

# BACHELOR OF SCIENCE/ASSOCIATE OF SCIENCE IN AIR TRAFFIC CONTROL MANAGEMENT

## BACHELOR OF SCIENCE IN AIR TRAFFIC CONTROL MANAGEMENT PROGRAM

This degree program will provide students with fundamental air traffic controller knowledge and technical understanding through classroom instruction and laboratory simulations. The academic curriculum provides exposure to the procedures and operations consistent within the FAA air traffic facilities. Students will gain a foundation designated by the FAA for eventual entry into the FAA Academy, where they will complete their air traffic control training.

## CAREER OUTLOOK

A well trained air traffic control workforce is essential to maintain the FAA's ability to provide the safest air traffic services in the world. A recent assessment of the projected workforce needs for air traffic controllers revealed that:

- 85 percent (almost 14,000) air traffic controllers will be eligible for retirement in the next decade.
- Salary compensation for those hired in 2007 will average \$50,000/year and increase to \$94,000 by the fifth year (does not include benefits).
- Participants in the Air Traffic Collegiate Training Initiative (CTI) will have an advantage in attaining these jobs.

## CONTACT

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## TRADITION OF AVIATION EDUCATION

Since its founding in 1932, aviation education has been a focus of the school. During the early days, aviation technology courses became the special emphasis of instruction. In 1935, the school became known as the Lewis Holy Name School of Aeronautics. The Department has since grown to offer certificates, associate's, bachelor's and master's degrees in numerous areas of the field.

- Air Traffic Control Management (B.S. and Associates)
- Aviation Maintenance Management (B.S., Associates and Certificate)
- Aviation Flight Management (B.S. and Associates)
- Aviation Administration (B.S.)
- Aviation Security (B.S.)
- Aviation and Transportation (M.S.)

### LOCATION AND RELATIONSHIPS

Lewis University is the only school in Illinois to be approved to offer the Collegiate Training Initiative Program of the FAA. In addition to the Chicago Air Route Traffic Control Center (ARTCC) in Aurora, Chicago's busy Terminal Radar Approach Control (TRACON) in South Elgin, and the automated Flight Service Station in Kankakee, several busy tower-controlled airports operate nearby. With O'Hare International, Chicago Midway Airport, and DuPage, Aurora, Palwaukee, Waukegan and Gary ATC towers all within the jurisdiction of the O'Hare Class B airspace, the full array of air traffic facilities exist in close proximity to the University. Current aviation students visit with and observe controllers at the ARTCC in Aurora, the Chicago TRACON in South Elgin, the O'Hare Tower and DuPage Tower. Approval has been secured to visit Midway and Aurora ATCT facilities.

### ADJACENT AIRPORT

The Lewis University Airport is a designated reliever airport for O'Hare International. Two runways serve a diversity of aircraft types and feature several instrument approaches. Approval has been secured for a new air traffic control tower and a third runway.

### OUTSTANDING LOCATION AND STATE-OF-THE-ART FACILITIES

Students majoring in flight usually begin to fly during their first semester. Our flight office, planes, simulators, and related facilities are located on the Lewis University campus, within walking distance of the Lewis University Airport.

The Harold E. White Aviation Center, including a \$2 million high-tech flight complex, is one of the most modern aviation education centers in the Midwest. The facility includes a flight simulator room, a computer laboratory, and a dispatch center, as well as classrooms.

Lewis' proximity to Chicago's main airports (O'Hare and Midway) and to major and regional airlines provides opportunities for student internships and practicums.

Tomorrow's leaders in the aviation community will need the flexibility and competence associated with a liberal arts education and the specialized expertise necessary to meet the demands of a rapidly changing world where aviation will play an increasingly significant role. Lewis' aviation graduates will be among the leaders who will shape the future of aviation in the twenty-first century.

## AIR TRAFFIC CONTROL MANAGEMENT / BACHELOR OF SCIENCE

Total Credit Hours: 128  
Major Credit Hours: 75

This program is designed for students who want to become Air Traffic Controllers for the Federal Aviation Administration. Students enrolled in the program must maintain an overall 3.0 GPA in major courses in the ATC curriculum, with no grade in the major lower than a "C". Students must pass an aptitude test midway through the curriculum, and upon successful completion of all the courses, must pass a comprehensive examination; only then will they receive a certificate as a graduate from an FAA approved Air Traffic Collegiate Training Initiative (AT-CTI) college. Upon graduation from the program, students will be eligible to be hired by the FAA if they are able to pass a physical examination and an aptitude test given under the FAA guidelines. If successful, the student will attend the FAA Aeronautical Center in Oklahoma City, Oklahoma, for additional training. Successful completion of this Oklahoma City program will provide the required training and skills to be an Air Traffic Controller for the FAA.

Applicants to this program must have achieved a minimum high school GPA of 3.0 (on a 4.0 scale) and an ACT composite score of 21 or a minimum score of 1100 on the SAT. They must also have completed 3 years of high school mathematics and science. In addition to appropriate ACT/SAT scores, transfer students must have earned an overall 3.0 GPA in transferable courses. Lewis University students who request admission into the program must have completed a minimum of 24 credit hours at Lewis University and must have earned no less than a 3.0 GPA overall.

Air Traffic Control majors may double major in Aviation Administration or Aviation Flight Management.

### I. Core Aviation Courses (66)

- 47-102 Introduction to Aviation (1)
- 47-130 Private Pilot Ground I (3)
- 47-131 Private Pilot Ground II (3)
- 47-201 Human Factors in Aviation (3)
- 47-203 Visual Aircraft Recognition (1)
- 47-204 Aviation Regulations (3)
- 47-231 Instrument Pilot Ground School (4)

- 47-250 Aviation Meteorology I (3)
- 47-252 Aviation Meteorology II (3)
- 47-313 Air Traffic Control Systems (3)
- 47-321 Aviation Legislation (3)
- 47-331 Commercial Pilot Ground School (3)
- 47-353 Air Transportation (3)
- 47-373 Aviation Safety (3)
- 47-452 Airport Management (3)
- 47-463 Aircraft Accident Investigation (3)
- 47-473 Flight Engineer I (3)
- 47-480 Practical Dispatching (3)
- 47-482 ATC Responsibilities and Procedures (3)
- 47-484 Radar Fundamentals and Separation Minima (3)
- 47-486 Aircraft Capabilities and Characteristics (3)
- 47-496 Air Traffic Control Internship (3)
- 47-xxx Aviation Elective (3)

### II. Core Business Courses (9)

- 61-200 Principles of Management (3)
- 61-360 Human Resource Management (3)
- 61-380 Supervisory Management (3)

### III. General Education Courses (45)

- 06-111 College Writing I (3)
- 06-112 College Writing II (3)
- 10-112 Introduction to Human Communication (3)  
Fine Arts Requirement (3)
- 09-101 Culture and Civilization I (3)
- 09-102 Culture and Civilization II (3)
- 15-110 Introduction to Philosophy (3)  
Literature (3)  
Social Science Requirement (3)  
Economics Option (3)  
Mathematics Option (3)
- 20-290 Cultural Diversity and Intergroup Relations (3)
- 19-100 (or 19-106) Theology Level 100 (3)
- 19-2xx Theology Level 200 (3)  
Action and Values (3)

*The following courses serve both as General Education courses and as major requirements:*

- 47-102 Introduction to Aviation (1)
- 47-250 Aviation Meteorology I (3)
- 47-252 Aviation Meteorology II (3)

**IV. Open Electives (8)**

(Any courses offered in the University may be chosen. These credits count toward the 128 hours required for graduation.)

V. The advanced writing requirement is met by successful completion of Aviation Legislation (47-321) and Aircraft Accident Investigation (47-463).

## AIR TRAFFIC CONTROL MANAGEMENT / ASSOCIATE DEGREE

Total Credit Hours: 75  
Major Credit Hours: 60

This program prepares the student to become an Air Traffic Controller for the Federal Aviation Administration and includes additional courses business and written and oral communication courses. The successful student will complete a minimum of 75 credit hours and receive a certificate from an approved FAA AT-CTI program.

**I. Core Aviation Courses (57)**

- 47-102 Introduction to Aviation (1)
- 47-130 Private Pilot Ground I (3)
- 47-131 Private Pilot Ground II (3)
- 47-201 Human Factors in Aviation (3)
- 47-203 Visual Aircraft Recognition (1)
- 47-204 Aviation Regulations (3)
- 47-231 Instrument Pilot Ground School (4)
- 47-250 Aviation Meteorology I (3)
- 47-252 Aviation Meteorology II (3)
- 47-313 Air Traffic Control Systems (3)
- 47-321 Aviation Legislation (3)
- 47-353 Air Transportation (3)
- 47-373 Aviation Safety (3)
- 47-452 Airport Management (3)
- 47-463 Aircraft Accident Investigation (3)
- 47-482 ATC Responsibilities and Procedures (3)
- 47-484 Radar Fundamentals and Separation Minima (3)
- 47-486 Aircraft Capabilities and Characteristics (3)
- 47-496 Air Traffic Control Internship (3)
- 47-xxx Aviation Elective (3)

**II. Core Business Course (3)**

- 61-200 Principles of Management (3)

**III. General Education Courses (15)**

- 06-xxx English Composition Option (3)
- 10-112 Introduction to Human Communication (3)
- Economics Option (3)
- Mathematics Option (3)
- 19-100 (or 19-106) Theology Level 100 (3)
- 47-102 Introduction to Aviation (1)

*The following courses serve both as General Education science courses and as major requirements:*

- 47-250 Aviation Meteorology I (3)
- 47-252 Aviation Meteorology II (3)

## AIR TRAFFIC CONTROL / MINOR

Minor Credit Hours: 22

To prepare Lewis University aviation graduates for success in the highly competitive air transportation industry, the minor in Air Traffic Control will enhance Flight Management, Aviation Administration, Aviation Security, and Maintenance Management majors with useful knowledge about a professional post essential to every major airport in the world.

**I. Required Courses (22)**

- 47-313 Air Traffic Control Systems (3)
- 47-231 Instrument Pilot Ground School (4)
- 47-321 Aviation Legislation (3)
- 47-452 Airport Management (3)
- 47-482 ATC Responsibilities and Procedures (3)
- 47-484 Radar Fundamentals and Separation Minima (3)
- 47-486 Aircraft Capabilities and Characteristics (3)

## AVIATION FLIGHT PROGRAM FAA APPROVED

Lewis University Flight program is approved by the Federal Aviation Administration (FAA), under Title 14 of the Code of Federal Regulations, Part 141.

*\* Meets Requirements of 14 CFR 141 of the Federal Aviation Administration*

