TEET 2143 Circuit Analysis I  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
An introduction to basic circuit analysis including DC and AC circuits, network theorems and Kirchoff's laws. Laboratory activities in support of instruction.  
Prerequisite(s): A minimum grade of "C" in MATH 1441 and TENS 2146.

TEET 2441 Digital Circuits  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
A study of basic asynchronous and synchronous logic circuits. Topics include logic functions, Boolean operations, logic families, combinational logic, flip-flops, counters, registers, and memory systems. Also includes laboratory activities in support of instruction. 
Prerequisite(s): Prior or concurrent enrollment and a minimum grade of "C" in TENS 2146.

TEET 2443 Microcontrollers  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
Study and applications of the 8051 Microcontroller. Course topics include microcontroller architecture, memory, peripheral devices, interfacing, and programming. Also includes laboratory activities in support of instruction. 
Prerequisite(s): A minimum grade of "C" in TEET 2441.

TEET 3145 Circuit Analysis II  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
A continuation of Circuit Analysis I. Topics include AC Power, Polyphase Circuits, Transformers, Resonant Circuits, Laplace Transforms in Circuit Analysis, Transfer Functions, Fourier Analysis. Laboratory activities in support of instruction. 
Prerequisite(s): A minimum grade of "C" in TEET 2443 or equivalent.

TEET 3241 Electronics I  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
An introduction to basic solid state devices, including diodes, BJTs and FETs; their applications in rectifiers, amplifiers, and power supplies. Also includes laboratory activities in support of instruction. 
Prerequisite(s): A minimum grade of "C" in TEET 2143 or MATH 2242.

TEET 3243 Electronics II  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
A continuation of TEET 3241. Topics include MOS andBJT small signal amplifiers, power amplifiers, tuned amplifiers, multistage amplifiers, feedback amplifiers, operational amplifiers, oscillators, and regulated power supplies. 
Prerequisite(s): A minimum grade of "C" in TEET 3241 or equivalent.

TEET 3341 Electric Machines  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
DC and AC (single and polyphase) motors and generators, energy converters and transformers. Also includes laboratory activities in support of instruction. 
Prerequisite(s): TEET 3145 or permission of program coordinator.

TEET 3343 Electrical Distribution Systems  
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours. 
This course is a study of electrical power generation, transmission, and distribution. It primarily focuses on the parameters affecting the transfer of electric power over the transmission lines, with emphasis on power flow control and NEC regulations. The course also includes laboratory activities in support of instruction. 
Prerequisite(s): A minimum grade of "C" in TEET 3145.
TEET 5340 Digital Communications
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours.
Students will investigate digital modulation techniques including ASK, FSK, BPSK, QAM and M-ary schemes; gain in-depth knowledge of analog-to-digital conversion principles; and explore practical real-world communications applications including wireless communications, cell phone technology, and consumer communications systems. Also includes laboratory activities in support of instruction. Graduate students will be required to complete an independent research project, not required of undergraduate students.
Prerequisite(s): TEET 5245.
Cross Listing(s): TEET 5340G.

TEET 5531 Programmable Logic Controllers
0.3 Credit Hours. 0.2 Lecture Hours. 0.2 Lab Hours.
A study of sequential programmable logic controllers (PLCs) as applied to industrial processes with emphasis on ladder diagrams, input/output devices, application programming design of beginning through advanced functions, systems and networking. Also includes laboratory activities in support of instruction. Graduate students will complete an independent research project which involves a written and oral presentation.
Prerequisite(s): TENS 2146.
Cross Listing(s): TEET 5531G.

TEET 5542 Computer System Design
0.4 Credit Hours. 0.3 Lecture Hours. 0.2 Lab Hours.
This course is an in-depth study of the inner-workings of modern digital computer systems and trade offs present at the hardware-software interface. Activities will include the design process in the context of a complex hardware system and practical experiences with computer-aided design tools. Topics include: instruction set design, computer arithmetic, controller and data path design, memory systems, input-output systems, pipelining, performance and cost analysis. Graduate students will be required to complete an additional research project.
Prerequisite(s): TMAE 5132 or TEET 2443 or ENGR 2332.
Cross Listing(s): TEET 5524G.