EET - ELECTRICAL/ ELECTRONIC ENGINEERING TECHNOLOGY

EET 2000 Electrical Principles Cr. 3
Kirchhoff's laws, D.C. and A.C. circuit analysis, impedance, phasors, power and power factor correction, mutual coupling. Power transformers, D.C. and A.C. generators and motors, motor controls. Offered Yearly.
Prerequisites: MAT 1800 with a minimum grade of D-

EET 2100 Principles of Digital Design Cr. 3
Applied Boolean algebra and number systems. Logic families, K-mapping; combinational logic, multiplexers and demultiplexers, readouts and displays, flip flops. Offered Yearly.

EET 2720 Microprocessor Fundamentals Cr. 3
Use of microprocessors as interface devices, including software, interfaces, memory, registers, and microcomputer system architecture, computer programming design projects. Offered Yearly.
Prerequisites: CSC 1050 with a minimum grade of D-
Course Material Fees: $25

EET 3100 Advanced Digital Design Cr. 3
System level design of digital logic circuits using hardwired and programmable logic devices. ROMs, PROMs, and PLAs. Synchronous and asynchronous circuit design and analysis. Offered Fall, Winter.
Prerequisites: EET 2100 with a minimum grade of D-

EET 3150 Network Analysis Cr. 4
Analysis of circuits with dependent sources, RL, RC, and RLC circuit transient and sinusoidal response, network functions, frequency response, and power analysis. Offered Fall, Winter.
Prerequisites: EET 2000 with a minimum grade of D, PHY 2140 with a minimum grade of D, and ET 3450 with a minimum grade of D-

EET 3180 Analog Electronics Cr. 4
Operational amplifiers, circuit and applications; summing and subtracting amplifiers; integrating and differentiating amplifiers; comparators. Design of active filters, oscillators and waveform generating circuits, and audio integrated circuits. Offered Fall, Winter.
Prerequisites: CHM 1020 with a minimum grade of D and EET 2000 with a minimum grade of D-
Course Material Fees: $20

EET 3300 Applied Signal Processing Cr. 3
Continuous-time and discrete-time signals, frequency response and impulse response; transfer function of linear systems, data acquisition and sampling, continuous and discrete Fourier transform; spectrum analysis and filtering; digital filter design. Offered Fall, Winter.
Prerequisites: EET 3150 with a minimum grade of D-

EET 3500 Electrical Machines and Power Systems Cr. 3
Prerequisites: ET 3430 with a minimum grade of D- and EET 2000 with a minimum grade of D-

EET 3720 Micro and Programmable Controllers Cr. 3
Microprocessors and Programmable logic controllers; on-chip I/O resources, interfacing; controls, instrumentation, and communication; data manipulation and sequencer instruction set; development and debugging tools. Offered Fall, Winter.
Prerequisites: (EET 2720 with a minimum grade of D-) OR (ET 2160 with a minimum grade of D-) OR (CSC 1050 with a minimum grade of D-)
Course Material Fees: $20

EET 4100 Computer Hardware Design Cr. 3
Structural organization and hardware design of digital computers. Register transfer, micro-operations, and microprogram control. Processing and control units, arithmetic algorithms, input-output systems, and memory systems. Offered Yearly.
Prerequisites: EET 3100 with a minimum grade of D- and EET 2720 with a minimum grade of D-

EET 4200 Control Systems Cr. 4
Feedback control systems with topics in time response, stability criteria, system representation, frequency response, compensation. PID controller; simulation of electrical and mechanical systems. Offered Fall, Winter.
Prerequisites: (ET 3450 with a minimum grade of D-) OR (EET 3150 with a minimum grade of D-) OR (MCT 3010 with a minimum grade of D-)
Course Material Fees: $10

EET 4600 Power Electronics Cr. 3
Understanding different types of power semiconductor devices; analysis of topologies of uncontrolled and controlled converters, dc-dc converters. Simulation of power converters and application of power converter technologies in industrial and utility applications. Offered Yearly.
Prerequisites: ET 3450 with a minimum grade of D- and EET 3150 with a minimum grade of D-

EET 4730 Embedded Systems Networking Cr. 3
Principles of data communications and real-time embedded systems networking. PIC18F microcontroller family and multiple serial interfaces including USART, controller area network (CAN) bus along with other embedded standards. Offered Fall, Winter.
Prerequisites: EET 3100 with a minimum grade of D- and EET 3720 with a minimum grade of D-

EET 4990 Guided Study Cr. 1-6
Supervised study and instruction in field selected by student. Offered Irregularly.
Repeatable for 6 Credits

EET 5720 Computer Networking Applications Cr. 4
Networking protocols, components, architecture, and standards. Data communication, data packet structure, data transmission methods and techniques, network topologies, and media access control methods. Offered Yearly.
Prerequisites: EET 3100 with a minimum grade of D- and EET 3720 with a minimum grade of D-
Course Material Fees: $25

EET 7720 Advanced Computer Networking Cr. 4
Latest advances in networking; internetworking with bridges, routers, and switches. LAN and WAN protocols, high speed networks. Offered Yearly.
Prerequisite: EET 5720, with a minimum grade of C
Corequisite: EET 7430