

APT A131: INTRODUCTION TO UNMANNED AIRCRAFT SYSTEMS

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Item	Value
Top Code	302000 - Aviation and Airport Management and Services
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

This course provides an overview of Unmanned Aircraft Systems (UAS). Topics include the development and history of UAS, current and upcoming operational regulations, airspace classifications, sources of weather, loading and performance, radio communications, airport operations, maintenance and inspection procedures, industry and societal implications, career outlooks, ethical considerations, and basic components required to operate a UAS. The course will also introduce hands-on UAS flight and operation principles through PC-based simulation. All training is conducted in accordance with Federal Aviation Regulations (FAR) Part 107. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Pass the Federal Aviation Administration (FAA) Knowledge Test for Remote pilot - Small Unmanned Aircraft Systems (FAR Part 107) with a score of 70% or better.

Course Objectives

- 1. State operating rules of 14 CFR part 107, registration rules of UAS, and remote pilot certification with an sUAS rating.
 - 2. Define airspace classification and airspace operational requirements for UAS.
 - 3. State various sources of weather information and the effects of weather on performance.
 - 4. Calculate weight loading and performance of an sUAS.
 - 5. Demonstrate proficiency in radio communication procedures.
 - 6. Define regulations and standard operating procedures near/on airport environments.
 - 7. Demonstrate proficiency in decision making during sUAS emergency situations.
 - 8. Define human factors regarding physiological effects and aeronautical decision-making.
 - 9. States applicable regulations in sUAS maintenance and inspections.
-