I. Course Number: AERM 1310

II. Course Title: Ground Operations

III. Instructional Time:

   Semester ------  3 hours
   Lecture -------- 28 hours
   Lab ------------ 42 hours
   Final Test -----  1 hour
   Total Clock -- 71 hours

IV. Course Description:

   An introductory course in fuels, servicing methods and procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.

V. Course Learning Outcomes:

   Start, ground operate, move, service, and secure aircraft and identify typical ground operation hazards. Identify and select fuels; identify and select cleaning materials; inspect, identify, remove, and treat aircraft corrosion; and perform aircraft cleaning.

VI. Program Objectives:

   Level 2 A. Start, ground operate, move, service, and secure aircraft and identify typical ground operation hazards.

   Level 2 B. Identify and select fuels.

   Level 3 C. Identify and select cleaning materials.

   Level 3 D. Inspect, identify, remove, and treat aircraft corrosion and perform aircraft cleaning.

VII. Practical Projects:

   A. Simulate ground servicing and ground operations.

   B. Simulate identification and selection of fuels.

   C. Perform cleaning materials identification and selection.

   D. Perform aircraft corrosion control and cleaning.
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 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>
</tr>
</tbody>
</table>

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. JS312624, Standard Aviation Maintenance Handbook, Jeppesen Sanderson, Inc.

3. JS312617, 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:

4. JS312616, Federal Aviation Regulations Handbook for Aviation Maintenance Technicians, Jeppesen Sanderson, Inc.


7. JS312625, Aircraft Technical Dictionary, Jeppesen Sanderson, Inc.

8. Aircraft Manufacturers Specifications and/or Support Material.