

NYS CIP CODE: 49.0101

## Program Summary

- Do you want to become the next NASA astronaut or engineer?
- Experience flight by hands-on operation of a Piper Warrior and take off with a licensed pilot as your teacher.
- Experience maintenance procedures with the aircraft in class.
- Create, develop, and test modifications to aircraft designs in an engineering exploration style.
- Conceptualize unmanned technology and understand applications to current technology.

## College Credit Connections

- Edinboro University
- Mohawk Valley Community College

## Additional Information

- Students are required to have completed 2 credits in Regents level math and 2 credits in Regents level science upon entering this program.
- Additional requirements necessary for FAA license tests.

## Career Pathways

### Professional Careers

Aerospace Engineer  
Aerospace Financial Analyst  
Air Traffic Controller  
Airline Manager  
Airport Manager  
Aviation Professional Pilot  
FAA  
Government Employee  
NTSB  
Test Pilot  
Unmanned Aerial Systems

### Technical Careers

Airline Flight Attendant  
Certified Flight Instructor  
Corporate Pilot  
Maintenance Technician  
Military / National Guard / Reserves  
TSA  
Unmanned Technical Support Staff

### Entry Level Careers

Airline Baggage Handler  
Airline Fueler  
Aviation Mechanic In-Training  
Cargo Handler  
Ground Service Staff  
Ramp Agent  
Ticket Agent



## Aviation History and Evaluation

- History of Aviation
- Aircraft Types
- New Technology in Aviation
- Federal Regulations
- Research and Development

## Flight Principles, Systems and Performance

- Aerodynamics
- Flight Controls
- Airframes / Power Plants
- Weight and Balance

## Navigation and Aviation Weather

- Pilotage
- Ground and Space Based Navigation
- Aviation Meteorology
- Weather Reports and Interpretation
- Current and Emerging Issues

## Aeromedical Factors

- Aviation Physiology
- Decision Making Process
- Human Factors
- Accident Prevention and Investigation
- Current and Emerging Issues

## Piloting Skills

- Pre Flight
- Ground Operations
- Aviation Meteorology
- Weather Reports and Interpretation
- National Aerospace System

## Unmanned Aerial Vehicles

- Systems Integration
- Flight Performance
- License Requirements
- Certification

## Careers in Aviation

- Airline Pilots
- Mechanics (Airframe and Powerplants)
- Corporate Pilots
- Ground Crews
- Engineers
- Air Traffic Controllers

## Aerospace Engineering

- Aircraft Design
- Manufacture Aerospace Vehicles
- Control Systems Integration
- Engineering Process
- Solve Problems with Creative Solutions

