The aviation meteorology program provides a background in meteorology, aeronautical science and the appropriate physical sciences. A student completing the program (with or without flight) meets the requirements of the U.S. Office of Personnel Management for employment by the federal government as a meteorologist. Graduates are prepared for careers with major airlines, corporate aviation and the FAA, as well as international organizations.

Why Aviation Meteorology at Florida Tech?

Studying aviation at Florida Tech is a very personal experience. Your instructors on campus (and/or at the flight line) will know you as a person, not just a face in the classroom or a name in the grade book. In addition to most faculty being pilots, aviation meteorology faculty are also experts in at least one other area such as aviation law, safety, avionics or environmental science. Other faculty are experts in areas such as airport consulting, design and management; airline or general aviation management; as well as aviation human factors and air traffic control.

Your First-Year Experience

In your first year, you are immediately immersed in courses covering the basics of aviation and weather. All students must take the Private Pilot Ground School course and Aviation Weather. This applies to both flight and non-flight students. Everyone learns about the FAA, air traffic and the national airspace system, as well as the fundamentals of aircraft flight dynamics. Students may fly a desktop aircraft in our computer lab for any time they wish. Flight students get into the cockpit during their first week on campus.

CLUBS AND ORGS

- American Meteorology Society student chapter
- Women in Aviation International
- Falcons Intercollegiate Flight Team
- Air Traffic Control Club
Air Traffic Control
Aviation meteorology students may opt to specialize in air traffic control so they can graduate ready to apply to the challenging FAA Academy.

High-Tech Fleet
Flight students have access to a diverse fleet of 50+ top-notch aircraft. Future pilots earn their wings in high-tech “glass cockpit” or digital instrumentation aircraft.

Research Opportunities
Many undergraduate students can pursue their own research interests in the senior research course. Topics have included:
- forecast analysis
- forecast development techniques
- hurricane forecasting
- hurricane verification and analysis

What’s Next?
Between expert instructors, real-world relevant internship opportunities, an engaged alumni network and an excellent Career Management Services office, aviation meteorology majors easily make critical contacts that help them get hired after graduation.

Aviation meteorology graduates can pursue a specialization in a number of weather and non-weather fields. Graduates may pursue a career in severe storm, hurricane forecasting or research, space weather, lightning, weather modification, climate research, flood and storm water mitigation, TV weather announcing, military weather support, support of the Bureau of Land Management, forest fire prediction and mitigation studies, just to name a few. Graduates who complete the ATC concentration are recommended to the FAA for hire as an Air Traffic Controller.

Graduate Studies
Aviation meteorology graduates may also choose to pursue advanced degrees in fields ranging from meteorology to flight safety to human factors. With the strong math and physics background that is essential to the meteorology degree, the graduate is qualified to pursue an advanced degree in a wide range of careers.

Excellent Facilities
Our first-rate flight training facilities are located at Melbourne International Airport, with regular and free bus service to and from campus. FIT aviation has 52 aircraft, both Cessnas and Pipers, including five twin-engine Piper Seminoles and two new Level V Seminole FTDS. On campus, Florida Tech has a brand new Synoptic Meteorology lab on the third floor of the renovated Link building. The computers are equipped and have access to the suite of Unidata software (e.g., Integrated Data Viewer, NMAP2, GEMPAK). At capacity, the lab can host about 24 machines, an instructor workstation and an overhead projector. The synoptic lab is open to all meteorology students and is intended to serve as an additional classroom for meteorology computer-oriented instruction. Adjacent to this lab is an air monitoring lab, which features equipment that supplements an on-campus air quality monitor donated by the Florida Department of Environmental Protection. In addition, a second smaller space is dedicated to meteorological instrumentation including cup anemometers and vanes, data loggers, weather stations, etc.

Internships
Many aviation meteorology majors take internships over one or more summers. Just a few of these opportunities include working with airports and major and regional airlines, where students gain specialized experience in airline operations, and at some airlines and businesses, attend valuable development courses such as aircraft systems.

Department Contact
College of Aeronautics
Phone: (321) 674-8030
aero@fit.edu
http://coa.fit.edu
Florida Tech’s College of Aeronautics offers three academic programs with flight option—preparing students for careers as professional pilots or for high-tech careers that include being a pilot. Students graduate as an FAA multiengine commercial pilot with an instrument rating and knowledge of advanced aircraft.

**ACADEMIC PROGRAMS**

- **Aviation Management**—The aviation management program focuses on the business side of aeronautics, where students will receive a thorough education in aviation, business, and airport management and development.

- **Aeronautical Science**—The aeronautical science program takes advantage of the university’s state-of-the-art facilities in a curriculum that is designed to develop a strong foundation for a career as a professional pilot.

- **Aviation Meteorology**—Aviation meteorology is the study of the atmosphere from a pilot and air traffic controller’s perspective. Among the College of Aeronautics’ most demanding programs, it is also an in-demand career. Hurricane hunters are often hired from these programs.

**Facilities**

The College of Aeronautics faculty and administrative offices, laboratories and academic classrooms are located in George M. Skurla Hall on Florida Tech’s main campus.

Our first-rate flight training facilities are located at the Melbourne International Airport (MLB); regular and free bus service transports students to and from the nearby Emil Buehler Center for Aviation Training and Research. Here, FIT Aviation, a wholly owned subsidiary of Florida Institute of Technology, conducts flight training with the university’s modern fleet of aircraft. All fixed wing flight certificates and ratings are offered. This towered airport hosts a mix of air carrier and general aviation traffic on its three runways. With eight different instrument approaches, a radar approach control and over 10 airports within a 50 mile radius, it provides an excellent environment for professional flight training. Superb Melbourne, Fla., weather allows efficiency of scheduling and continuity of training and adds to the training experience. Numerous general aviation and commercial service airports in the Central Florida area offer valuable opportunities for various airport approaches, landings and takeoffs.

**Our Fleet**

Florida Tech’s first-rate flight training facilities are located at the Melbourne International Airport, in the Emil Buehler Flight Training Center. Our large fleet consists of Piper aircraft, including Warriors, Arrows, twin-engine Piper Seminoles and an aerobatic Citabria. Florida Tech offers both glass cockpit and round dial aircraft.

**ExpressJet Pathway Program**

Flight-option majors who qualify can apply to the Pathway Program to guarantee a job with ExpressJet regional airlines and a guaranteed interview with Delta Airlines. As part of the program, you earn your CFI and instruct at FIT Aviation to gain experience and the flight time needed to go into the right seat of an airliner.

**FAA Dispatcher**

Flight-option majors have the opportunity to obtain an FAA Dispatcher Certificate and work as an airline or corporate dispatcher without taking any extra courses.
Why Fly at Florida Tech?

• Flight students fly within their first week of study
• One of the largest and most respected collegiate aviation programs in the nation
• Benefit from the personal attention of excellent faculty
• Location provides year-round flying conditions
• Recognized as one of the safest flight schools in the U.S.
• Modern 12,000-square-foot flight center
• Aviation master's and accelerated MBA programs available to graduates
• Strong alumni and employer network
• ExpressJet Pathway Program leads to a job with ExpressJet and Delta Airlines
• Stay and instruct to gain experience needed for a job as a pilot at a regional airline
• 70 percent of College of Aeronautics students are enrolled in a flight major
• Flight students graduate with an average 250–300 flight hours
• Aircraft type rating curriculum available for the A320 or B737

For more information about flight option programs, contact:
Nick Galli
ngalli@fit.edu
(321) 674-7369

BE A FLIGHT INSTRUCTOR

Flight instructor ground and flight courses can be taken as electives with any of the flight majors. FIT Aviation, LLC hires students and recent graduates who have their CFI certificates as flight instructors, giving them the opportunity to gain professional experience and build flight time (hours). It’s also a great way to offset the cost of flight fees and/or graduate studies.

CREDIT FOR PILOT CERTIFICATES

Florida Tech allows advanced placement credit if you have an FAA Private Pilot Certificate or higher. Evaluation and placement is done during orientation week.
So you want to be an AIRLINE PILOT?

As the only university to offer aircraft type rating courses to undergraduate flight students for academic credit, Florida Tech can help you reach the major airlines faster. Here’s everything you need to know …

PROGRAM BENEFITS

- Earn academic credit for turbine jet type rating courses
- Courses are structured for Florida Tech students and fit into four-year degree flight curricula
- Costs about the same as flight instructor training sequence
- Get professional experience on Level D Full Flight Simulators
- Graduate 350 knots above your peers and get the job you want!

TYPE RATING CURRICULUM

- Flight Observation: Observe two pilots earn a type rating to get acquainted with the high-speed, high-altitude regimen and crew coordination
- Jet Transition: Use high-tech flight training devices (FTDs) to practice flows and checklists and learn crew coordination as it pertains to flying large jets
- Commercial Type Rating: Complete your training and earn a pilot-in-command (PIC) type rating at the AeroStar facilities in Orlando (A320) or Miami (B737)

Becoming an Airline Pilot

You know you want to fly a turbine jet for a major airline, but do you know what it takes to get there? The fact is, it requires more than the flight training you would normally undertake at Florida Tech—or any college-based aeronautics program, for that matter. In addition to the private and commercial pilot certificates and the instrument and multiengine ratings you will earn as part of your Florida Tech degree, an airline will require you to undergo additional training toward, and ultimately earn, a type rating for the type of aircraft in its fleet. If you possess a type rating prior to being hired, they know you are a prize candidate.

What is a Type Rating?

In simplest terms, a type rating means you are qualified to fly a specific type of jet aircraft. The two most popular types of commercial jets in use today are the Airbus 320 and Boeing 737. Major companies like Southwest Airlines, Delta, United Airlines, American Airlines, JetBlue and US Airways use one or both of these aircraft types. Southwest, for example, only interviews pilots possessing a B737 type rating. You want a career as an airline pilot? An A320 or B737 type rating proves you can fly the big jets. Traditionally, you would pursue a type rating as a new hire, and in most cases only then after building flight time as an instructor. Now, you can do it as an undergraduate at Florida Tech, so you can graduate with the high-altitude, high-speed experience that will give you a distinct advantage over graduates of other collegiate aviation programs.

A Degree and Type Rating in Four Years

To address the impending worldwide pilot shortage* and better position our pilots for immediate success following graduation, Florida Tech provides undergraduate flight students the opportunity to complete a three-course, six-credit sequence leading to an A320 or B737 turbine jet type rating as part of their degree program. Courses are facilitated in partnership with AeroStar Training Services of Orlando, Fla., an FAA Certified Part 142 Training Center, which offers schedule flexibility, access to the most advanced training simulators in the industry and instruction of the highest quality. At AeroStar, Florida Tech flight students train on the same Level D full-motion simulators used by major airlines and undergo the same rigorous evaluation.

*As forecast by the Boeing Current Market Outlook 2011–2030. To learn more, read the report at www.boeing.com/commercial/cms/pilot_technician_outlook.html.
Minimal Additional Cost. Maximum Return on Investment.

The total cost of a four-year flight program most often depends on the proficiency and interests of the student. In other words, costs are different for everyone. For example, a student who does not pass a required flight course will incur the cost of additional fuel and instructor time that come with repeating it. In terms of interest, a student will only pay the flight fees associated with the electives that he or she chooses as a junior and senior. Most students are career-minded and want to accrue hours and enhance their credentials, so they are likely to make a larger investment beyond the minimum requirements. Students who want to become certified flight instructors fall into this category, as do those interested in a type rating. Here is a side-by-side cost estimate comparison for these two career preparatory tracks.

<table>
<thead>
<tr>
<th>CERTIFIED FLIGHT INSTRUCTOR TRACK</th>
<th>AIRLINE PILOT TRACK (A320 OR B737)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight 1</td>
<td>Flight 1</td>
</tr>
<tr>
<td>$7,760</td>
<td>$7,760</td>
</tr>
<tr>
<td>Flight 2</td>
<td>Flight 2</td>
</tr>
<tr>
<td>$13,406</td>
<td>$13,406</td>
</tr>
<tr>
<td>Flight 3</td>
<td>Flight 3</td>
</tr>
<tr>
<td>$8,749</td>
<td>$8,749</td>
</tr>
<tr>
<td>Flight 4</td>
<td>Flight 4</td>
</tr>
<tr>
<td>$18,255</td>
<td>$18,255</td>
</tr>
<tr>
<td>CFI</td>
<td>Complex Instrument</td>
</tr>
<tr>
<td>$8,139</td>
<td>$4,493</td>
</tr>
<tr>
<td>CFI – Instrument</td>
<td>Flight Observation Lab</td>
</tr>
<tr>
<td>$4,930</td>
<td>$1,000</td>
</tr>
<tr>
<td>Conventional Gear</td>
<td>Jet Transition</td>
</tr>
<tr>
<td>$3,064</td>
<td>$3,800</td>
</tr>
<tr>
<td>International Operations</td>
<td>Commercial Type Rating</td>
</tr>
<tr>
<td>$2,392</td>
<td>$11,500 (A320) or $12,500 (B737)</td>
</tr>
<tr>
<td>Aerobatics</td>
<td></td>
</tr>
<tr>
<td>$2,004</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
</tr>
<tr>
<td>$68,699</td>
<td>$68,963 (A320) or $69,963 (B737)</td>
</tr>
</tbody>
</table>

Courses and fees listed are merely indications of sample flight programs. Total costs vary by student and in accordance with the prices of aircraft fuel and flight instructor rates.

As you can see, the anticipated additional cost for ambitious students interested in becoming airline pilots is minimal. The value of a type rating, however, cannot be overstated. A type rating serves as proof to an airline recruiter that a pilot possesses the aptitude and skills required to pass a rigorous corporate training program and succeed as an airline pilot.

With a type rating to your credit, you will be well positioned to compete in the aviation job market and one step closer to landing a career as an airline pilot. You will join a large cadre of Florida Tech graduates currently flying for all the major airlines, which include United Airlines, American Airlines, Delta Airlines and Southwest Airlines.

“"Our programs and faculty have earned an international reputation for excellence in the education and preparation of aviation professionals.""

Korhan Oyman, Ph.D.
Dean, College of Aeronautics

“Having a type rating credential is a huge advantage when it comes to competing for major airline jobs. Airline recruiters understand the value of a type rating.”

Pete Dunn
Assistant Professor, College of Aeronautics
Type Rating Program Manager

Florida Institute of Technology
High Tech with a Human Touch™

For more information about type ratings at Florida Tech, please contact:
Nick Galli
ngalli@fit.edu | (321) 674-7369

For information about admissions and scholarships, please contact:
Office of Undergraduate Admission
admission@fit.edu | (321) 674-8030

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At Florida Tech, you can pursue your passion for aviation with your feet on the ground or while flying high above it.

Your future is looking up.

Other reasons to fly at Florida Tech include:

• Become part of a strong alumni and employer network. We have bridge programs with airlines (domestic and international) and corporate flight departments
• Opportunities for employment as a Certified Flight Instructor while still an undergraduate student
• Tuition benefit once employed by FIT Aviation
• The ability to get a Type Rating in a Boeing 737 or Airbus A320
• Air traffic control opportunities

Florida Tech has a history and tradition of excellence. In fact, we’ve been consistently recognized for offering one of the best (top five) university-based aviation programs in the country. We offer all phases of flight training from Private Pilot through Airline Transport Pilot certification. Our flight instructors are dedicated to providing you with the highest level of service, so you not only acquire a lifelong love of flying, but also learn from our culture of safety. Flight instructors are available for both ground and flight instruction every day of the week, including weekends and evenings.

One of the advantages of Florida Tech’s aviation programs is that we offer the Restricted Air Transport Pilot (ATP) license, which allows a student to be certified and fly for a commercial airline in less time than almost anywhere else. Furthermore, you can build the required 1,000 hours of flight time for your Restricted ATP license right here! By becoming a Certified Flight Instructor (CFI) with FIT Aviation, you can earn money and train new pilots while you build the hours you need for your ATP certification.

We are committed to helping you pursue your dream of becoming a pilot.

Here’s a range of flight program costs. Some flight schools only provide the cost of the accelerated student; we want to provide you with the true range of our cost. Note: the actual cost will depend on student performance.
COLLEGE OF AERONAUTICS
FLIGHT COST

PANTHER FLIGHT PAYMENT PROGRAM:
Our Panther Flight Payment Program allows you to establish a flight account with an initial deposit of $4,000 to start flying. Once the account balance falls below $1,000, you’ll be required to add additional funds to the account. You’ll continue to do this until all of your flight training is completed.

INTERNSHIPS AND JOB PLACEMENT:
Finding the right flight school can be tough. If you’re looking into an aviation degree with flight it’s important to earn a return on your investment. Florida Tech works with various organizations to provide our students with internships and career opportunities.

Internships
Our students recently secured internships at the following organizations:
- Atlanta Hartsfield-Jackson Airport
- American Airlines
- Baer Air
- CommutAir
- ExpressJet
- Fort Lauderdale Executive Airport
- Ocala Airport
- Sanford Airport
- SkyWest Airlines

Job Placement and Career Fairs
Our students can be placed in our Pathways Program—a guaranteed position with ExpressJet as a Regional First Officer once they comply with their (R) ATP hours and a formal program with CommutAir.
A recent aviation career fair at Florida Tech included the following organizations, to name a few, who were recruiting our CFIs.
- Copa Airlines
- Delta Airlines
- Endeavor Air
- ExpressJet Airlines
- Southwest Airlines
- U.S. Air Force

Careers for Non-Flight Majors
Many of our non-flight majors seek airport and airline management positions. Consulting and air traffic controllers are also great career paths. Other career paths for non-flight majors includes:
- Airport operations
- Airport design
- Airport management
- Aviation insurance
- Aircraft sales
- Aviation periodicals
- Aviation safety
- FBO and flight school management
College of Aeronautics

AIR TRAFFIC CONTROL PROGRAM

The Florida Tech College of Aeronautics offers an Air Traffic Control (ATC) specialization in conjunction with all of its seven bachelor’s degree programs. The ATC specialization meets the requirements of the Federal Aviation Administration’s (FAA) Air Traffic-Collegiate Training Initiative (AT-CTI) program and is FAA approved.

Graduates of the AT-CTI program are eligible to bypass the Air Traffic Basics Course, which is usually covered during the first five weeks of qualification training at the FAA Academy in Oklahoma City. Academy training consists of option-specific (terminal or en route) initial training. Students must successfully complete all required training at the FAA Academy to continue employment with FAA.

To achieve an ATC specialization in conjunction with a bachelor’s of Science degree, seven named courses (21 credit hours) must be completed either as required courses within a degree or as electives or as a combination of required and elective courses. The seven named courses are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVT 1101</td>
<td>Aeronautics 1</td>
<td>3</td>
</tr>
<tr>
<td>AVS 1201</td>
<td>Aviation Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>AVS 2101</td>
<td>Aerodynamics</td>
<td>3</td>
</tr>
<tr>
<td>AVT 2001 or AVT 2201</td>
<td>Aeronautics 3 National Airspace Systems</td>
<td>3</td>
</tr>
<tr>
<td>AVT 3203</td>
<td>Air Traffic Control 1</td>
<td>3</td>
</tr>
<tr>
<td>AVT 4301</td>
<td>Aviation Safety</td>
<td>3</td>
</tr>
<tr>
<td>AVT 4302</td>
<td>Air Traffic Control 2</td>
<td>3</td>
</tr>
</tbody>
</table>

21 credit hours

What must I do become an air traffic controller?

- Graduate from an FAA approved AT-CTI program
- Receive an official school recommendation
- Be a United States citizen
- In most cases, be under 31 years old
- Pass a medical examination
- Pass a security investigation
- Achieve a score of at least 70 on the FAA pre-employment test
- Speak English clearly enough for others to understand you on communications equipment
- Complete an interview

For Florida Tech College of Aeronautics AT-CTI information, contact:

Dr. Donna Wilt or Nick Galli:
dwilt@fit.edu ngalli@fit.edu
(321) 674-8120 (321) 674-7369

For Florida Tech admission information, please go to:
www.fit.edu/prospective.