

RECEIVED OCT 13 2006

**Proposed catalog description**

Changes:

APPROVED MAR 21 2007

Student will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP or have taken MATH 1310 prior to beginning courses in Electrical Power Engineering Technology.

Technical Elective block will now require 12 hours of electives instead of 9 semester hours.

**Computer Engineering Technology (CETE)**

The goal of the Computer Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technology as a preparation for productive employment in the broad field of microcomputer applications. This goal is achieved through several objectives such as continuing to update specific courses in the program to ensure relevance to the latest industrial changes, supporting the development of appropriate computer facilities, promoting the integration of advanced computer technology in all courses, and encouraging professional growth and development of the faculty. The program is designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for life-long learning.

Computers are used to control processes in manufacturing, chemical production, and oil refining. They are used to route data and conversations in telephone communication; provide the best shipping, billing, routing, and inventory information for shipping and trucking; and passenger ticketing and routing information for airlines. Computers and appropriate software packages are also used to solve scientific and engineering problems, to aid in medical tests and diagnoses, and to help design structures and buildings.

With computers assisting nearly every professional and leisure activity of modern life, people who can design, install, configure, network, and maintain computer systems can make a valuable contribution to business and industry. People familiar with both the hardware and software requirements of computers are especially valuable.

Computer Engineering Technology majors study the application of state-of-the-art hardware and software in contemporary computer systems. Students are given a solid foundation in mathematics, basic sciences, and electronics. A thorough study is made of digital circuits and systems, and computer circuits and systems. Hardware and software aspects of computers are covered in detail. Graduates of Computer Engineering Technology are qualified for immediate employment in a variety of industries as sales representatives, field specialists, interface designers, software specialists, and digital applications specialists.

Majors in Computer Engineering Technology may use no grade below C- in junior and senior level ELET courses to satisfy major degree requirements.

Students pursuing the Computer Engineering Technology major must complete the following requirements, in addition to university core and general college requirements.

---

**Major Requirements -  
Computer Engineering Technology**

ELET 1300, 1100. Electrical Circuits I, Laboratory

ELET 1301, 1101. Electrical Circuits II, Laboratory

ELET 2303, 2103. Digital Systems, Laboratory

ELET 2305, 2105. Semiconductor Devices and Circuits, Laboratory

ELET 3301. Linear Systems Analysis

ELET 3302. Communications Circuits

ELET 3403. Sensor Applications

ELET 3405. Microprocessor Architecture

ELET 3425. Embedded Systems

ELET 4308, 4208. Senior Project, Laboratory

ELET 4421. Computer Networks

Pre-approved Electives. Select 12 semester hours from the following:

ELET 4300. Unix Operating  
Systems

ELET 4302. Data Communication  
Systems

ELET 4309. Object-Oriented  
Applications Programming

ELET 4315. Telecommunications

ELET 4325. Advanced  
Microcomputer Networks

Approved ELET elective  
(3 advanced semester hours)

General Technology:

ELET 2300. Introduction to C ++ Language Programming

TELS 3340. Organizational Leadership and Supervision

*or*

HDCS 3300. Organizational  
Decisions in Technology

TELS 3363. Technical Communications

MECT 3341. Computer-Aided Drafting I

*or*

approved MECT elective  
Free electives (3 semester hours)

---

**Technology and Other Requirements**

Mathematics (17 semester hours)

Student will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP or have taken MATH 1310

MATH 1330. Precalculus

MATH 1431. Calculus I

MATH 1432. Calculus II

TECH 3366. Applied Numerical Methods

Natural Sciences (11 semester hours which includes university core).....

PHYS 1301, 1101. Introductory General Physics I and Lab

PHYS 1302, 1102. Introductory General Physics II and Lab

CHEM 1301. Foundations of Chemistry

**Social Sciences**

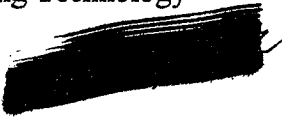
(6 semester hours)

Six semester hours (three must be writing intensive) selected from core approved list.

---

**Degree awarded:** Bachelor of Science

**Major:** Computer Engineering Technology



**Current Catalog description****Computer Engineering Technology (CETE)**

The goal of the Computer Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technology as a preparation for productive employment in the broad field of microcomputer applications. This goal is achieved through several objectives such as continuing to update specific courses in the program to ensure relevance to the latest industrial changes, supporting the development of appropriate computer facilities, promoting the integration of advanced computer technology in all courses, and encouraging professional growth and development of the faculty. The program is designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for life-long learning.

Computers are used to control processes in manufacturing, chemical production, and oil refining. They are used to route data and conversations in telephone communication; provide the best shipping, billing, routing, and inventory information for shipping and trucking; and passenger ticketing and routing information for airlines. Computers and appropriate software packages are also used to solve scientific and engineering problems, to aid in medical tests and diagnoses, and to help design structures and buildings.

With computers assisting nearly every professional and leisure activity of modern life, people who can design, install, configure, network, and maintain computer systems can make a valuable contribution to business and industry. People familiar with both the hardware and software requirements of computers are especially valuable.

Computer Engineering Technology majors study the application of state-of-the-art hardware and software in contemporary computer systems. Students are given a solid foundation in mathematics, basic sciences, and electronics. A thorough study is made of digital circuits and systems, and computer circuits and systems. Hardware and software aspects of computers are covered in detail. Graduates of Computer Engineering Technology are qualified for immediate employment in a variety of industries as sales representatives, field specialists, interface designers, software specialists, and digital applications specialists.

Majors in Computer Engineering Technology may use no grade below C- in junior and senior level ELET courses to satisfy major degree requirements.

Students pursuing the Computer Engineering Technology major must complete the following requirements, in addition to university core and general college requirements.

---

**Major Requirements -  
Computer Engineering Technology**

ELET 1300, 1100. Electrical Circuits I, Laboratory  
ELET 1301, 1101. Electrical Circuits II, Laboratory  
ELET 2303, 2103. Digital Systems, Laboratory  
ELET 2305, 2105. Semiconductor Devices and Circuits, Laboratory  
ELET 3301. Linear Systems Analysis  
ELET 3302. Communications Circuits  
ELET 3403. Sensor Applications  
ELET 3405. Microprocessor Architecture  
ELET 3425. Embedded Systems  
ELET 4308, 4208. Senior Project, Laboratory  
ELET 4421. Computer Networks

Pre-approved Electives. Select 9 semester hours from the following:

ELET 4300. Unix Operating  
Systems  
ELET 4302. Data Communication  
Systems  
ELET 4309. Object-Oriented  
Applications Programming  
ELET 4315. Telecommunications  
ELET 4325. Advanced  
Microcomputer Networks  
Approved ELET elective  
(3 advanced semester hours)

General Technology:

ELET 2300. Introduction to C ++ Language Programming  
TELS 3340. Organizational Leadership and Supervision  
*or*  
HDCS 3300. Organizational  
Decisions in Technology  
TELS 3363. Technical Communications  
MECT 3341. Computer-Aided Drafting I  
*or*  
approved MECT elective  
Free electives (3 semester hours)

---

### Technology and Other Requirements

Mathematics (17 semester hours)

MATH 1310. College Algebra

MATH 1330. Precalculus

MATH 1431. Calculus I

MATH 1432. Calculus II

TECH 3366. Applied Numerical Methods

Natural Sciences (11 semester hours which includes university core)

PHYS 1301, 1101. Introductory General Physics I and Lab

PHYS 1302, 1102. Introductory General Physics II and Lab

CHEM 1301. Foundations of Chemistry

### **Social Sciences**

(6 semester hours)

Six semester hours (three must be writing intensive) selected from core approved list.

---

**Degree awarded:** Bachelor of Science

**Major:** Computer Engineering Technology