

Virginia Community College System (VCCS)
Unmanned Systems (UMS) Approved Courses

**UMS 107 Small Unmanned Aircraft System (sUAS)
Remote Pilot Ground School**

Course Description:

Presents the aeronautical knowledge required for FAA approved commercial operations as a Remote Pilot with small Unmanned Aircraft Systems (sUAS) rating. Covers the regulations applicable to small UAS operations, loading and performance, emergency procedures, crew resource management, determining the performance of the small unmanned aircraft, and maintenance/inspection procedures. Prepares students for the FAA written examination required to obtain the Remote Pilot certificate.

Lecture 2-3 hours per week. 2-3 credits

Course Prerequisites/Corequisites

General Course Purpose

This course is intended to prepare those interested in becoming sUAS certificated. It prepares the student with in-depth coverage and understanding of the current FAA certification topics.

Course Objectives

Upon completion of this course, the student will:

- Have sufficient knowledge to successfully complete the FAA requirements to obtain a remote pilot certificate with a small unmanned aircraft system (sUAS) rating.
- Understand the limitations and responsibilities of operating a sUAS in FAA controlled airspace.

Major Topics to be Included

- Applicable regulations relating to small unmanned aircraft system rating privileges, limitations, and flight operations.
- Requirements for small UAS registration, markings, and condition
- United States airspace classification, operating requirements, and flight restrictions affecting small unmanned aircraft operation.
- Procedures for requesting a waiver for eligible requirements in sUAS
- Aviation weather sources and effects of weather on small unmanned aircraft performance.

- Performance of small unmanned aircraft
- Small unmanned aircraft loading.
- Emergency procedures
- Crew resource management
- Radio communication procedures
- FAA aeromedical factors
- Aeronautical decision making and judgment.
- Airport operations.
- Certifying as sUAS pilot and crew members.
- Maintenance and preflight inspection procedures.
- Recording and reporting required FAA documents pertinent to accidents, maintenance, flight paths, and other situations as required.