



COURSE SYLLABUS

1. **TITLE OF COURSE:** **IGNITION SYSTEM DIAGNOSIS AND REPAIR**
- PREFIX/NUMBER:** ASE 132 **CREDIT HOURS:** 2 CR. (1.5L/1.75 LBV)
2. **PREREQUISITE:** None
3. **RESOURCES NEEDED:**

TEXT:

SUPPLIES: Basic tools, DVOM, and uniform shirts

4. **COURSE DESCRIPTION:** Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.
5. **COURSE GOAL:**
6. **COURSE OBJECTIVES:**

By the end of the course, students will:

- (A) Diagnose no-starting, drivability, and emissions concerns on vehicles with electronic ignition (EI/DIS) (distributor less) systems; Determine necessary action.
- (B) Diagnose no-starting, drivability, and emissions concerns on vehicles with distributor ignition (DI) systems; determine necessary action.
- (C) Inspect and test ignition primary circuit wiring and components; perform necessary action.
- (D) Inspect and test distributor; perform necessary action.
- (E) Inspect and test ignition system secondary circuit wiring and components; perform necessary action.
- (F) Inspect and test ignition coil(s); perform necessary action.
- (G) Check and adjust (where applicable) ignition system timing and timing advance retard.
- (H) Inspect and test ignition system pick-up sensor or triggering devices; perform necessary action.
- (I) Inspect and test ignition control module; perform necessary action.

7. **EVALUATION PROCEDURES:**

- (A) There will be a written exam after each unit and a final, during the 7½ week term, during class time, and on announced dates. All will be weighted equally, except the final will count double.
- (B) There may be unannounced “pop” quizzes throughout the 7½ week term, which will also be weighted equally to other exams.
- (C) Routine evaluations will be made on an individual basis by the instructor during each lab session.

- (D) There will be a lab final (performance) exam. The score on this exam will be entered twice (doubled) when computing your final grade.
- (E) Grading will be weighted--30% of your grade for written assignments, 40% of your grade for lab assignments, 30% of your grade for tests. One grade point value will be deducted from total grade percentage for every hour absent.

Grading Scale	
Raw Score Range	Letter Grade
90 to 100	A
80 to 89	B
70 to 79	C
60 to 69	D
0 to 59	F

Written Assignments 30%	Lab Assignments 40%	Tests 30%	Attendance
50/50	50/38	100/90	One point will be deducted from total grade value for every hour absent.
50/38	50/50	100/70	
50/50	50/38	100/90	
150/138	150/126	300/250	

Special Remarks:

- All announced examinations will be made up of multiple choice, completion and short essay type questions and will be given during regular class periods. Make-up exams will only be given if prior arrangements have been made.
- Attendance: College policy states that students may be dropped from enrollment when absent 20% of the scheduled class meetings. If enrolled from the beginning of the term, 15 hours will usually constitute 20% of a four-credit semester course which meets five hours per week. Reinstatement procedures are described in the PCC catalog.
- Tardy Policy: A student who is late three times (enters classroom after the instructor has taken roll) will be charged with one full absence unless the student can provide valid reasons for one or more of these tardies.
- Assignments/Missed Exams: It is the student's responsibility, whether present or absent, to obtain all material presented and to complete all course assignments. If prior arrangements are made or extenuating circumstances exist, makeup of tests may be allowed. Late homework papers will not be accepted unless those same extenuating circumstances exist. Makeup of quizzes is to be at the instructor's discretion.

8. COURSE OUTLINE:

- General Ignition System Purpose and Principles of Operation
- Point-type Ignition System Theory of Operation
- Primary Circuit Tests and Adjustments
- Secondary Circuit Tests and Adjustments

- V. Ignition Advance Mechanisms, Theory and Testing
- VI. Point-type Ignition Diagnosis, Testing and Tune-up Procedures
- VII. Electronic Ignition System Theory of Operation
- VIII. Triggering Device Operation and Testing Procedure
- IX. Switching Transistors and Control Modules
- X. Electronic Primary Circuit Diagnosis, Testing and Repair
- XI. DIS System Theory of Operation
- XII. DIS System Diagnosis, Testing and Repair

9. METHODS OF INSTRUCTION:

To be successful in this course, students are expected to participate in discussions, readings, in-class writing, and peer review activities. The instructor may assign point values to such activities.

10. ACADEMIC INTEGRITY:

The very nature of higher education requires that students adhere to accepted standards of academic integrity. Therefore, Pueblo Community College has adopted a policy of academic conduct as described in the Student Handbook. Violation of academic integrity may be defined to include the following: cheating, plagiarism, falsification and fabrication, abuse of academic materials, complicity in academic dishonesty, and personal misrepresentation. It is the student's responsibility to be aware of the behaviors that constitute academic dishonesty. Sanctions for violating the standards of academic integrity may include warning, probation, suspension, and/or failure of the course or assignment at the discretion of the instructor.

11. ADA NOTICE:

Students who have a documented disability may be eligible to receive accommodations for this class. Please contact the Disability Resources Center at 549-3446 for further information.