

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

Minor in Electronic Technology (ELTN)

5 courses, 18-19 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 electric, electronic and electromechanical devices into engineering systems. After building on a foundation of fundamental courses in electric circuits, this minor offers more intensive instruction in analog electronics, programmable logic controllers, sensors and electromechanical devices. 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, physical science and electronic 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 electronic and electrical 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 electronic and electrical engineering tools necessary for engineering practices

Course Requirements for the Electronic Technology Minor

Three required courses:

ELTN 1042 Circuit Analysis I (3 cr)

ELTN 1043C Circuit Analysis (4 cr)

ELTN 2003C Electronics (4 cr)

Two elective courses chosen from:

ELTN 4015C Flexible Automation or MET3050 Logic Control (20MET3050 (4 or 3 cr)

ELTN 4016C Electric Rotating Machines (4 cr)

ELTN 4041C, Data Acquisition and Measurements (4 cr)

ELTN 4085C Digital Signal Processing (4 cr)

*Approved by CEAS faculty
December 11, 2014*

*Approved by Provost July 10,
2015*

*Updated by EECS
Undergraduate Council May 24,
2017*