Outline of Instruction

Division: Industrial Technology
Area: Automotive Engineering Technology

Course Number: AUTO 201
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

AUTO 201-8/04:DK:cs
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