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Army-Navy-Air Force ROTC

1963-1965



The Joint Color Guard symbolizes teamwork

Bulletin

of the UNIVERSITY of MINNESOTA

UNIVERSITY OF MINNESOTA

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Army-Navy-Air Force ROTC

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GENERAL INFORMATION — 1

Military science is the Army ROTC program offered at all the nation's land-grant colleges, including the University of Minnesota. The purpose of this program is to develop reserve officers for the Army Officers' Reserve Corps from among qualified university students, and to supplement the United States Military Academy as a source of Regular army officers.

The Reserve Officers' Training Corps is not a direct component of the Army. It does, however, play an important part in the national defense framework of our nation. In its primary role of producing Reserve officers, it is a vital element in fulfilling the traditional American concept of dependence on a well-trained reserve rather than a large standing Army.

ROTC at the University

At the University of Minnesota, military science is an elective 4-year college course which the student may schedule in the same manner as any other elective course in his curriculum. The program, although laid out by the Army and taught by Army instructors, is administered by the University, and academic credits applicable to graduation are given in colleges of the University. Instruction encompasses military fundamentals common to all branches of the Army. The aim is to provide a basic military education and, in conjunction with other college curriculums, to develop individual characteristics and attributes of leadership essential to an officer.

Reserve Commission

Completion of the 4-year course qualifies the student for appointment as a second lieutenant, United States Army Reserve, concurrently with the granting of his academic degree. The appointment includes an obligation to serve on active duty for 2 years or a period of 6 months for training depending upon individual desires and the current requirements of the Army for personnel. Further reserve duty as an officer in an inactive status up to 7½ years is governed by the Reserve Forces Act of 1955 in its application to all male citizens. The student is draft-deferred while enrolled in Army ROTC.

Regular Army Commission

Appointments in the Regular Army are made annually from selected ROTC graduates. Further information concerning this opportunity may be obtained from the Department of Military Science.

Obligations

Enrollment in basic Army ROTC entails no personal military obligation nor special University obligation for the student. Upon selection and enrollment in Military Science III and IV, the student must agree to complete the remaining 2 years of ROTC, if he continues to be enrolled in the University, and to accept a commission as second lieutenant, if offered, upon completion of the course.

Allowances

All texts and uniforms are furnished by the department. There is no expense attached to the course. In addition, students who have been accepted for Military Science III and IV receive subsistence allowance of approximately \$27 per month during the 2 academic years, and \$78 per month during the 6-week summer camp.

Qualifications for Enrollment

The following qualifications for enrollment for commission are required. Students who do not meet these qualifications may enroll in the course and receive University credit but will not receive financial benefits or a Reserve commission. The student must:

1. Be enrolled as a regular student at the University.
2. Be a male citizen of the United States.
3. Be less than 23 years of age for enrollment in Military Science I.
4. Be less than 27 years of age at the time of initial enrollment in Military Science III.
5. Have sufficient time remaining in college curriculum to complete the ROTC course.
6. Be physically qualified as determined by physical examination for University enrollment.
7. Not be previously commissioned in one of the armed services.

Transfer of ROTC Credit

Students who have had ROTC at other institutions on the college level will be given quarter-for-quarter credit for such prior ROTC instruction successfully completed. Students who have completed ROTC at military schools and high schools will be granted such credit for ROTC successfully completed, as may be determined by each individual case.

Placement of Veterans

Students who have completed 12 months of honorable service in one of the armed services and who are otherwise qualified may be accepted for initial enrollment in Military Science III. Students who have completed 6 months and less than 12 months of honorable service, may be accepted for initial enrollment in Military Science II.

Academic Credit for Military Service

A student seeking credit toward a University degree, based on knowledge and competencies gained while in the service, may apply for special examination according to regular University procedures. At the present time these procedures call for completion of the Request for Special Examination form (Admissions and Records form A154) which requires, for its processing, approval by the Scholastic Standing

Committee of the college in which the student is enrolled and approval and examination in the department in which the student seeks the credit. Army, Navy, and Air Force ROTC Departments, like any other department, may examine a student whose Request for Special Examination has been approved in his college and may indicate to the University recorder the number of credits of ROTC to which he is entitled.

Registration

Formal registration for military science is effected in the same manner as registration for other academic courses of the University. Students registering for these courses secure prior acceptance by personal application at the Department of Military Science, 108 Armory Building, Minneapolis Campus.

Branch Assignment

The curriculum provides the student with a broad general military background without emphasis on a particular branch. The branch in which the student will be commissioned is selected during the Military Science IV year. A board composed of University authorities and members of the military staff jointly determine the student's branch. Factors considered by the board are the relationship of the course of academic study pursued by the student to a particular branch, his personal desires, and the needs of the service.

Summer Camp

The "laboratory" for military science is one 6-week summer camp conducted during the summer between Military Science III and IV. The camp is part of the school program and attendance is required for full-course credit and commission. Postponements for 1 year can be authorized.

Students attend camp as civilians and participate in the practical application of theoretical subjects at the University.

Students are paid traveling expenses to and from camp and in addition, receive pay of approximately \$78 per month while at camp. All accommodations, clothing, and food are furnished.

DESCRIPTION OF COURSES

LOWER DIVISION COURSES

MILITARY SCIENCE I

- 41f,w. Employment of Firepower.** To provide the student with an understanding of organization of the Army for modern tactical and strategic environments. Modern units and techniques of the individual soldier. (1 cr; Leadership Laboratory **)
- 42f,w. School of the Soldier.** United States Army customs and courtesies. Practical exercises in leadership, command, and individual and unit drill formation. Includes requirement of satisfactory completion of a concurrent course in communications, psychology, science, or political science as approved by PMS. IT students must also have the approval of their departmental adviser for the concurrent courses. (0 cr; prereq 41 and Δ)
- 43s. United States Army and National Security.** Survey of the problems of national defense as pertains to the United States Army in general war, limited and cold war, joint operations, and the impact of modern technology on warfare techniques with emphasis

** Leadership laboratory is taught concurrently to all cadets during the fall and spring quarters. This laboratory is designed so that individual students can demonstrate their progressive ability in individual and group drill. Progressive and extensive practice in voice and command, unit formations, exercise of command, bearing, and posture. Assists in identification and development of individual leadership traits, and qualities of character.

on the individual's personal responsibilities as a citizen and a leader. (1 cr; Leadership Laboratory **)

MILITARY SCIENCE II

- 44f. Military Maps and Aerial Photography.** Tactical and strategic use of United States and foreign military maps, elementary cartography, and land navigation. Use of aerial photographs and modern surveillance systems in military mapping and tactical operations. (1 cr; Leadership Laboratory **)
- 45w. American Military History.** United States Army operations from the American Revolution to the Korean War. A comprehensive survey of the history of land warfare as applied to the significant political, economic, social, and technical growth of the United States. (3 cr; coop Hist 45)
- 46s. Introduction to Basic Tactics.** Small unit operations in conventional and unconventional battle field environments. The training of the combat soldier to include physical and psychological conditioning, technical proficiency, and motivation through leadership. (1 cr; Leadership Laboratory **)

UPPER DIVISION COURSES

MILITARY SCIENCE III

- 151f,w. Problems of Special Warfare.** Problems of the law of war, guerilla warfare, psychological warfare, and counterinsurgency/counterguerilla operations as applied in modern military operations. (1 cr; Leadership Laboratory ** and concurrent academic course ††)
- 152w. Advanced Tactics and Training.** Small unit leadership and psychology of small groups in identification of personality characteristics, study of individual needs, values, and capabilities. Emphasis is placed on the solving of leadership problems. Conduct of military training and development of Army instructor. Includes practice teaching by the student. Advanced small unit operations in conventional and unconventional battle field environments. (5 cr; prereq 151 and Δ)
- 153s. Functional Organization of the United States Army.** A survey of the history, training, equipment, and developmental trends of all combat arms and services of the Army. Tactical operations in all phases of land warfare. A field exercise encompassing all material studied in Mil 152 and 153 stressing the practical application of techniques and principles under simulated tactical conditions. (3 cr; Leadership Laboratory **)

MILITARY SCIENCE IV

- 154f. Command and Staff Operations.** Comprehensive study of combat operations and logistics as related fields. Principles of command management, staff organization and staff procedures, supervision, and co-ordination by the commander. (4 cr; Leadership Laboratory **)
- 155w. Role of United States in World Affairs.** Analysis of the United States geographical position, economic potential, and military potential, as compared with other world powers. (1 cr; concurrent academic course ††)
- 156s. Army Administration.** Study of military personnel management procedures to include records, classification and assignment, unit fund accounting, and legal and military justice matters. Conduct of a field exercise stressing practical application of material studied in Mil 152-156. Service orientation for the newly commissioned officer. (4 cr; Leadership Laboratory **)

** Leadership laboratory is taught concurrently to all cadets during the fall and spring quarters. This laboratory is designed so that individual students can demonstrate their progressive ability in individual and group drill. Progressive and extensive practice in voice and command, unit formations, exercise of command, bearing, and posture. Assists in identification and development of individual leadership traits, and qualities of character.

†† Includes requirement of satisfactory completion of a concurrent Upper Division course, 3 or more credits, in communications, psychology, science, or political science as approved by PMS. IT students must also have the approval of their departmental adviser for the concurrent course.

NAVAL SCIENCE

(Naval ROTC)

GENERAL INFORMATION

The naval career is one of service and dedication to country, a career of traditional honor and prestige. Few if any professions offer greater opportunities for education and growth, challenging service, travel, inspiring experience, and adventure—near and far, afloat and ashore. A naval officer knows that, as a leader in the Navy service, his duties are vitally important to the security of our country and our people. This knowledge is a source of deep gratification to the aspiring and conscientious officer. In comparing himself to members of other professions, the naval officer rightly concludes that his rewards, both spiritual and material, place him in an enviable position. Not only is he honored with assignments of challenging authority and responsibility, but also he has the utmost satisfaction of being associated with America's finest men—the men of the United States fleets.

The Naval Reserve Officers' Training Corps (NROTC) was first established in 1926 to offer certain college students the necessary naval science courses required to qualify them for commissions in the Naval Reserve. The initial program was highly successful and during the years preceding World War II was expanded to include additional universities and colleges. During World War II, the United States Navy expanded from a manpower force of 100,000 officers and men in 1938 to over 3½ million in 1945. The United States Navy became the world's leading sea power, and the requirement for a larger Regular career officer corps became apparent. The United States Naval Academy was unable to provide the number of career officers necessary to man the new Navy. As a result of thorough study by distinguished naval officers, civilian educators, and members of Congress, the mission of the NROTC was greatly expanded in 1946 to encompass a new program, the Regular Naval Reserve Officers' Training Corps. This program was established to produce well-trained and educated junior officers to supplement the output of the United States Naval Academy. The original NROTC concept of 1926 continued as a Reserve officer procurement program and is referred to as the Contract NROTC. There are now NROTC units at 53 universities.

Students enrolled in the Naval ROTC lead approximately the same life as their civilian contemporaries. In the same manner they make their own arrangements for board and lodging. Likewise, they may pursue any of the University extracurricular activities which do not interfere with their naval science requirements. They may obtain outside employment on the same basis, provided they are able concurrently to meet scholastic requirements. They wear the uniform when attending drills and other ceremonies and while engaged in summer training cruises.

Regular Naval ROTC Students—Regular Commission

For those applicants who seek a career in the Regular Navy or Marine Corps, the Navy offers the Regular midshipman program. The Regular NROTC is under the immediate supervision of the chief of naval personnel of the Navy Department. It is a college program for the training and education of Regular naval officer candidates. Successful applicants are appointed midshipmen, United States Naval Reserve, by the Secretary of the Navy and are granted the compensations and benefits authorized by law for a period not exceeding 4 years. The Navy pays tuition, cost of textbooks, other fees of an instructional nature, plus retainer pay of \$50 per month. During

drill periods and summer cruises, the midshipmen wear government-furnished uniforms. Applications for this program must be submitted prior to mid-November of the year preceding entry into the Regular NROTC program. Instructions for submitting applications are available at the NROTC offices in the Armory.

Contract Naval ROTC Students—Reserve Commission

Contract students are selected for enrollment in the Naval ROTC by the professor of naval science from among those students already in attendance at, or selected for admission by, the University and who plan to complete at least 4 years of academic work. Contract students are civilians who enter into a mutual contract with the Department of the Navy, in which they obligate themselves to take certain naval science courses and drills and one summer training cruise. In return, the Navy provides the required uniforms, gives them a subsistence allowance of about \$27 per month during their junior and senior years, and offers a Reserve commission upon graduation. Officers trained in the Contract program may also become career officers if they apply and are selected for Regular officer status.

Active Duty Requirements

NROTC graduates receive commissions either in the Navy Line, or the Navy Supply Corps, or the Marine Corps. A few are commissioned in the Navy Civil Engineer Corps. Navy Line officers are eligible to assume military command of ships or stations, being in line of command. Naval aviators are Line officers.

Regular NROTC students are currently required to serve 4 years on active duty after commissioning. Contract students are required to serve 3 years on active duty after commissioning.

Naval Science Courses

The NROTC program constitutes a 4-year naval science course which a student schedules in the same manner as any other course in his academic program. Naval science courses are under the supervision of the Department of the Navy and the University, and are taught by naval instructors (Navy and Marine Corps officers). These courses carry full University academic credit as electives and are applicable toward the requirements for a University degree and graduation.

CURRICULUM

The 4-year naval science curriculum leads to 1 of 3 commissions in the naval service:

1. Ensign (Line), USN or USNR
2. Ensign (Supply Corps), USN or USNR
3. Second Lieutenant, USMC or USMCR

All midshipmen study the first- and second-year courses shown below. During the third and fourth years, a midshipman studies the courses of the Line Sequence, the Supply Corps Sequence, or the Marine Corps Sequence, according to the type of commission he desires.

Male students who are not midshipmen of the NROTC unit but who wish to enroll in a naval science course as an elective may have the prerequisites waived upon application to the professor of naval science, 203 Armory Building.

All courses consist of 3 classroom hours and 2 hours of drill/laboratory per week.

DESCRIPTION OF COURSES

LOWER DIVISION COURSES

(All NROTC Students)

1ST YEAR

- 11f. **Naval Orientation.** Naval customs. The organization for national security. Naval leadership. Forms of modern naval warfare. (3 cr)
- 12w-13s. **Sea Power.** Survey of sea power's influence on history from ancient times to present. (3 cr per qtr)

2ND YEAR

- 21f. Naval ROTC students enroll in appropriate psychology course (Psy 1 recommended) in lieu of the naval science lecture course. Students attend 1 hour per week laboratory period with NROTC instructor.
- 22w. **Naval Weapons.** The underlying reasons and circumstances under which the family of naval weapons is developed; the influence of national economic and technological developments on naval warfare; the influence of weapons on national policy and conversely those considerations of national policy that govern and influence the development of weapons; an examination of the family of naval weapons. (3 cr)
- 23s. **Naval Weapons.** Completes the examination of the family of naval weapons, including the application of the scientific principles involved and examines the manner in which specific naval weapons systems contribute toward the accomplishment of major naval missions and control of the seas. (3 cr; prereq 22)

UPPER DIVISION COURSES

I. Line Sequence

3RD YEAR

- 51f. **Naval Operations.** Elements of shipboard operations: relative motion, tactical communications, rules of the nautical road, and naval maneuvering. (3 cr)
- 52w. **Naval Operations: Introduction to Navigation.** Fleet communications and meteorology. Dead reckoning, piloting, and electronic navigation. (3 cr)
- 53s. **Celestial Navigation.** Theory and practical application of navigating using the stars, sun, moon, and planets. (3 cr)

4TH YEAR

- 61f. **Naval Engineering.** Ship stability and shipboard propulsion. Principles and theory of operation of the ship's engineering plant and associated equipment. Effect of propulsion and ship design on naval affairs. (3 cr)
- 62w. **Naval Engineering: Leadership.** Types and theory of internal combustion engines and shipborne nuclear propulsion plants. Principles of naval leadership and management. (3 cr)
- 63s. **Leadership.** Principles of naval leadership and functions of the Uniform Code of Military Justice. Naval administration. (3 cr)

II. Supply Corps Sequence

3RD YEAR

- 57f. **Supply Management I.** Introduction to Navy supply management. Case studies and problems in organization, budgets, and inventory management. (3 cr)
- 58w. **Supply Management II.** Series of problems in financial management and accounting, allowance lists, and the procurement of naval material. (3 cr)

- 59s. **Supply Management III.** Series of problems in management of material in a ship-board supply department, security, inventories, and supply support. (3 cr)

4TH YEAR

- 63s. **Leadership.** (See 4th year of Line Sequence)
- 67f. **Retail Sales.** Ship's store afloat introduction. Organization and operation of ship's stores afloat. Problems and case studies in ship's stores. (3 cr)
- 68w. **Retail Sales: Leadership.** Operation and management of service activities, balance sheets, and operating statements. Problems and case studies in ship's stores afloat. Principles of naval leadership and group management. (3 cr)

III. Marine Corps Sequence

3RD YEAR

- 54f. **Evolution of the Art of War I.** Evolution of warfare from earliest recorded times up to and including the Mexican War. (3 cr)
- 55w. **Evolution of the Art of War II.** Continuation of the evolution of the art of war, to include Civil War campaigns, World Wars I and II, plus a consideration of U. S. military and foreign policy. (3 cr)
- 56s. **Modern Basic Strategy and Tactics.** The theoretical principles behind modern strategy and tactics. (3 cr)

4TH YEAR

- 64f. **Amphibious Warfare I.** Evolution of current amphibious warfare techniques and doctrine commencing with Gallipoli and up to the Korean conflict. (3 cr)
- 65w. **Amphibious Warfare II.** Introduction to doctrinal techniques and present concepts to include planning, embarkation, rehearsal, support, and logistics. (3 cr)
- 66s. **Leadership.** Functioning of the Uniform Code of Military Justice. Service leadership as pertinent to the Marine Corps. (3 cr)

AIR SCIENCE

(Air Force ROTC)

GENERAL INFORMATION

The United States Air Force offers a professional career unequalled in opportunities for travel, education, prestige, and personal growth through the inspiring challenge of the future in the air and beyond. As an Air Force officer, the newly commissioned graduate joins a vanguard of professional airmen at the threshold of space. He is an essential member of the team dedicated to the defense of our nation. No deeper satisfaction can be derived than having been called upon to give and having given the full measure of one's capability in solving the problems and carrying out the missions of the Air Force.

Fully aware that all technological advances are merely an extension of the man, the United States Air Force is committed to the selecting, training, and commissioning of the finest men in the nation through the Air Force Reserve Officers' Training Corps (Air Force ROTC).

The Air Force ROTC is a 4-year elective course open to all regularly enrolled male students who meet physical, moral, age, and citizenship requirements. The course is designed to meet University educational standards and to train the student in military subjects so that he may qualify for a Reserve commission in the United States Air Force.

The student will not specialize in any one military career field, but instead will take subjects aimed at giving a well-rounded curriculum of study which provides a complete background of officer training. Upon graduation he will be given the Air Force specialty classification which corresponds to his university academic major. Every effort is made by the Air Force classification and assignment system to utilize his specialty training.

Fourth-year Air Science cadets in category I (pilot) are required to participate in a flight instruction program in order to determine whether they possess attributes which are desirable for pilot training. This program also affords qualified students the opportunity to attain a private pilot's license in light aircraft at no expense to the cadets.

The Air Force ROTC student is not in the military service and is therefore not subject to the Uniform Code of Military Justice.

Admission

The Air Force ROTC is a department in the University of Minnesota and is a University course. The student enrolls in ROTC at the time of registration in his college as he does for any other University course. Registration is accomplished at the campus Armory.

The following qualifications for enrollment are required. The student must:

1. Be enrolled as a regular student at the University.
2. Be a male citizen of the United States.
3. Be able to complete all requirements for appointment as a Reserve officer in the Air Force prior to reaching age 26 years and 6 months if programmed for flying training, or age 28 years if not programmed for flying training.

Benefits

Air Force ROTC is a 4-year program composed of the Basic course (first 2 years) and the Advanced course (last 2 years) plus a 4-week summer camp at an Air Force base during the summer following the third year.

Students enrolled in the Basic course will receive all textbooks and a uniform free of charge. Students enrolled in the Advanced course will receive all textbooks free of charge and a subsistence allowance of \$27 per month. Each Advanced student also will receive an Air Force officer's blue uniform which becomes his property upon graduation.

During the summer encampment he will receive food, housing, medical care, clothing, transportation, and pay at the rate of \$78 per month.

Credits

The Air Science Basic course consists of 1 hour a week attendance at leadership training classes for each of the 6 quarters. In addition, students attend military classes 2 hours a week in the spring for the first year and in the fall and winter quarters for the second year. With PAS approval, substitute courses in the areas of natural and physical science, language, social science, and the humanities, as designated by the student, are accepted as AFROTC precommission credit courses during fall and winter quarters for the first year and spring quarter for the second year. In order to complete Basic course AFROTC requirements for the fall and winter quarters (first-year Air Science) and spring quarter (second-year Air Science), students must satisfactorily complete both the leadership laboratory and the elected substitute courses. Students desiring to do so may enter the Air Force ROTC initially in first-year Air Science, spring quarter. However, fall quarter and winter quarter of first-year Air Science would have to be completed concurrently with third-year Air Science in the junior year. Under these conditions a student could not be formally enrolled in Advanced course (third-year Air Science) and could not begin drawing subsistence allowances until all Basic course requirements were fulfilled.

Air Force ROTC credits may be substituted for humanities credits in the Institute of Technology; for elective credits in the College of Education, the College of Liberal Arts, and the College of Agriculture, Forestry, and Home Economics. Air Science is accepted as a minor in the College of Liberal Arts.

The Reserve Commission

Each student who successfully completes the Air Force ROTC course and graduates from the University of Minnesota will be eligible for an appointment as second lieutenant in the United States Air Force Reserve. Upon receipt of such appointment the individual will be required, under the Selective Service Act and current Air Force regulations, to serve on active duty with the Air Force—60 months required for those qualified for navigation and pilot training, 48 months for all others unless sooner released. Those serving 4 years are required to remain active in a Reserve component for a period of 2 additional years in the Air Force Reserve on an inactive status, thereby making a 6-year total obligation.

Field of Specialization

There is no specialty training in the Air Force ROTC program. Students get their specialty training in the college academic major. The Air Force supplies the general officer training.

Students are normally assigned an Air Force specialty classification which closely parallels their college major. Upon entrance into active duty, it is the policy to assign newly commissioned personnel to specialty schools for further training.

DESCRIPTION OF COURSES

- 31f. Leadership Laboratory.** Introduction to AFROTC. Military customs and courtesies. Responsibilities of citizenship, past necessity for United States military power, and the United States in world affairs. (No cr; 1 hr per wk)
- 32w. Leadership Laboratory.** Demonstration, performance, and critiquing of group drill including: voice of command, supplementary commands, forming and aligning the squadron, inspection of squadron and group, and manual of the guidon. Extensive practice in organizational positions of squad leader, flight guide, flight sergeant, and guidon bearer. (No cr; 1 hr per wk)
- 33s. Foundations of Aerospace Power.** An introductory examination of the factors of aerospace power, major ideological conflicts and the organization of the armed forces as factors in the preservation of national security. (2 cr)
- 34f. The Air Force as a Profession and Fundamentals of Aerospace Weapon Systems I.** Development and traditions of the military profession, role and attributes of the professional officer in American democracy, and a survey of aerospace missiles and craft and their propulsion and guidance systems. (2 cr)
- 35w. Fundamentals of Aerospace Weapon Systems II.** (Continuation of 34) Introduction to chemical, biological, and nuclear warfare; electronic warfare; target intelligence; defensive, strategic, and tactical operations; problems, mechanics, and military implications of space operations; and a survey of contemporary military thought. (2 cr)
- 36s. Leadership Laboratory.** Exercises in forming the squadron in line column and mass; squadron inspection; elements of parade; exercise of command bearing, voice, and posture in noncommissioned officer positions; squad leader, flight guide, flight sergeant, first sergeant, and guidon bearer. (No cr; 1 hr per wk)
- 131f. The Air Force Staff Officer I.** The function and utilization of the Air Force staff officer: The AF mission, the commander and his staff, military organization and channels, techniques of briefing, creative problem solving—including study of blocks to creative thinking. (3 cr; Δ)
- 132w. The Air Force Staff Officer II.** (Continuation of 131) The function and utilization of the Air Force staff officer: creative problem solving, practical logic, AF staff studies, the nature of military written communications, written and verbal performance exercises—including military briefings, conferences, and staff meetings, co-ordination, decision making, and command. The final 15 class hours are devoted to a survey of military justice: history of Western military justice, military law as a function of command, pre-trial investigations, nonjudicial punishment, courts-martial, and appellate review. (3 cr; prereq Δ)
- 133s. Seminar: Leadership and Management.** The nature and requirement of military leadership: the application of knowledge of the behavioral sciences to problems in leadership and management, the biology of behavior, personality development and complex needs, intense motivation, American attitudes and values. Extensive reading in the area of the behavioral sciences is combined with practice of leadership in the Leadership Laboratory, and review of case studies and problems in human relations. Preparation for attendance at summer camp. (3 cr; prereq Δ)
- 134f. Aerial Navigation and Meteorology.** Navigational and meteorological aspects of air-manship, such as Air Weather Service, the earth and space, circulation and wind patterns, temperature and heat transfer, pressure standards and scales, absolute and relative humidity, air mass weather and course regions, frontal weather, thunderstorm structure, fog formation, icing, world weather, classification of projections, earth's surface and maps, dead reckoning navigation, aircraft instruments, wind triangle,

circular slide rule, radio compass, loran, omnirange, radar navigation, high speed navigation, and civil air regulations. (3 cr; prereq Δ)

135w. Military Aspects of World Political Geography. Geog 143, Political Geography, will be substituted for AS 135. A seminar of 1 hour per week will be given by the Department of Air Science to supplement this course in order to meet over-all objectives. (3 cr; prereq Δ)

136s. International Relations and the Air Force Officer. Major factors underlying international tensions, nations and nationalism, national goals, and imperialism and communism. Attempts to alleviate world tensions—balance of power concepts, League of Nations, United Nations, and regional security organizations. Rise of the two super-powers—United States and U.S.S.R. Introduction to insurgency and counterinsurgency. Also, study of material to help cadet make a rapid effective adjustment to active duty as an officer in the United States Air Force. (3 cr; prereq Δ)