

DEPARTMENT OF AVIATION 106

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AVIATION

Seamount Building (Airpark)
269-471-3547
Fax: 269-471-6004
airinfo@andrews.edu
www.andrews.edu/aviation/

Faculty

Dina M. Simmons, Chair
James H. Doran
Duane E. Habenicht
C. Brooks Payne
Randall Robertson
Caleb Sigua

Academic Programs	Credits
BT: Aviation	60–88
Emphasis Areas	
Flight & Aviation Maintenance	
Flight & Business	
Flight	
Aviation Maintenance	
Aviation Maintenance & Business	
AT: Aviation	40–52
Emphasis Areas	
Flight	
Aviation Maintenance	
Minor in Aviation	20 or 32
Emphasis Areas	
Flight (20)	
Aviation Maintenance (32)	
Certificates	
Private Pilot	
Commercial Pilot	
Instrument Rating	
Flight Instructor	
Multi-Engine Rating	
FAA-approved Part 147, Aviation Maintenance	
Airframe	
Powerplant	
Airframe and Powerplant	

Programs

For the aviation professional, the most competitive aviation program emphasizes both flight and maintenance. Therefore, the Department of Aviation strongly recommends completing a degree with both Flight and Aviation Maintenance emphases. Students who wish to enter a non-flying aviation career, may limit their specialization to Aviation Maintenance.

Two programs are available. A four-year Bachelor in Aviation, and a two-year Associate in Aviation.

Individualized majors are available as described in the previous section.

The airpark is located about 1.2 miles from the central campus. Students are expected to provide their own transportation to and from the airpark.

BT: Aviation

Major*	60–88
General Education requirements	41–44
General electives	23–0
Total credits for degree	124–132

General Education Requirements

See professional program requirements, p. 51, and note the following **specific** requirements:

Religion: professional degree requirements

Language/Communication: professional degree requirements

History: professional degree requirements

Fine Arts/Humanities: professional degree requirements

Life/Physical Sciences: professional degree requirements

Mathematics: professional degree requirements

Computer Literacy: INFS120 or DGME130 or pass a college-level competency exam of equivalent skills

Service: BHSC100 or BHSC300 "S" designated major course or service plan or 2 credits of fieldwork (0–2 cr)

Social Sciences: professional degree requirements

Fitness Education: professional degree requirements

*Emphasis Options

Flight and Aviation Maintenance (88)

Flight—36
Aviation Maintenance—52

Flight and Business (75)

Flight—42 (See required courses.)
Departmental electives—12
Business—21 min.

Flight (60)

Flight—42 (See required courses.)
Departmental electives—18

Aviation Maintenance (60)

Aviation Maintenance—52
Departmental electives—8

Aviation Maintenance and Business (73)

Aviation Maintenance—52
Business—21 min.

Flight Area Courses

A Private Pilot Certificate, Instrument Rating, and a Commercial Certificate with Single and Multi-Engine Ratings are required for any BT or AT flight option. Flight lab fees, in addition to tuition, apply to all flight training courses (see Department of Aviation Charges, p. 72). Students are required to produce an FAA Student Pilot & Medical Certificate of Class 1 (recommended) or Class 2 (minimum), and proof of citizenship (passport or certified birth certificate) prior to entry into the Flight program. All other program requirements and procedures can be referenced in the department student handbook. Contact the Department of Aviation for more details.

Required Courses—42

AFLT115, 118, 120, 124, 126, 210, 215, 218, 225, 305, 316, 318, 326.

Aviation electives are to be chosen in consultation with an advisor. These electives are added to the required core classes that make up the total hours required by the major.

Credit by exam will only be approved for new students transferring in with previous FAA certificates subject to departmental approval.

Aviation Maintenance Area Courses

An Aviation Maintenance Certificate with Airframe and Powerplant ratings is required for any BT or AT maintenance option. Lab fees apply to all maintenance courses. Students are required to have a Windows-compatible PC laptop for these courses. Due to the schedule and intensity of the Aviation Maintenance program, it is strongly recommended that students do not seek employment while taking the program full-time. All other program requirements and procedures can be referenced in the department student handbook.

Required Courses—52

AVMT108, 114, 116, 120, 204, 206, 210, 220, 226, 237, 304, 306, 308, 310, 314, and 316

Credit by exam will only be approved for new students transferring in with previous FAA certificates subject to departmental approval.

AT: Aviation

Students may earn an Associate of Technology degree by taking courses beyond those required for the certificate in either the flight or maintenance area. The additional courses give students a

AFLT124 § (2)

A study of the fundamental basics of electricity and electronics; including electrical diagrams, calculations, sources of electrical power, direct and alternating current, aircraft storage batteries, capacitance and inductance, binary code and the basics of solid state logic. (This course does not count toward FAA maintenance program credit.) Fall

AFLT126 § (2)

Study of the federal regulations and manufacturer publications as they apply to aircraft design, maintenance, inspections, forms and records, and the certification and privileges/limitations of aviation maintenance technicians and pilots. (This course does not count toward FAA maintenance program credit.) Fall

AFLT210 § Alt (4)

An in-depth study into the inspection, repair, checking, servicing and troubleshooting of the following aircraft systems; ice-and-rain detection, cabin atmosphere (pressurization, heating, cooling, and oxygen), position warning systems, navigation and communication systems, and aircraft instruments and their use in trouble-shooting of aircraft systems. (This course does not count toward FAA maintenance program credit.) Spring

AFLT215 (4)

Ground training to prepare the student for the FAA instrument rating airplane knowledge test. Topics include Federal Aviation Regulations, meteorology, instrument flight charts, flight planning, instrument approaches, use of navigation equipment, and FAA publications relating to instrument flight. Spring

AFLT218 § (3)

Sixty-five (65) hours of aircraft and simulator time leading to the airplane instrument pilot rating including 25 hours of cross-country flight needed to meet the 50-hour cross-country requirement. Fall, Spring, Summer

AFLT220 Alt (3)

Meteorology provides students with a comprehensive study of the principles of meteorology while simultaneously providing classroom and laboratory applications focused on current weather situations. It provides real experiences demonstrating the value of computers and electronic access to time sensitive data and information. Fall

AFLT225 § Alt (2)

A study of the various types and handling of fuels used in aircraft. Includes a study of aircraft fuel systems, fuel metering methods and the inspection, checking, servicing, troubleshooting, repair and overhaul of fuel systems and their components, and fire detection and protection. (This course does not count toward FAA maintenance program credit.) Spring

AFLT230 Alt (3)

The study of aerodynamic principles used in aircraft. Designed for a better understanding of basic design and devices used to improve aircraft performance. Fall

AFLT300 Alt (3)

The study of physiological and psychological factors related to flight safety, emphasizing cause-and-effect of airplane accidents and their prevention. Includes a systems approach to safety program development and management. Spring

AFLT305 (4)

Ground training to prepare the student for the FAA commercial-pilot airplane knowledge test. Topics include advanced navigation, FAR Parts 61, 91, and 135 for air taxi, complex aircraft systems, weight and balance, and performance charts. Fall

AFLT310 Alt (3)

The study of transport category aircraft systems, including: turbine engines, APUs, fuel, electrical, hydraulic, pneumatic, environmental control, emergency oxygen, pressurization, de-icing systems, and advanced avionics systems. Particular emphasis will be placed on preparing for airLOTO(t.04 Tw 23.768wrin)10(g)1(for

AFLT365

(2)

Prepares the student for the FAA instrument flight instructor

A study of the engine side of the fuel systems (firewall forward).
Includes an in-depth study of fuel-metering devices used on