

OFFICER EDUCATION

Military instruction began at Cornell University in 1868 under the provisions of the Morrill Act of 1862. Since that time, officer education has been underscored by the construction of Barton Hall in 1914 and the establishment of a formal Reserve Officers Training Corps (ROTC) unit in 1917. Since then, military education at Cornell University has expanded to include each of the military services and evolves to keep pace with the latest military changes and emphasizes the development of leadership and managerial skills.

The Reserve Officers' Training Corps (ROTC) trains undergraduate students to become commissioned officers in the United States Armed Forces. Students in ROTC must attend service-specific ROTC academic classes, which count for college credit and participate in weekly leadership labs and physical fitness training as part of the program. Students may receive a competitive, merit-based scholarship, covering all or part of college tuition and fees.

ROTC graduates serve in all U.S. Armed Forces branches and incur a three to eight-year active duty service obligation (ADSO) and/or an eight-year military service obligation (MSO) if they accept a commission as a regular officer.

ROTC programs offer prospective and current college students a number of benefits, including:

- An opportunity to develop technical and leadership skills
- A structured path to a career after college
- Specialized professional training for military officer positions after college
- Scholarships that cover tuition, fees, books, and other student necessities
- Long-term career guidance and continued professional education

Each service program is headed by a senior military officer who also serves as a full professor on the Cornell faculty.

Air and Space Studies

Department of Air and Space Studies

The objective of the Air Force Officer Education Program at Cornell University is to prepare students to serve as commissioned officers in the United States Air Force and the United States Space Force upon graduation. In doing so, the program instructs students not only about the history, mission, and organization of the services, but also about leadership and management. This program consists of tailored coursework and practical military training.

Requirements for Enrollment

The Air Force Officer Education Program is open to any qualified undergraduate student enrolled in any major field of study. However, an applicant must be a United States citizen by birth or naturalization to become a commissioned officer.

Applicants must demonstrate they are physically prepared for the rigors of Air Force Reserve Officer Training Corps (ROTC) and their future careers in the military; therefore, students undergo a medical examination by a military doctor or designated civilian provider. The no-cost medical examination is scheduled and reviewed by the Department of Defense Medical Examination Review Board (DoDMERB). Students who are interested in qualifying for flying categories (pilot, remotely piloted

aircraft pilot, combat systems officer, or air battle manager) must meet more stringent medical standards. In addition, students enrolled in the commissioning program must meet specified body composition and physical fitness requirements each semester.

Though the program is designed to prepare future Air Force and Space Force officers, academic courses in the Department of Air and Space Studies are open to all students at Cornell University without incurring any military obligation.

Program Details

The Air Force Officer Education Program at Cornell University follows the national Air Force ROTC framework and is designed as a four-year officer commissioning program. The standard four-year program consists of a two-year General Military Course (GMC) program of study followed by a two-year Professional Officer Course (POC) program of study. For four-year Air Force ROTC scholarship students, the first year of the GMC carries no military service commitment and students may withdraw at any time. For non-scholarship students, both years within the GMC carry no military commitment. Entry into the POC, regardless of scholarship status, carries a military commitment.

The four-year program is open to all qualified first-year students; in fact, many students join the program after the first semester of their first year. Sophomores or other undergraduate students may enter a condensed version of the four-year program with Department of Air and Space Studies approval. Additionally, veterans of the U.S. armed forces, students entering Cornell from military schools, or high school students with documented Junior ROTC or Civil Air Patrol involvement may receive advanced academic standing, subject to approval.

Curriculum

Course	Title	Hours
First Year		
AIRS 1101	Heritage and Values of the United States Air Force I	1
AIRS 1102	Heritage and Values of the United States Air Force II	1
Hours		2
Sophomore Year		
AIRS 2201	Team and Leadership Fundamentals I	1
AIRS 2202	Team and Leadership Fundamentals II	1
Hours		2
Junior Year		
AIRS 3301	Leading People and Effective Communication I	3
AIRS 3302	Leading People and Effective Communication II	3
Hours		6
Senior Year		
AIRS 4401	National Security Affairs: Preparation for Active Duty I	3
AIRS 4402	National Security Affairs: Preparation for Active Duty II	3
Hours		6
Total Hours		16

Leadership Laboratory Courses

All Air Force ROTC cadets spend two hours per week throughout the academic year in a leadership laboratory. Occasionally, laboratories are held at times other than the normally scheduled period. Leadership laboratory coursework is open to students qualified to compete for an Air Force or Space Force commission.

Code	Title	Hours
AIRS 1141	Initial Military Experiences I (crosslisted)	1
AIRS 1142	Initial Military Experiences II (crosslisted)	1
AIRS 2241	Intermediate Military Experiences I (crosslisted)	1
AIRS 2242	Intermediate Military Experiences II (crosslisted)	1
AIRS 3341	Junior Officer Leadership Experiences I (crosslisted)	1
AIRS 3342	Junior Officer Leadership Experiences II (crosslisted)	1
AIRS 4441	Advanced Leadership Experiences (crosslisted)	1
AIRS 4442	Precommissioning Laboratory (crosslisted)	1

General Military Course

Students in General Military Course (GMC) take a 1-credit Air and Space Studies course each semester. During the first year, students examine the Heritage and Values of the United States Air Force. In the second year, students focus on Team and Leadership Fundamentals. In both years, officership and professionalism are emphasized.

Students also spend two hours per week in a leadership laboratory. Leadership laboratories provide students with an opportunity to put into practice the skills they learn in Air and Space Studies classes. These laboratories focus on developing officer qualities through activities such as drill and ceremonies, group leadership problems, confidence-building exercises, and guest lecturers. Students who intend to continue into the Professional Officer Course and pursue a commission also participate in summer field training for approximately two weeks typically between the sophomore and junior years.

Professional Officer Course

The Professional Officer Course (POC) provides a two-year advanced program of instruction. Each student accepted into the POC must sign an agreement to complete the program and accept, if offered, a commission in the United States Air Force or Space Force upon graduation.

Classroom study in the POC is a 3-credit course each semester. In the third year, Leading People and Effective Communication, emphasis is placed on enhancing leadership skills and communication. During the fourth and final year, National Security and Preparation for Active-Duty, prepares the student for Active Duty and their role as military officers. The two-hour leadership laboratory continues during the POC Program.

Scholarships

Air Force ROTC offers merit-based scholarships to high school seniors and to college students. Opportunities and deadlines vary; therefore, interested students should obtain the latest information from a high school guidance counselor, from the Department of Air and Space Studies at Cornell (607-255-4004; afrotc.cornell.edu (<https://afrotc.cornell.edu>)), or via www.afrotc.com (<https://www.afrotc.com/>).

Selections are generally based on a student's major, physical fitness, qualifying physical examination, overall grade point average, standardized test scores, and the recommendation of the AFROTC staff. Scholarship amounts vary but may cover up to 100 percent of tuition and authorized

fees, as well as provide a monthly living expense stipend and an annual book stipend. In general, scholarships do not cover the cost of room and board.

Benefits

Active students in the POC—whether on scholarship or not—receive a non-taxable subsistence allowance each month during the academic year.

Students are eligible to participate in voluntary summer professional development programs. These programs can include, but are not limited to, research and development internships, United States Air Force Academy Soaring or Freefall Program, special operations training, and language and cultural immersion programs.

Careers

Students who complete a baccalaureate degree and finish the Air Force ROTC program may be commissioned as a military officer in the Air Force or Space Force. Officers commissioned in non-flying categories are required to serve on active duty for four years. Pilots are required to serve on active duty for 10 years after completing flying training. Combat Systems Officers and Air Battle Managers each serve a minimum of six years after completing training.

The Air and Space Forces assign new officers to a career field based on mission requirements, educational background, and officers' preferences. Students in the engineering-scientific category may be assigned to practice in their specialty in research and development, communications, electronics, aeronautics, astronautics, the biological sciences, computer design and maintenance, meteorology, space, or other engineering and scientific fields. Graduates in the non-technical category can anticipate assignments in information management, logistics, law enforcement and investigation, intelligence, personnel, public affairs, transportation, accounting and finance, and other career fields. Specializations for language and cultural studies majors are also available. Any undergraduate major is suitable for those who are qualified and interested in entering the nuclear and missile career field or in flying duty.

Military Science

- Lieutenant Colonel Derek R. Fitzpatrick, Professor of Military Science and Department Chair

United States Army ROTC Program

The primary objective of the Army Officer Education Program at Cornell is to commission the future Officer leadership of the United States Army. Intermediate objectives are to provide students with an understanding of the fundamentals of responsibility, integrity, and self-discipline, as well as an appreciation of the citizen's role in national defense. The application of the decision-making process to a variety of situations is given major emphasis as a valuable aid in developing leadership potential. These objectives are achieved through a program covering 2 to 4 years. The program includes specific courses in military science, practical training in leadership through participation in the Cadet Corps (including attendance at a five-week summer camp at Ft. Knox, Kentucky), and the opportunity to participate in a number of extracurricular activities. This combination prepares the student for commissioning and effective performance in the 17 branches of the Army. One application can result in a two-to four-year scholarship that currently provides as much as \$274,400 in funding over four years.

MILS 1100 series and MILS 2200 series courses are open to enrollment without a military obligation and may require instructor permission. Non-citizens may enroll in courses but not commission. Overall sound mental and physical condition is essential.

Four-Year Program

The program is available to graduate and undergraduate students. Veterans of the Armed Forces of the United States and students entering Cornell with AROTC credit from secondary or military schools (Junior Division AROTC) may receive advanced standing. Under the Four-Year Program students enroll in the Basic Course (MILS 1100 series and MILS 2200 series) during the first two years, and the Advanced Course (MILS 3300 series and MILS 4400 series) during the next two years. A total of 24 credits (16 credits of MILS courses and 8 credits of labs) of military subjects are taken. In addition, academic enrichment courses are required in such fields as written communications, computer science, and military history. All contracted Cadets attend a five-week Advanced Camp, with pay, between their junior and senior years. During the 4400 level class, Cadets will participate in an offsite staff ride to convey lessons of past military leaders to decisions leaders may have to make in the future. All contracted Cadets participate in physical fitness training three days per week. Each year selected Cadets are sent, on a voluntary basis, to the Airborne School, Northern Warfare Training, and Air Assault Course, depending upon availability and student standings within the ROTC program.

Curriculum

All Cadets take one course and a leadership laboratory each semester in Military Science. The number of hours a week spent in the classroom varies from semester to semester, but a typical academic week consists of a two hour class and a two hour lab. Additionally, Cadets are required to participate in physical training three days a week.

Course	Title	Hours
First Year		
MILS I		
MILS 1101	Introduction to the Army	2
MILS 1102	Foundations in Leadership	2
Hours		4
Sophomore Year		
MILS II		
MILS 2201	Leadership and Ethics	2
MILS 2202	Army Doctrine and Decision Making	2
Hours		4
Junior Year		
MILS III		
MILS 3301	Training Management and the Warfighting Functions	2
MILS 3302	Applied Leadership in Small Unit Operations	2
Hours		4
Senior Year		
MILS IV		
MILS 4401	The Army Officer	2
MILS 4402	Company Grade Leadership	2
Hours		4
Total Hours		16

Practical Leadership Training

Army Officer-Education Students

One S/U credit is given for leadership training, but participation is required for successful completion of the AROTC program. Students receive physical education credit for the laboratory. Each semester, Cadets register for the appropriate leadership laboratory, consisting of physical fitness training three times per week, eight hours of military training each month, and one weekend training exercise per semester.

Code	Title	Hours
MILS 1111	Leadership Laboratory I (crosslisted)	1
MILS 2211	Leadership Laboratory II (crosslisted)	1
MILS 3311	Leadership Laboratory III (crosslisted)	1
MILS 4400	Special Problems for Advanced Undergraduates	1-4
MILS 4411	Leadership Laboratory IV (crosslisted)	1

Professional Military Education (PME) Requirements

In addition to the ROTC classes and leadership laboratories listed above, a number of courses are required as part of a contracted Cadet's academic program. These courses are offered by the university and round out the Cadet's professional education. The PME component of the ROTC program requires at least one college course in military history. Courses that meet these requirements are approved by the Professor of Military Science.

Scholarships

Scholarships are awarded on the basis of merit and are available for two to four years. Scholarships pay either full tuition and mandatory fees, or room and board, and Cadets also receive \$420 a month for up to 10 months a year and \$1,200 a year for books.

Service Obligations

ROTC graduates may serve on Active Duty, in the Army Reserve, or in the National Guard, depending upon the needs of the Army and the Cadet's request. Officers beginning Active Duty attend the Basic Officer Leadership Course B (normally 10 to 16 weeks) for training in their assigned branch. Upon completion, Officers are assigned to a unit and location determined by the desires of the individual and the requirements of the Army. Officers selected for reserve duty attend the Basic Leadership Course, after which they are released to reserve status.

Graduate Study

Graduate students are allowed in the program. Active Duty deferments, or educational delays, may be granted to individuals who want to attend graduate school at their own expense. Requests will be considered on the basis of the needs of the service. Admission to graduate school is the student's responsibility.

Additional Information

Further information on the enrollment, scholarship, and Army ROTC is available from the Cornell Army ROTC website, at (607) 255-4000, or at armyrotc@cornell.edu.

Naval Science

- Captain Michael C. Mosbrugger, United States Navy, Commanding Officer
- Major Michael Flanagan, United States Marine Corps, Executive Officer
- Lieutenant Brandy Kinnunen, United States Navy

- Lieutenant Tyler Durst, United States Navy
- Gunnery Sergeant Jonathan Cerecedas, United States Marine Corps

The Naval Reserve Officer Training Corps Education Program's objective is to prepare students for service as commissioned officers in the United States Navy or United States Marine Corps. This is accomplished by supplementing undergraduate education with instruction in essential concepts of naval science and fostering leadership qualities, integrity, and dedication to country. The program is compatible with most undergraduate major fields of study, including five-year baccalaureate degree programs.

The program covers four years or eight semesters and combines specific naval science courses and academic subjects. These courses supplement weekly professional development sessions in which the practical aspects of naval science and leadership procedures are stressed. It also includes at least one summer-at-sea training period provided by the United States Navy or Marine Corps.

Though the Navy and Marine Corps program have been designed to prepare future officers, naval science courses are open to all students at Cornell as space limitations allow. Please contact the professor for admission into an individual course.

Requirements for Enrollment

An applicant for the Naval ROTC program at Cornell must be a citizen of the United States. Applicants must have reached their 17th birthday by September 1 of the year of enrollment and be less than 27 years of age on June 30 of the calendar year in which they are commissioned. Waivers of the upper age limit may be available for applicants who have prior active-duty military service. Applicants must also meet physical and medical requirements. Interested students can visit the Naval ROTC Unit in Barton Hall or contact their local Naval officer recruiter.

Programs

There are two programs through which students can participate in Naval ROTC: the Scholarship Program and the College Program. The two programs differ primarily in benefits given to the student.

Scholarship Program

The Scholarship Program is awarded annually across the nation and provides nearly 800 scholarships for use at 166 universities nationwide associated with one of the 77 NROTC host universities including over 160 total universities to selected students who want to serve in the Navy or Marine Corps. Full tuition and other financial benefits are provided to students during college leading to a baccalaureate degree.

Benefits

The program offers scholarships that provide full tuition and are merit-based. While on scholarship, students also receive money for instructional fees, textbooks, non-consumable supplies, and a stipend of \$250–\$400 a month for a maximum of 40 months or 50 months with approved fifth-year benefit.

Successful completion of the Scholarship Program leads to a commission in the Navy or Marine Corps. At Cornell University, over 90 percent of NROTC students have a scholarship. Students entering NROTC without a prior scholarship award are entitled to compete for the available two- or three-year scholarships as controlled by the Naval Service Training Command.

Entering the Scholarship Program

There are three ways to enter the Scholarship Program:

1. Apply to the national competition each year. This process entails filling out and submitting an appropriate application, being interviewed by an NROTC officer, having a physical examination, applying to, and being accepted by, one of the colleges or universities throughout the country that offers an NROTC program.
2. Enroll in the College Program at Cornell and earn a recommendation from the Professor of Naval Science for a scholarship after at least one semester in the program.
3. Enter through the two or three-year Scholarship Program.

College Program

Two College Programs are available. Both lead to a commission in the Navy or Marine Corps.

Starting in the junior year, each of these programs provides textbooks for naval science courses, uniforms, and a subsistence allowance of \$350–\$400 a month.

The regular College Program is four years long. Academic requirements for students in this program are somewhat less strict than those for scholarship students, as noted in the curriculum section.

The two-year College Program begins the summer before the junior year; students attend a required program, with pay, at the Naval Science Institute in Newport, Rhode Island.

Summer Training

Each summer, students in the Scholarship Program spend four to six weeks on a Navy ship or participate in a naval activity that occurs anywhere in the world for on-the-job training. College Program students attend one summer training session of the same duration between the junior and senior years.

Active-Duty Requirements

Scholarship midshipmen commissioned in the Navy serve on active-duty for a minimum of five years; Marine Corps commissioners serve a minimum of four years. College Program midshipmen commissioned in the Navy serve a minimum of three years; Marine Corps serve three and a half years. In some cases, following commissioning, optional specialized training such as aviation or nuclear power schools will add additional active-duty requirements.

Service Assignment

Graduates have the opportunity to request the community they prefer prior to graduation. These requests are given careful consideration, and every effort is made to assign newly commissioned officers to their community of choice.

Among the assignments available are communities in naval aviation as either a pilot or naval flight officer, on submarines, and on surface ships. Other specialties, such as special warfare (SEALs) or medical service corps, may be available on a limited basis.

Marine Corps Options

The United States Marine Corps is an integral part of the Naval Services and is commanded by the Commandant of the Marine Corps. One-sixth of the NROTC scholarship students may be Marine selectees who will be designated Marine-option midshipmen. Upon successful completion

of the program, they will be appointed Second Lieutenants in the United States Marine Corps.

Marine-option midshipmen follow the same program as other NROTC midshipmen for the first two years. Beginning with the junior year, Marine-option midshipmen are taught Marine-oriented courses by a Marine Officer Instructor. For First Class summer training (following the completion of junior year), Marine-option students travel to Quantico, Virginia, where they undergo six weeks of intensive training known as the USMC Officer Candidate School. Upon commissioning the following year as Second Lieutenants, they are assigned to The Basic School at Quantico, Virginia. After The Basic School, the Marine officer is assigned duty in a variety of occupational fields. Among the duties available are infantry, aviation, artillery, tracked vehicles, engineering, communications, electronics, supply and administration.

The Marine Corps has a postgraduate training system similar in objectives and organization to that of the Navy. Marine officers selected for aviation receive flight training at the Naval Air Station, Pensacola, Florida, along with their Navy counterparts.

Curriculum

A student has four categories of requirements to fulfill as a midshipman. The first of these requirements is a weekly naval professional development session each semester. The second requirement is a naval science course each semester. Midshipmen are also expected to maintain Navy and Marine Corps physical fitness standards throughout the NROTC program. The last set of requirements consists of further courses prescribed by the Navy to meet the growing need for more and better technically educated junior officers, as referenced below.

Naval Professional Laboratories

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:35 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership related to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

Naval Science Course Sequence

All Navy and Marine midshipmen take one naval science course each semester during their first and sophomore years. Navy-option students continue to take a naval science course each semester during their junior and senior years. Marine-option students have slightly different curriculum requirements for their junior and senior years. In addition to their naval science courses, each student must participate in the naval science Professional Laboratory each semester.

Course	Title	Hours
First Year		
Navy & Marines		
NAVS 1101	Introduction to Naval Science	0
NAVS 1102	Sea Power and Maritime Affairs	3
NAVS 1141	Naval Professional Laboratory (crosslisted)	1
NAVS 1142	Naval Professional Laboratory (crosslisted)	1
Hours		5
Sophomore Year		
Navy & Marines		

NAVS 2201	Leadership and Management	3
NAVS 2301	Principles of Navigation	4
NAVS 2241	Naval Professional Laboratory (crosslisted)	1
NAVS 2242	Naval Professional Laboratory (crosslisted)	1
Hours		9
Junior Year		
Navy		
NAVS 3201	Naval Ship Systems I (Engineering)	3
NAVS 3202	Naval Ships Systems II (Weapons)	3
NAVS 3341	Naval Professional Laboratory (crosslisted)	1
NAVS 3342	Naval Professional Laboratory (crosslisted)	1
Hours		8
Senior Year		
Navy		
NAVS 4302	Naval Operations and Seamanship	3
NAVS 4402	Leadership and Ethics	3
NAVS 4441	Naval Professional Laboratory (crosslisted)	1
NAVS 4442	Naval Professional Laboratory (crosslisted)	1
Hours		8
Sophomore or Junior Year		
Marines		
NAVS 3310	Evolution of Warfare	3
NAVS 4411	Fundamentals of Maneuver Warfare	3
Hours		6
Total Hours		36

Other Required Courses

Navy-Option Scholarship Program

To be eligible for a commission in the United States Navy, midshipmen must successfully complete all the requirements for a baccalaureate degree in any field of study offered by Cornell University and complete courses in the following subjects (specified courses to be approved by the Professor of Naval Science):

- American Military Affairs or National Security Policy (one semester)
- English (one year)
- Calculus (one year)
- Calculus-based physics (one year)
- World Cultures/Regional Studies (one semester)

The calculus requirement must be satisfied by the end of the sophomore year and the physics requirement by the end of the junior year.

Although the free choice of academic majors is permitted, students are encouraged to pursue majors in engineering and the physical sciences to be best prepared to meet the technological requirements of the modern Navy.

Navy-Option College Program

As a prerequisite to commissioning, Navy-option College Program students must complete college-level study in:

- Mathematics (one year)
- Physical Science (one year)
- English (one year)

- American Military History or National Security Policy (one semester)
- World Culture and Regional Studies (one semester)

The mathematics course must be completed by the end of the junior year, the physical science course by the end of the senior year. College Program students who desire entry into the Navy-option Scholarship Program should fulfill all of the requirements applicable to Navy-option scholarship students if they wish to be eligible for a scholarship controlled by the Naval Service Training Command.

Marine Option

In either the Scholarship Program or the College Program, any midshipman who completes all of Cornell University's degree requirements in any academic major is eligible for a commission in the U.S. Marine Corps or U.S. Marine Corps Reserve. Marine-option students take the same naval science courses and naval professional laboratories as Navy-option students for the first and sophomore years. Marine-option students have slightly different naval science course requirements during the junior and senior years, than their Navy-option counterparts: American Military History or National Security Policy (one semester).

Extracurricular Activities

The NROTC midshipman at Cornell is offered a broad range of activities, including an intramural sports program. Midshipmen participate in a myriad of social events, including the annual Navy/Marine Corps Birthday Ball and formal ceremonies. Students are encouraged to pursue engagement in the Cornell community through varsity sports, student organizations, clubs, and Greek Life as well, on a not-to-interfere basis with their NROTC requirements.