

Course discipline/number/title: AVIA 1200: Private Pilot Ground

A. CATALOG DESCRIPTION

1. Credits: 3
2. Hours/Week: 3
3. Prerequisites (Course discipline/number): None
4. Other requirements: None
5. MnTC Goals (if any): NA

B. COURSE DESCRIPTION: This course covers the prerequisites specified in Federal Aviation Regulations, Part 61 for a private pilot written test. Topics include aerodynamics, airplane systems, airports, airspace communications, Federal Aviation Regulations, navigation, aircraft performance, flight planning and flight physiology.

C. DATE LAST REVISED (Month, year): November, 2022

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Flight training process and careers in aviation
2. Aircraft components
 - a) Aerodynamics
 - b) Flight controls
 - c) Wing design
 - d) Aircraft stability and control
 - e) Power plant and related aircraft systems
 - f) Basic flight instruments
3. Pilot operating handbook
 - a) Aircraft performance
 - b) Weight and balance
 - c) Stalls and spins, airports and pre-flight planning
 - d) Aeronautical charts and airspace
 - e) Radio communications, radar, and Air Traffic Control services
4. Weather theory and patterns
 - a) Weather hazards
 - b) Wake turbulence
 - c) Weather services
 - d) Weather reports and forecasts
5. Federal Aviation Regulations for Private Pilots
 - a) National Transportation Safety Board accident reporting requirements
 - b) Safety of flight
 - c) Collision avoidance
6. Navigation skills
 - a) Fuel requirements
 - b) Cross country flight planning
 - c) Radio and satellite navigation
 - d) Stalls and spins
 - e) Engines and aircraft instruments
7. Human factors
 - a) Aeronautical decision making
 - b) Flight physiology
 - c) Advanced aeronautical decision making

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Define flight training process.
2. Describe careers in aviation.
3. Apply Federal Aviation Regulations for private pilot privileges, limitations and flight operations and define accident reporting requirement.

- E. LEARNING OUTCOMES (GENERAL): The student will be able to: Continued. . .
4. Create flight plan based on pilot operation handbook using correct weight, balance and fuel calculations.
- F. LEARNING OUTCOMES (MNTC): NA
- G. METHODS FOR EVALUATION OF STUDENT LEARNING: Methods may include but are not limited to:
1. Quizzes
2. Exams
3. Homework
- H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- I. SPECIAL INFORMATION (if any): None