



Division:	Industrial Technology	Area:	Automotive Engineering Technology
Course Number:	AUTO 201	Course Name:	Automotive Digital Electronics
Prerequisite:	ELEC 125		
Corequisite:	None		
Hours Required:	Class: 30	Lab: 30	Credits: 3

Course Description/Purpose

An introduction to digital theory, components, circuitry and systems as they relate to automotive applications. Topics covered are: basic microprocessor theory, the address bus, the data bus, control lines, memory, output systems, input systems, inherent instructions, extended instructions and applications.

Major Units

- Binary and Hexadecimal
- Microprocessor Circuits
- Address and Data Buses
- Memory
- Output and Input Systems
- Instructions
- Programming

Educational/Course Outcomes

Student learning will be assessed by a variety of methods, including, but not limited to, quizzes and tests, journals, essays, papers, projects, laboratory/clinical exercises and examinations, presentations, simulations, portfolios, homework assignments, and instructor observations.

Cognitive Each student will be expected to *Identify/Recognize* . . .

- recognize microprocessor instructions
- identify digital circuit components

Performance Each student will be expected to *Demonstrate/Practice* . . .

- wire microprocessor circuits on a protoboard
- design circuits for input and output devices
- write programs in assembly language
- prepare a computer to operate an engine

Attitudinal Each student will be expected to *Believe, Feel, Think* . . .

- understand the importance of digital electronics
- practice shop safety