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**PROPOSED CURRICULUM
AVIATION MAINTENANCE TECHNICIAN SCHOOL SUBMITTED
BY GAVILAN COLLEGE
5055 SANTA TERESA BLVD
GILROY, CA 95020**

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147.21 Aviation Maintenance Technician School Curriculum

This document is the proposed curriculum and supporting data prepared by the Aviation Department of Gavilan Community College to be considered for approval for the issuance of an Aviation Maintenance Technician School Certificate of Completion in the following subject areas:

- a. General
- b. Airframe
- c. Powerplant
- d. Combined General, Airframe and Powerplant

The curriculum provides for a minimum of 400 hours General, 750 hours Airframe, and 750 hours Powerplant or a combined minimum of 1900 hours.

The subjects and items prescribed in Appendix B, C, and D are listed as Instructional units and the level of instruction for each unit is listed. Each instructional unit is divided into segments with a student performance goal and level of achievement to meet the instructional level of the unit.

Practical projects to be completed and the standard of performance are spelled out by the student performance goal.

Under each subject area heading is a time allotted to that unit with a division between theory and lab/shop. The curriculum provides for approximately 44% theory, and 56% lab/shop time.

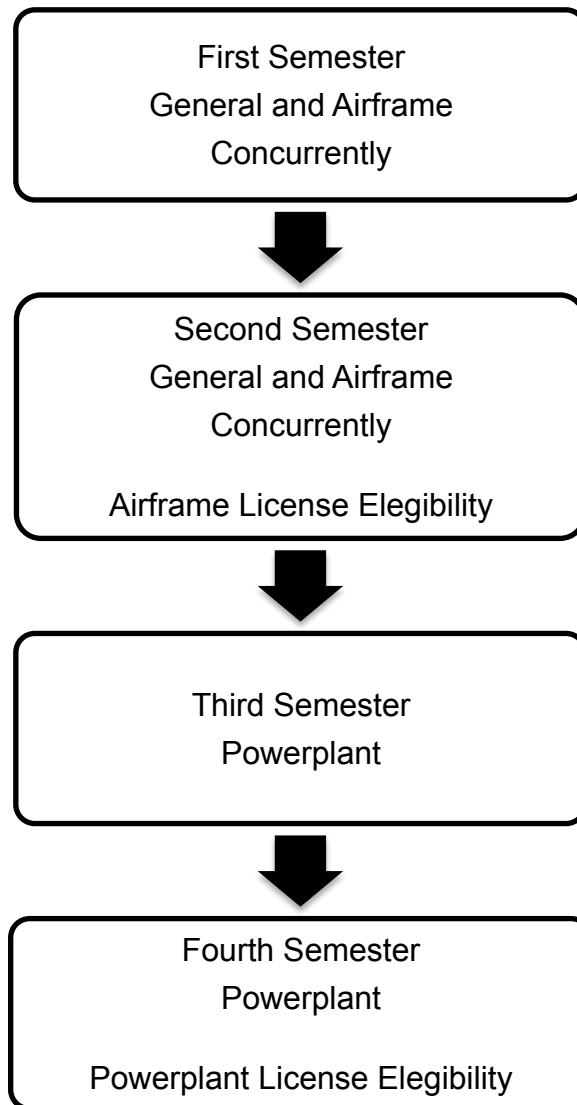
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Instructional Flow-Chart

The following chart is presented in support of separate General, Airframe, and Powerplant and Combined General, Airframe, and Powerplant ratings. Gavilan College, in keeping within the normal community college program, offers a two-year course with four semesters of instruction. By dividing each semester, into major time blocks, a student may qualify for either an Airframe rating, by completing the appropriate time blocks; Powerplant rating, by completing the appropriate time blocks; or qualify for both ratings, by completing all blocks.

Gavilan College will operate as per the following flowchart:

Gavilan College General, Airframe, and Powerplant Curriculum Flowchart



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147.31(E) Absence and Make-Up Provisions

In addition to providing the hours of instruction as required by FAR 147.21(b)(1) & (2) & (3), Gavilan College will provide a minimum of 56 hours (8 days at 7 hrs/day) per school year as make-up time where necessary in the event of student absences.

This additional instruction will allow a student to be absent 8 days and meet the requirements of FAR 147.21(b)(1) & (2), or 16 days and meet the requirements of FAR 147.21(b)(3). Instruction will be provided in the subject area in which the absence occurred.

Absences in excess of the hours specified above will require re-enrollment in the appropriate subject area in order to meet the hour's requirement as set forth in FAR 147.21(b)(1) & (2) & (3).

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Instructor Requirements

The Gavilan College Aviation Department currently employs full-time & part-time appropriately rated Airframe and Powerplant instructors. In addition, Gavilan College employs credentialed instructors in related subjects such as math, physics, and drawing, who may be utilized in these subjects.

The student-per-instructor load in laboratory instruction will be a maximum ratio of 25:1.

The listing of current instructional staff rated to teach the Aviation Maintenance Technology Program can be found in the Supplemental Data Section – Current Instructional Staff.

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Class Schedule and Attendance

Gavilan College will conduct Aviation Maintenance Technician classes during the normal school day between the hours of 8 A.M. and 4 P.M.

Required attendance will not exceed 8 hours in any day or more than 5 days or 40 hours in any 7 day period.

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Schedule of Required School Tests

Gavilan College is a public community college and conducts classes during the normal public school year from August through June. The classes are scheduled on the semester system with two semesters in each year. The school requires that a test be given at each mid-semester and at the end of each semester. In addition to the above, the Aviation Department gives the following tests:

1. A quiz following the completion of each segment.
2. A block test at the completion of each instructional unit consisting of the multiple-choice, fill-in the blank, true-false and practical skills exercises.
3. A major test section/chapter of the curriculum consisting of the multiple-choice, fill-in the blank, true-false and practical skills exercises.

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Student Evaluation

Student evaluation will be based on attendance, performance on written tests and practical projects.

The written tests, as listed on the test schedule, will be designed to evaluate the level of achievement in accordance with the instructional level of each unit or segment.

Practical projects completed will be evaluated with reference to the instructional level assigned to that segment.

Grading will be based on a percentage of total points. Each area of evaluation will be assigned a number of points based on the required level of achievement. The point value received by a student will be converted to a percentage of possible points with 70% equivalent to the letter grade C.

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Grades and Total Accumulated Hours

Templates for forms used to track student grades and total accumulated hours can be found in the Supplemental Data Section – Grades and Hours Tracking Forms.

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Appendix A Definitions and Instructional Levels

This defines the terms used in this curriculum and is in accordance with Part 147, Appendix A of the Federal Air Regulations.

A. Definitions:

1. "Inspect" means to examine by sight and touch.
2. "Check" means to verify proper operation.
3. "Troubleshoot" means to analyze and identify malfunctions.
4. "Service" means to perform functions that assure continued operation.
5. "Repair" means to correct a defective condition. Repair of an airframe or powerplant system includes component replacement and adjustment, but not component repair.
6. "Overhaul" means to disassemble, inspect, repair as necessary, and check.

B. Teaching levels.

1. Level 1 requires:
 - a. Knowledge of general principles, but no practical application.
 - b. No development of manipulative skill.
 - c. Instruction by lecture, demonstration, and discussion
2. Level 2 requires:
 - a. Knowledge of general principles, and limited practical application.
 - b. Development of sufficient manipulative skill to perform basic operations.
 - c. Instruction by lecture, demonstration, discussion, and limited practical application.
3. Level 3 requires:
 - a. Knowledge of general principles, and performance of a high degree of practical application.
 - b. Development of sufficient manipulative skill to accomplish return to service.
 - c. Instruction by lecture, demonstration, discussion, and a high degree of practical application.

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Appendix B - General Curriculum Subjects

A.	Basic Electricity	Section II
B.	Aircraft Drawings	Section II
C.	Weigh and Balance	Section II
D.	Fluid Lines and Fittings	Section II
E.	Materials and Processes	Section II
F.	Ground Operation and Servicing	Section II
G.	Cleaning and Corrosion Control	Section II
H.	Mathematics	Section II
I.	Maintenance Forms and Records	Section II
J.	Basic Physics	Section II
K.	Maintenance Publications	Section II
L.	Mechanic Privileges and Limitations	Section II
M.	Human Factors	Section II

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Appendix C - Airframe Curriculum Subjects

1. Airframe Structures
 - A. Wood Structures Section III
 - B. Aircraft Covering Section III
 - C. Aircraft Finishing Section III
 - D. Sheet Metal Structures Section III
 - E. Welding Section III
 - F. Assembly and Rigging Section III
 - G. Airframe Inspection Section III

2. Airframe Systems and Structures
 - A. Aircraft Landing Gear Systems Section IV
 - B. Hydraulic and Pneumatic Power Systems Section IV
 - C. Cabin Atmosphere Control Systems Section IV
 - D. Aircraft Instruments Systems Section IV
 - E. Communication and Navigation Systems Section IV
 - F. Aircraft Fuel Systems Section IV
 - G. Aircraft Electrical Systems Section IV
 - H. Position and Warning Systems Section IV
 - I. Ice and Rain Control Systems Section IV
 - J. Fire Protections Systems Section IV

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Appendix D - Powerplant Curriculum Subjects

1. Powerplant Theory and Maintenance
 - A. Reciprocation Engines Section V
 - B. Turbine Engines Section V
 - C. Engine Inspections Section V

2. Powerplant Systems and Components
 - A. Engine Instrument Systems Section VI
 - B. Engine Fire Protection Systems Section VI
 - C. Engine Electrical Systems Section VI
 - D. Lubrication Systems Section VI
 - E. Ignitions Systems Section VI
 - F. Fuel Metering Systems Section VI
 - G. Engine Fuel Systems Section VI
 - H. Induction Systems Section VI
 - I. Engine Cooling Systems Section VI
 - J. Engine Exhaust Systems Section VI
 - K. Propellers Section VI
 - L. Unducted Fans Section VI
 - M. Auxiliary Power Units Section VI

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