

- C. Engine Measurements
- II. Engine Cleaning and Inspection
 - A. Use of Steam Cleaning Equipment
 - B. Use Cleaning Oven
- III. Cams and Cam Bearings
 - A. Cam Shaft Parts
 - B. Cam Function
 - C. Cam Timing Diagram
 - D. Cam Bearings
- IV. Bearing Design and Servicing Features
 - A. Bearing Materials
 - B. Bearing Types
 - C. Bearing Construction
 - D. Oil Clearance
 - E. Oil Seals
 - F. Bearing Troubles
 - G. Servicing Crankshaft Bearings
 - H. Machining Special Size Bearing Inserts
 - I. Line Boring Main Bearings
 - J. Rod Bearing Service
- V. Servicing the Lubrication System
 - A. Design Considerations
 - B. Oils
 - C. System Service
- VI. Cooling System
 - A. Design Factors
 - B. Service
- VII. Assembling the Engine
 - A. Block
 - B. Head
 - C. Piston
 - D. Bottom End
 - E. Break-In

REQUIRED READING:

Gilles, Tim. Automotive Engines. 3rd ed. New York: Delmar, 1996.

SUGGESTED READING: None.

REQUIRED WRITING:

An evaluation report is required for each engine. The report contains information pertaining to critical parts, and evaluation of their condition and determination of required action. From this evaluation report, a parts order is generated using proper names, sizes, and part numbers. Unit reviews from textbook are required.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short term classes.

Solve problems as assigned each class session. Assigned reading from the text and other assigned sources, research report.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply (See guidelines for preparation for definitions.)

- telecourse
- mediated instruction
- computer assisted instruction

GRADING POLICY AND STANDARDS:

- 20% Homework consists of a written assignment from the text covering material similar to that presented in the classroom. Homework is expected to be submitted by the next class meeting.
- 20% Unit exams are offered throughout the semester and are intended to measure the students level of progress in the course.
- 20% A final exam consists of a comprehensive review of the subject matter presented in the course.
- 40% Completion of project and evaluation project.

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes No Number of times course may be taken for credit:

If yes, identify specific provision of Title 5 Division 2 section(s) 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Steve Bertram Ext. 2566

SIGNATURES:

SIGNATURES ON FILE
