
AVIATION SCIENCE

FACULTY

Chairperson: Assistant Professor Michael Farley

Assistant

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Department Telephone Number: (508) 531-1779

Web site: www.bridgew.edu/depts/aviation/

DEGREE PROGRAM:

- BS in Aviation Science
Concentrations: Aviation Management, Flight Training

UNDERGRADUATE MINOR

- Aviation Science

UNDERGRADUATE PROGRAMS

BACHELOR OF SCIENCE IN AVIATION SCIENCE

The Department of Aviation Science offers a B.S. degree in Aviation Science with concentrations in flight training, aviation management and airport management. Graduates are prepared for entry into the aviation industry in productive, professional employment, or alternatively, for graduate study.

Federal Aviation Administration Certification of Bridgewater State College, as a Federal Air Regulation (FAR) Part 141 ground school, allows students to complete all required ground school courses at the college as part of the aviation science curriculum. Bridgewater State College is also designated by the Federal Aviation Administration as an Aviation Education Resource Center.

The Bridgewater State College aviation science program incorporates single engine and multi-engine flight simulator training into its flight training courses. For complete information on these programs, consult with the chairperson of the Department of Aviation Science.

FLIGHT TRAINING CONCENTRATION*

The flight training concentration combines academic studies and flight training, in order to prepare graduates for a wide variety of positions within the air transportation industry, including general, airline and military aviation¹. The flight program allows the student to obtain private pilot, commercial pilot, instrument pilot, and flight instructor certificates.

The curriculum provides the flight training necessary to operate in the high-density environment of modern airspace. The program emphasizes critical thinking and analytical skills, as well as oral and written communication skills. Effective resource management, human factors, and safety awareness are constantly emphasized throughout the curriculum. Complementing the intensive flight training is expert classroom instruction and use of flight simulators. A career in the flight training concentration leads to the development, administration, and enforcement of safety regulations, including airworthiness and operational standards in civil aviation. This program prepares the graduate for a career path that starts as a certified flight instructor, and leads to positions with airlines and corporate flight departments.

¹Reserve Officer Training Corps (ROTC) scholarship opportunities are available. The ROTC program is designed to give students the opportunity to become a military officer while completing a bachelor's degree program.

AS 101 Primary Flight I
AS 102 Primary Flight II
AS 103 Primary Flight III
AS 105 Private Pilot Ground School
AS 201 Commercial Flight I
AS 202 Commercial Flight II
AS 203 Instrument Flight I
AS 204 Instrument Flight II
AS 205 Advanced Commercial and Instrument Flight
AS 211 Commercial Pilot Ground School
AS 212 Instrument Pilot Ground School
AS 217 Air Traffic Control
AS 301 Instructional Flight I
AS 302 Instructional Flight II
AS 303 Flight Instructor Ground School
AS 320 Aviation Regulatory Process
MG 130 Principles of Management
MG 140 Human Resources Management
MA 110 Elementary Statistics I

**Please note that flight courses involve flight fees.*

MA 141-142 Elements of Calculus I-II
 PH 181-182 Elements of Physics I-II
 CS 105 Computers and Their Applications: An
 Introduction
 EC 102 Principles of Macroeconomics
 Completion of FAA Certified Flight Instructor Training

**Please note that flight courses involve flight fees.*

General Education Requirements (GER)

A minimum of 120 earned hours is required for graduation. These earned hours include General Education Requirements as specified in the Undergraduate Academic Programs section of this catalog. For additional graduation requirements, see the Undergraduate Academic Policies section of this catalog.

AVIATION MANAGEMENT CONCENTRATION*

The aviation management concentration is designed to prepare graduates for managerial and supervisory positions throughout the air transportation industry. Primary flight training is included, along with broad exposure to aviation specific business and management courses. This program of study is interdisciplinary in nature and prepares the aviation career-oriented student for virtually any management career in aviation or aviation-related industries. Some of these positions include airport manager, air carrier manager, and general aviation operations manager.

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 AS 305 Introduction to General Aviation Management
 AS 307 Air Carrier Operations
 AS 402 Insurance and Risk Management in Aviation
 AS 407 Aviation Marketing Management
 MG 130 Principles of Management
 MG 140 Human Resources Management
 MG 360 Business Data Processing
 AF 240-241 Accounting I-II
 MA 110 Elementary Statistics I
 MA 141-142 Elements of Calculus I-II
 PH 181-182 Elements of Physics I-II
 CS 105 Computers and Their Applications: An
 Introduction
 EN 201 Technical Writing I
 EC 102 Principles of Macroeconomics

One environmental science course:
 ES 194 Environmental Geology
 or
 GE 196 Environmental Geography
 Completion of FAA Private Pilot License Certifications

**Please note that flight courses involve flight fees.*

General Education Requirements (GER)

A minimum of 120 earned hours is required for graduation. These earned hours include General Education Requirements as specified in the Undergraduate Academic Programs section of this catalog. For additional graduation requirements, see the Undergraduate Academic Policies section of this catalog.

AIRPORT MANAGEMENT CONCENTRATION

This program is inactive.

AVIATION SCIENCE MINOR*

The aviation science minor is divided into two options: a *flight option* and an *aviation management option*.

Flight Option:

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 MG 130 Principles of Management
 Plus electives selected from the list below. A minor requires a minimum of 18 credit hours.

Aviation Management Option:

AS 305 Introduction to General Aviation Management
 MG 130 Principles of Management
 MG 140 Human Resources Management
 Plus electives selected from the list below. A minor requires a minimum of 18 credit hours.

Electives:

AS 101 Primary Flight I
 AS 102 Primary Flight II
 AS 103 Primary Flight III
 AS 105 Private Pilot Ground School
 AS 201 Commercial Flight I
 AS 202 Commercial Flight II
 AS 203 Instrument Flight I
 AS 204 Instrument Flight II
 AS 205 Advanced Commercial and Instrument Flight
 AS 211 Commercial Pilot Ground School
 AS 212 Instrument Pilot Ground School

AS 301 Instructional Flight I
 AS 302 Instructional Flight II
 AS 303 Flight Instructor Ground School
 AS 305 Introduction to General Aviation Management
 AS 307 Air Carrier Operations
 AS 402 Insurance and Risk Management in Aviation
 AS 407 Aviation Marketing Management
 MG 140 Human Resources Management

**Please note that flight courses involve flight fees.*

FLIGHT TRAINING AND GROUND SCHOOL

Students enrolled in the aviation science program must take all flight and flight-related courses through Bridgewater State College except as provided below*. Flight training is provided under articulation agreements with Federal Aviation Administration (FAA) approved flight schools, which operate under Federal Aviation Regulation (FAR) Part 141. A list of college approved flight schools may be obtained from the aviation science department. Ground school courses are conducted by the college under Federal Aviation Regulation Part 141, as is the flight simulator training, which is required as a part of commercial and instrument flight training courses.

PHYSICAL EXAMINATIONS

Students seeking admission to the flight training concentration must pass a Class II or better FAA physical examination; a Class III FAA physical is required for the aviation management concentration or any other program involving flight courses. A copy of the certification for the appropriate flight physical must be on file with the aviation coordinator BEFORE FLIGHT TRAINING BEGINS.

ACADEMIC CREDIT FOR FLIGHT TRAINING

The following procedures for granting academic credit for flight and flight-related ground school training for both incoming freshman students and transfer students are in accord with pertinent college policies. These policies are designed to ensure academic quality and to maximize safety for the participants in the aviation science program. All students requesting academic credit from Bridgewater State College for flight and flight-related ground school training are subject to these provisions. Credit for all other course work will be considered as specified in the college catalog under the sections concerning “Transfer Admissions” and “Transfer of Credit after Admission.”

*Entering Freshmen and Transfer Students:

Freshmen or transfer students entering Bridgewater State College may request up to eighteen (18) credits for previous work in flight and flight-related ground school training under the following provisions:

1. To obtain credit for flight training, the student must:
 - (a) provide valid documentation** of the flight training concerned, (b) hold a current, appropriate flight physical certificate, and (c) pass a flight proficiency test conducted by an aviation science approved flight instructor. (Additional flight training may be required if a student has difficulty passing the flight proficiency test.) All costs for the flight proficiency test (and any additional flight training) will be borne by the applicant.
2. Credit for training in FAA certified ground schools may be obtained by providing valid documentation** of the training concerned.

**Valid documentation includes pertinent log books and other certificates, licenses and verification of the training from the school(s) concerned. This verification must be in the form of a statement, which identifies the school, describes the curriculum under which the training was taken and specifies the number of class hours involved. The statement must be signed by the chief flight instructor of the school. (The standard ratio for relating hours to academic credit is 18 class hours of flight training for one academic credit.) Up to full credit may be granted for courses from flight schools operating under Federal Aviation Regulation (FAR) Part 141 and up to half credit for training from schools operating under FAR Part 61.

Credit authorized by the above procedure for flight and flight-related ground school courses may be applied as follows:

Students entering the *flight training concentration* may apply up to seventeen (17) credits toward the academic major; any additional authorized flight training credit will be designated as free electives. *At least fifty percent (50%) of the credits in any major field (major department) must be earned at Bridgewater State College.*

Students entering the *aviation management concentration* may apply seven (7) academic credits toward the required private pilot’s license; any additional credits may be used toward free electives *only*.

Students entering the *aviation science minor* may apply nine (9) credits toward the minor; any balance may be credited toward free electives.

Students who *neither major nor minor in aviation science* may be granted up to eighteen (18) academic credits toward free electives.

Authorized flight training credits specified above for the major, minor, and free electives may be applied toward the college graduation requirement of 120 credits (minimum).

Students Enrolled at Bridgewater State College:

After a student is officially enrolled at Bridgewater State College, academic credit from other institutions will be granted only as specified by college policy. Under special conditions where the college cannot provide the required course work, such as students being out of commuting range of the college during the summer, a student may apply for permission to earn credits at other institutions. The procedure which follows must be completed BEFORE courses are taken elsewhere. Persons (in any major) who take courses at other institutions/schools without following this procedure will not be granted credit at Bridgewater State College.

Procedure:

1. A form for requesting transfer credits may be obtained from the Registrar's Office.
2. The completed form, together with an identification of the proposed school and a description of the courses involved, must be submitted to the chairperson of the aviation science department, or a designee, for departmental approval. The aviation science program is based on the quality specified in the Federal Aviation Regulation Part 141, and credit will be accepted only from FAR Part 141 approved schools. Other documentation may be requested by the aviation chairperson.
3. Upon completion of courses taken at other institutions, students must satisfy the same conditions as set forth for entering freshmen and transfers, i.e., providing valid certification and passing a flight proficiency test, as described above.

The student is responsible for insuring that all transcripts, certificates or other documentation are submit-

ted to the Registrar's Office of Bridgewater State College, with copies to the aviation coordinator, within six weeks after the completion of training. Official transcripts must be sent from the training institution directly to Bridgewater State College. They must not be transported by the student.

Please note: For additional detailed information on the aviation science program call (508) 531-1779 or write Chairperson, Department of Aviation Science, Bridgewater State College, Bridgewater, Massachusetts 02325.

Upon acceptance into the aviation science program, students must obtain a copy of the Department of Aviation Science Policies and Procedures Manual. All students **MUST** comply with the policies and procedures as set forth in said manual. A copy of the Policies and Procedures Manual can be obtained upon request through the Aviation Science Department.