I. Course Number: AERM 1340

II. Course Title: Aircraft Propellers

III. Instructional Time:

   Semester ------ 3 hours
   Lecture -------- 26 hours
   Lab ------------ 52 hours
   Final Test ------ 1 hour
   Total Clock -- 79 hours

IV. Course Description:


V. Course Learning Outcomes:

   Inspect, check, service, and repair propeller synchronizing and ice control systems; identify and select propeller lubricants; balance propellers; and repair propeller control system components. Inspect, check, service, and repair fixed-pitch, constant-speed, and feathering propellers and propeller governing systems; install, troubleshoot, and remove propellers; and repair aluminum alloy propeller blades.

VI. Program Objectives:

   Level 3 A. Inspect, check, service, and repair fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems.

   Level 3 B. Install, troubleshoot, and remove propellers.

   Level 1 C. Inspect, check, service, and repair propeller synchronizing and ice control systems.

   Level 2 D. Identify and select propeller lubricants.

   Level 1 E. Balance propellers.

   Level 2 F. Repair propeller control system components.

   Level 3 G. Repair aluminum alloy propeller blades.
VII. Practical Projects:

A. Perform maintenance of propellers and governing systems.

B. Perform propeller removal and installation maintenance.

C. Research maintenance of propeller synchronizing and ice control systems.

D. Simulate identification and selection of propeller lubricants.

E. Research propeller balancing.

F. Simulate repair of propeller control system components.

G. Perform aluminum alloy propeller blade repairs.

VIII. Teaching Methods:

To include lecture, discussion, audio/visual aids, computer based training, hand outs, and reference materials.

IX. Evaluation:

Evaluation methods for this course are as follows:

A. Quizzes: Informal quizzes may be administered periodically to measure student progress and to identify significant learning problems. The quiz type (multiple choice, oral, essay, etc.) and the frequency of administration shall be at the discretion of the instructor. Quiz grades are not used in computing course grades.

B. Practical Projects and Mid-term Tests: At the completion of instruction of an objective, the students performance will be evaluated by a knowledge test and/or a practical project. Mid-term tests grades are averaged with Practical Projects grades.

C. Final Examination: A final exam will be administered at the conclusion of the course and shall be comprehensive of the entire course.

D. Grading: A percentage grading system shall be used and the student's final grade shall be computed as follows:

<table>
<thead>
<tr>
<th>Practical Projects and Mid-term Test</th>
<th>65%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Examination</td>
<td>35%</td>
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</tbody>
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E. Final percentage grades shall be converted to letter grades as follows:

- 90-100: A
- 80-89: B
- 70-79: C
- 60-69: D
- 59-0: F

X. Tools and Equipment:

Special tools and equipment required for this unit are to be furnished by Coastal Bend College. All hand tools, however, are to be furnished by the individual student and shall be immediately available to the student at the beginning of this course of instruction.

XI. Attendance Policy:

Refer to the Coastal Bend College Airframe & Power Technology Program attendance policy.

XII. Bibliography:

A. Required Text:


2. AC 43.13-1B/2A, Acceptable Methods, Techniques, and Practices, Aircraft Inspection and Repair, Department of Transportation, Federal Aviation Administration, Jeppesen Sanderson, Inc.

B. Supplementary Text:


5. A&P Technician Powerplant Workbook, Jeppesen Sanderson, Inc.

6. Aircraft Manufacturers Specifications and/or Support Material.