AEROSPACE STUDIES

Air Force ROTC

The Air Force Reserve Officer Training Corps (ROTC) program is administered by the Department of Aerospace Studies. The mission of Air Force ROTC is to develop quality leaders for the Air Force. It is the Air Force’s largest officer commissioning source. Air Force ROTC offers a number of opportunities for Missouri S&T students who wish to become commissioned officers by offering professional, academic, and military training. Leadership, communication, and basic military skills are the focus of the ROTC program. In addition to helping a student succeed during college, Air Force ROTC also fosters self-confidence and self-discipline.

Opportunities in the Air Force are excellent, with more than 100 possible career fields available. Career field availability depends on academic discipline, medical condition, desires of the individual, and needs of the Air Force. As newly commissioned Second Lieutenants on active duty, Air Force ROTC graduates can serve worldwide, performing challenging and rewarding duties in highly technical, scientific, and operational areas. A few of these include developmental engineer, pilot, combat systems operator, remote pilot, scientist, cyber operations, intelligence operations, space operations, civil engineer, logistics, acquisitions, and maintenance.

Although Air Force ROTC is set up as a four-year program, students can choose a four, three and a half, or three year course of study. The first two years of the program, called the General Military Course (GMC), cover basic introductory military topics as well as communication and leadership. The final two years of the program, called the Professional Officer Course (POC), cover topics such as leadership, management, doctrine, international events, communication, and officership. In addition to the academic ROTC class, all cadets attend a two hour leadership laboratory each week and two hours of physical training. Leadership laboratory provides cadets with the knowledge and practical command and staff leadership experience in preparation for active duty as Air Force officers. It is largely cadet planned, directed, and centered.

Air Force ROTC scholarships, which generally cover full tuition and fees, are available to qualified cadets. A monthly stipend is given during the academic year to each cadet on scholarship and contracted members of the POC. Scholarship recipients also receive a $450 book allowance each semester. ROTC scholarship recipients are eligible to receive other Missouri S&T scholarships.

Cadets usually attend Field Training (FT) during the summer between their sophomore and junior year, before enrollment into the POC. Entrance into the POC is based on an extensive evaluation and selection process during the sophomore year, and is dependent on completion of Field Training. Cadets who complete the POC in good standing and earn their academic degree are commissioned as Second Lieutenants and serve on active duty for four or more years, depending on their assigned Air Force career field.

The Air Force ROTC unit at Missouri S&T is organized as an objective wing, with associated groups, squadrons, and flights. Freshmen and sophomore cadets receive instruction from POC cadets in basic military customs and courtesies, drill movements, and many other facets of Air Force operations. Additionally, they are offered the opportunity to visit Air Force bases and discuss career opportunities with Air Force members. Junior and senior cadets are assigned and rotated through various leadership positions, gaining experience in management procedures.

Military Aerospace Studies Minor

Air Force Reserve Officer Training Corps (ROTC) is administered by the Department of Aerospace Studies. Although Air Force ROTC is set up as a four-year program, students can choose a four, three and a half, or three year course of study. The first two years of the program, called the General Military Course (GMC), cover basic introductory military topics as well as communication and leadership. The final two years of the program, called the Professional Officer Course (POC), cover topics such as leadership, management, doctrine, international events, quality, communication, and officership. To fulfill the requirements for the proposed Aerospace Studies minor, students will complete all of the following classes for a total of 16 credit hours.

| MIL AIR 1110 | Air Force Heritage and Values I | 1 |
| MIL AIR 1120 | Air Force Heritage and Values II | 1 |
| MIL AIR 2110 | Team and Leadership Fundamentals I | 1 |
| MIL AIR 2120 | Team and Leadership Fundamentals II | 1 |
| MIL AIR 3110 | Leading People & Effective Communication I | 3 |
| MIL AIR 3120 | Leading People & Effective Communication II | 3 |
| MIL AIR 4110 | National Security, Leadership Responsibilities & Commissioning Preparation I | 3 |
| MIL AIR 4120 | National Security, Leadership Responsibilities & Commissioning Preparation II | 3 |

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MIL AIR 1100 Leadership Laboratory (LAB 0.50 and LEC 0.50)  
The course involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force and the life and work of an Air Force junior officer. Students develop their leadership potential in a practical supervised training laboratory, which typically includes field trips to Air Force installations throughout the United States.

MIL AIR 1110 Foundations Of The U.S. Air Force I (LAB 0.50 and LEC 0.50)  
This survey course is designed to introduce students to the Air Force and ROTC. Topics include: military customs and courtesies, uniform wear, officership qualities, professionalism, Air Force core values, equal opportunity and treatment, officer benefits and opportunities and an introduction to communication skills. Leadership Lab is mandatory for cadets planning on a career in the Air Force.

MIL AIR 1120 Foundations Of The U.S. Air Force II (LEC 0.50 and LAB 0.50)  
This survey course is a continuation of MIL Air 1110. Covered topics include: origin of the Air Force, mission and organization of the Air Force, organization of a standard Air Force base, and further communication skills development. Leadership Lab is also mandatory for cadets.
**MIL AIR 2110 The Evolution Of USAF Air And Space Power I** (LAB 0.50 and LEC 0.50)

This course is designed to examine the general aspects of air and space power through a historical perspective, covering a time period from the first balloons to the beginning of the space age. It provides students with a knowledge level understanding of the general elements and employment of air and space power from an institutional doctrinal and historical perspective. Examples of the importance of AF core values in historical events and in past AF leaders are pointed out. Continued development of communication skills is also emphasized. Leadership Lab is mandatory for cadets planning on a career in the Air Force.

**MIL AIR 2120 The Evolution Of USAF Air And Space Power II** (LEC 0.50 and LAB 0.50)

This course is a continuation of Mil Air 2110. It covers a time period in Air Force history from the beginning of the space age in the early 1960’s to the present...with a continued emphasis on recognizing how past leaders and events have shaped our current Air Force organization and doctrine. Communication skills exercises are continued. Leadership Lab is also mandatory for cadets.

**MIL AIR 3110 Air Force Leadership Studies I** (LEC 2.5 and LAB 0.50)

This course introduces students to the leadership and management skills required of an Air Force junior officer. Special topics include leadership ethics, the Air Force personnel and evaluation systems, and management fundamentals. Through the use of classroom tools that include case studies, Air Force leadership and management situations are examined and practical applications of studies concepts are exercised. The principles and theories of ethical behavior as well as the complete understanding of the individual responsibility and authority of an Air Force officer are stressed. This course includes a Leadership Lab that provides the students the opportunity to apply leadership and management principles.

**MIL AIR 3120 Air Force Leadership Studies II** (LEC 2.5 and LAB 0.50)

This course is a continuation of Mil Air 3110. Emphasis is placed on professional knowledge, communication skills, and ethical behavior. Varied Air Force-peculiar formats and situations are offered to apply learned listening, writing, and speaking skills. This course includes a Leadership Lab that provides the students the opportunity to apply leadership and management principles.

**MIL AIR 4110 National Security Affairs/Preparation For Active Duty I** (LAB 0.50 and LEC 2.5)

This course examines national security policies, processes, and issues along with Air Force strategy and doctrine. Special topics include Air Force roles and missions, the roles of various federal government departments, military organizations and functions, and the concept of joint operations. Within this structure, continued emphasis is given to refining communication skills. This course includes a Leadership Laboratory that provides advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

**MIL AIR 4120 National Security Affairs/Preparation For Active Duty II** (LAB 0.50 and LEC 2.5)

Continuation of Mil Air 4110. This final course of the Air Force ROTC curriculum examines officership, advanced leadership ethics, military law, current Air Force issues, regional studies, core values, and preparation for active duty. This course includes a Leadership Laboratory that provides leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.