

# FAA Part 107 Drone Pilot Certification

Designed for learners in Grades 9-12



## CTE and career connection:

Drone-based careers are growing in demand, including construction, forestry, real estate, entertainment, law enforcement, and defense.

## Course Description:

This course equips students with the essential knowledge to pass the FAA Part 107 exam. Topics include the aviation industry, FAA regulations, airspace classification, map reading, pre-flight procedures, and flight operations. It also features hands-on drone activities for practical application of the learned concepts.

## Equipment, Curriculum, and Training Available:

- Personal protective equipment
- 15 Lesson Hours Curriculum and supporting materials
- Ongoing product and curriculum support
- Practice exam

### OPTIONAL:

- Professional development Facilitation by a trained STEM instructor
- **IMPORTANT:** Actual exam costs not included.

Lesson	Learning Target Examples
<b>Introduction to Drones and the Aviation Industry</b>	Overview of drone types, uses in industry, and the importance of the Part 107 certification.
<b>Understanding FAA Regulations Part 107</b>	Detailed review of FAA Part 107 regulations.
<b>Airspace Classification and Map Reading</b>	Types of airspace, how to read sectional charts, and airspace restrictions.
<b>Weather and Atmospheric Conditions</b>	Weather patterns, how weather affects drones, interpreting weather reports.
<b>Drone Aerodynamics and Operations</b>	Basic aerodynamics, drone components, and operational principles.
<b>Pre-flight Procedures</b>	Pre-flight checklists, maintenance checks, and risk assessment.
<b>Flight Operations</b>	Hands-on flying practice, basic maneuvers, and emergency procedures.
<b>Battery and Power Management</b>	Battery types, care, charging, and power management during flights.
<b>Drone Data Management</b>	Data capture, storage, and basic processing.
<b>Communication Protocols and Equipment</b>	Radio communication, remote ID systems, and using communication equipment.
<b>Advanced Flying Techniques</b>	Complex maneuvers, precision flying, and using advanced drone features.
<b>Emergency Procedures and Safety Protocols</b>	Safety protocols, emergency landing procedures, and accident management.
<b>Legal and Ethical Considerations</b>	Privacy issues, ethical use of drones, and legal responsibilities.
<b>Business Aspects of Operating Drones</b>	Commercial opportunities, business models, and client management.
<b>Review and Exam Preparation</b>	Comprehensive review of all topics, practice tests, and exam strategies.