

ELECTRONICS TECHNOLOGY (ETEE)

ETEE 1340. Electronics Technology I. 3 Hours.

This course is designed to provide fundamental understanding of electronics in DC circuits. Emphasis is on knowledge and application of electrical safety, power generation, metering instruments and circuit analysis. Laboratory experiences include hands-on circuit construction and basic troubleshooting.

ETEE 2320. Electronics Technology II. 3 Hours.

This course is an in-depth study of the electronic principles associated with AC circuits. Topics of study include network theorems, circuit analysis methods, resonance, filters and frequency responses of reactive circuits.

Prerequisite: ETEE 1340 or consent of instructor.

ETEE 2396. Special Topic. 3 Hours.**ETEE 3350. Solid State Electronics. 3 Hours.**

This course is designed to provide in-depth knowledge and experience in the principles and applications of solid-state devices. Specific emphasis is placed on the construction, characteristics and applications of diodes, rectifiers, transistors, thyristors and integrated circuits. Laboratory experience is gained through circuit construction, testing and troubleshooting.

Prerequisite: ETEE 2320 or consent of instructor.

ETEE 3373. Industrial Electronics. 3 Hours.

The principles and operation of electrical switching, timing and control devices are studied with emphasis on industrial solid state and digital controls. Topics of coverage include servomechanisms, transducers, motor control systems and closed-loop industrial systems. Sophomore standing.

Prerequisite: ETEE 2320 and ETEE 1340.

ETEE 4096. Directed Study. 1-6 Hours.

Arranged professional and developmental learning experiences incorporating a practical application of electronics technology skills and practices. To include internships, individual research and industry studies. Variable Credit (1-6).

Prerequisite: Sophomore standing.

ETEE 4351. Automation & Control Systems. 3 Hours.

This course explores the concepts of automation, electrical control systems, and programmable logic controllers. Topics may include principles of control system operations, numbering systems as applied to electrical controls, types of programmable logic controllers and their operation, equipment interfacing, and ladder logic programs. Application-oriented laboratory experiments and design problems are used to enhance students' knowledge and skills.

Prerequisite: ETEE 3350.

ETEE 4352. Instrumentation & Interfacing. 3 Hours.

This course focuses on computer-aided instrumentation and interfacing. Topics include real-time industrial data acquisition hardware and software, sensors, signal conditioning, and the design of data acquisition systems using software tools.

Prerequisite: ETEE 3350.

ETEE 4369. Special Topic. 3 Hours.**ETEE 4373. Digital Electronics. 3 Hours.**

This course is a study of the principles and applications of digital logic circuits including logic gates, counters, shift registers, and combinational logic circuits. Laboratory experiences consist of experimental problems. Junior standing.

Prerequisite: ETEE 2350 or consent of instructor.