Outline of Instruction

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

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