

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

_____ Transfer Course x A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: DMT 62 /R DMT 62 Diesel Engine Rebuilding II

UNIT VALUE: 3

MINIMUM NUMBER OF SEMESTER HOURS: 96

BASIC SKILLS REQUIREMENTS:

Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: DMT 61/R DMT 61

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Theory and practice in rebuilding diesel engines. Topics for study include final cleaning, inspection and reassembly of engine parts. Also included are assembly measuring, torque procedures and torque-turn methods used on engine assembly, and engine testing upon completion of assembly.

SPECIFIC COURSE OBJECTIVES:

Students will:

1. Analyze and deduce engines failures.
2. Apply principles of engine rebuilding.
3. Apply principles of ship safety.
4. Evaluate assembly tasks.
5. Record engine specifications and test run-in results.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- A. Engine Assembly Procedures
 1. Cylinder Block
 2. Crankshaft

3. Bearings
4. Liners
5. Piston Sets
6. Gear Trains
7. Camshafts
8. Cam Followers
9. Cylinder Heads
10. Valves
11. Valve Train
12. All other related accessories

B. Engine Run-In

1. Pre-oiling of lube system
2. Start-up and run-in check

REQUIRED READING:

Brady, Robert N. Modern Diesel Technology. Prentice-Hall, 1996

SUGGESTED READING:

Service and reference manuals, and various diesel magazines as assigned by instructor.

REQUIRED WRITING:

Each student must maintain a rebuilding worksheet, which consists of written paragraphs; and maintain a classroom notebook of lecture materials; and write a two-page report of approximately 500 words after visiting a rebuilding facility or machine shop.

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.

Visit one rebuilding facility or machine shop and follow-up with a two-page report. Daily work on reading assignments and lab sheets.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

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

Lecture, demonstrations, and hands-on laboratory work are the primary methods; slides, videos, charts, cut-a-way components, field trips are also incorporated.

DISTANCE LEARNING:

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

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

- 40% = Unit Exams
- 40% = Laboratory Performance and Reports
- 10% = Class Participation
- 10% = Report on Rebuilding Facility

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

Yes No Number of times course may be taken for credit: 1

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

CONTACT PERSON: Joe Schaeffer Ext. 2548

SIGNATURES:

By signing this form, I certify that this course outline of record meets all the minimum requirements for associate degree credit courses as specified in Title 5 Section 55002.

SIGNATURES ON FILE