Alexandria Technical and Community College

AVIA 1510: Private Pilot Ground Course

A. COURSE DESCRIPTION

Credits: 4
Lecture Hours/Week: 4
Lab Hours/Week: 0
OJT Hours/Week: 0
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course prepares a learner to take the Federal Aviation Administration (FAA) Private Pilot knowledge exam and oral exam as conducted by the FAA or a designee. It includes regulations related to private pilots, aircraft airworthiness requirements, an overview of the National Airspace System, cross country flight planning and navigation, aircraft aerodynamics, aircraft performance planning, aircraft weight and balance planning, as well as human factors as it relates to flying in both day and night conditions. If a learner chooses to pursue flight training after passing this class, they will have a satisfactory understanding of all ground-based knowledge and will be prepared to take the FAA Private Pilot knowledge exam.

B. COURSE EFFECTIVE DATES: 01/20/2023 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Identify aircraft pilot qualifications
2. Describe airworthiness requirements
3. Analyze weather information
4. Demonstrate cross-country flight planning
5. Recite National Airspace Systems
6. Calculate aircraft performance specifications and weight/balance limitations
7. Gain a working knowledge of aircraft systems and operation
8. Explore human factors that impact flight safety
9. Explain navigation systems and radar services
10. Memorize spin awareness procedures
11. Understand the effects of night operations

D. LEARNING OUTCOMES (General)

1. The learner will demonstrate knowledge of federal aviation regulations as it applies to pilots, aircraft, and the National Airspace System.
2. The learner will demonstrate knowledge of aircraft components and aerodynamics, weight and balance planning, and aircraft performance planning.
3. The learner will demonstrate knowledge evaluating real-time and forecasted weather products, building cross country flight plans as it relates to their aircraft’s performance and the forecasted weather conditions, and how to navigate in and around various types of airspace throughout the flight plans.
4. The learner will demonstrate knowledge of phenomena related to flying to include human and medical factors, specific requirements, and best practices for flying at night, in instrument conditions and in unusual flight attitudes.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted