PARKLAND COLLEGE

Course Information Form (CIF)

Course Code: AVI 184

Course Title: Aircraft Systems for Pilots

Department: Aviation
PCS Code: 1.1 - Baccalaureate/Transfer
CIP Code: 14.0101
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 3-0-3
Credit Hour Distribution:

Lecture: 3	Lab: 0	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Basic aircraft systems, their components, and theory of operation. Familiarization of Federal Aviation Administration maintenance rules and regulations applicable to pilots.

General Course Objectives

AVI 184 provides the student with a basic knowledge of aircraft systems, including theory and operation as well as FAA maintenance rules and regulations.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Credit or concurrent enrollment in AVI 200
Approval of department chair
FAA Private Pilot Certificate with Airplane Single Engine Land Rating

Methods of Evaluation

Evaluation will consist of written assignments, oral and written quizzes, and exams.

Instructional Materials and Additional Supplies

Plane Sense, FAA-H-8083-19A, 2008. Federal Aviation Administration. https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/faa-h-8083-19A.pdf

Aircraft Maintenance Technician Handbook Airframe VOL 1, FAA-H-8083-31, 2018. Federal Aviation Administration.

https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/media/amt_airframe_hb_vol_1.pdf

Aircraft Maintenance Technician Handbook Airframe VOL 2, FAA-H-8083-31A, 2018. Federal Aviation Administration. https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/media/amt_airframe_hb_vol_2.pdf

Aircraft Maintenance Technician Handbook Powerplant VOL 1, FAA-H-8083-32A, 2018. Federal Aviation Administration. https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/media/FAA-H-8083-32-AMT-Powerplant-Vol-1.pdf

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Orientation, Safety Review, Airfoils	1. Explain the overall purpose of the course. 2. Explain safety concerns and elements of airfoil design and function.	3	0	0
Aircraft Structures and Flight Controls	1. Demonstrate knowledge and explain principles of aircraft structures and flight controls.	3	0	0
Weight and Balance, Required Inspections, Preventative Maintenance, MEL	1. Demonstrate knowledge and explain principles of weight and balance theory and calculations, required maintenance inspections, preventative maintenance, and the use of a minimum equipment list.	3	0	0
Aircraft Instruments	1. Demonstrate knowledge and explain principles of the operation of all aircraft instruments.	3	0	0
Exam	1. Review all content items, integrate the course content, and demonstrate knowledge and proficiency on a written exam.	3	0	0
Aircraft Engine Types, Theory, Lubrication and Cooling	1. Demonstrate knowledge and explain principles of aircraft engine types, theory of operation, and principles of lubrication and cooling.	3	0	0
Propellers and Governors, Aircraft Fuel Systems	1. Demonstrate knowledge and explain principles of aircraft propellers and governors and various aircraft fuel systems.	3	0	0
Power Management, Supercharging and Turbocharging	1. Demonstrate knowledge and explain principles of proper power management and supercharging.	3	0	0
Exam	1. Review all content items, integrate the course content, and demonstrate knowledge and proficiency on a written exam.	3	0	0
High Altitude Operations, Electrical Principles and Components	1. Demonstrate knowledge and explain principles of high altitude operations and requirements. 2. Identify electrical components and integrate electrical principles.	3	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Electrical Systems, Hydraulic Systems	1. Demonstrate knowledge and explain principles of electrical and hydraulic systems.	3	0	0
Pneumatic, Deicing, and Anti-icing Systems	1. Demonstrate knowledge and explain principles of the pneumatic systems. 2. Explain operation of deicing and anti-icing systems.	3	0	0
Exam	1. Review all content items, integrate the course content, and demonstrate knowledge and proficiency on a written exam.	3	0	0
Presentations	1. Present a paper about a topic related to aviation as assigned.	3	0	0
Exam	1. Review all content items, integrate all course content, and demonstrate knowledge and proficiency on a final written exam.	3	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	0	0