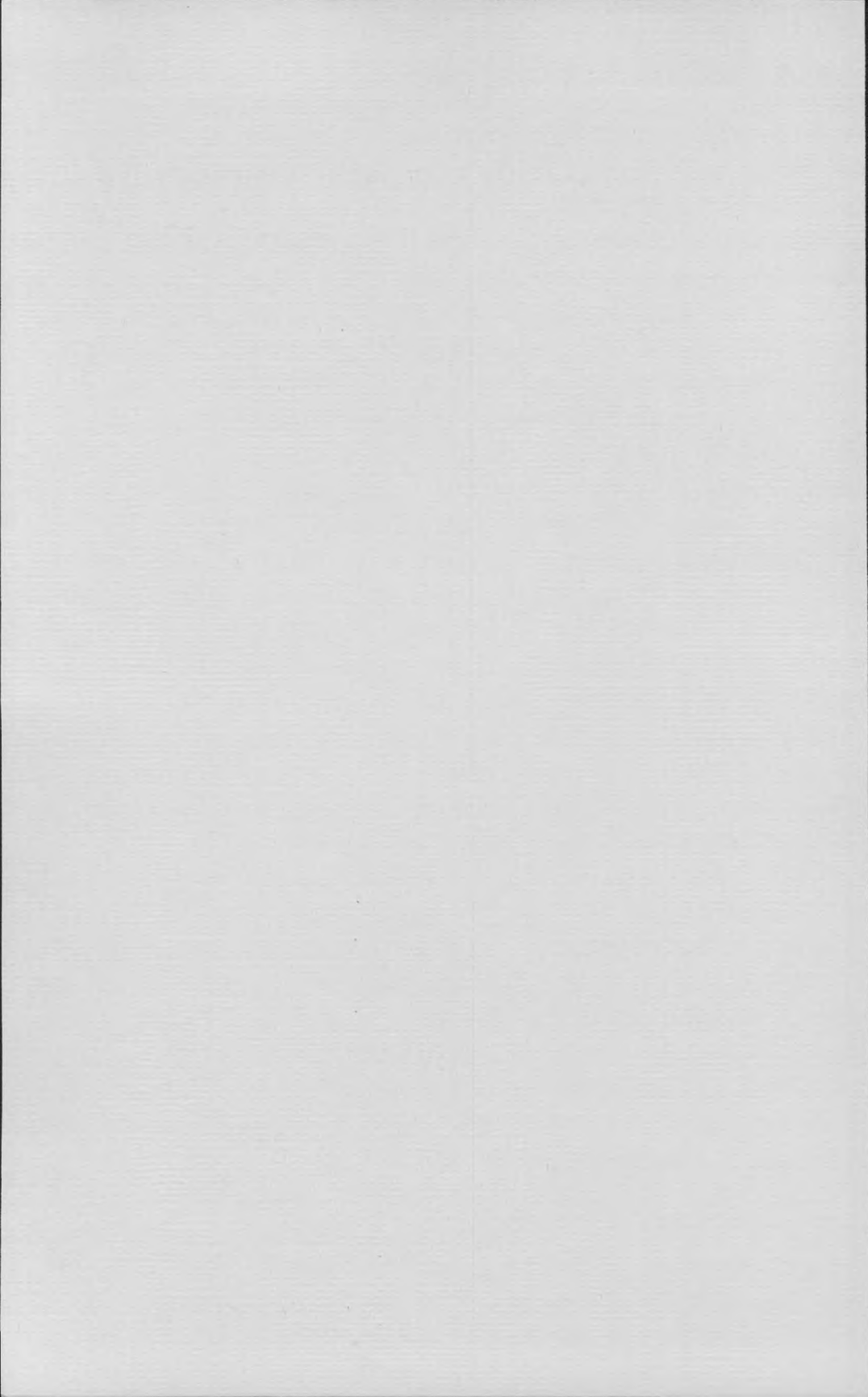


Cornell University
Announcements
Officer Education
1972-73



Cornell University Announcements Officer Education

The Departments of
Military Science,
Naval Science, and
Aerospace Studies

1972-73

Cornell University Announcements

Volume 64 of the Cornell University Announcements consists of twenty-two catalogs, of which this is number 7, dated May 1, 1972. Publication dates: twenty-two times a year (four times in September; three times in March and June; twice in January, July, October, and November; once in April, May, August, and December). Publisher: Cornell University, Sheldon Court, 420 College Avenue, Ithaca, New York 14850. Second-class postage paid at Ithaca, New York.

Cornell Academic Calendar

1972-73

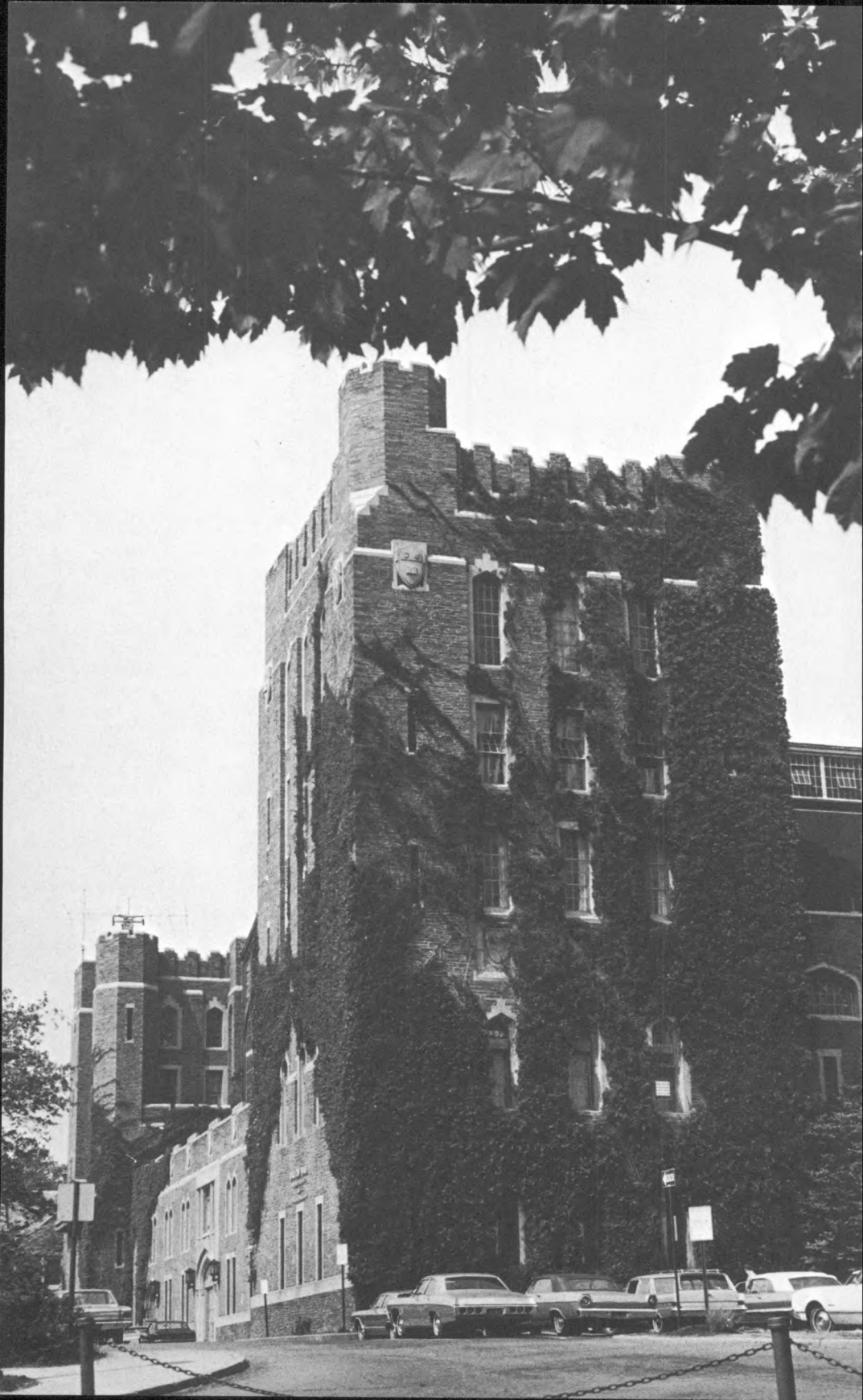
Registration, new students	Thursday, August 31
Registration, continuing and rejoining students	Friday, September 1
Fall term instruction begins, 7:30 a.m.	Monday, September 4
Thanksgiving recess:	
Instruction suspended, 1:10 p.m.	Wednesday, November 22
Instruction resumed, 7:30 a.m.	Monday, November 27
Fall term instruction ends, 1:10 p.m.	Saturday, December 9
Independent study period begins, 2:00 p.m.	Saturday, December 9
Final examinations begin	Thursday, December 14
Final examinations end	Friday, December 22
Registration, new and rejoining students	Thursday, January 18
Registration, continuing students	Friday, January 19
Spring term instruction begins, 7:30 a.m.	Monday, January 22
Spring recess:	
Instruction suspended, 1:10 p.m.	Saturday, March 17
Instruction resumed, 7:30 a.m.	Monday, March 26
Spring term instruction ends, 1:10 p.m.	Saturday, May 5
Independent study period begins, 2:00 p.m.	Saturday, May 5
Final examinations begin	Monday, May 14
Final examinations end	Tuesday, May 22
Commencement	Friday, May 25

The dates shown in the Academic Calendar are subject to change at any time by official action of Cornell University.

Contents

Cornell Academic Calendar	2
Cornell University Officer Education	5
Eligibility	6
Scheduling	6
United States Army ROTC Program	7
Requirements of Enrollment	7
Four-Year Program	7
Two-Year Program	10
Benefits	10
Commissioning	10
Service Obligations	11
Graduate Study Deferments	11
Curriculum and Schedule of Classes	11
United States Navy ROTC Program	13
Marine Corps Option	13
Non-NROTC Students	13
Requirements for Enrollment	13
Four-Year College Program	15
Two-Year College Program	16
Benefits	16
Commissioning	17
Service Obligations	17
Graduate Study Deferments	19
Curriculum	19
United States Air Force ROTC Program	22
Requirements for Enrollment	22
Four-Year Program	23
Two-Year Program	25
Benefits	25
Commissioning	25
Air Force Careers	25
Service Obligations	26
Graduate Study Deferments	26
Curriculum	26
Extracurricular Organizations	29
Register	31
Further Information	32
List of <i>Announcements</i>	32

The courses and curricula described in this *Announcement*, and the teaching personnel listed herein, are subject to change at any time by official action of Cornell University.



Cornell University

Officer Education

Cornell University was founded in 1865 through the joint efforts of Ezra Cornell and Andrew Dickson White. Together they conceived the plan of combining the land grant provided under the Morrill Act of 1862 with the land and money given by Ezra Cornell to endow the new university. Under the provisions of the Morrill Act, military instruction began at Cornell in 1868 and has continued for more than one hundred years although many changes have occurred.

At certain periods in the University's history, the uniform was the accepted dress, cadets moving in formation were a common sight, and the Quadrangle often bustled with reviews, tent pitching, and related activities. In 1914, the state legislature authorized the building of the Drill Hall (later named Barton Hall in honor of Colonel Frank A. Barton '91) with a floor bigger than a football field, and, in 1916, a unit of the Reserve Officers Training Corps was established at Cornell.

Throughout the years Cornell's programs in officer education have provided many outstanding leaders who have contributed much in the military service of the nation.

Officer education today has evolved from the emphasis on drill and formations into programs with greater concern for the development of leadership and management skills, along with knowledge of the social sciences, engineering, and other relevant areas, all of which contribute to the optimum performance of young officers in a modern and progressive military organization. Officer educa-

tion at Cornell is designed for students who choose careers in the military service as well as those who wish to serve their country as officers on a shorter term basis.

The programs in officer education offered at Cornell allow a student to complete his regular academic work and, at the same time, prepare himself for military service following graduation, as a commissioned officer in any of the three armed services of the United States. Draft deferment is assured while he is enrolled, and financial remuneration is received for at least part of his training period. Students who wish to undertake graduate study are often granted active duty deferments to do so.

Programs leading to commissioning and service in the Army are offered by the Department of Military Science. That department is headed by an officer of the United States Army who is the commanding officer of the Cornell Army ROTC Instructor Group. The Department of Naval Science offers programs leading to commissioning and service in the Navy (with a Marine Corps option). That department is headed by an officer of the United States Navy who is the commanding officer of the Cornell Naval ROTC unit. The Department of Aerospace Studies is headed by an officer of the United States Air Force who is commanding officer of the Cornell Air Force ROTC Detachment. That department offers programs leading to commissioning and service in the Air Force.

Eligibility

An official statement of the Cornell University Board of Trustees asserts that "It is the policy of Cornell University actively to support the American ideal of equality of opportunity for all, and no student shall be denied admission [to the University] or otherwise discriminated against because of race, color, creed, religion, or national origin." The United States Department of Defense is committed to a similar policy.

Any student accepted by the various schools and colleges at Cornell may enroll in any of the officer education programs so long as he meets the specific requirements of the particular program in which he is interested.

Scheduling

An applicant who knows to which service he plans to apply should inform the appropriate ROTC office and his particular college or school at Cornell as early as possible so that academic schedules will include required ROTC activities.

Academic schedules for incoming freshmen are made up in the individual colleges during the summer. It is desirable that the student's wishes concerning ROTC be known when schedules are planned to avoid the possible inconvenience of adjusting schedules on registration day. Students are advised to visit the appropriate ROTC office prior to registration.

United States Army ROTC Program

The general objective of the AROTC program at Cornell is to develop and commission as junior officers, men who have the qualifications and potential for service as officers in the regular or reserve components of the United States Army. Intermediate objectives are to provide AROTC 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. Also stressed is the ability to estimate situations and make decisions.

These objectives are achieved through a three-part program normally covering four years. The program includes specific courses in military science, academic subjects that assure a well-rounded education, and practical training in leadership through participation in the Cadet Corps (including attendance at a six-week summer camp at an Army installation). The combination prepares the student for commissioning and effective performance in any of the several branches of service of the Army. The student's academic major, his academic performance, his leadership ability, his personal desires, and the needs of the Army determine the branch of the Army in which he is commissioned upon graduation.

Requirements for Enrollment

Applicants must be male citizens of the United States. (Noncitizens may enroll and

will receive certificates acknowledging completion of the course but do not receive commissions.)

An applicant's vision must be correctable to a minimum of 20/20 in one eye and 20/400 in the other eye. Height must be at least 60 inches and no more than 80 inches, although exceptions will be considered. The weight requirement varies according to height. Overall sound mental and physical condition is essential.

Four-Year Program

The four-year program is open to students in their freshman year or, with the approval of military and University authorities, to sophomores in a five-year degree program. A student must also be physically qualified under existing regulations and, with certain exceptions, must be a citizen of the United States.

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 also enroll and may receive advanced standing.

During the first two years, students pursue the basic program (MS I and II), during the next two years, they are in the advanced program (MS III and IV). A total of fifteen credit hours of professional military subjects (an average of about two classroom hours a week each semester) is required. In addition, twelve credit hours of specified academic subjects are required. Throughout the four

8 Army ROTC Program

years, cadets spend one hour a week each semester in practical leadership training (Cadet Corps), for which there is no academic credit, and all cadets attend a six-week camp between the junior and senior year.

Basic Program (MS I and MS II)

Students in the basic program take one classroom course in military science each semester for which they receive academic credit. These courses include study of the principles and techniques of leadership and management, the evolution of warfare, military topography, and small-unit tactics. In addition, students spend one hour a week in practical leadership training (Cadet Corps) where the principles taught in the classroom are applied.

Students in the basic program are also required to take six credit hours of University academic course work in effective communications. Courses in English composition, public speaking, and advanced grammar and composition are among those considered appropriate. Appropriate courses taken as electives or to meet other University or degree requirements are counted, so that, with proper planning, the requirement usually does not entail additional work. Details concerning the academic portion of the curriculum may be obtained from the AROTC unit in Barton Hall on the campus.

Advanced Program (MS III and MS IV)

The advanced program (junior and senior years) is open to students who have successfully completed the basic program and are approved by the professor of military science. It is also open to students who have appropriate advanced standing either through attendance at the basic summer camp (see Two-Year Program, page 10), or through prior military training or service.

Any student entering the advanced program must have two years of academic work remaining at Cornell and must be of such age as will allow him to qualify for a baccalaureate degree and commissioning before the age of twenty-eight. He must also pass such physical and aptitude tests as may be prescribed.

When a student is accepted for the

advanced program he executes a written contract with the United States government. Under terms of the contract he agrees to complete the advanced program and to accept a commission if tendered. Concurrent with the signing of the contract the student enlists in the United States Army Reserve, for control purposes.

Classroom study in the advanced program includes one military science course each semester on leadership and management, small-unit tactics, and command and staff organizations. A student must also complete six credit hours of "enrichment subjects," advanced-level courses outside his major academic discipline. The one hour a week of practical leadership training continues, and, between the junior and senior year, all cadets attend a six-week advanced summer camp.

Flight Instruction Program

The Army ROTC Flight Instruction Program is offered at no cost to selected students in the second year of the advanced program, usually the senior year of college. Students in the Program receive a basic introduction to the principles of flying during ground school, practice flying with approved instructor pilots, and solo flying. Flight instruction is given by a civilian flying school, near Cornell, which has the approval of the Federal Aviation Agency, the Department of the Army, and Cornell University.

The Program is conducted as an extra-curricular activity. Each student receives 35 hours of ground instruction and 36½ hours of in-flight instruction.

Qualifying requirements for flight instruction are few, but strict. A sufficiently high academic standing and approval from both the professor of military science and the dean of the individual's school are required. A series of flight aptitude tests and physical examinations must be satisfactorily completed. (Uncorrected distant vision of at least 20/50 correctable to 20/20 is required.) Parental permission is necessary for students under twenty-one years of age.

Choice of Branch

Cadets in the second year of the advanced program (normally the senior year) may specify the branch of the Army



—such as Infantry, Corps of Engineers, Armor, Signal Corps, Quartermaster, Finance, Ordnance, Adjutant General, Judge Advocate General, Artillery, Medical Service, Military Intelligence, Military Police—in which they prefer to serve. They are notified in the spring, before commissioning, of the branch to which they are assigned. The likelihood of appointment in a chosen branch depends upon the student's academic and ROTC performance, as well as the needs of the Army at the time.

Two-Year Program

The two-year program consists of the last two years (the advanced program) of the regular four-year program plus a basic six-week summer camp preceding enrollment. (See page 8 for details of the advanced program.)

The two-year program is open to selected students who have two years of academic study remaining at Cornell or any other institution which offers the AROTC advanced program. Applications are accepted from December to April, and selected students are notified in May. Selectees are then required to complete the basic six-week summer camp before registering in the AROTC advanced program the following fall. They must also pass specified physical requirements and execute the same written contract as those students who go into the advanced program after completing the regular basic program.

Benefits

Each cadet in the advanced program receives \$100 per month for ten months a year. While attending the advanced summer camp (between the junior and senior years), each cadet receives \$265.35 per month plus an allowance for travel to and from camp. Uniforms, textbooks, and supplies required by AROTC are provided by the Army.

A cadet in the two-year program receives the same payments as other cadets in the advanced program, and, in addition, he receives \$432 and travel allowance for the basic summer camp prior to entry into the advanced program.

Scholarships

A scholarship cadet receives the same benefits as other enrollees in the advanced program. In addition, he receives \$100 per month for ten months each of the freshman and sophomore years, and he receives all tuition, fees, textbooks, and classroom materials for the duration of the scholarship.

Scholarships are awarded on the basis of merit and are available for one, two, three, or four years. Four-year AROTC scholarships are awarded to selected high school seniors. Additional scholarships are awarded each year to outstanding students in the freshman, sophomore, and junior class. A cadet who is awarded a scholarship continues to receive the scholarship support until graduation so long as he fulfills the requirements.

The minimum active duty requirement for all scholarship students is four years.

Commissioning

All students who successfully complete the AROTC advanced program including the advanced summer camp, and who are awarded a baccalaureate degree, are, upon graduation, commissioned as second lieutenants; most are commissioned in the United States Army Reserve. (A few are commissioned in the Regular Army; see Distinguished Military Students, below.) AROTC graduates commissioned in the United States Army Reserve will be ordered to active duty within one year of graduation unless deferred for graduate study.

Distinguished Military Students

Some senior AROTC cadets with high academic achievement and outstanding military qualities are designated as Distinguished Military Students (DMS). All AROTC cadets, scholarship and non-scholarship, are eligible to compete. DMS students may be commissioned in the Regular Army rather than the Reserve; those who are so commissioned enter the Army on the same basis as graduates of the United States Military Academy at West Point.

Service Obligations

Nonscholarship cadets must spend either two years on active duty and four more years in Reserve status or three to six months on active duty followed by Reserve status for 7½ years. The manpower requirements of the Army determine the proportion of cadets who serve in each category; it is expected that about half of the 1972 graduating class will serve in each category. An officer beginning two years active duty first attends the Basic Officers Course (normally eight to twelve weeks) of his assigned branch. Upon completion of this course, he is assigned in the United States or overseas depending upon the needs of the Army as influenced by the desires of the individual. Those officers selected for three to six months active duty serve the three to six months for the purpose of attending their Basic Officers Course, after which they are released to Reserve status.

Cadets accepting a Regular Army commission and Army aviators (cadets who have had flight training) serve a minimum of three years on active duty followed by three years in Reserve status.

Every scholarship cadet (whether commissioned in the Regular Army or the Reserve) serves four years on active duty and two years in Reserve status.

Graduate Study Deferments

Active duty deferments may be granted to individuals who wish to attend graduate school at their own expense after commissioning. Current policy is to approve all requests for active duty deferment for two years (three years for law school). Requests for longer deferments will be considered on an individual basis.

Curriculum and Schedule of Classes

Military Science Courses

All cadets take one course each semester in military science. The number of hours per week spent in the classroom varies from semester to semester, as does the

credit received. Students in the four-year program are required to take all the courses listed below. Students in the two-year program are required to take all of the courses listed for the junior and senior years.

Freshman Year

MS 1A-MS 1B Leadership and Management I: Principles, Theory, and Case Studies. Throughout the year. Two credits (one credit each semester). One class hour each week. T 8 or 9:05. Military instructors and speakers selected from the University faculty.

Discussion is focused on the role of the military leader/manager. Case studies are used to illustrate the techniques and application of leadership and management. Course material is derived from civilian and military sources. The practical leadership training in the Cadet Corps (see page 12) serves as a laboratory for the practical application of material provided in this course. Together they provide the foundation for subsequent military science courses and for eventual commissioning in the United States Army.

Sophomore Year

MS J301 Anatomy of Warfare. Fall term. Four credits. Three class hours each week: M W F 8 or 1:25. Joint (AROTC, NROTC, and AFROTC) staff.

This course is designed to provide the student with a basic knowledge of the art, concepts, and evolution of warfare from the beginning of recorded history to the present.

MS 2B Leadership and Management II: Small-Unit Tactics and Military Topography. Spring term. Two credits. Two class hours each week: T Th 9:05 or 11:15. AROTC staff.

The course is structured to stress junior officer leadership through the study and application of small-unit tactics and topographic terrain appreciation. Tactical situation cases are used to develop leadership potential and to illustrate the use of maps and aerial photography in land navigation.

Junior Year

Six weekend exercises in which leadership responsibilities are developed and applied are scheduled during the year. Cadets who entered the four-year AROTC

12 Army ROTC Program

program before 1972 or who enter the two-year program in 1972 take **MS J301 Anatomy of Warfare** in the fall term of their junior year. See page 11 for course description.

MS 3B Leadership and Management III: Small-Unit Tactics. Spring term. Two credits. Two class hours each week: W or Th 1:25 and 2:30. AROTC staff. Instruction is given in small-unit tactics and the demands of leadership at squad and platoon level.

Senior Year

MS 4A-MS 4B Leadership and Management IV: Seminar on Command and Staff Organizations. Throughout the year. Four credits (two credits each semester). Two class hours each week: Th 1:25 and 2:30. Staff and guest lecturers.

During the fall and part of the spring term, selected leadership and management problems in administration, logistics, and operations are dealt with. Parallels between military and civilian command and staff organizations are studied. The latter half of the spring term, seminars are held on military law. The course concludes with guest lecturers on the United States in world affairs.

Academic Subjects

Freshman and Sophomore Years

Each cadet is required to include in his academic subjects six credit hours of courses in effective communications. Courses in English composition, public speaking, and advanced grammar and composition are among those suggested. Further details concerning this requirement may be obtained from the AROTC unit on campus.

Junior and Senior Years

Each cadet is required to include in his academic curriculum six credit hours of "enrichment subjects." These must be upperclass-level courses in subjects outside the student's major discipline. Further details concerning this requirement may be obtained from the AROTC unit on campus.

Practical Leadership Training (Cadet Corps)

All Army ROTC cadets are organized within a cadet battalion which meets for one hour each week (every semester) for training in military drill and leadership. Training period is conducted Thursday mornings from 8:00 until 8:50 o'clock. No academic credit is given.

The battalion is commanded by a cadet lieutenant colonel, and his subordinates include staff officers, company commanders, platoon leaders, and squad leaders. Promotions, awards, and decorations are made periodically to ROTC students who demonstrate high ability in both military and academic fields.

Cadets in the basic program (the first two years) are introduced to the organization of the Army; gain experience in actual leadership situations; and learn the fundamentals of wearing the uniform, military courtesy, discipline, and military drill and ceremonies. Junior cadets use the basic organization of a platoon in developing and exercising their own leadership techniques through peer instruction. Senior cadets plan, organize, and supervise all Cadet Corps training activities for freshmen, sophomores, and juniors.

United States Naval ROTC Program

The objective of the Naval ROTC program is to prepare students for service as commissioned officers in the United States Navy or United States Marine Corps by supplementing their undergraduate education with instruction in essential concepts of naval science and fostering development in the qualities of leadership, integrity, and dedication to their country and the naval service. The NROTC program is compatible with any undergraduate major field of study, including five-year baccalaureate degree programs.

The objective is achieved through a broad program, normally covering four years, which combines specific courses in naval science, specified academic subjects to supplement the students' regular academic curricula, and laboratory sessions in which the practical aspects of naval science and leadership procedure are stressed. The program also includes at least one summer-at-sea training period.

Marine Corps Option

At the beginning of the freshman year, NROTC enrollees who wish to may apply for the Marine Corps option. Students selected for this option pursue the same basic program (first two years) as all other NROTC students.

Non-NROTC Students

Though the NROTC program has been designed to prepare future officers,

NROTC courses are open to all students at Cornell University as space limitations allow. The non-NROTC student will not be issued uniforms nor will he be required to attend laboratory sessions. He will not receive a commission upon graduation.

Requirements for Enrollment

An applicant for Naval ROTC at Cornell must be a male citizen of the United States; he must have reached his seventeenth and not have passed his twenty-first birthday on June 30 of the entering year. If he matriculates in a major field of study requiring five years for a baccalaureate degree, he must not have passed his twentieth birthday on June 30 of the entering year. (Students enrolled in a five-year academic program are placed in a leave status with respect to the Department of Naval Science during the third year. Draft deferment continues during that time.) Waivers of the upper age limit may be granted on an individual basis by the chief of naval personnel up to age twenty-seven and a half at time of appointment. Applicants must also meet the physical requirements (see below).

There are no restrictions regarding the academic courses in which an NROTC student may enroll, provided the courses lead to a baccalaureate degree. A Naval ROTC scholarship student must have the approval of the professor of naval science in the selection of his major course of



study; however, there is normally no objection to the student's choice.

Physical

An applicant must have binocular visual efficiency (BVE) not worse than 49 percent correctable to 100 percent by standard lens. No waivers will be granted. A partial table of BVE of 49 percent or better follows.

<i>One eye</i>	<i>Other eye</i>
20/20	20/400
20/30	20/400
20/40	20/400
20/50	20/400
20/70	20/400
20/100	20/100

Excessive refractive errors also are disqualifying. Defective color perception is disqualifying (except in a few special situations). The minimum height allowable is 64 inches; the maximum is 78 inches. Weight must be proportional to height. An overall sound mental and physical condition is necessary. All NROTC students are given physical examinations each year at no cost.

Students who plan to take the Marine Corps option must meet the same physical requirements with the exception that defective color perception is not disqualifying.

Four-Year College Program

Students are selected for enrollment in the NROTC college program from freshman applicants during fall registration. A limited number of sophomore applicants are also accepted in the fall. All interested freshmen or sophomores should inquire at the NROTC unit in Barton Hall on the campus, preferably during the fall registration period or earlier.

During the first two years, all NROTC students pursue the basic program. In the junior and senior years, they all pursue an advanced program, but for those in the Marine Corps option the curriculum is different.

Basic Program

All students take one classroom course in naval science each semester. These courses cover fundamental aspects of

naval science (an overview of considerations relevant to other required naval science courses), basic principles and interrelation of primary ship systems, evolution and anatomy of warfare, and meaning and applicability of modern seapower and maritime concepts. The number of hours spent in the classroom, and the credit received, varies, but averages about two hours a week. In addition, all students spend ninety minutes each week in professional laboratory sessions which include naval presentations and leadership development.

Students in the basic program must also meet certain academic subject requirements in mathematics, science, and history or government. Some or all of these courses may be taken as part of the students' degree programs, and, in some cases, part of the requirement may be waived based on prior completion of equivalent work.

Advanced Program (Navy)

The advanced program (junior and senior years) is open to students who have successfully completed the basic program and are approved by the professor of naval science. It is also open to selected students who have attended the naval science institute the preceding summer (see Two-Year Program, page 16).

Any student entering the advanced program must have two years of academic work remaining at Cornell and must be of such age as will allow him to qualify for a baccalaureate degree and commissioning before the age of twenty-six. He must also meet prescribed physical standards.

When a student is accepted for the advanced program he executes a written contract with the United States government. Under terms of the contract he agrees to complete the advanced program and to accept a commission if tendered. Signing of the contract constitutes enlistment in the United States Naval Reserve.

Classroom study in the advanced program includes one course each semester in naval science covering such subjects as navigation, naval operations analysis, weapons systems, and naval organization and management. In addition, all students participate in a ninety-minute laboratory session each week which includes leadership sessions and functional periods de-

voted to the practical application of subject matter taught in the classroom. All midshipmen attend a six-week, at-sea training period during the summer between the junior and senior years. Students in the advanced course also have other academic subject requirements in the areas of computer science and management.

Flight Indoctrination Program

The NROTC Flight Indoctrination Program is available at no cost to all junior and senior NROTC students (including those in the Marine Corps option) who are motivated toward aviation. Students must pass a naval aviation physical examination to be eligible for the program. Physicals are arranged at no cost to the student.

This selective program affords an opportunity to become proficient in the fundamentals of aviation and qualify for a private pilot's license through the Federal Aviation Agency. The program consists of thirty-five hours of ground instruction and forty hours of flying instruction, provided by a local flying school.

Advanced Program (Marine Corps)

The advanced program (junior and senior years) is open to students who have successfully completed the basic program and are approved by the professor of naval science. It is also open to selected students who have attended the naval science institute the preceding summer (see Two-Year Program, below).

Any student entering the advanced program must have two years of academic work remaining at Cornell and must be of such age as will allow him to qualify for a baccalaureate degree and commissioning before the age of twenty-six. He must also meet prescribed physical standards.

When a student is accepted for the advanced program he executes a written contract with the United States government. Under terms of the contract he agrees to complete the advanced program and to accept a commission if tendered. Signing of the contract constitutes enlistment in the United States Naval Reserve.

The advanced program includes a course in amphibious warfare. Laboratory periods include drill, tactics, administration, and leadership. Summer

training consists of a six-week precommissioning training and screening at the Marine Corps base, Quantico, Virginia, between the junior and senior year. Students in the advanced course also have other academic subject requirements.

Flight Indoctrination Program

See above.

Two-Year College Program

The two-year program consists of the last two years (the advanced program) of the regular four-year program, plus attendance at a six-week naval science institute (at a designated university) preceding enrollment. For details, see Advanced Program (Navy), page 15, and Advanced Program (Marine Corps), above.

Eligible applicants are second-semester sophomores in good standing who are enrolled at Cornell or who will be transferring to Cornell. (The program is not open to graduate students.) Candidates must meet other specified academic and physical requirements. Interested students may obtain details on requirements at the NROTC unit in Barton Hall on campus.

Initial application for the program is made to the professor of naval science; however, final selection is made by the Bureau of Naval Personnel since a nationwide limit exists on the total number of students who can be in the program. Selected students are notified in the spring term of their sophomore year and are then required to attend a naval science institute (a six-week off-campus training session) during the summer preceding their junior year.

It is possible for some students during their junior year in this program to achieve NROTC scholarship status based on the recommendation of the professor of naval science with the approval of the Bureau of Naval Personnel.

Benefits

Each midshipman in the advanced program receives \$100 subsistence allowance per month for 10 months each year. Each student also receives active duty pay of approximately \$265 a month and travel expenses for the summer-at-sea training

periods. In addition, uniforms and books required by NROTC are provided.

A midshipman in the two-year program receives the same benefits during his junior and senior year as other midshipmen in the advanced program. In addition he receives room, board, approximately \$430, and travel allowance (to and from his home within the continental United States) for the naval science institute that he must attend during the summer preceding his junior year.

Students in the Marine Corps option receive the same benefits as other NROTC students.

Scholarships

Naval ROTC scholarships cover all tuition, fees, and textbooks as well as a subsistence allowance for each midshipman of \$100 a month for ten months each year. Four-year NROTC scholarships are awarded annually to secondary school seniors chosen by state selection boards on the basis of nationwide competition. Additional scholarships may be awarded each year to a few outstanding freshmen, sophomores, and juniors who are enrolled in the college program. An applicant must have 20/20 vision without correction, and his major subject must be approved by the professor of naval science. A midshipman who is awarded a scholarship continues to receive the scholarship support until graduation so long as he fulfills the requirements.

Scholarship students must attend three summer training periods (following the freshman, sophomore, and junior years), of which at least two are at sea. They receive commissions in the Regular Navy or Marine Corps instead of the Reserve upon graduation, and all scholarship students serve a minimum of four years active duty.

Commissioning

All students who successfully complete the advanced program of the NROTC and who are awarded a baccalaureate degree are commissioned upon graduation. Nonscholarship students who were in the NROTC advanced program (Navy) receive commissions as ensigns, Naval Reserve; those who were in the Marine Corps

option receive commissions as second lieutenants, Marine Corps Reserve.

Scholarship students in the Marine Corps option are commissioned as second lieutenants, Marine Corps; scholarship students (Navy) are commissioned as ensigns, Navy.

Service Obligations

Navy

Each graduate has an opportunity to request his preferred type of duty upon graduation. Included among the types of duty are naval aviation, submarines, large and small surface ships, nuclear power training, civil engineering corps, supply corps, and mess management (available only to graduates in hotel administration). These requests are given careful consideration, and every effort is made to assign the newly commissioned officer to the duty of his choice. Graduates are ordered to sea duty or shore duty as the needs of the service require.

Nonscholarship midshipmen must, after graduation, spend three years on active duty in the Naval Reserve, followed by three years in the Ready Reserve. A graduate who was a scholarship student serves a minimum of four years of active duty in the Navy. If he elects to leave active duty at that time he must serve two years in the Ready Reserve.

Graduates entering the nuclear power program incur one additional year of active duty; those entering aviation incur an active duty obligation of four and one-half years after completion of flight training.

Marine Corps

All graduates, whether commissioned in the Marine Corps or Marine Corps Reserve, attend a seven-month basic course at Quantico, Virginia. Upon completion of the basic course, each officer submits his preference for type of duty. Major types of duty include infantry, aviation, field artillery, engineer, tracked vehicles, supply, and communications.

Nonscholarship graduates must, after graduation, serve three years on active duty in the Marine Corps Reserve fol-



lowed by three years in the Ready Reserve. A graduate who was a scholarship student serves a minimum of four years on active duty in the Marine Corps. If he elects to leave active duty at that time he must serve two years in the Ready Reserve.

Graduates entering aviation must spend four and one-half years on active duty after completion of flight training.

Graduate Study Deferments

Delays in active duty to attend graduate school are available to a limited number of NROTC college program students, depending on the Navy's needs at the time. In addition, highly qualified students, scholarship and nonscholarship, may apply for the Navy's Immediate Graduate Education Program (IGEP) which leads to a Master's degree in many academic fields. Graduate education opportunities are also available after the initial tour of duty.

Curriculum

Naval Science Courses

All midshipmen in the four-year program are required to take the courses listed below for the freshman and sophomore years. All midshipmen in the two-year and four-year programs (except those in the Marine Corps option) are required to take the courses listed below for the junior and senior years (Navy). Students in the Marine Corps option take the course listed specifically for them under Senior Year (Marine Corps), page 20.

Freshman Year

NS 101 Fundamentals of Naval Science.

Fall term. No credit. One class hour each week (lecture-recitation). NROTC staff. A study of fundamental aspects of naval science including its conceptional contributions to seapower, factors involved in the physical development of naval forces, resources which must be managed, and prospects for the future.

ME 3301 Naval Ship Systems.

Spring term. Three credits. Three class hours per week (lecture-recitation). Hours and staff as scheduled in the *Announcement of the College of Engineering*.

The course is an introduction to primary ship systems and their interrelationship. Basic principles of propulsion, control, internal communications, structure, and other marine systems are considered.

Sophomore Year

MS J301 Anatomy of Warfare. Fall term. Four credits. Three class hours each week: M W F 8 or 1:25. Joint (AROTC, NROTC and AFROTC) staff.

This course is designed to provide the student with a basic knowledge of the art, concepts, and evolution of warfare from the beginning of recorded history to the present.

NS 202 Seapower/Maritime Affairs. Spring term. No credit. One-hour, weekly seminar. NROTC staff.

The seminar discussions explore the meaning and modern applicability of seapower concepts, including such components as naval power, ocean science, ocean industry, and ocean commerce.

Junior Year (Navy)

CE 2453 Principles of Navigation. Fall term. Four credits. Four class hours per week (lecture-recitation-project work). As scheduled in the *Announcement of the College of Engineering*. Mr. Lyon.

The course covers coordinate systems, chart projections, navigational aids, instruments, compass observations, tides and currents, and soundings. It also includes celestial navigation: time, spherical trigonometry, motion of the stars and sun, star identification, position fixing, and use of the nautical almanac; and electronic navigation.

NS 302 Naval Operations Analysis.

Spring term. Three credits. Three class hours per week (lecture-recitation). Times to be arranged. NROTC staff.

The course covers processes of planning and executing naval operations and review of the principles of probability, two-person zero sum game theory, and mathematical models of detection theory. It also includes examination of sensors, weapons, and supportive elements and their application in naval operations. Practical work in planning and coordination of operations is given, and the course concludes with a problem in which opposing student teams plan a typical naval operation and write an operation order.

20 Naval ROTC Program

Senior year (Navy)

NS 401 Naval Weapons Systems. Fall term. Three credits. Three class hours per week (lecture-recitation and laboratory). Times to be arranged. NROTC staff. Study topics include the concepts of weapons systems; functions and elements of weapon systems to include fire control problems, fusing, safety, arming, damage effects, and automatic control systems; limitations and capabilities of sensors; command and control of weapons; and, finally, the moral issue of weapons employment.

NS 402 Naval Organization and Management. Spring term. No credit. One class hour per week (seminar). NROTC staff. Discussions cover scientific principles and functions of management relevant to the naval environment and the structure of naval organization. Theories and findings from the behavioral sciences relevant to leadership are explored, with particular emphasis on self-development and individual responsibility.

Senior Year (Marine Corps)

NS 401M Amphibious Warfare. Spring term. Three credits. Three class hours per week (lecture-recitation). Times to be arranged. NROTC staff.

The course covers the development, theory, techniques, and conduct of amphibious operations beginning with Gallipoli in 1914. Special emphasis is placed upon amphibious operations conducted in the central Pacific during World War II.

Other Required Courses

Freshman and Sophomore Years

All midshipmen must take six credit hours of mathematics, six credit hours of science, and three credit hours of history or government. The professor of naval science may authorize waivers of some requirements based on prior satisfactory completion of equivalent courses.

Listed below are courses that midshipmen may use in satisfying these requirements. However, scholarship students enrolling in the NROTC program after June 30, 1972, (except those in the Marine Corps option) have fewer alternatives in mathematics and science courses than were previously allowed. *In the following lists, only those courses marked*

with asterisks may be used by those students to satisfy the mathematics and science requirements.

Mathematics

- *Math 111, 111c, 112 Calculus
- *Math 191 (193), 192 (194) Calculus for Engineers
- *Math 107-108 Finite Mathematics and Calculus with Applications to the Biological and Social Sciences
- Ag Ec 110 Introductory College Mathematics
- Ag Ec 310 Introductory Statistics
- Stat Bio 200 Statistics and the World We Live In
- H Adm 235 Fundamental Statistical Analysis and Inference
- ILR 210 Statistics I (Statistical Reasoning)
- ILR 211 Economics and Social Statistics
- ILR 311 Statistics II

Science

- *Phys 101-102 General Physics
- *Phys 112, 213 (217), 214 (218) Fundamentals of Physics I, II, and III
- *Phys 201-202 Aspects of the Physical World
- *Phys 207-208 (208H) Fundamentals of Physics
- Bio S 101-102 Biological Science
- Bio S 107-108 Biology for Nonmajors
- Chem 107-108 General Chemistry
- Chem 115-116 General Chemistry and Inorganic Qualitative Analysis
- Geol 101, 102 Introductory Geological Science
- Geol 111 Earth Science
- Geol 212 Mineral Resources
- H Adm 711 Chemistry
- H Adm 712 Food Chemistry

Government and History

- Gov 206 Introduction to International Relations
- Gov 334 Foreign Policy of the U.S.S.R.
- Gov 349 Political Role of the Military
- Gov 350 Comparative Revolutions
- Gov 371 Defense Policy and Arms Control
- Gov 375 Contemporary American Foreign Policy
- Gov 471 International Law and World Politics: Peaceful Functions
- Gov 472 International Law and World Politics: War and Armed Conflict
- Gov 478 The Foreign Policy of China
- Hist 309 Introduction to Russian History

Hist 383, 384 History of American Foreign Relations
 Hist 484 Motivations of American Foreign Policy

Junior and Senior Years (Navy)

Each midshipmen (except those in the Marine Corps option) must take three credit hours of computer science (usually in the junior year) and three credit hours of management (in the senior year). Following are lists of the courses which may be used to satisfy these requirements.

Computer Science

Engin 105 Elements of Engineering Communication
 C Sci 201 Survey of Computer Science
 C Sci 202 Computers and Programming
 C Sci 311 Introduction to Computer Programming
 C Sci 404 Advanced Computer Programming
 H Adm 145 Fundamentals of Computers
 Stat Bio 407 Introductory Computer Techniques for Statistics and Biology
 Plan 536 Introduction to Computers in Planning

Management

BPA 121 Personnel Administration and Human Relations
 Educ 569 Personnel Administration
 H Adm 113 Organizational Behavior and Management
 ILR 360 Manpower and Organization Management
 ILR 368 Case Studies in Personnel Administration
 ILR 450 Personnel Administration in Supervision
 ILR 521 Organizational Behavior II
 ILR 562 Administrative Theory and Practice
 ILR 567 Management and Leadership Development

ILR 568 Case Studies in Personnel Management

Junior and Senior Years (Marine Corps)

Each student in the Marine Corps option is required to take two courses for three credits each (one in the junior and one in the senior year) from the following list of selected subjects. The courses chosen must be approved by the Marine Corps option instructor.

Anthropology
 Behavioral Sciences
 Communication Methods
 Computer Sciences (upper-level)
 Economics
 Geography
 Languages
 Management Engineering
 Philosophy
 Political Science
 Sociology
 World History

Professional Laboratories

All students in the NROTC programs (including those in the Marine Corps option) participate in one ninety-minute laboratory session each week of each semester of the program. The sessions are held from 2:30 until 4:00 o'clock on either Wednesday or Thursday afternoons. These periods, planned and implemented for the most part by midshipmen officers in the battalion organization, consist of both drill and professional information briefings. Students gain experience in actual leadership situations and at the same time learn the fundamentals of military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a naval officer's duties.

United States Air Force ROTC Program

The overall objective of the AFROTC program at Cornell is to prepare highly qualified men and women for positions as officers in the United States Air Force. The program is designed to provide the student with a background of aerospace knowledge and to further develop his qualities of leadership, integrity, and self-discipline.

The objectives are achieved through four-year and two-year programs. These programs include specific courses in aerospace studies, an academic course in management, and practical laboratories (corps training).

Entering students are assigned to one of three categories: flying (pilot/navigator), engineering-science, and general service. These assignments are based on the student's preferences, his qualifications, his academic field of study, and the needs of the Air Force.

Requirements for Enrollment

The Air Force ROTC program is open to male or female undergraduate or graduate students enrolled in any major field of study. The student's academic course of study is often a prime factor in determining the kind of career he will have in the Air Force. (See Air Force Careers, page 25.)

Applicants who are interested in flying (as pilot or navigator) make that request

known at the time they enter the program. All applicants receive physical examinations at no cost and, to be accepted, must meet the physical requirements listed below. Overall sound physical and mental condition is essential.

Physical

Every applicant must be free from any limiting physical infirmity and must have normal hearing, blood pressure, and heartbeat. Weight must be normal for height and age.

Following are the additional specific requirements for nonflying categories.

Vision: bilateral distant vision without corrective lenses, at least 20/400

Height (for men): at least 64 but not more than 80 inches; (for women): at least 60 but not more than 72 inches

Allergy: no history of asthma since twelfth birthday

Dental health: good

Those students who are interested in qualifying for flying categories (pilot/navigator) must meet the following specific requirements.

Vision (for pilot candidates): 20/20 bilateral near and far vision without corrective lenses; (for navigator candidates): bilateral near vision at least 20/20 without corrective lenses and bilateral far vision at least 20/70 without correction, providing it is correctable to 20/20 with lenses

Color vision: normal

Height: at least 64 but not more than 76 inches; sitting height not more than 39 inches
 Allergy: no history of asthma or hay fever since twelfth birthday
 Dental health: good

Four-Year Program

The four-year program is open to male or female students in the first term of their freshman year. Students in a five-year degree program may, with the approval of the Department of Aerospace Studies, enroll in their sophomore year. Men participating in the AFROTC program are draft deferred.

Veterans of the United States armed forces and students entering Cornell from military schools may also enroll and may receive advanced standing, subject to approval by the professor of aerospace studies.

The four-year program consists of the basic program (first two years) and the Professional Officer Course (advanced program) during the junior and senior years. The basic program carries no military commitment and students may withdraw at any time during that period.

Basic Program

Students in the basic program take one classroom course in aerospace studies each semester. These require one hour a week in the freshman year; in the sophomore year, three hours a week the first semester and one hour a week during the second semester are required. In these courses, the role of United States military forces in the contemporary world is examined, with emphasis on the organization and mission of the United States Air Force. The functions of strategic offensive/defensive forces, general purpose forces, and aerospace support forces are covered. The roles of these forces are related to national defense policy, with respect to general and limited war, alliances, and strategies and policies of the United States, the Soviet Union, and China. The student is also introduced to United States defense organization and decision-making processes.

Students also spend one hour a week in corps training which includes class-

room instruction in responsibilities and environment of the junior officer and instruction and practice in basic drill and ceremonies. In addition, all students participate in summer field training for four weeks between the sophomore and junior years.

Professional Officer Course

The Professional Officer Course (POC) is an advanced course of instruction in aerospace studies and leadership experiences during the junior and senior years. Students who are accepted for the POC must have successfully completed the basic course and must meet the academic and physical standards. Some students who were not in the basic program are also accepted if they meet certain requirements and attend a six-week training course during the summer before enrollment (see Two-Year Program, page 25).

Each cadet accepted into the POC must sign an agreement to complete the program and accept a commission in the Air Force Reserve, if tendered, upon graduation. All POC cadets are enlisted in the Air Force Reserve and are draft deferred.

Classroom study in the POC requires three hours a week each semester. In the junior year this includes one course in aerospace studies stressing leadership and officer responsibilities and an academic course in management. During the senior year, cadets study the growth and development of aerospace power and astronautics and space operations. Corps training requires an average of one hour a week in the junior and senior years and consists of a leadership laboratory in which the cadet is exposed to advanced leadership experiences and applies principles of management learned in the classroom.

Flight Instruction Program

All cadets accepted for pilot training participate, in their senior year, in the Air Force ROTC flight instruction program at no cost.

This program consists of ground school and 36½ hours of flying training in a light aircraft. Instruction is provided by a local civilian flying school. Upon completion of the program, a cadet may apply for a private pilot's license through the Federal Aviation Agency.



Choice of Service Career

Each cadet in the first year of the POC is given the opportunity to specify the career field in which he would like to serve after graduation. (See Air Force Careers, below.)

Two-Year Program

The two-year program consists of the last two years (the Professional Officer Course) of the regular four-year program plus a six-week summer training course preceding enrollment. (See page 23 for details of the Professional Officer Course.)

The two-year program is open to male and female students with two years of academic study remaining at Cornell (graduate or undergraduate.) Applications are accepted from November through March of the year preceding the applicants' planned entry into the program. Selectees are then required to successfully complete a six-week summer training program at government expense.

Benefits

Each cadet in the advanced program (POC) receives \$100 per month nontaxable subsistence allowance. For the four-week summer field training (between the sophomore and junior years), each cadet receives \$247.80 plus an allowance for travel to and from the field training site. Uniforms, textbooks, and supplies required by AFROTC are provided by the Air Force.

A cadet in the two-year program receives the same payments as other cadets in the POC, and, in addition, he receives \$403.20 and travel allowance for the six-week summer field training session prior to entry into the POC.

Scholarships

The Air Force awards 6,500 scholarships annually. Four-year AFROTC scholarships are awarded to selected high school seniors. Three- and two-year scholarships are awarded annually, on a competitive basis, to students enrolled in Air Force ROTC. One-year scholarships are sometimes awarded—when necessary to insure that all 6,500 scholarships are active. Ap-

plicants for the AFROTC two-year program are also eligible for scholarship consideration. Financial status or the winning of other scholarships is not disqualifying with regard to AFROTC scholarship awards. Acceptance of an AFROTC scholarship does not commit an individual to serve any additional time on active duty with the Air Force.

A scholarship cadet receives \$100 per month and all tuition, fees, and \$75 a year toward the cost of textbooks for the duration of the scholarship.

Commissioning

All students who successfully complete the AFROTC advanced program (POC) and who are awarded a baccalaureate degree are commissioned as second lieutenants in the Air Force Reserve.

Air Force Careers

Air Force policy has been to assign each new officer to a career field which closely approximates his educational background. Students in the engineering-scientific category may be assigned to practice in their specialty in research and development, communications, aeronautics, astronautics, design and development, the biological sciences, computer design and maintenance, weather, or various other engineering and scientific fields. They will work under the supervision of some of the most highly qualified men in their field and have access to the latest scientific facilities and equipment.

Any undergraduate major is suitable for those who are interested in and qualified to be pilots or navigators.

After completion of flying training, they are assigned primary duties flying various kinds of aircraft depending upon their desires and the needs of the Air Force.

Those officers graduating under the general category can anticipate assignments in manpower management, administration, logistics, police and investigation, intelligence, personnel, transportation, information, and numerous other career fields. They will use their educational backgrounds in positions of responsibility and be given the opportunity to develop further their managerial and administrative skills.

Service Obligations

Second lieutenants commissioned from the AFROTC program in nonflying categories are required to serve four years on active duty. Pilot and navigator trainees are required to serve on active duty for five years after completing flying training and receiving their aeronautical rating. Many newly commissioned officers are allowed to postpone their active service in order to remain in college and earn advanced degrees. (See Graduate Study Deferments, below.) Service for all officers is normally as second lieutenant for one and a half years, then as first lieutenant for one and a half years. The average officer is a captain after serving three years on active duty.

Graduate Study Deferments

A newly commissioned officer may request a delay in reporting for active duty in order to undertake graduate study at his own expense. Weather Officer candidates may receive one postgraduate year of college at government expense with no additional service obligation. Adjusted promotion service credit is given to officers delayed for the purpose of pursuing advanced degrees.

Curriculum

Aerospace Studies Courses

Students in the four-year program are required to take all the courses listed below. Students in the two-year program are required to take all of the courses listed for the junior and senior years.

Freshman Year

AS 100A United States Military Forces in the Contemporary World. Fall term. One credit. One class hour per week. Major Raroha.

This course is an introductory study of current United States military forces with emphasis on the analysis of the doctrine, mission, and organization of the United States Air Force. The Air Force's Strategic Air Command and the Navy's Fleet Ballistic Missile System are explored as elements of strategic offensive forces. Air-

craft and missile defense is studied. A field trip to an Air Force SAGE Center is included.

AS 100B United States Military Forces in the Contemporary World. Spring term. One credit. One class hour per week. Major Raroha.

This course is a study of the general purpose and aerospace support forces of the United States, with emphasis on the mission, resources, and operation of tactical air forces. Included is an overview of defense organization and sources of power.

Sophomore Year

MS J301 Anatomy of Warfare. Fall term. Four credits. Three class hours each week: M W F 8 or 1:25. Joint (AROTC, NROTC, and AFROTC) staff.

This course is designed to provide the student with a basic knowledge of the art, concepts, and evolution of warfare from the beginning of recorded history to the present.

AS 200B Elements of United States Defense Policy. Spring term. One credit. One class hour per week. Major Raroha. Focus of the course is on the elements and processes in the making of United States defense policy. The effects of Soviet and Chinese military strategies on these processes are also examined.

Junior Year

AS 400B. The Professional Officer. Fall term. Three credits. Three class hours per week. Lieutenant Colonel Heberling.

Air Force leadership at the junior officer level is studied and includes basic concepts of human behavior, motivation, and human relations. Leadership and leadership variables are analyzed by group discussion, case studies, and role playing. Essentials of the military justice system are examined. Cadets present oral and written reports.

Senior Year

AS 300A Nuclear Age Aerospace Force. Fall term. Three credits. Three class hours per week. AFROTC staff.

Contemporary aerospace power is studied; strategies and military programs in the nuclear age are dealt with. Current manned aircraft and its future, and a survey of the history of Soviet and United States space programs are studied.

AS 300B Growth and Development of Astronautics and Space Operations.

Spring term. Three credits. Three class hours per week. AFROTC staff.

The significance and extent of man's effort to explore space are studied. The major characteristics of the solar system and the basic laws and principles which govern the operation of space systems are examined. The space achievements of the Soviet Union and the United States are reviewed, and possible future developments in manned and unmanned space operations are discussed.

Management Course

During the junior year each cadet must successfully complete one of the following courses in management.

BPA 121 Personnel Administration and Human Relations. Both terms. Three credits. Three class hours per week. Mr. Brooks.

The objective of this course is to develop an understanding of the policies, methods, and techniques used in personnel management and human relations. Specific attention is given to problems of recruitment, selection, training, compensation, motivation, communications, service and benefit programs, performance evaluation, management by objectives, safety, discipline, and community relations. The capacity to analyze problems in order to select the most effective means of dealing with them and to plan appropriate courses of action is developed through case studies. Attention is also given to analysis trends in personnel management.

ILR 360 Manpower and Organization Management. Spring term. Three credits. Three class hours per week. Department faculty.

Public and private policies and programs for forecasting, planning, recruiting, selecting, developing, utilizing, upgrading, rehabilitating, and evaluating manpower resources at the individual organizational (micro) level and at societal (macro) level are studied and analyzed. A multidisciplinary approach is used in an analysis of theory, policy, and programs. At the public level this subject matter involves identification and measurement of human talent; education, training, and development of the work force; manpower plan-

ning, manpower information and standards; motivation and morale factors; mobility; distribution of manpower; rehabilitation and other organizational analysis, planning, and reorganization; manpower forecasting and planning; recruitment and selection of work forces; education, training, development, and retraining; compensation, incentives, and rewards; performance appraisal; communications systems; leadership, supervision, and control; manpower utilization and analysis of problems.

ILR 450 Personnel Administration in Supervision. Both terms. Three credits. Three class hours per week. Department faculty.

Personnel function in business and industry is reviewed with emphasis on the personnel responsibilities of the line supervisor. The course is closely linked to evidence developed by behavioral sciences research. Topics of discussion will include organization theory, leadership, organization structure and change, group influences on individuals, employee motivation, and other human problems of management. Specific personnel administration functions and practices, as they are related to these problems, also will be included, e.g., selecting, inducting, training, rating, and compensating employees; developing techniques for interviewing; adjusting complaints and grievances; and aiding in the solution of employee and supervisor problems. The course consists of selected readings, case studies, discussion, and projects.

H Adm 113 Personnel Administration. Both terms. Three credits. Three class hours per week. Mr. Dermody.

Study consists of a practically oriented approach to personnel management, including an introduction to organizational behavior, the selection and placement of personnel, the role of supervision, performance appraisal, wage and salary administration. Class discussion is based on case studies drawn from industry.

Laboratory (Corps Training)

All AFROTC students spend one hour each week throughout the program in corps training for which there is no academic credit. The laboratories are conducted by AFROTC staff.

Freshman and Sophomore Years

AS 101 A/B and AS 201 A/B Laboratory in Initial Military Experiences. The cadet is introduced to the responsibilities, life, and work of an Air Force officer. He gains experience in actual leadership situations and learns the fundamentals of military drill and ceremonies, the wearing of the uniform, military courtesy, discipline, and organization.

Junior and Senior Years

AS 301 A/B and AS 401 A/B Laboratory in Advanced Leadership Experiences. A cadet military organization, the Cadet Squadron, is used as a vehicle to develop leadership potential. Cadets plan, organize, conduct, and supervise all activities in the Cadet Squadron, thus participating firsthand in the duties, functions, and responsibilities of Air Force commanders.

Extracurricular Organizations

ROTC Honor Societies

Scabbard and Blade

The National Society of Scabbard and Blade, a tri-service military honorary society, is represented at Cornell by Company C, 1st Regiment. Its purpose is to raise the standard of military education in colleges and universities, to unite the military departments in closer relationships, to encourage and foster the essential qualities of good and efficient officers, and to promote friendship and good fellowship among all cadet officers. Membership is selected from ROTC cadets of all three services.

Narmid

The NARMID Society, the naval honorary society, is open to members of the junior and senior class and second-term sophomores who stand high in their class in aptitude for the service. NARMID acts as a service organization managing the extra-curricular social, athletic, and journalistic activities program for midshipmen in the NROTC unit. The society also conducts its own social and fraternal program to promote the spirit of comradeship among the members. Because of its wide range of activities, the Society enables its members to assume responsibilities early, and better prepares them for the duties required of officers in the United States Navy and Marine Corps.

Semper Fidelis Society

The Semper Fidelis Society is the Marine Corps honorary society. Those eligible for membership are Cornell students enrolled in a program leading to a commission as an officer in the United States Marine Corps.

The objective of this Society is to prepare its members for their responsibilities as officers of the United States Marine Corps. This is accomplished by the dissemination of information pertinent to a better understanding of officers' duties, by the stimulation and protection of the high tradition and ideals of the United States Marine Corps, by the promotion of good fellowship, and by the cultivation of social virtues among the members.

Arnold Air Society

The Arnold Air Society is a national honor society, named for the late General Henry H. (Hap) Arnold of the Air Force. It was organized in order to further the purpose, mission, tradition, and concept of the United States Air Force as a means of national defense, to promote American citizenship, and to create a close and more efficient relationship among the Air Force Reserve Officers Training Corps cadets. Membership is offered to a limited number of Air Force cadets. The society has more than 170 squadrons on campuses of various colleges and universities in the United States and Puerto Rico.

Other

Cornell Rangers

The Cornell Rangers is an organization dedicated to fostering skills which increase an individual's confidence and help him become an effective combat leader. Its long-range objectives are to help members realize the value of staying in good physical shape, to achieve proficiency in Ranger operations, to promote enthusiasm for the ROTC program, and to motivate qualified cadets to seek careers in the Army.

The program emphasizes outdoor training and learning by doing. Training is conducted twice weekly by qualified senior cadets of the organization and supervised by the Army ROTC cadre.

Membership is selected from Army, Navy, and Air Force ROTC cadets.

Rifle Teams

Cornell University has a varsity and a freshman rifle team coached by a member of the Department of Military Science. The varsity participates in twenty "shoulder-to-shoulder" matches a year including the annual Ivy League Tournament and the National Rifle Association Sectional Matches.

In addition, the Army sponsors an ROTC rifle team that competes for national and intercollegiate honors through the medium of postal matches.

The range is located in Barton Hall where weapons, ammunition, targets, and instruction are provided.

Register

University Administration

Dale R. Corson, President of the University
Robert A. Plane, University Provost
W. Donald Cooke, Vice President for Research
Lewis H. Durland, University Treasurer
William D. Gurowitz, Vice President for
Campus Affairs

W. Keith Kennedy, Vice Provost

Samuel A. Lawrence, Vice President for
Administration

E. Hugh Luckey, Vice President for Medical
Affairs

Thomas W. Mackesey, Vice President for
Planning

Paul L. McKeegan, Director of the Budget

Arthur H. Peterson, University Controller

Richard M. Ramin, Vice President for Public
Affairs

Robert F. Risley, Vice Provost

Neal R. Stamp, Secretary of the Corporation
and University Counsel

Major John D. Waghelstein, Infantry, United
States Army

Captain John T. Browne, Jr., Infantry, United
States Army

Captain Andrew J. O'Brien, Infantry, United
States Army

Captain Anthony X. Hoyer, Armor, United
States Army

Department of Naval Science

Captain Ralph F. Jackson, United States Navy,
Professor of Naval Science and Command-
ing Officer of the Naval ROTC Unit

Commander George A. Murphy, United States
Navy

Major Robert F. King, United States Marine
Corps

Lieutenant Frank D. Andruss, United States
Naval Reserve

Lieutenant Dennis C. Bley, United States
Naval Reserve

Lieutenant Robert M. Lodge, United States
Navy

Faculty and Staff

Department of Military Science

Colonel Robert L. Chamberlain, United States
Army, Professor of Military Science and
Commanding Officer of the Army ROTC In-
structor Group

Department of Aerospace Studies

Lieutenant Colonel Earl J. Heberling, United
States Air Force, Professor of Aerospace
Studies and Commander of the Air Force
ROTC Detachment 520

Major George H. Raroha, United States Air
Force

One officer to be assigned

Further Information

Further information regarding admission to the ROTC programs at Cornell may be had by filling out and mailing this form.

Cross out all but the desired addressee. Check only one box (AROTC, NROTC, or AFROTC).

Additional specific questions may be written on the reverse side.

Professor of Military Science (Army ROTC)
Professor of Naval Science (Naval ROTC)
Professor of Aerospace Studies (Air Force ROTC)

Barton Hall
Cornell University
Ithaca, New York 14850

Dear Sir:

I would like to receive more information about

- ☐ AROTC
☐ NROTC
☐ AFROTC

name

address

city

state

zip

name of school or college I will be entering

signature

List of Announcements

Following is a list of *Announcements* published by Cornell University to provide information on programs, faculty, facilities, curricula, and courses of the various academic units.

New York State College of Agriculture and Life Sciences
College of Architecture, Art, and Planning
College of Arts and Sciences
Department of Asian Studies
Graduate School of Business and Public Administration
Field of Education (Graduate)
College of Engineering
Graduate School
Graduate School: Course Descriptions
School of Hotel Administration
New York State College of Human Ecology
New York State School of Industrial and Labor Relations
Law School
Medical College (New York City)
Graduate School of Medical Sciences (New York City)
Cornell University—New York Hospital
School of Nursing (New York City)
Graduate School of Nutrition
Officer Education (ROTC)
Summer Session
Veterinary College

The *Announcement of General Information* is designed to give prospective students pertinent information about all aspects and academic units of the University.

Requests for the publications listed above should be addressed to

CORNELL UNIVERSITY
ANNOUNCEMENTS
Edmund Ezra Day Hall
Ithaca, New York 14850.

(The writer should include his zip code.)