

AV 271 : INTRODUCTION TO UNMANNED AERIAL SYSTEMS

Transcript title

Introduction to UAS

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

20

Other hours

40

Prerequisites

instructor approval.

Course Description

This course introduces students to the history of Unmanned Aerial Systems (UAS) and surveys current UAS platforms, sensors, terminology, challenges to integrating unmanned systems into the national airspace system, operational theory, and the Federal Aviation Administration (FAA) certificate of authorization (COA) process.

Course learning outcomes

1. Students will be able to demonstrate an understanding of Unmanned Aerial Systems (UAS) History.
2. Students will be able to discuss various UAS platforms and terminology.
3. Students will be able to describe various sensors used for Unmanned Aerial Systems (UAS) operations.
4. Students will be able to demonstrate an understanding of Federal Aviation Administration (FAA) military, and commercial requirements for Unmanned Aerial Systems (UAS) operations.
5. Student will be able to discuss the challenges of integrating Unmanned Aerial Systems (UAS) operations into the national airspace safely.
6. Students will be able to discuss the certificate of authorization (COA) process and demonstrate a basic understanding of the requirements for acquiring approval from the Federal Aviation Administration (FAA) for a certificate of authorization (COA)

Content outline

- UAS Fundamentals
- ITAR
- History
- Pilot Education
- UAS Operations Preparation Planning
- UAS Operations Manual ORM and CRM

- UAS Operations Flight Scheduling and Planning
- UAS Communications, Logistics, Applications
- FAA Regulations Commercial, Recreational and Public sectors
- FAA Part 107 ORM
- WX and Navigation 107
- FAA Part 107 ADM and CRM
- Life After Part 107 and 107 Certification Test
- UAS Regulations, Political, Moral and Ethical Issues with UAS
- Industry Sectors Manufacturers, Military, Consumer and International
- Industry State and Outlook
- Drones in Oregon and Future Capabilities
- Vehicles in Depth

Required materials

No required materials.