



EGR 137: Digital Electronics

The course examines number systems with particular emphasis on binary, octal, and hexadecimal counting methods. The course stresses Boolean algebra with function minimization including logic design and logic circuits for all computer elements, including the arithmetic, control, memory, and I/O system sections. Particular emphasis is given to bus-structured microprocessor-based systems. Pre-requisite(s): Intermediate Algebra Competency or concurrent enrollment in MTH 152. Three class hours and three laboratory hours a week. Instructional Support Fee applies.

Course Student Learning Outcomes

1. Describe and analyze digital components and designs required in computer hardware and communication systems.
2. Use terminology and timing diagrams proficiently.
3. Read and interpret appropriate manufacturers data sheets.
4. Use Electronics Workbench Multisim application software to model basic digital electronics.

Credits: 4

Program: Engineering