



WW-UNSY 315

Uncrewed Aircraft Systems and Operations

Online Course Syllabus

Worldwide 2025-05 May

Course Information

Credit Hours: 3

Delivery Method: Online (Internet/Canvas)

Instructor Information

Name

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Required Course Materials

Title: Publication Manual of the American Psychological Association - (APA)

ISBN: 978-1433832161 Paperback

ISBN2: 978-1433832185 eBook

Authors: American Psychological Association

Publisher: American Psychological Association

Publication Date: 2019

Edition: 7th

Format: Manual

Title: SIMNET Educational Edition

Authors: SIMNET

Format: Ebook and Lab Simulation access

Notes

- For more information about the requirements for SIMNET, visit the [ERAU SIMNET Student User Guide](#).
- [B4UFly app](#) (free) along with one of the [LAANC UAS Service Suppliers from the FAA](#)
- Other required reading materials are provided free of charge in your course.

Catalog Course Description

Uncrewed Aircraft Systems (UAS), Uncrewed Aircraft Vehicles (UAV), and their role in the aviation industry and importance in modern commercial and military integration in airspace, air traffic control; development, operations and applications. Structural and mechanical factors, avionics, navigation, flight controls, remote sensing, guidance control, propulsion systems, and logistical support.

Prerequisite(s): None

Course Goals

Provide an understanding of Uncrewed Aircraft Systems, their supportability issues and their role in the aviation industry, as well as an increased awareness of the importance of Uncrewed Aircraft Systems in modern commercial and military operations.

Student Learning Outcomes

1. Describe the evolution of Uncrewed Aircraft Systems as it applies to current and future operations.
2. Explain how Uncrewed Aircraft Systems operations are integrated within air traffic control operations.
3. Summarize the need for ground crew qualifications and certifications, including vehicle operators, maintenance personnel, and logistical support personnel.

unpublished to meet course needs. The links below are provided for quick access to graded activities in Canvas.

- Before you begin the course, read the Important Course Information and other items in the Start Here module. If you have any questions, please contact your instructor.
- Visit the Modules area for an overview of the course structure and direct navigation to all course content.
- All assignments due by 11:59 pm ET.

Date Due	Name (link)	Event Type	Points
	Online Office	Discussion	0
	Student Lounge	Discussion	0
6/6/25	1.1 Discussion: Video Introduction	Discussion	1
6/6/25	1.3 Discussion: Database Familiarization	Discussion	100
6/6/25	1.4 Assignment: SIMNET Introductory Lab	Assignment	100
6/13/25	2.2 Discussion: The "S" in UAS	Discussion	100
6/13/25	2.3 Assignment: SIMNET Lab #2 - UAS Elements	Assignment	100
6/20/25	3.2 Assignment: Recreational UAS Safety Test (TRUST)	Assignment	1
6/20/25	3.3 Discussion: Find Your Regulations	Discussion	100
6/27/25	4.2 Assignment: SIMNET Lab #3 - Mission Planning	Assignment	100
6/27/25	4.3 Discussion: SIMNET Mission Recap	Discussion	100
6/27/25	4.4 Assignment: DroneSTAT Project - Planning	Assignment	1
7/4/25	5.2 Discussion: Application of Autonomous sUAS in the Geospatial Field	Discussion	100

Date Due	Name (link)	Event Type	Points
7/4/25	5.3 Discussion: DroneSTAT Project	Discussion	100
7/11/25	6.2 Discussion: UAS Human Factors	Discussion	100
7/11/25	6.3 Assignment: DroneSTAT Project - Data Analysis and Reporting (PLG1)	Assignment	100
7/18/25	7.2 Discussion: Current See, Detect, & Avoid Technologies	Discussion	100
7/18/25	7.3 Assignment: SIMNET Lab #4 - UAS Performance	Assignment	100
7/25/25	8.2 Design Project Report: SIMNET - The UAS Consultant Part 1	Assignment	100
7/25/25	8.3 Student Collaborative: Sensor Selection	Discussion	100
8/1/25	9.2 Discussion: Future of UAS	Discussion	100
8/1/25	9.3 Operational Demonstration: SIMNET - The UAS Consultant Part 2	Assignment	100

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