Electrical Engineering Technology (EET)

Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

EET 2104. Introduction to Electrical Circuits. 4 Credit Hours.
This course considers electrical and physical characteristics of resistance, inductance, and capacitance, analysis of DC and AC circuits, operational amplifiers, elements of semiconductor devices, electronic circuits, and logic circuits. Students will also study electrical measurements. A laboratory is included.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in PHYS 1022.

EET 2112. Elements of Electrical Engineering Technology I (DC Circuits). 4 Credit Hours.
A non-calculus approach to DC circuits, node and mesh analysis, superposition and Thevenin's Theorem, as well as power, electromechanical systems and transient analysis. The laboratory portion of this course allows students to undertake practical applications of the principles discussed in the lecture. NOTE: Offered at Lehigh Carbon County College campus only.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in PHYS 1022.

EET 2122. Elements of Electrical Engineering Technology II (AC Circuits). 4 Credit Hours.
Circuit analysis of alternating current circuits. Examine RC, RL, and RLC circuits as well as resonance and time response of reactive circuits and transformers. The laboratory portion of this course requires students to build basic circuits and check circuit operation with oscilloscopes. Further checks on circuit performance are done with computer software simulations of circuits covered in the lecture. NOTE: Offered at Lehigh Carbon County College campus only.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of D- in EET 2112.

EET 3276. Digital Logic Circuits. 4 Credit Hours.
This course covers: number systems, codes, and truth tables; logical hardware devices such as gates, inverters, tristate logic, flip-flops, and latches; digital circuits such as arithmetic units, comparators, code converters, ripple and ring counters, and shift registers; and design of combinational and sequential digital circuits. XILINX will be used. A laboratory is included.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of D- in EET 2112.

EET 3277. Microcomputer Systems. 4 Credit Hours.
Topics in this course include: finite-state machines in process control; assembly language programming of the WDC 65816 16 bit microprocessor and its hardware system implementation; dynamic RAM read/write and DMA access; hardware interrupts; I/O port addressing and peripheral interface design; microprocessor addressing modes; op codes; and arithmetic computation. A laboratory is included.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of D- in EET 3276.

EET 3278. Digital Logic Circuits & Microprocessors. 4 Credit Hours.
This course is the study of basic circuits common to digital logic circuits such as gates, flip-flops, counters, and arithmetic circuits. Also included are mathematical concepts such as Boolean algebra. Students also study finite-state machines in process control, assembly language programming of the WDC 65816 16 bit microprocessor and its hardware system implementation. Additional topics include: dynamic RAM read/write and DMA access, hardware interrupts, I/O port addressing, peripheral interface design, microprocessor addressing modes, op codes, and arithmetic computation. The lab runs concurrently with the lecture and provides students an opportunity to learn and prove digital and microprocessor concepts by experimentation. NOTE: Offered at Lehigh Carbon County College campus only.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of D- in EET 2112.