UNCREWED AERIAL SYSTEMS (UAS)

UAS 100
Introduction to Un-crewed Aerial Systems
3 Units (AA/AS)
54 lecture hours
Grade Mode: Standard Letter
This course is an introduction to drones/sUAVs (Small unmanned aerial vehicle systems) and prepares students to take the Federal Aviation Administration's Part-107 drone pilot license exam to work as a commercial pilot in the United States. Students will learn flight theory and work hands-on to become familiar with basic drone systems. Students will develop an understanding of local, state and federal regulations, weather reports, proper radio communication terminology, NOTAMs (A notice to airmen), METARs (Aviation Routine Weather Report), airport sectional charts and demonstrate their knowledge/skills in drone piloting. The course will prepare students to succeed in the competitive job market of drone piloting and develop career opportunities in the UAV industry.

UAS 110
Remote Sensing and GIS for Drone Operators
3 Units (AA/AS)
54 lecture hours
Grade Mode: Standard Letter
Introduction to drone mapping and geo-spatial data collection/analysis tools to prepare students for employment in the UAS/UAV industry. Instruction includes hands-on experience in drone mission planning, performance of aerial data collection and production of site reports, orthomosaic images and 3D models. Other topics include requesting FAA airspace authorization, utilization of ground control points, crews and visual observers, night operation procedures and operational safety and emergency procedures.

UAS 120
Drone Regulations, Ethics and Crew Resource Management
3 Units (AA/AS)
54 lecture hours
Grade Mode: Standard Letter
This comprehensive course is designed to provide students with a thorough understanding of the regulatory framework, ethical considerations, and crew resource management principles relevant to the operation of drones (Unmanned Aerial Vehicles, UAVs). As drones become increasingly integrated into various industries and recreational activities, it is imperative for operators to possess a solid grasp of the legal requirements, ethical dilemmas, and effective teamwork strategies associated with their use.

UAS 125
Applications in Aerial, Land and Submersible Drone/ROV Systems
3 Units (AA/AS)
54 lecture hours
Grade Mode: Standard Letter
This course offers an in-depth exploration of the rapidly evolving field of Uncrewed Aerial systems (UAS) and land/submersible Remotely Operated Vehicles (ROV). Students will delve into the principles, technologies, and diverse applications of drones and ROVs across various industries as well as commercial, governmental and scientific applications. Instruction on the operation and professional crew management of aerial, land based and water based ROV operations. Proficiency in the techniques of commercial photography, cinematography, photogrammetry and media editing.

UAS 200
Uncrewed Aircraft Systems Advanced Drone Lab
0.5 Units (AA/AS)
27 lab hours
Grade Mode: Standard Letter
Advanced skills in operating uncrewed aircraft systems. Topics include analyzing flight characteristics, utilizing flight planning software, sensor selection and software use, spectrum analysis, safety practices and risk analysis, incident reporting, and data analysis. Field trips are required.