

Electronic Technology (ETEC)

Courses

ETEC 101 AC/DC Electronics I

Credits: 3

Term: (Currently not offered)

This course introduces safety rules, concepts, and operating characteristics of direct current (DC) and alternating current (AC) electrical circuits. Selection, inspection, use, and maintenance for common electrical test equipment are also covered.

ETEC 103 AC/DC Electronics II

Credits: 3

Term: (Currently not offered)

Prerequisite OR Corequisite: ETEC 101 with C- or higher

This course is a continuation of the AC/DC Electronics I course. Safety rules, concepts, and operating characteristics of electrical circuits will continue to be emphasized. Capacitors, inductors, low voltage power supplies, diodes, transistors, and triacs will be introduced.

ETEC 220 Electrical Power and Distribution I

Credits: 3

Term: (Currently not offered)

Prerequisite: ETEC 103, ELCT 130, NRGY 110, & MCH 130 with a C- or higher.

This course covers an introduction to the generation of electrical power and moving that power through a local transmission system to a substation where a customer will purchase the generated power. Safely working with components of a high voltage transmission system will also be covered.

ETEC 230 Electrical Power and Distribution II

Credits: 3

Term: (Currently not offered)

Prerequisite: ETEC 220, ELCT 250, ETEC 245, ETEC 231 with a C- or higher.

This course is a continuation of the Electrical Power and Distribution I course. It covers the generation of electrical power and moving that power through a local transmission system to a substation where a customer will purchase the generated power.

ETEC 231 Electronic Drive Systems

Credits: 3

Term: (Currently not offered)

Prerequisite: ETEC 103, ELCT 130, NRGY 110, & MCH 130 with C- or higher

This is an advanced course in electronic drive systems used in industrial applications. Electronic control of Direct Current and Alternating Current motors, transmission and solid-state controllers, and electronic control of power generation equipment.

ETEC 234 Automatic Controls

Credits: 4

Term: (Currently not offered)

Prerequisite: ELCT 250, ETEC 220, ETEC 231, and ETEC 245 with a C- or higher.

This course explores the theory, terminology, and components used in automatic control of industrial machines. Servomechanisms will be used as a representative control system to analyze open-loop, closed-loop, proportional, integral, and differential control strategies. The use of transducers and computers in automatic control systems in the industrial control setting is emphasized.

ETEC 236 Intro to Industrial Robotics

Credits: 3

Term: (Currently not offered)

Prerequisite: ELCT 250, ETEC 220, ETEC 245, & ETEC 231 with a C- or higher.

This course introduces the concepts of industrial robotics. This course provides an overview of industrial robots and their role in the process of automation. Basic programming methods, maintenance, and system interfacing will also be covered.

ETEC 245 Digital Electronics

Credits: 4

Term: (Currently not offered)

Prerequisite: ETEC 103, ELCT 130, NRGY 110, & MCH 130 with a C- or higher.

This course covers basic digital circuits and their use in microprocessors and other digital devices. Reading digital logic schematics and building, testing, and troubleshooting digital circuits is also covered.