics I (4)	PHYS 212 Principles of Physics II (4) EET 223 Electronics II (4) EE 234 Microprocessor Engineering I (3) EE 235 Microprocessor Engineering Laboratory I 1 credits EET 341 Electronic Shop Practices (2) General Education Course (3)
Third Year (Fall)	**Third Year (Spring)**
CHEM 104 Introduction to Chemistry (3) EET 310 Programming Tools (4) EET 384 Microprocessors II (4) Math 180 Mathematics for Computer Science (4) General Education Course (3)	STAT 221 Applied Probability and Statistics for Engineers (3) EET 456 Analog Communications (4) General Education Course (3) General Education Course (3)
Fourth Year (Fall)	**Fourth Year (Spring)**
MET 427 Quality Management Systems (3) EET 461 Industrial Automation I (4) EE 470 Wireless Networking (3) EET 497 Internship (3) General Education Course (3)	EET 430 Computer Networking I (4) EET 441 Embedded Systems (4) EET 462 Industrial Automation II (4) Elective Course in Major (4)

*6 credit-hours of 300-level and 400-level technical electives are required.
**One additional EET technical elective may be substituted for Internship - Permission required.
Must have 20 or more credits upper division EET at Minnesota State Mankato.
Must have a cumulative GPA of 2.0 or better for all upper level EET courses

For additional information about course requirements, please visit http://www.mnsu.edu/supersite/academics/bulletins/

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MINNESOTA STATE UNIVERSITY MANKATO

MINNESOTA STATE

Minnesota State University, Mankato
A member of Minnesota State

Safety/Security Programs & Statistics are available at www.mnsu.edu/safety

Placement & Occupational Outlook for Majors are available at www.mnsu.edu/cdc/

(Click on Resources and then Graduate Statistics)