APT A129: ADVANCED FLIGHT INSTRUCTOR FLIGHT LAB

Item	Value
Curriculum Committee Approval Date	12/08/2021
Top Code	302020 - Piloting
Units	1 Total Units
Hours	54 Total Hours (Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Pass/No Pass (B)

Course Description

The student will receive training in the maneuvers and procedures necessary to meet the standards contained in the FAA Certified Flight Instructor Practical Test Standards. Additionally, the student will receive training in fundamentals of instructions, safety awareness, crew resource management, and aeronautical decision-making. At the successful completion of this course, the student will have gained the aeronautical experience necessary to attain the Flight Instructor - Airplane Rating. All training is conducted in accordance with CFR 14, Federal Aviation Regulation Part 61 and under a syllabus of instruction approved under CFR 14, Federal Aviation Regulation Part 141. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Demonstrate through flight tests, that he/she has the necessary aeronautical skill and experience to obtain a Certified Flight Instructor with an airplane category rating and single engine land rating.

Course Objectives

- 1. Demonstrate teaching ability regarding the fundamentals of instruction and aviation subject areas from CFR Part 91.
- 2. Conduct a preflight inspection of the aircraft in accordance with the aircraft manufacturers handboo
- 3. Perform takeoffs, landing, flight at minimum controllable airspeeds and ground reference maneuvers to the standards defined in the FAA Practical Test Standards.
- 4. Demonstrate the ability to perform emergency procedures in accordance with the aircraft manufacturers handbook.
- 5. Perform basic instrument maneuvers

Lecture Content

This is a lab only course.

Lab Content

PREFLIGHT PREPARATION Certificates and Documents Weather Information Operation of Systems Performance and Limitations Airworthiness Requirements PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT Maneuver Lesson PREFLIGHT PROCEDURES Preflight Inspection Cockpit Management Engine Starting Taxiing —Landplane Before Takeoff Check AIRPORT OPERATIONS Radio Communications and ATC Light Signals Traffic Patterns Airport, Runway and Taxiway Signs, Markings, and Lighting TAKEOFFS, LANDINGS, AND GO-AROUNDS Normal and Crosswind Takeoff and Climb Short-Field Takeoff and Maximum Performance Climb Soft-Field Takeoff and Climb Normal and Crosswind Approach and Landing Slip to a Landing Go-Around/Rejected Landing Short-Field Approach and Landing Soft-Field Approach and Landing Power-Off 180° Accuracy Approach and Landing FUNDAMENTALS OF FLIGHT Straight-and-Level Flight Level Turns Straight Climbs and Climbing Turns Straight Descents and Descending Turns PERFORMANCE MANEUVERS Steep Turns Steep Spirals Chandelles Lazy Eights GROUND REFERENCE MANEUVERS Rectangular Course S-Turns Across a Road Turns Around a Point Eights on Pylons SLOW FLIGHT, STALLS, AND SPINS Maneuvering During Slow Flight Power-On Stalls (Proficiency) Power-Off Stalls (Proficiency) Cross-controlled Stalls (Demonstration) Elevator Trim Stalls (Demonstration) Secondary Stalls (Demonstration) Spi ns Accelerated Maneuver Stalls (Demonstration) BASIC INSTRUMENT MANEUVERS Straight-and-Level Flight Constant Airspeed Climbs Constant Airspeed Descents Turns to Headings Recovery from Unusual Flight Attitudes EMERGENCY OPERATIONS Emergency Approach and Landing Systems and Equipment Malfunctions Emergency Equipment and Survival Gear Emergency Descent POSTFLIGHT PROCEDURES Postflight Procedures

Method(s) of Instruction

- Lab (04)

Instructional Techniques

Equipment proficiency demonstrations

Reading Assignments

Study text material relating to completion of flight plans and flight logs, weight and balance exercises and aircraft performance problems

Writing Assignments

Completion of flight plans and flight logs, weight and balance exercises and aircraft performance problems.

Out-of-class Assignments

Lab-only courses (outside assignments are not required).

Demonstration of Critical Thinking

In flight problem solving exercises based on FAA Certified Flight Instructor Airplane Practical Test Standards

Required Writing, Problem Solving, Skills Demonstration

Completion of flight plans and flight logs, weight and balance exercises and aircraft performance problems. All manuevers will be within tolerances stated in the FAA Certified Flight Instructor Airplane Practical Test Standards.

Eligible Disciplines

Aviation (flight, navigation, ground school, air traffic control): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Other Resources

1. Instructor handouts E-6B Flight Computer Course Plotter Los Angeles VFR Sectional Chart