

UAS 220 - UAS PROJECTS AND MAINTENANCE

- Transfer prior knowledge and experiences to flight scenarios.
- Generalize decision making processes as they approach different life problems.
- Predict future applications of current industry technology.

Course Description

This hands-on course will give the student an opportunity to build and test fly both multirotor and fixed wing aircraft. The course focuses on building and maintenance techniques, autopilot integration, flight tuning, power sources, servos and communication links. Group 2 course.

Credit Hours

3

Contact Hours

4

Lecture Hours

2

Lab Hours

2

Required Prerequisites

UAS 107 or AVG 142, and UAS 141 or AVF 141.

Course Learning Outcomes

Knowledge:

- Identify advanced UAS systems, techniques and components including multimotor and fixed wing aircraft.

Application:

- Develop critical thinking and applied learning skills while building and flying unmanned aerial systems.
- Apply UAS course concepts to real life scenarios.
- Evaluate flight situations and possible outcomes.
- Build multimotor and fixed wing aircraft in a lab environment.
- Operate UAS in a controlled environment.

Integration:

- Connect decision making processes and problem solving skills with a variety of flight conditions and scenarios.
- Integrate flight skills and coordination with flying and building exercises.
- Synthesize flight data and ground communication to fine tune UAS in a lab setting.

Human Dimension:

- Critically reflect upon skills, knowledge and abilities necessary to succeed in the UAS industry.

Caring - Civic Learning:

- Demonstrate how decision making and personal actions impact aircraft, sensors and people on the ground.
- Recognize the need for ensuring aviation safety and public perception of the unmanned aircraft industry.

Learning How to Learn: