Electronics Technology (ELET)

ELET 001 Basic Electronics (dc) (3)

Class Hours: *36 Lecture | 54 Laboratory*

Advisory(s): *ENG 051A and MATH 061 (Recommended, Previous or concurrent).*

Transfers to: *CSU*

Basic Electronics (dc)

ELET 001 is an introduction to electricity and electronics including basic components, electronic circuit calculations, basic electronic test equipment use, electrical measurement, relays and ladder diagrams, direct current (DC) circuits, and electronic schematic diagrams.

ELET 002 Electronic Circuits (4)

Class Hours: *54 Lecture | 54 Laboratory*

Prerequisite(s): *ELET 001*

Transfers to: *CSU*

Electronic Circuits

ELET 002 is an application of analog and digital electronic circuits and systems. Content includes: semiconductor components, analog circuits (power supplies, amplifiers, and oscillators), digital electronic circuits (logic gates, sequential logic circuits), and digital signal processing (A/D and D/A conversion).

ELET 003 Programmable Logic Controllers (3)

Class Hours: *36 Lecture | 54 Laboratory*

Transfers to: *CSU*

Programmable Logic Controllers

ELET 003 is an introduction to the function and application of programmable logic controllers. Students will become familiar with the programming and wiring of programmable logic controllers and software. Topics include bit-level input and output instructions, timers, counters, latches, documentations, and troubleshooting.

ELET 004 Comp Integrated Manufacturing (3)

Class Hours: *36 Lecture | 54 Laboratory*

Prerequisite(s): *ELET 003*

Transfers to: *CSU*

Computer Integrated Manufacturing

ELET 004 is an introduction to industrial automation technologies and the procedures utilized when troubleshooting automated control systems. Topics include programmable logic controllers (PLC), machine control, industrial robots, barcode readers, material handling systems, and Ethernet communications.

ELET 005 Inst & Process Control (3)

Class Hours: *36 Lecture | 54 Laboratory*

Prerequisite(s): *ELET 003*

Transfers to: *CSU*

Instrumentation and Process Control

ELET 005 is an introduction to instrumentation and process control principles: transducers, actuators, sensors, computer interface software, terminologies, standards and trends in control technologies, piping and instrument diagrams and tags, PLC principles for PID control, and basic control algorithms.

ELET 006 Electric Motors & Controls (4)

Class Hours: *54 Lecture | 54 Laboratory*
Prerequisite(s): *ELET 001*
Transfers to: *CSU*

Electric Motors & Controls

ELET 006 is an introduction to the basic principles, applications, and configuration of direct current and alternating current machines, motor starters, programmable, solid state, and electromechanical motor controllers/drives, input devices, relays, pilot devices, and other industrial electronics components and circuitry.

ELET 007 Advprogrammable Logic Control (3)

Class Hours: *36 Lecture | 54 Laboratory*
Prerequisite(s): *ELET 003*
Transfers to: *CSU*

Advanced Programmable Logic Control

ELET 007 is an expansion to the function and application of programmable logic controllers. Students will boceme familiar with the programming of Allen Bradley Control Logix series controllers with RSLogix 5000 software, providing all of the basics of using the Rockwell Automations Control Logix platform of PLCs.