Occupational Endorsement Certificate in Remote Pilot Operations

Program Student Learning Outcomes

Students graduating with an Occupational Endorsement Certificate in Remote Pilot Operations will be able to:

- **Demonstrate Proficiency in Drone Flight Operations and Maneuvering**
  Students will develop and demonstrate the skills necessary to operate drones safely and effectively in various environments. They will master standard maneuvers, flight planning, and control techniques, adapting to both manual and autonomous flight modes to ensure precise and stable drone operations under diverse conditions.
- **Apply Knowledge of FAA Regulations and Safety Protocols**
  Students will understand and comply with FAA Part 107 regulations, including airspace classifications, weather considerations, and pre-flight planning requirements. They will apply these regulations to ensure legal and safe drone operation, including emergency protocols and best practices for mitigating potential risks.
- **Utilize Data Collection and Processing Techniques for Industry Applications**
  Students will use drones to collect high-quality aerial data for various applications, such as surveying, mapping, environmental monitoring, and infrastructure inspection. They will also develop skills in processing and analyzing this data using relevant software, producing accurate and actionable insights tailored to industry needs.
- **Demonstrate Proficiency in Drone Maintenance and Troubleshooting**
  Students will acquire technical skills in routine maintenance, troubleshooting, and repair of drone systems, understanding the critical components and functions of drone hardware and software. They will learn to identify and resolve common issues to ensure drones operate efficiently and safely over time.
- **Execute Ethical and Professional Decision-Making in Drone Operations**
  Students will learn the importance of ethical and responsible drone usage, including considerations of privacy, environmental impact, and public safety. They will demonstrate sound judgment in assessing and responding to operational challenges, making decisions that prioritize safety, ethical standards, and adherence to industry and regulatory guidelines.