



## MASTER COURSE OUTLINE

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## COURSE TITLE

Unmanned Aerial Systems (UAS) Ground School I

## GENERAL COURSE INFORMATION

Dept.: UMS

Course Num: 112

(Formerly:)

CIP Code: 15.0405

Intent Code: 21

Program Code: 640

Credits: 5

Total Contact Hrs Per Qtr.: 66

Lecture Hrs: 44

Lab Hrs: 22

Other Hrs:

Distribution Designation: General Elective (GE)

## COURSE DESCRIPTION (as it will appear in the catalog)

This unmanned aerial system (UAS) ground school course addresses UAS performance, principles of flight/aerodynamics, power plants and systems, the National Airspace System, navigation, weather, rules and regulations, incident reporting procedures, communications procedures, advisory circulars, operating limitations, aeronautical decision making and judgment, documentation/logbook requirements, runaway UAS/emergency flight procedures, and preflight planning/flight approval processes.

## PREREQUISITES

Completion of MAP 117/MATH 094 or higher placement or instructor permission.

## TEXTBOOK GUIDELINES

Introductory textbook determined by Unmanned Systems program (Example: The Pilot's Manual - Ground School, ASA, (2016)).

## COURSE LEARNING OUTCOMES

*Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills.*

1. Illustrate and explain the principles of flight
2. Compare and contrast types of UAS and their operating performance and limitations
3. Apply rules and regulations to simulated UAS operations
4. Interpret aviation charts and advisory circulars
5. Apply weather data/theory to UAS mission planning/operations
6. Simulate proper communications procedures
7. Prepare proper UAS flight documentation/logbook entries
8. Plan UAS flights within the National Airspace System (preflight/inflight/post-flight)
9. Demonstrate proper aeronautical decision making and judgment

## INSTITUTIONAL OUTCOMES

IO3 **Human Relations/Workplace Skills:** Students will be able to demonstrate teamwork, ethics, appropriate safety awareness and/or workplace specific skills

**COURSE CONTENT OUTLINE**

1. Principles of flight/UAS operating performance and limitations
2. UAS rules, regulations, privacy and ethics
3. National Airspace System and advisory circulars
4. Weather and weather services
5. Navigation and communications
6. Aeronautical decision making and judgment
7. Documentation/logbook requirements
8. Preflight planning/flight approval processes

**DEPARTMENTAL GUIDELINES** *(optional)*

The syllabus must contain evaluation/grading guidelines, class environment/expectations/rules, course learning outcomes, and a disability services statement. A schedule must be provided to students that contains content covered (text chapters, topics, etc.), tentative test dates (to include final date/time).

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**DIVISION CHAIR APPROVAL**

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**DATE**