

**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:** AERONAUTICAL SCIENCES 90  
Multi-Engine Rating Certification

**UNIT VALUE:** 1

**MINIMUM NUMBER OF SEMESTER HOURS:**

This course gives credit for flight training, not connected with Palomar College, which typically consists of 16 hours of flight instruction as well as 16 hours of personalized ground instruction from a certified flight instructor.

**BASIC SKILLS REQUIREMENTS:**

Appropriate language and computational skills.

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** None

**COREQUISITE:** None

**RECOMMENDED PREPARATION:** None

**SCOPE OF COURSE:**

Upon presentation of a Multi-Engine Rating, the student will be given credit (no grade). Flight training is to be completed off campus with an F.A.A. certified flight instructor of the student's choice and at the student's own expense. The Palomar Community College District accepts no responsibility or liability for the flight training obtained from private instructors. The student should register for this course in the semester during which the training is to be completed. Grading: Credit/No Credit only.

**SPECIFIC COURSE OBJECTIVES:**

Upon completion of the flight and ground instruction, the successful student will be able to:

1. take the Federal Aviation Administration's practical test for the Multi-Engine Rating.
2. analyze and explain aerodynamic factors involved when a multi-engine aircraft loses power on one engine.

3. describe the normal and abnormal/emergency operations of the systems on a multi-engine aircraft.

4.

**CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. Abnormal flight maneuvers will include:
  - A. Engine failure
  - B. Electrical system failures
  - C. Hydraulic system failures
  - D. Landing gear problems
  - E. Fuel system problems
  - F. Inflight fires (simulated)
- II. Normal maneuvers will include:
  - A. Steep turns
  - B. Stalls
  - C. Crosswind takeoffs and landings
  - D. Flight at critically slow airspeeds
  - E. Instrument operations (if instrument rated)

**REQUIRED READING:**

As required by the student's F.A.A. certified flight instructor and the student's chosen flight school. Typical readings include:

Cessna Aircraft Co. The Cessna Pilot Center Flight Training Materials. Wichita, KN: Cessna Aircraft Co., 1999.

**SUGGESTED READING:** None.

**REQUIRED WRITING:**

None. This certificate requires demonstration of skills as outlined under "Content in Terms of Specific Body of Knowledge."

**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.**

As assigned by student's flight instructor from the required readings.

**INSTRUCTIONAL METHODOLOGY:**

**Check all that apply:**

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

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

Yes \_\_\_\_\_ No X

**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):

Credit will be given upon presentation of the Multi-Engine Rating Certificate.

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

Yes \_\_\_ No X      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:**

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SIGNATURES ON FILE
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