

Air Traffic Management Degree

Bachelor of Science in Aeronautics

Gain the technical skills and broad aviation knowledge to thrive in an exciting career in air traffic control.

The demanding and rewarding career of air traffic control requires a combination of broad-based aviation knowledge and specialized technical knowledge. We offer a comprehensive curriculum to prepare you to be part of the next generation of air traffic controllers.

Program type: Major

Format: On Campus

Est. time to complete: 4 years

Credit hours: 120

Why earn an air traffic controller degree?

Application Deadlines

Fall: Aug. 15

Spring: Dec. 15

Summer: May 1

If you're an international student, refer to the international application process for deadlines.

Earn a B.S. in Aeronautics with a major in Air Traffic Management from the UND Aviation Department, known around the world for academic excellence. Our facilities offer an air traffic control training experience that is second to none including the most technologically advanced control tower and radar simulators. You'll gain the essential aviation fundamental knowledge you need, along with exposure to related fields, such as meteorology.

AABI Accredited Air Traffic Management Degree

This program is accredited by Aviation Accreditation Board International (AABI).

The air traffic control program will fully prepare you for a career as a air traffic controller. Graduates will request a letter of recommendation from the Department of Aviation. Use the letter to apply for an Air Traffic Control Specialist position with the FAA, as a CTI (Collegiate Training Initiative) graduate. CTI graduates can apply in POOL 1, granting them preferential consideration by qualification category (Best Qualified, Well Qualified, and Qualified), which is determined by their Air Traffic Skills Assessment (ATSA) result.

Student Achievement Data

UND's Air Traffic Controller Degree

- Advance your skills set with specialized advanced courses in radar, tower operations, aviation safety management and more.
- Graduate prepared for careers as ground-based air traffic controllers who direct aircraft through the National Airspace System (NAS).

- In addition to the primary curriculum, this program requires a second field of study. This is typically fulfilled a minor, aviation specialization or a second major.
- Train on our Adacel 360° MaxSim® ATC Tower/Radar System. The simulator consists of a 360° Tower view with four synchronized radar positions.
- Learn to be an air traffic controller with our ATC Tower Radar Simulator System (TRSS). One room contains a virtual "tower cab" with a wrap-around visual system that simulates the view from the control tower. The second room houses simulated radar terminals.
- Study in our UFA ATC Radar Lab. It's the most modern and professional 32-position radar simulation lab in the country.

Why become an air traffic controller?

132K Median salary for air traffic control specialists

- U.S. Bureau of Labor Statistics

3K+ Number of new positions in air traffic control per year

- U.S. Bureau of Labor Statistics

A significant number of air traffic controllers retire every year, due to the FAA mandatory retirement age of 56. This means there will be steady or even growing opportunities for UND trained air traffic controllers. With the air traffic controller degree, you can expect exciting opportunities in several environments, including:

- Control tower operations
- Approach control facility operation
- En-route center operations
- Air operations supervisory or management positions

Skills with an Air Traffic Controller Degree

An Air Traffic Management degree gives you the strategic skills you need, including:

- Airport control tower traffic control
- Aviation
- Strategic Planning
- Operations Management

Our air traffic controller graduates have gone on to a variety of successful careers with:

- Federal Aviation Administration (FAA)
- Endeavor Air, Inc.
- Leidos Holdings, Inc.
- Lockheed Martin Corporation
- FedEx Corporation

Air Traffic Controller Courses

Advanced Tower Operations II

AVIT 362. Advanced Tower Operations II. 4 Credits.

Students will build on the knowledge gained in *AVIT 260* Control Tower Operations I. Utilizing the 3D Tower simulator, the students are taught basic, advanced, and fundamental Tower operations, which include: structure, procedures, and theories of airspace/traffic management. Scenarios progress in difficulty. To complete this course, students will be required to demonstrate their basic knowledge of Tower operations through written examinations and performance scenarios in a 3D tower simulator. This course follows the applicable required Federal Aviation Administration's learning objectives set forth in their Air Traffic Basics Course. An Air Traffic lab is required. Prerequisite: *AVIT 260* and a minimum GPA of 2.6. Prerequisite or Corequisite: *AVIT 105* or *AVIT 102* or *AVIT 142*. F,S.

Aviation Safety

AVIT 208. Aviation Safety. 3 Credits.

This course provides the student with a detailed introduction into aspects of aviation safety, aviation safety programs, risk management, and the associated components of pilot psychology, physiology, human factors, and accident review and investigation. Prerequisite: A minimum GPA of 2.6. Prerequisite or Corequisite: *AVIT 102* or *AVIT 105* or *AVIT 142*. F,S,SS.

RADAR Operations

AVIT 261. RADAR Operations I. 4 Credits.

This course provides students with basic Radar instruction and knowledge of separation requirements and the procedures of Air Traffic Terminal Radar Operations. Radar interaction with other Air Traffic and non-Air Traffic agencies is also part of this course. Student evaluations are based on demonstrated application of acquired controller skills utilizing Air Traffic simulation. Scenarios progress in difficulty. To complete this course students must demonstrate their knowledge of Terminal Radar Operations through written examinations and performance scenarios in a Radar simulator. This course follows the applicable required Federal Aviation Administration's learning objectives set forth in their Air Traffic Basics Course. An Air Traffic lab is required. Prerequisite: *AVIT 103* and a minimum GPA of 2.6; open to Air Traffic Management majors only, or instructor consent. F,S.

Human Factors

AVIT 250. Human Factors. 2 Credits.

This course introduces the student to issues influencing human performance in the complex operational aviation environments. Theory and practical applications of cognitive processing, decision-making, interpersonal interaction and communication will be presented. This course also provides an introduction to design elements intended to optimize man-machine interaction. Prerequisite: Minimum GPA of 2.6. F,S,SS.

Aviation Senior Capstone

AVIT 485. Aviation Senior Capstone. 3 Credits.

In this course, students will showcase their proficiency in meeting UND's Success Outcomes while delving into the contemporary and professional challenges facing the aviation industry. Emphasizing their growth as professional leaders, students will illustrate how their education has equipped them to address industry specific issues effectively. Additionally, through their course work, students will demonstrate an understanding of information literacy and advanced communication skills. Prerequisite: *AVIT 403*, senior status, and a minimum GPA of 2.6. F,S.

Aviation Law

AVIT 403. Aerospace Law. 3 Credits.

This course is designed to introduce the student to the United States legal system and the development of air law. The course will cover a broad range of topics related to aviation operations including constitutional law, administrative law, Federal Aviation Administration enforcement actions, aircraft ownership issues, products liability law, criminal law, contract law, and international law. Course activities include case reading, argument, and legal research. Prerequisite: Junior or Senior status, open to Aviation majors and minors only, and a minimum GPA of 2.6. F,S,SS.

Top Air Traffic Control School

Our air traffic management degree consistently ranks among the best for educational quality, affordability, and career outcomes.

#2 Best Air Traffic Controller Degree

Explore More Options

Looking to connect with the college or find a similar degree?

- [John D. Odegard School of Aerospace Sciences](#)
- [Find Similar Degrees](#)

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