



MASTER COURSE OUTLINE

Prepared By: Patrick Ford

Date: May 2018

COURSE TITLE

Commercial UAS Remote Pilot (Part 107)

GENERAL COURSE INFORMATION

Dept.: UMS

Course Num: 107

(Formerly:)

CIP Code: 15.0405

Intent Code: 21

Program Code: 640

Credits: 2

Total Contact Hrs Per Qtr.: 27.5

Lecture Hrs: 16.5

Lab Hrs: 11

Other Hrs:

Distribution Designation: General Elective (GE)

COURSE DESCRIPTION (as it will appear in the catalog)

Students will receive an in-depth introduction to FAA Part 107 rules and regulations, associated theory, procedures, requirements and operating concepts, as well as actual hands-on flight training in the BBCC enclosed UAS Flight Lab, with an emphasis on safety of flight. This course provides students with the knowledge base required to effectively prepare for FAA Part 107 Commercial Unmanned Aircraft System (UAS) Remote Pilot certification. *Note: The Part 107 UAS Remote Pilot testing fee is not included in the tuition for this course.*

PREREQUISITES

None

TEXTBOOK GUIDELINES

Text determined by the UMS faculty (Examples: *Test Prep – Remote Pilot, ASA, 2016; Remote Pilot – Small Unmanned Aircraft Systems Study Guide, FAA, 2016*)

COURSE LEARNING OUTCOMES

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

1. Apply applicable small UAS (sUAS) rules and regulations to real-world operating scenarios
2. Recognize airspace classification and operating restrictions
3. Describe sources and effects of weather on sUAS performance
4. Locate and interpret online aviation weather resources
5. Calculate sUAS platform loading
6. Respond to simulated emergency procedures
7. Implement proper crew resource management
8. Execute proper radio communication procedures
9. Determine the performance of sUAS
10. Describe physiological effects on pilot performance
11. Apply proper aeronautical decision-making and judgment
12. Summarize proper sUAS airport operations
13. Demonstrate proper sUAS preflight/in-flight/post-flight procedures

INSTITUTIONAL OUTCOMES

COURSE CONTENT OUTLINE

1. Part 107 rules, regulations and restrictions
2. Basic aerodynamics – capabilities, limitations and considerations
3. Airspace classifications, charts and software tools
4. Airport operations and communications requirements
5. Certificates of Waiver or Operation (COA)
6. Aviation weather for sUAS
7. Pilot/flight crew physiology, resource management and aviation decision making
8. Hazards to flight/emergency procedures
9. Reporting procedures
10. Preflight/post-flight planning and aircraft inspection
11. Remote Piloting Techniques
12. Part 107 examination questions/review

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).

DIVISION CHAIR APPROVAL

DATE