APT A130: PRIVATE PILOT AVIATION GROUND SCHOOL

Item	Value
Curriculum Committee Approval Date	12/09/2020
Top Code	302000 - Aviation and Airport Management and Services
Units	5 Total Units
Hours	90 Total Hours (Lecture Hours 90)
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	Standard Letter (S)

Course Description

Entry level course for commercial pilot training program. Covers basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors and cross country navigation procedures. Provide introductory material on radio navigation, radio communications procedures, human factors and aviation safety. Meets the preparation requirements for the FAA Private Pilot computerized knowledge examination. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Prepare to take the Federal Aviation Administration (FAA) Knowledge Test for Private Pilot.
2. Complete tasks and oral evaluations necessary for the Practical Test for Private Pilot in an applied setting given in-flight instruction from a Certificated Flight Instructor.

Course Objectives

- 1. Demonstrate basic aeronautical knowledge a. Identify the components of an aircraft. b. Define the characteristics of flight. c. Define flight controls and engine components.
- 2. Name and identify aerodynamic principles.
- 3. Distinguish and differentiate between parts of the national airspace structure.
- 4. Describe air traffic control procedures applicable to pilots.
- 5. Define Federal Air Regulations applicable to Private Pilots.
- 6. Demonstrate basic knowledge and concepts needed for the FAA Private Pilot written exam.
- 7. Define the safety concerns of operating an aircraft.
- 8. Demonstrate knowledge of radio communication and flight information.
- 9. Analyze and interpret weather and meteorology symbols.
- 10. Prepare, analyze and solve weight and balance problems for aircraft.
- 11. Review and analyze aircraft performance charts.
- 12. Apply entry-level skills in navigation and chart reading.
- 13. Describe and explain navigation systems.
- 14. Evaluate decision-making processes.
- 15. Recognize emergency procedures.
- 16. Apply flight-planning procedures.

Lecture Content

Introduction to the Airplane The Flight Controls, Engines and Components The Federal Aviation Administration and the Local Flight Standards District Office. Aerodynamic Principles Airports, Air Traffic Control and Airspace. Communication, Flight Information and The Federal Air Regulations Meteorology for Pilots Interpreting Weather Use of Weather Services Weight and Balance Airplane systems and instruments Navigation Dead Reckoning, Radio Navigation Advanced navigation Systems GPS VOR Physiology and Decision making Flight Planning.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lecture and application of ideas, slide and multimedia presentations, equipment demonstrations On-line, Distant Education may apply

Reading Assignments

Reading assignments from course text books are required for each class period. 5 hours per week.

Writing Assignments

Short answer written homework assignments and navigational exercises 5 Hours per week.

Out-of-class Assignments

Written homework and reading assignments. 5 Hours per week.

Demonstration of Critical Thinking

Written examinations based on FAA Private Pilot Question Bank Homework. Problem solving exercises Verbal quizzing

Required Writing, Problem Solving, Skills Demonstration

Short answer written homework assignments

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.

Textbooks Resources

1. Required Machado, R. Private Pilot Handbook, Second ed. Aviation Speakers Bureau, 2008 Rationale: Updated information with effective color illustrations and graphical aids.

Other Resources

1. E-6B Flight Computer 2. Course Plotter 3. Los Angeles VFR Sectional Chart