

Aviation Studies (AVIA, AVFL)

John Schaefer, Aviation Division Chair

Lance Vaculin, Director of Flight Education & Chief Flight Instructor

Gail Avendano, Director of Aviation Student Support

Assistant Chief Flight Instructors: Scott Olsen, Ian McCabe

Associate Instructors: Randy Berg, Jodi Howick, Eugene Reinecke

The Westminster Flight Operations program prepares you for a career as a professional pilot in the airline and corporate aviation industries. As with many professions, there are minimum qualifications that make you more attractive to potential employers. At Westminster College, you will gain the flight skills, knowledge, and judgment that take you well beyond the minimum requirement set by the FAA.

The Aviation Management program at Westminster College offers a balanced curriculum that combines a broad general education with a strong foundation of business and specialized courses and experiences in aviation management. The specialized aviation courses allow you to focus on your area of interest and the internship experience will allow you to get started on your desired career path. The Westminster College Aviation Management program is designed to provide you flexibility in determining your specific career path, because there are so many opportunities in the aviation business field.

Accreditation

The Aviation Management and Flight Operations programs—
are fully accredited by the Aviation Accreditation Board International (AABI).

This program-specific accreditation supplements the college's accreditation and assures aviation students that Westminster's high-quality is recognized and regularly evaluated by aviation industry experts.

All of the Flight Operations Program flight courses are approved under FAA Part 141 and the Advanced Flight course is recognized by the FAA as meeting the FAA Industry Training Standards (FITS) criteria which allows students to complete the course on a proficiency basis rather having a specific number of hours.

Westminster College is also qualified to certify graduates of the Flight Operations program for a Restricted Airline Transport Pilot (R-ATP) certificate in 1,000 hours rather than the 1,500 hours required for the ATP.

Flight Operations

Programs Goals

Aviation Flight Operations students must demonstrate skills and knowledge

relative to each of the following areas:

- Attributes of an aviation professional, career planning and certification.
- Aircraft design, performance, operating characteristics and maintenance.
- Aviation safety and human factors.
- National and international aviation law, regulations and labor issues.
- Airports, airspace, and air traffic control.
- Meteorology and environmental issues.
- Pilot certificates and aircraft operation.

Flight Operations Program Goals

To fulfill requirements for a major in Flight Operations, students must complete the courses listed below. Students must maintain a 2.3 GPA in courses required for the Flight Operations Major. In addition, because the program involves flight activity there are a number of criteria that must be met prior to being allowed to fly:

- An FAA Class I or Class II medical certificate is required prior to beginning flight training (a Class I medical certificate is recommended). At least FAA Class III medical standards must be maintained throughout training. A student pilot certificate is required for those just starting flight training. Student pilots must obtain a student pilot certificate with their Class I or Class II medical certificate.
- Proof of U.S. citizenship verified by an original or certified copy of a birth certificate or current passport is required prior to beginning flight training. Students, who are not U.S. citizens, must register with the Transportation Security Administration (TSA) prior to beginning flight training. This registration process is conducted with the assistance of Westminster College aviation personnel.
- Students must maintain a minimum balance in their flight account in order to continue flying. All flight lab fees must be paid in full at the beginning of each semester unless prior arrangements have been made with the Director of Aviation Student Support.

Students will not be permitted to begin a flight lab unless these requirements have been met and may be required to drop a flight lab if requirements are not met by the add/drop date. Consult the "Westminster College Minimum Flight Training Costs" handout for specific details about flight trainings costs and required account balances for each flight lab.

Flight training courses are conducted at Salt Lake City International Airport. Students must arrange their own transportation to and from the Flight Operations Center.

Westminster College will consider prior learning credit for students who have received flight and ground training at other institutions under FAR Part 141 for Private and Commercial pilot certificates and the Instrument rating. For students who have received flight and ground training under FAR Part 61, the

college will consider awarding credit only for the Private certificate and the Instrument rating. In all cases, prior learning credit will be awarded only at the discretion of the Director of Flight Education, based on an evaluation of the student's previous academic and flight instruction experiences. Transfer students may be required to supplement their flight labs with additional flight or academic instruction in order to meet Westminster College proficiency standards. Once a student has enrolled at Westminster College, all subsequent flight training required in the academic program must be completed with the Westminster College Flight Operations Center (including flight labs and ground schools in order to qualify for a Flight Operations degree).

In order to be qualified for an RATP certificate, both the Instrument rating and Commercial Pilot certificate must be earned at Westminster College.

A unique hallmark of the Westminster College aviation program is that our students are generally not billed for regular ground instruction. Students are billed for ground instruction under certain circumstances, such as taking an abnormally long time to complete a rating or by choosing to train under FAR Part 61. (Refer to the Westminster College Aviation Student Handbook for complete details about ground billing policies and expected flight training progress.)

Students must meet the college-wide graduation requirements in addition to the Aviation Studies major:

- 124 total hours
- 30 upper division hours
- Liberal education distribution

Bachelor of Science in Flight Operations

Requirement Description	Credit Hours	Prerequisites
I. Lower Division Courses	23	
AVFL 121 Foundations of Flight (3)		
AVFL 122A Foundations of Flight Lab I (1)		
AVFL 122B Foundations of Flight Lab II (1)		
AVFL 221 PIC Development (1)		
AVFL 222 PIC Development Lab (1)		
AVFL 231 Intermediate Flight (3)		
AVFL 232 Intermediate Flight Lab (1)		
AVIA 101 Air Transportation (4)		
AVIA 202 Aircraft Systems I (3)—offered fall		
MATH*141 OR MATH*143 College Algebra LE (4)		
MATH 142 Trigonometry (2)		MATH*141 OR MATH*143
PHYS 151 Principles of Physics I (4)—offered fall		MATH*141 OR MATH*143—MATH 142
II. Upper Division Courses	33	
AVFL 341 Advanced Flight (3)		

AVFL 342A Advanced Flight Lab I (1)	
AVFL 342B Advanced Flight Lab II (1)	
AVFL 421 Professional Flight I (3)–offered fall	
AVFL 422 Professional Flight I Lab (1)–offered fall	
AVFL 461 Professional Flight II (2)–offered spring	
AVFL 462 Professional Flight II Lab (1)–offered spring	
AVIA 302 Air Traffic Control System (3)–offered spring	
AVIA 303 Meteorology (3)–offered spring	
AVIA 324 Human Factors in Flight (4)–offered fall	
AVIA 335 Aviation Law (3)	MATH*141 OR MATH*143
AVIA 304 Aircraft Systems II–offered spring	AVIA 202
AVIA 410 Flight Theory (4)–offered spring	PHYS 151
AVIA 402 Aviation Capstone (4)–offered spring	Senior Standing
AVFL 440 Internship (4)	

IIIa. Flight Operations Management Elective Option Choose this option or IIIb below.	4	
--	----------	--

Take one of the following courses:

AVIA 325 Business and Corporate Aviation (4)–offered spring	AVIA 101
AVIA 415 Managing the Airport Environment (4)–offered spring	AVIA 101
AVIA 430 Airline Operations and Cargo Management (4)–offered fall	AVIA 101

IIIb. Flight Instructor Elective Option Choose this option or IIIa above.	5	
---	----------	--

AVFL 400 Fundamentals of Instruction Ground School (2)–offered spring	permission only
AVFL 410 Flight Instructor Ground School (2)–offered spring	permission only
AVFL 420 Flight Instructor Flight Lab (1)–offered spring	permission only

All offered spring semester.

TOTAL HOURS FOR FLIGHT OPERATIONS	72 or 73	
--	-----------------	--

Note: All students must complete 124 hours of coursework to graduate, 30 hours of which must be upper division (300 level or above). Students will need to take other courses to complete the college hours requirement. See the Aviation Studies department chair for details on the B.A. requirements.

Recommended Plan of Study for Flight Operations

	Fall Semester	Spring Semester
Freshman Year	AVFL 121 AVFL 122A MATH*141 OR MATH*143	AVIA 101 AVFL 122B MATH 142
Sophomore Year	AVFL 221 AVFL 222 PHYS 151 AVIA 202	AVFL 231 AVFL 232 AVIA 302 AVIA 303
Junior Year	AVFL 341 AVFL 342A AVIA 324 AVIA 335	AVFL 342B AVIA 410If CFI Option: AVFL 400 & 410 AVFL 420
Senior Year	AVFL 421 AVFL 422 AVIA 440If Flight Ops Mgmt: option AVIA 430	AVFL 461 AVIA 462 AVIA 402

Note: The above plan is one example of a track through the flight program. A number of other flight course completion plans are available to match each student's time and financial resources. It is critical for flight students to frequently meet with the Director of Aviation Student Support or their academic advisor to select or adjust their flight course completion plan.

Students who do not finish flight lab requirements during the semester in which they registered for the flight lab are required to register for AVFL*499 (Continuing Registration for Flight Training) in the subsequent semesters to complete lab requirements. This zero (0) credit flight lab is restricted to continuing students who are completing flight requirements for specific flight courses.

Flight Operations Minor

Requirement Description	Credit Hours	Prerequisites
I. Required Courses	15	
AVIA 101 Air Transportation (4)		
AVFL 121 Foundations of Flight (3)		
AVFL 122A Foundations of Flight Lab I (1)		
AVFL 122B Foundations of Flight Lab II (1)		
AVFL 221 PIC Development (1)		
AVFL 222 PIC Development Lab (1)		
AVFL 231 Intermediate Flight (3)		
AVFL 232 Intermediate Flight Lab (1)		
Flight Operations Minor electives selected from:	8	
AVFL 341, AVFL 421, AVIA 202, AVIA 302 , AVIA 304, AVIA 324, AVIA 440, AVIA 441		

Note: Students pursuing a minor in Aviation with a major in another Gore School of Business program cannot use their AVIA electives in both programs.

Aviation Management

Program Goals

Aviation Management students must demonstrate skills and knowledge relative to each of the following areas:

- Attributes of an aviation professional, career planning and certification.
- Aircraft design, performance, operating characteristics and maintenance.
- Aviation safety and human factors.
- National and international aviation law, regulations and labor issues.
- Airports, airspace, and air traffic control.
- Meteorology and environmental issues.

Aviation Management Program Requirements

To fulfill requirements for a major in Aviation Management students must complete the courses listed below. Students must maintain a 2.3 GPA in courses required for the Aviation Management Major.

Students must meet the college-wide graduation requirements:

- 124 total hours
- 30 upper division hours
- Liberal education distribution

Undergraduate Business Core

Students in all business majors (with the exception of flight operations and some economics programs) complete a common undergraduate core designed to develop skill in all functional areas of business.

There are two components to the common undergraduate core: the lower-division requirements, and the upper-division requirements. Since many of the lower-division core requirements are prerequisites for upper-division major requirements, students should work to complete lower-division courses early in their programs. Upper-division core requirements should be taken when prerequisites are met. Refer to course descriptions to determine prerequisites.

Students should try to complete as many core business requirements as possible in their LE course selections. Those courses that meet LE requirements are annotated below:

Requirement Description	Credit Hours	Prerequisites
Lower Division Business Courses	30*	
ACCT 213 Accounting Principles (4)–offered fall, spring, and summer		
ECON 253 Elementary Macroeconomics, LE* (4)–offered fall, spring, and summer		
ECON 263 Elementary Microeconomics (4)–offered fall, spring, and summer		ECON 253 (LE); MATH*141 OR MATH*143 (LE)
IRM 200 Principles of Information Resource Management*** (4)–offered fall, spring, and summer		co-requisite: MATH 150 (LE)
MATH*141 OR MATH*143 College Algebra, LE** (4)–offered every semester		MATH 105 or placement test
MATH 150 Elementary Statistics, LE** (4)–offered every semester		MATH 105 or placement test
MGMT 230 Business Quantitative Methods*** (3)–offered fall, spring, and summer		MATH*141 OR MATH*143 (LE),
PHIL 206 Introduction to Ethics, LE * (3)		
Upper Division Business Courses	20	
FINC 300 Business Finance (4)–offered fall, spring, and summer		ACCT 213; ECON 253 (LE), 263; IRM 200; MATH*141 OR MATH*143 (LE), MATH 150 (LE)
MGMT 305 Principles of Management (4)–offered fall, spring, and summer		MATH*141 OR MATH*143 (LE)
MGMT 325 Business and Employment Law (4)–offered fall and spring		
MGMT 475 Strategy in Global Management**** (4)		senior standing; see course description
MKTG 300 Principles of Marketing (4)–offered fall, spring, and summer		MATH*141 OR MATH*143 (LE)
TOTAL REQUIRED HOURS	50	

Notes:

- * Students taking these courses as part of LE can double count these courses.
- ** Only one of MATH*141 OR MATH*143 and MATH 150 will count toward LE, but both are required. Students may be required to take both, based on math placement exams.
- *** IRM 200 and MGMT 230 may be taken in the same semester as co-requisites.
- **** In certain majors, Senior Seminar may substitute for MGMT *475

Bachelor of Science in Aviation Management

Requirement Description	Credit Hours	Prerequisites
I. Undergraduate Business Core	49	

Aviation Management majors must complete the business core; however, they are required to take AVIA 335 Aviation Law in place of MGMT 325 Business Law.

II. Lower Division Courses	7	
AVIA 101 Air Transportation (4)		
AVFL 121 Foundations of Flight (3)		
III. Upper Division Courses	12	
AVIA 324 Human Factors in Flight (4)—offered fall		
AVIA 412 Special Topics in Aviation (4)—offered spring		
Students must take a total of 4 credits selected from the following courses:		
AVFL 440 CFI Internship (2) or		junior/senior standing, see course description
AVIA 440 Internship (1–8) or		junior/senior standing
AVIA 441 Aviation Practicum (4)		MGMT 305; MATH 150 (LE); junior/senior standing
IV. Electives	4	
Students must take one of the following courses:		
AVIA 325 Business and Corporate Aviation (4)—offered spring		AVIA 101
AVIA 415 Managing the Airport Environment (4)—offered spring		AVIA 101
AVIA 430 Airline Operations and Cargo Management (4)—offered fall		AVIA 101
TOTAL HOURS FOR B.S. AVIATION MANAGEMENT	72	

Note: All students must complete 124 hours of coursework to graduate, 30 hours of which must be upper division (300 level or above). Students will need to take other courses to complete the college hours requirement.

Students who wish to participate in the MBA program should apply for admission to the MBA program during their senior year. Students are encouraged to meet with their program advisor for specific requirements. Information on the MBA program admission requirements is found in the MBA section of this catalog.

Bachelor of Arts in Aviation Management

Requirement Description	Credit Hours	Prerequisites
-------------------------	--------------	---------------

I. Undergraduate Business Core	49	
Aviation Management majors must complete the business core; however, they are required to take AVIA 335 Aviation Law in place of MGMT 325 Business Law.		
II. Bachelor of Arts Requirements	12	
Students completing the Bachelor of Arts option (B.A.) must complete either:		
a. A declared academic minor other than a Business minor; or		
b. Twelve credit hours of a single foreign language; or		
c. Eight credit hours of a single foreign language, and either:		
• four credit hours of a Westminster May term study/cultural international experience, or		
• four credits of an international study tour transferred from an accredited college or university.		
See Foreign Language Requirement for equivalencies, AP and CLEP credit policy.		
III. Lower Division Courses	7	
AVIA 101 Air Transportation (4)		
AVFL 121 Foundations of Flight (3)		
IV. Upper Division Courses	12	
AVIA 324 Human Factors in Flight (4)–offered fall		
Students must take a total of 4 credits selected from the following courses:		
AVFL 440 CFI Internship (2)		junior/senior standing, see course description
or		
AVIA 440 Internship (1–8)		junior/senior standing, see course description
or		
AVIA 441 Aviation Practicum (4)		MGMT 305; MATH 150 (LE), junior/senior standing
V. Electives	4	
Students must take one of the following courses:		
AVIA 325 Business and Corporate Aviation (4)–offered spring		AVIA 101
AVIA 415 Managing the Airport Environment (4)–offered spring		AVIA 101
AVIA 430 Airline Operations and Cargo Management (4)–offered fall		AVIA 101

TOTAL HOURS FOR B.A. AVIATION MANAGEMENT**84**

Note: All students must complete 124 hours of coursework to graduate, 30 hours of which must be upper division (300 level or above). Students will need to take other courses to complete the college hours requirement.

Recommended Plan of Study for Aviation Management (B.A. & B.S.)

	Fall Semester	Spring Semester
Freshman Year	AVIA 101 ECON 253	AVFL 121 MATH*141 OR MATH*143
Sophomore Year	ECON 263 MGMT 305 MATH 150	IRM 200 MGMT 230 PHIL 206D
Junior Year	ACCT 213 AVIA 324	AVIA 412 FINC 300 MKTG 300
Senior Year	AVIA 335 MGMT 475	AVIA 402 AVIA 440/441/442 AVIA 325/415/430

Aviation Management Minor

Requirement Description	Credit Hours	Prerequisites
I. Required Courses	19	
AVIA 101 Air Transportation (4) AVIA 335 Aviation Law (3)		MATH*141 OR MATH*143 (LE)
MGMT 305 Principles of Management (4)—offered fall, spring, and summer		MATH*141 OR MATH*143 (LE)
Students must take one of the following courses: AVIA 440 Internship (4) or AVIA 441 Practicum (4)		junior/senior standing, see course description MGMT 305; MATH 150 (LE); junior/senior standing
Aviation Management Minor electives selected from: AVIA 325, AVIA 415, AVIA 430.	4	
TOTAL HOURS FOR THE AVIATION MANAGEMENT MINOR	23	

Note: Students pursuing a minor in Aviation with a major in another Gore School of Business program cannot use their AVIA electives in both programs