

ELT - ELECTRONICS AND COMPUTER TECHNOLOGY

ELT 101 5 credit hours (lecture: 4 | lab: 3)

Introduction to Electronics

Course introduces electronics curriculum with hands-on labs and simulations. Topics range from Ohm's Law to semiconductor circuits, and include series and parallel circuits, capacitors, inductors, and magnetics, with focus on analog and digital circuits. Background in basic algebra recommended to understand electronics concepts.

Instruction Type: In-Person | Online | Hybrid Fee: \$40
Term Typically Offered: Fall | Spring

ELT 105 3 credit hours (lecture: 3 | lab: 2)

Network Infrastructure Essentials

Course examines physical aspects of voice and data network cabling and installation. Topics include overview of industry and worldwide standards; types of media and cabling; physical and logical networks, as well as signal transmission. Focus of hands-on, lab-oriented course is documentation, design and installation issues, laboratory safety, on-the-job safety, and working effectively in group environments. Course helps prepare for BICSI Registered Certified Installer, Level 1 exam. Credit toward graduation cannot be received for both ELT 105 and CNS 140.

Instruction Type: In-Person Fee: \$40

ELT 106 3 credit hours (lecture: 2 | lab: 2)

Semiconductor Theory

Course presents basic study of diodes and transistors. Content includes grounded base, emitter and collector amplifiers; study of stability, gain and the impedance characteristics of the transistor.

Recommended: ELT 101.
Instruction Type: In-Person | Online | Hybrid Fee: \$30
Term Typically Offered: Fall

ELT 107 3 credit hours (lecture: 3 | lab: 0)

Survey of Electronics

Course covers fundamentals of electricity and electronics. Overview of circuitry and devices used in industry, as basis for further study and practical application of skills. Experimentation and demonstration for thorough understanding of principles. Of value for both the lay person and future professional in the field.

Instruction Type: In-Person | Online
Term Typically Offered: Fall | Spring | Summer

ELT 108 3 credit hours (lecture: 2 | lab: 2)

Home Technology Integration

Course, sponsored by the Cisco Learning Institute, presents knowledge and skills in core competencies such as installation, integration, and troubleshooting, as related to the home networking technology industry. Lab equipment and online curricula are used. Content includes variety of residential subsystems including networking, lighting, structured wiring, HVAC controls, security, and home entertainment. Course helps prepare students for the CompTIA HTI+ Certified Exam.

Recommended: ELT 101 or ELT 107 or equivalent.
Instruction Type: In-Person Fee: \$55
Term Typically Offered: Spring

ELT 110 4 credit hours (lecture: 3 | lab: 3)

Electronic Drafting Using CAD

Project-based course covering elementary principles of drafting as applied to electronics systems, using AutoCAD. Content includes block diagrams, schematics and printed circuit boards. Prior computer experience not essential.

Instruction Type: In-Person | Online Fee: \$40
Term Typically Offered: Fall

ELT 114 3 credit hours (lecture: 2 | lab: 2)

Residential Wiring

Course provides technical skills and knowledge of residential wiring, to conform to the National Electrical Code. Content includes safe installing, maintaining, replacing and repairing residential wiring and distribution systems. Hands-on labs, using of variety of tools and equipment to complete and troubleshoot residential electrical wiring projects.

Instruction Type: In-Person | Online | Hybrid Fee: \$40
Term Typically Offered: Fall | Spring

ELT 120 3 credit hours (lecture: 2 | lab: 2)

Introduction to Radio Frequency Identification

Course covers radio frequency identification (RFID) concepts and fundamentals, and how emerging electronic product code (EPCglobal) standards are influencing adoption. Content includes RFID capabilities, current applications of RFID in businesses, and practical ways to articulate use cases for this technology to potential employers and peers.

Instruction Type: In-Person | Online Fee: \$40

ELT 130 3 credit hours (lecture: 2 | lab: 2)

Microcomputer Hardware Systems

Course introduces maintenance and repairs of personal computers. Content includes hardware parts of computers, theory of operation, function of parts, topics in maintenance, proper use of instruments in troubleshooting, limited repairs and an introduction to language.

Recommended: ELT 101 or ELT 107.
Instruction Type: In-Person | Online | Hybrid Fee: \$30
Term Typically Offered: Fall | Spring | Summer

ELT 140 3 credit hours (lecture: 2 | lab: 2)

Computer Peripherals

Course examines all computer peripherals, including printers, scanners, and DVDs, associated with computer use and enhancement of computer operations and functions. Hands-on labs, on installation, trouble-shooting and repair of peripherals.

Recommended: ELT 130.
Instruction Type: In-Person | Online | Hybrid Fee: \$30
Term Typically Offered: Fall | Spring | Summer

ELT 150 2 credit hours (lecture: 2 | lab: 0)

A+ Certification Preparation

Course builds upon the knowledge learned in ELT 130 and ELT 140, to prepare the student to pass the A+ Certification exam. Content includes sample exams and material covered on the exam. A+ Certification determines a level of competence in the computer hardware business, which may be required or considered an advantage when employing a computer technician.

Recommended: ELT 130 and ELT 140
Instruction Type: In-Person | Online | Hybrid Fee: \$25
Term Typically Offered: Fall | Spring | Summer

