

STRANDS AND STANDARDS

PRIVATE PILOT



Course Description

The Private Pilot ground school will give students the knowledge to take and pass the FAA written exam and prepare them for flight. Some of the areas of study will include aircraft operations, airplane control, surfaces and systems, navigation, weather, and aeromedical flight planning and transport. Students will also study human factors and safety: How humans interact with machines and their environment. Students will track aviation history from Greek mythology, to the Wright brothers, to the present.

Intended Grade Level	11-12
Units of Credit	Minimum 0.5
Core Code	40.11.00.00.040
Concurrent Enrollment Core Code	40.11.00.13.040
Prerequisite	None
Skill Certification Test Number	Industry test 959
Test Weight	1.0
License Type	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Commercial Aircraft Pilot
Endorsement 2	N/A
Endorsement 3	N/A



STRAND 1

Students will be able to understand, demonstrate, and apply fundamentals of flight.

Standard 1

Discovering aviation.

- Pilot training
- Aviation opportunities
- Introduction to human factors

Standard 2

Airplane systems.

- Airplanes in general
- The powerplant and related systems
- Flight instruments

Standard 3

Aerodynamic principles.

- Four forces of flight
- Stability
- Aerodynamics of maneuvering flight

Performance Skill

Understand, demonstrate, and apply fundamentals of flight.

- Discovering aviation
- Airplane systems
- Aerodynamic principles

STRAND 2

Students will be able to understand and demonstrate flight operations.

Standard 1

The flight environment.

- Safety of flight
- Airports
- Aeronautical charts
- Airspace

Standard 2

Communication and flight information.

- Radar and ATC services
- Radio procedures
- Sources of flight information

Performance Skill

Understand and demonstrate flight operations.

- The flight environment.
- Communication and flight information.

STRAND 3

Students will develop and demonstrate an ability to understand aviation weather.

Standard 1

Meteorology for pilots.

- Basic weather theory
- Weather patterns
- Weather hazards

Standard 2

Interpreting weather data.

- The forecasting process
- Printed reports and forecasts
- Graphic weather products
- Sources of weather information

Performance Skill

Develop and demonstrate an ability to understand aviation weather.

- Meteorology for pilots.
- Interpreting weather data.

STRAND 4

Students will be able to understand performance and navigation.

Standard 1

Airplane performance.

- Predicting performance
- Weight and balance
- Flight computers

Standard 2

Navigation.

- Pilotage and dead reckoning
- VOR navigation
- ADF navigation
- Advanced navigation

Performance Skill

Understand performance and navigation.

- Airplane performance.
- Navigation.

STRAND 5

Students will be able to understand and apply the integration of pilot knowledge and skills.

Standard 1

Applying human factor principles.

- Aviation physiology
- Aeronautical decision making

Standard 2

Flying cross-country.

- The flight planning process
- The flight

Performance Skill

Understand and apply the integration of pilot knowledge and skills.

- Applying human factor principles.
- Flying cross-country.

STRAND 6

Students will understand the importance of career readiness skills as it relates to the workplace and outlined in the SkillsUSA Framework – Level 1.

Standard 1

Understand and demonstrate the attitude of cooperation.

- Develop awareness of cultural diversity and equality issues.
- Demonstrate effective communication with others.
- Apply team skills to a group project.
- Identify and apply conflict resolution skills.

Standard 2

Understand and demonstrate the ability of being resourceful and innovative.

- Discover self-motivation techniques and establish short-term goals.
- Measure/modify short-term goals.
- Review a professional journal and develop a three- to five-minute presentation.

Standard 3

Plan for your future career.

- Complete a self-assessment and identify individual learning styles.
- Define future occupations.
- Identify the components of an employment portfolio.
- List proficiency in program competencies.
- Complete a survey for employment opportunities.
- Create a job application.
- Assemble your employment portfolio.
- Employability skills: evaluate program comprehension.

Standard 4

Understand and demonstrate the ability to manage a project.

- Apply team skills to a group project.
- Observe and critique a meeting.
- Demonstrate business meeting skills.
- Explore supervisory and management roles in an organization.
- Identify and apply conflict resolution skills.
- Demonstrate evaluation skills.
- Manage a project and evaluate others.