Aerospace Studies

The Aerospace Studies Department is affiliated with the Air Force Reserve Officer Training Corps (AFROTC) based at NJIT, and AFROTC Detachment 490 is committed to graduating outstanding officer leaders for the U.S. Air Force. Students enrolled in AFROTC take classes in aerospace history, leadership and management, national security, and physical fitness. Cadets can compete for excellent scholarship support and receive an exceptional education in preparation for the many career opportunities available while serving as a U.S. Air Force officer after graduation.

Cadets can learn to lead and achieve personal success in careers such as piloting, remote-piloting, engineering, physics, intelligence, space operations, communications, nursing, and many more fields. For more information about aerospace studies at NJIT, visit njit.edu/rotc (http://njit.edu/rotc) or call 973-596-3626, and learn more about AFROTC at afrotc.com (http://www.afrotc.com).


Aerospace Studies Courses

AS 111. Foundation of the US Air Force. 1 credit, 2 contact hours (2;0;0). 
Explores the mission and organizational structure of the United States Air Force. Introduces the student to Reserve Officer Training Corps by examining air power, customs and courtesies, officermanship, and core values. Examines Air Force opportunities, benefits, career choices, and installations which provides information needed to determine whether or not to pursue a career as an Air Force officer. An introduction to effective communication is included. One hour of class, and, two hours of Leadership Laboratory per week (not required for those with Special Student status).

AS 112. The Air Force Today II. 1 credit, 1 contact hour (1;0;0).
Prerequisite: AS 111 or approval of the professor of aerospace studies. Continues with the mission and organizational structure of the Air Force. A macro view of U.S. military history is introduced with emphasis on U.S. air power. Air Force communications is developed with emphasis on interpersonal communications, oral communications, and written communications. Leadership abilities are developed through group leadership problems and Leadership Laboratory. One hour of class and two hours of Leadership Laboratory per week (not required for those with Special Student status).

AS 221. Evolution of USAF Air and Space Power. 1 credit, 1 contact hour (1;0;0).
Prerequisite: AS 112 or approval of the professor of aerospace studies. Examines the development of air power from its earliest beginnings to the present, including in-depth examination of World War I, World War II, Korean Conflict, Vietnam War, Cold War, and Desert Storm. Traces the evolution of air power concepts and doctrine and continues to develop leadership abilities through Leadership Laboratory. One hour of class and two hours of Leadership Laboratory per week (not required for those with Special Student status).

AS 222. Air Power Key To Deterence. 1 credit, 1 contact hour (1;0;0).
Prerequisite: AS 221 or approval of the professor of aerospace studies. Emphasizes the concepts and skills required by the Air Force officer including oral communications, Air Force quality, leadership, followership, ethics, and values. Continues to develop leadership abilities through group leadership problems and Leadership Laboratory. One hour of class and two hours of Leadership Laboratory per week (not required for those with Special Student status).

AS 301. Aerospace Independent Study. 3 credits, 3 contact hours (0;0;3).

AS 333. Leadership and Management I. 3 credits, 3 contact hours (3;0;0).
Prerequisite: AS 222 or approval of the professor of aerospace studies. Emphasizes the concepts and skills required by the successful management and leader. Curriculum includes individual motivational and behavioral processes, leadership, communication, and group dynamics, providing the foundation for developing the junior officer’s professional skills. Course material stresses decision making, and the use of analytic aids in planning, organizing, and controlling in a changing environment. Develops communication skills through writing and speaking exercises. Three hours of class and two hours of Leadership Laboratory per week. Note: AS 333 may be taken to satisfy the Management GUR.

AS 334. Leadership and Management II. 3 credits, 3 contact hours (3;0;0).
Prerequisite: AS 333 or approval of the professor of aerospace studies. A continuation of AS 333. Organizational and personal ethics, management of change, organizational power, politics, and managerial strategy are discussed within the context of the military. Actual Air Force case studies are used throughout the course. Three hours of class and two hours of Leadership Laboratory per week.

AS 335. Leadership Lab. 0 credits, 0 contact hours (0;0;0).
AS 336. POC Leadership Lab. 0 credits, 0 contact hours (0;0;0).
AS 401. Aerospace Independent Study. 3 credits, 0 contact hours (0;0;0).

AS 443. National Security Affairs/Prep Act. 3 credits, 3 contact hours (3;0;0).
Prerequisite: AS 334 or approval of the professor of aerospace studies. Focusing on the U.S. Armed Forces as an integral element of American society, this course examines a wide variety of topics concerning American civil and military relations and the environment in which U.S. defense policy is formulated. Specific topics include the role of the professional officer in a democratic society, socialization processes within the American military forces, and the requisites for maintaining adequate national security forces. A special emphasis is placed on further refining the student’s communications skills in the context of the course material. Three hours of class and one and one-half hours of Leadership Laboratory per week.
AS 444. Preparation for Active Duty. 3 credits, 0 contact hours (0;0;0).
Prerequisite: AS 443 or approval of the professor of aerospace studies. Focuses on the role of the Air Force officer while on active duty. Includes responsibilities as an officer, a commander, a leader, and a manager. Topics include a review of military law, nonjudicial punishment, role of the staff judge advocate, laws of armed conflict, military ethics, officer professional development, an officer's social responsibilities, fraternization, personal finances, staff work, and Air Force base services and activities. Concludes with a review of the Air Force Core Values. Three hours of class and two hours of Leadership Laboratory per week.