

Anoka Technical College

AUTO 2187: Automotive Computer Systems & Driveability

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 1

Lab Hours/Week: 6

OJT Hours/Week: *.*

Prerequisites:

This course requires both of these prerequisites

AUTO 1010 - General Automotive Service

AUTO 1167 - Vehicle Electronics

Corequisites: AUTO 2007 and AUTO 2007

MnTC Goals: None

This course covers the theory and operating principles of automotive computer systems. Topics may include but are not limited to: On Board Diagnostics (OBD), scan tool usage, input sensors, and computer controlled driveability systems. Lab experiences provide the opportunity to service vehicles. (Prerequisites: AUTO 1010 and AUTO 1167) (1 credit lecture/3 credits lab)

B. COURSE EFFECTIVE DATES: 06/24/1999 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. On-Board Diagnostics
2. OBD diagnostic scanners
3. Computers and input sensors
4. Ignition and fuel system and related input sensors/output actuators diagnosis
5. Emission control and evaporative systems
6. Strategies to diagnostic continuous and non-continuous monitors

D. LEARNING OUTCOMES (General)

1. Describe OBD II rules and regulations.
2. interpret diagnostic codes.
3. show proficiency in scan tool usage.
4. Prepare accurate estimate for repairs.
5. Apply diagnostic strategies to repair computer controlled systems or circuits.
6. Demonstrate proficiency with multi-meter to analyze or diagnose complex circuits and computer inputs/outputs.
7. Use A-Tech training board to show understanding of computer controlled systems.
8. Show ability to use service information to find proper diagnostic procedure to diagnose fault codes retrieved from vehicles.
9. Utilize computer based automotive service information systems to produce vehicle maintenance related service specifications and procedures.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted