

CATALOG INFORMATION

Dept and Nbr: AERO 50 Title: AIR PILOT BASIC CRS
Full Title: Airplane Pilot Basic Course
Last Reviewed: 5/14/2007

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable
Grading: Grade or P/NP
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:
Formerly:

Catalog Description:
Basic pilot introductory course in aviation studies. Comprehensive course of safe aircraft operations and aircraft aerodynamics and performance, Federal Aviation Regulations, weather, and navigation. Successful completion meets prerequisite specified in part 61 of the "Federal Air Regulations" for the Private Pilot Airplane Written Test.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Safe aircraft operations and aircraft aerodynamics and performance. Successful completion meets prerequisite specified in part 61 of the Federal Aviation regulations for the Private Pilot Airplane Written test. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended:

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area			Effective:	Inactive:
CSU GE:	Transfer Area			Effective:	Inactive:
IGETC:	Transfer Area			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:	Spring 2012
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

Upon completion of this course, the student will be able to:

1. Explain aerodynamics and theory of flight.
2. Explain the airplane structure, including engine and operation of the engine.
3. Differentiate among the six major flight instruments, including magnetic compass and engine gauges.
4. Analyze airplane operations, performance, and loading, including critical aspects of temperature and atmospheric pressure.
5. Interpret meteorological and weather data and describe effects on aircraft flight.
6. Analyze the Federal Aviation Regulations, procedures, and operational aspects of flight including pilotage, dead reckoning, and radio navigation.
7. Formulate proper preflight plans by use of aircraft performance charts, flight information publications, radio communication procedures, and general information pertaining to safety of flight.

Topics and Scope:

Phase 1 Content:

I. Aerodynamics and Flight Theory

A. Four forces

B. Function of the controls

C. Three axis

D. Loads and load factors

II. Airplane Structure

A. Major components of the airplane

1. engine

- a. components
 - b. operation
- 2. fuel
- 3. ignition
- 4. electrical system
- B. Six major flight instruments
 - 1. pilot instruments
 - 2. static system instruments
 - 3. gyroscopic flight instruments
 - 4. magnetic compass
 - 5. magnetic compass errors
 - 6. engine gauges
- III. Aircraft Performance
 - A. Critical aspects of temperature
 - B. Critical aspects of atmospheric pressure
 - C. Weight and balance
- IV. Operations
 - A. Owner's Handbook or Federal Aviation Regulation approved airplane flight manual
 - 1. takeoff and landing distances
 - 2. fuel consumption and related charts
 - 3. maximum range power settings
 - B. Operating factors
 - 1. operation at high altitude airports
 - 2. Operating when temperature is hot and atmospheric pressure is low
- Phase 2 Content:
- V. Meteorology and Weather Reports and Forecasts
 - A. Nature of the atmosphere
 - B. Effects of the atmosphere on flight
 - C. Aviation weather forecasts and reports
 - 1. sources
 - 2. applications
- V. Aviation Navigation
 - A. Federal Aviation Regulations
 - 1. Part 1
 - 2. Part 61
 - 3. Part 91
 - B. Procedures
 - 1. National Transportation Safety Board Regulation 830
 - 2. Federal Aviation Regulation advisory circular system
 - C. Operational aspects of flight
 - 1. pilotage
 - 2. dead reckoning
 - 3. radio navigation
- VI. Preflight Planning
 - A. Aircraft performance charts
 - B. Flight information publications
 - C. Radio communication procedures
 - D. General information on safety of flight
- VII. Phase I and Phase II Written Exam Content Review
- VIII. Basic Aeronautics Course Final Examination and review
(Course final exam must be passed with a score of 70% or better)

Assignment:

1. Reading assignments, 15-20 pages per week.
2. Homework problems including: calculations, problem solving, and interpreting and utilizing chart and table information.
3. Weekly quizzes to assess student progress.
4. Midterm and final exam.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems

Problem solving
25 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations
0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, Completion, Short answer.

Exams
60 - 75%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

Pilots Handbook of Aeronautical Knowledge. U.S. Govt. ac 61-23B.

Federal Aviation Regulations (current year). U.S. Govt.

Private Pilot Manual (current edition) by Jeppesen Sanderson. Jeppesen Sanderson, publisher.

Private Pilot Test Prep (current year). Aviation Supplies and Academics Incorporated.