Aviation Technology

PROGRAM SUMMARY
• Do you want to be 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
• Mohawk Valley

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

PROGRAM ELIGIBILITY
• Technical Endorsement
• 3.75 Credits per Year
• Pathways to Graduation (CTE and CDOS)

Career Paths

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

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

ENTRY LEVEL CAREERS
Airline Fueler
Airline Baggage Handler
Ramp Agent
Aviation Mechanic In-Training
Ticket Agent
Cargo Handler
Ground Service Staff
AVIATION TECHNOLOGY

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 & 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