

CATALOG INFORMATION

Dept and Nbr: AERO 52 Title: AIR PILOT ADV CRS
Full Title: Airplane Pilot Advanced 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	17	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:
Study of advanced aviation aircraft pilot subjects to a level of knowledge and academic skills as is required of the FAA certified commerical pilot.

Prerequisites/Corequisites:

Recommended Preparation:
Aero 50 or equivalent or possession of a private pilot's certificate.

Limits on Enrollment:

Schedule of Classes Information:
Description: Concurrent enrollment in Aero 52L, Elig. Eng. 100A. Adv aviation aircraft pilot subjects to a level of knowledge & academic skills as is required of the FAA certified Commercial Pilot. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Aero 50 or equivalent or possession of a private pilot's certificate.
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 2011
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

Successful completion of this course will provide the student with the academic skills necessary to act as a commercial pilot in aircraft. The course is designed to meet the certification requirements set forth in FAR part 61 and 141 for aeronautical knowledge of commercial pilots.

Phase I - F.A.R.s/A.I.M. - 12

Objective: to introduce the student to the regulations of FAR part 61 and 135 governing the operations, privileges, and limitations of a commercial pilot. To review airspace designation of part 71, review the general operating and flight rules of part 91, and to become familiar with accident reporting requirements of the NTSB. To introduce the student to the Airman Information Manual's Basic Flight Information and ATC Procedures as they pertain to visual flight rules and commercial operations

Content: FAR part 1 - Definitions and Abbreviations

FAR part 61 - Certification

FAR part 71 - Airspace

FAR part 91 - General Operating and Flight Rules

FAR part 135 - Air Taxi Operators and Commercial Operation

NTSB 830 - Accident and Incident Notification and Reporting

AIM - Navigation Aids

AIM - Aeronautical Lighting & Airport Marking Aids

AIM - Airspace

AIM - ATC

AIM - Air Traffic Procedures

AIM - Emergencies

AIM - Safety of Flight Medical Facts for Pilots

AIM - Aeronautical Charts and Related Publications

AIM - Airport/Facility Directory

Outcome: At the completion of this phase the student will be familiar with the above content and be able to pass the Phase I exam.

Phase II - Aerodynamics; Aircraft Performance, Instruments, Systems, and

Engine Operation.

Objective: To introduce the student to advanced concepts of aircraft aerodynamics, performance, instruments, high performance and environmental systems, and engine operation for the commercial pilot.

Content - Aircraft Aerodynamic

- Aircraft Structure

- Aircraft Systems

- Aircraft Engine Operations, Instruments

- Aircraft Flight Operations, Instruments

Outcomes: At the completion of this phase the student will be familiar with the above content and be able to pass the Phase II written exam.

Phase III - Aviation Weather

Objective: To review basis weather theory and weather services available for pilots and to introduce advanced weather theory and weather services available for the commercial pilot. To develop the student's ability to choose appropriate weather service products for specific proposed flight scenarios and to analyze those data for safe, intelligent flight planning.

Content: Aviation Weather Theory

- Aviation Weather Services

- Weather Considerations for Flight Planning

Outcome: At the completion of this phase the student will be familiar with the above content and be able to pass the Phase III written exam.

Phase IV - Flight Planning

Objective: To review basic flight planning skills, including the operation of E6B type flight computers, navigation using pilotage, dead reckoning, radio aids, use of flight logs, and weights and balancing considerations for safe flight. To introduce advanced commercial pilot level concepts of use of flight computers, navigation, and weight and balancing considerations.

Content: Operation of Flight Computers

- Navigation

- Pilotage/sectional charts

- Dead reckoning

- Radio aids

- Flight Logs

- Weight and Balancing Considerations

Outcome: At the completion of this phase the student will be familiar with the above content and be able to pass the Phase IV written exam.

Topics and Scope:

I. F.A.R.s / A.I.M.

- FARs Parts 1, 61, 71, 91, & 135, NTSB 830

II. Aircraft Aerodynamics, Performance, Systems, Instrumentation and Operation

- a. aircraft aerodynamics

- b. aircraft structure

- c. aircraft systems

- d. aircraft engine operations

- e. aircraft flight operations

- f. aircraft flight instruments

- g. aircraft engine instruments

III. Aviation Weather

- a. aviation weather theory
- b. aviation weather services
- c. weather considerations for flight planning

IV. Flight Planning

- a. operation of flight computers
- b. navigation
 - 1. pilotage/sectional charts
 - 2. dead reckoning
 - 3. radio aids
- c. flight logs
- d. weight and balance considerations

Assignment:

Weekly reading and homework assignments: Textbooks/Manuals, Completion of project in flight planning, and written critical review of an approved book or article of interest to commercial pilot operations.

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.

Written homework

Writing 10 - 15%

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

Homework problems, Quizzes, Exams

Problem solving 10 - 15%

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

Class performances

Skill Demonstrations 10 - 15%

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

Multiple choice, Completion

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:

The Flight Training Handbook, 1980, Doc# 61-21A U.S. Govt. Pub.

U.S. Govt. Publications current year: Aeronautical Information Manual,
FAR's, and Pilot's Handbook of Aeronautical Knowledge, AC61-23B