

**UC College of Engineering and Applied Science
Department of Electrical Engineering and Computing Systems**

Minor in Computer Technology (CTECH)

5 courses, 20 credits

(student must earn a grade of C- or above in all courses taken for the minor)

Minor Advisor: M. Rabiee

Description: This minor is for students whose major is not CompE, EE or EET. Students earning this minor will learn how to incorporate practical and hands-on knowledge of computer systems into engineering designs. After building on a foundation of fundamental courses in digital systems and programming, this minor offers more intensive instruction in computer applications such as networking, wireless data communications, and software engineering. Laboratory components in courses required for this minor provide the necessary hands-on experience.

Prerequisites: Open to any UC student who meets the prerequisites for the courses required for this minor

Learning Outcomes:

- Students will be able to apply knowledge of mathematics, computer programming, and computer engineering to engineering systems
- Students will be able to design and conduct data acquisition experiments, as well as to analyze and interpret data for mechanical and aeronautical systems
- Students will be able to design and build a circuit using digital, microprocessor and microcontroller components, or to design a process to meet desired needs for analysis and control of an engineering system
- Students will learn how to function on multi-disciplinary teams to identify, plan and solve problems related to engineering systems
- Students will be able to use the techniques, skills, and modern computer programming and computer engineering tools necessary for engineering practices

Course Requirements for the Computer Technology Minor

Two required courses:

ELTN 1041C, Digital Systems (4 cr, Fall)

EECE 1080C, Programming for ECE (4 cr, Spring or Summer)

Three elective courses chosen from:

ELTN 3042C, Embedded Systems (4 cr, Fall)

ELTN 4056C, Computer Networks (4 cr, Fall)

ELTN 4057C, Wireless Communications & Networks (4 cr)

ELTN 4086, Graphical Network Programming, (4 cr)

*Approved by CEAS faculty
December 11, 2014*

*Approved by Provost July 10,
2015*

*Updated by EECS
Undergraduate Council May 24,
2017*