Aerospace Studies

Air Force ROTC (AFROTC)

The Department of Aerospace Studies offers programs leading to an officer's commission in the Air Force in conjunction with an undergraduate or graduate degree.

Aerospace science courses are designed to supplement a regular degree program by offering practical leadership and management experience. The Aerospace Studies Program at the Colorado School of Mines is offered in conjunction with the University of Colorado at Boulder (CUB).

Four-Year Program

The four-year program consists of two phases: the general military course (freshman and sophomore years) and the professional officer course (junior and senior years). This program is designed for incoming freshmen or any student with four years remaining until degree completion. It consists of three parts: the General Military Course (GMC) for lower division (normals freshmen and sophomore) students; the Professional Officer Course (POC) for upper division students (normally juniors and seniors); and Leadership Laboratory (LLAB-attended by all cadets). Completion of a four-week summer training course is required prior to commissioning.

Leadership Lab

All AFROTC cadets must attend Leadership Lab (2 hours per week). The laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities, and the life and work of an Air Force officer.

General Military Course (GMC)

The basic course covers Air Force history and organization as well as military leadership and management. Laboratory sessions provide the opportunity to apply leadership skills while learning basic military skills. Enrollment in the basic course incurs no military obligation except for Air Force scholarship recipients.

Professional Officer Course (POC)

The advanced course covers military officership, leadership and unit operations, training techniques, military law, and professional ethics, and includes a leadership practicum each semester. A Field Training encampment provides challenging leadership training and is a prerequisite for commissioning. Advanced course students must have completed the basic course and obtain permission from the Professor of Aerospace Studies (PAS) to enroll in the POC.

Three-Year Program

The three-year program consists of the first two years of GMC courses taken concurrently in one year. The student then attends a Field Training encampment, and completes two years of advanced POC courses.

Scholarship Programs

Two-year, Three-year and Four-year college scholarships are available to eligible high school seniors, who apply before December 1 of their senior year. Scholarship students receive tuition assistance and mandatory laboratory fees, a book allowance, and a monthly stipend. Students interested in the scholarship program should contact the AFROTC Unit Admissions Officer no later than the beginning of the spring semester to apply for the following academic year. A complete listing of all available AFROTC scholarships is available at www.afrotc.com (http://www.afrotc.com).

Registration and Credits

Air Force ROTC serves as free-elective credit in most departments. Elective course credit toward your degree for AFROTC classes will be determined by your individual academic advisor. Students who wish to register for Air Force ROTC classes do so through the normal course registration process at Mines. AFROTC classes begin with the AFGN prefix. For more information about AFROTC, contact the Air Force ROTC Unit Admissions Officer at afrotc.colorado.edu (http://www.colorado.edu/afrotc), or the department on campus directly at 303-273-3380. The department is located in the Military Science building on West Campus Road. For information about Mines, call 303-273-3380.

Other AFROTC Programs

Other programs are frequently available based on current Air Force needs. Contact a Det 105 representative at afrotc.colorado.edu (http://afrotc.colorado.edu).

General Mines Minor/ASI requirements can be found here (bulletin.mines.edu/undergraduate/undergraduateinformation/minorasi).

Aerospace Studies Minor

Air Force ROTC cadets desiring to receive a minor in Aerospace Studies must complete at least 20 hours of Aerospace Studies courses as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AFGN101</td>
<td>FOUNDATIONS OF THE UNITED STATES AIR FORCE</td>
<td>1.5</td>
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<tr>
<td>AFGN102</td>
<td>FOUNDATIONS OF THE UNITED STATES AIR FORCE</td>
<td>1.5</td>
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<tr>
<td>AFGN201</td>
<td>THE EVOLUTION OF USAF AIR AND SPACE POWER</td>
<td>1.5</td>
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<tr>
<td>AFGN202</td>
<td>THE EVOLUTION OF USAF AIR AND SPACE POWER</td>
<td>1.5</td>
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<tr>
<td>AFGN301</td>
<td>AIR FORCE LEADERHIP STUDIES</td>
<td>3.5</td>
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<tr>
<td>AFGN302</td>
<td>AIR FORCE LEADERHIP STUDIES</td>
<td>3.5</td>
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<tr>
<td>AFGN401</td>
<td>NATIONAL SECURITY AFFAIRS AND PREPARATION FOR ACTIVE DUTY</td>
<td>3.5</td>
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<tr>
<td>AFGN402</td>
<td>NATIONAL SECURITY AFFAIRS AND PREPARATION FOR ACTIVE DUTY</td>
<td>3.5</td>
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Total Semester Hrs: 20.0

Courses

AFGN101. FOUNDATIONS OF THE UNITED STATES AIR FORCE. 1.5 Hour.

Two semesters, 1.5 hours per semester. This survey course briefly covers topics relating to the Air Force and defense. It focuses on the structure and missions of Air Force organizations, officership and professionalism. It is also a good introduction into the use of communication skills. Weekly Leadership Lab for this course (to be taken in conjunction with AS 101 and 102) is a weekly laboratory that touches on the topics of Air Force customs and courtesies, health and physical fitness, and drill and ceremonies.
AFGN102. FOUNDATIONS OF THE UNITED STATES AIR FORCE. 1.5 Hour.
Two semesters, 1.5 hours per semester. This survey course briefly covers topics relating to the Air Force and defense. It focuses on the structure and missions of Air Force organizations, officership and professionalism. It is also a good introduction into the use of communication skills. Weekly Leadership Lab for this course (to be taken in conjunction with AS 101 and 102) is a weekly laboratory that touches on the topics of Air Force customs and courtesies, health and physical fitness, and drill and ceremonies.

AFGN201. THE EVOLUTION OF USAF AIR AND SPACE POWER. 1.5 Hour.
Two semesters, 1.5 hours per semester. This survey course is concerned with the beginnings of manned flight and the development of aerospace power in the United States, including the employment of air power in WWI, WWII, Korea, Vietnam, the Gulf War and the peaceful employment of U.S. air power in civic actions, scientific missions and support of space exploration. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 201 and 202) provides you with the opportunity to demonstrate fundamental management skills and prepares you for Field Training.

AFGN202. THE EVOLUTION OF USAF AIR AND SPACE POWER. 1.5 Hour.
Two semesters, 1.5 hours per semester. This survey course is concerned with the beginnings of manned flight and the development of aerospace power in the United States, including the employment of air power in WWI, WWII, Korea, Vietnam, the Gulf War and the peaceful employment of U.S. air power in civic actions, scientific missions and support of space exploration. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 201 and 202) provides you with the opportunity to demonstrate fundamental management skills and prepares you for Field Training.

AFGN301. AIR FORCE LEADERSHIP STUDIES. 3.5 Hours.
Two semesters, 3.5 hours per semester. This course is a study in the anatomy of leadership, the need for quality and management leadership, the role of discipline in leadership situations and the variables affecting leadership. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts. Deal with actual problems and complete projects associated with planning and managing the Leadership Laboratory. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 301 and 302) provides you the opportunity to develop your fundamental management skills while planning and conducting cadet activities.

AFGN302. AIR FORCE LEADERSHIP STUDIES. 3.5 Hours.
Two semesters, 3.5 hours per semester. This course is a study in the anatomy of leadership, the need for quality and management leadership, the role of discipline in leadership situations and the variables affecting leadership. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts. Deal with actual problems and complete projects associated with planning and managing the Leadership Laboratory. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 301 and 302) provides you the opportunity to develop your fundamental management skills while planning and conducting cadet activities.

AFGN401. NATIONAL SECURITY AFFAIRS AND PREPARATION FOR ACTIVE DUTY. 3.5 Hours.
Two semesters, 3.5 hours per semester. Learn about the role of the professional military leader in a democratic society; societal attitudes toward the armed forces; the requisites for maintaining adequate national defense structure; the impact of technological and international developments on strategic preparedness and the overall policy-making process; and military law. In addition, you will study topics that will prepare you for your first active-duty assignment as an officer in the Air Force. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 401 and 402) provides you with the opportunity to use your leadership skills in planning and conducting cadet activities. It prepares you for commissioning and entry into the active-duty Air Force.

AFGN402. NATIONAL SECURITY AFFAIRS AND PREPARATION FOR ACTIVE DUTY. 3.5 Hours.
Two semesters, 3.5 hours per semester. Learn about the role of the professional military leader in a democratic society; societal attitudes toward the armed forces; the requisites for maintaining adequate national defense structure; the impact of technological and international developments on strategic preparedness and the overall policy-making process; and military law. In addition, you will study topics that will prepare you for your first active-duty assignment as an officer in the Air Force. Weekly Leadership Laboratory (LLAB) for this course (to be taken in conjunction with AS 401 and 402) provides you with the opportunity to use your leadership skills in planning and conducting cadet activities. It prepares you for commissioning and entry into the active-duty Air Force.