

## Collin College - Continuing Education

# Course Syllabus

**Course Title:** Private Pilot Ground School

**Course Description:**

This course covers the prerequisites specified in Federal Aviation Regulations, Part 61 for a private pilot written test. Topics will include aircraft systems and performance, meteorology, interpreting weather data, basic navigation, radio navigation, aviation physiology, aerodynamics, flight planning and federal regulations. To earn credit for the class, you must attend 90 percent of classes and pass written exams. After satisfactory completion of the course, you can sit for the FAA written exam. Tuition does not include the FAA exam fee.

**Hours:** 48

**Sessions:** 16

**Course Prerequisite(s):** None

**Course Objectives:**

1. Obtain aeronautical knowledge.
2. Expose to aircraft systems, and performance, meteorology, interpreting weather data, basic navigation.
3. Radio navigation, aviation physiology and aerodynamics.
4. Flight planning and Federal regulations.

**Textbook(s):**

1. Computer Testing Supplement, Publisher: Jeppesen:
2. FAR/AIM 2004, Publisher: Gleim Publications Author: Irvin N. Gleim,
3. GFD Private Pilot Manual, Publisher: Jeppesen
4. PN-1 Navigational Plotter, Publisher: Jeppesen
5. Private Pilot FAA Airmen Knowledge Test Guide for Computer Testing, Publisher: Jeppesen
6. Student CSG (E6B), Publisher: Jeppesen,

**Sessions:**

- Session 1: Introduction, questions  
Pilot Training  
Introduction to Human Factors
- Session 2: Airplane Systems  
Airplanes, power plant  
Flight instruments
- Session 3: Aerodynamic Principles  
Four Forces of Flight  
Stability, Aeronautical Charts
- Session 4: Stage 1 Exam Chapters 1, 2 & 3  
Chapter 4-The Flight Environment  
Safety of Flight, Airports  
Aeronautical Charts, Airspace
- Session 5: Communications and flight information  
Radar and ATC services  
Radio procedures  
Source of flight information
- Session 6: Exam chapters 4 & 5  
Chapter 6-Meteorology for pilots  
Basic weather theory  
Weather patterns  
Weather hazards
- Session 7: Interpreting weather data  
The forecasting process  
Printed reports and forecasts  
Graphic weather products  
Source of weather information

- Session 8: Exam chapters 6 & 7  
Chapter 8-Airplane performance  
Predicting performance  
Weight and balance  
Flight computers
- Session 9: Navigation  
Pilotage and dead reckoning  
VOR navigation, ADF navigation  
Advanced navigation
- Session 10: Flying cross country  
Flight planning  
The flight
- Session 11: Stage 3 exam chapters 8-11  
Review Exam
- Session 12: Apply human factors principles  
Aviation physiology  
Aeronautical decision making
- Session 13: Federal Aviation regulations  
Part 1 definitions and abbreviations  
Part 61 certification  
Part 91 general operations and flight rules  
NTSB 830 aircraft accident and incident reports
- Session 14: Review for final exam
- Session 15: Review for final exam
- Session 16: Final