

Army - Navy - Air Force ROTC

# UNIVERSITY OF MINNESOTA

BULLETIN

1995 - 1997



Army - Navy - Air Force

# ROTC

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## Army - Navy - Air Force ROTC

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## **Policies**

**Bulletin Use**—This biennial bulletin, the basic source of information about Reserve Officers Training Corps (ROTC), should be kept handy for repeated reference. Separate bulletins are also published for various University colleges. Most may be obtained by contacting the Office of Admissions, University of Minnesota, 240 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455-0213 (612/625-2008).

The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

This publication is available in alternative formats upon request. Please contact the Office of Admissions, University of Minnesota, 240 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-2008; e-mail: admissions@tc.umn.edu). This bulletin also is available in electronic format on Internet and may be accessed via Gopher.

**Equal Opportunity**—The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by the Americans With Disabilities Act of 1990; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547).

**Access to Student Educational Records**—In accordance with regents' policy on access to student records, information about a student

generally may not be released to a third party without the student's permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information—name, address, electronic (e-mail) address, telephone number, dates of enrollment and enrollment status (full time, part time, not enrolled, withdrawn and date of withdrawal), college and class, major, adviser, academic awards and honors received, and degrees earned—is considered public or directory information. Students may prevent the release of public information only during their terms of enrollment. To do so, they must notify the records office on their campus.

Students have the right to review their educational records. The regents' policy, including a directory of student records, is available for review at 150 Williamson Hall, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

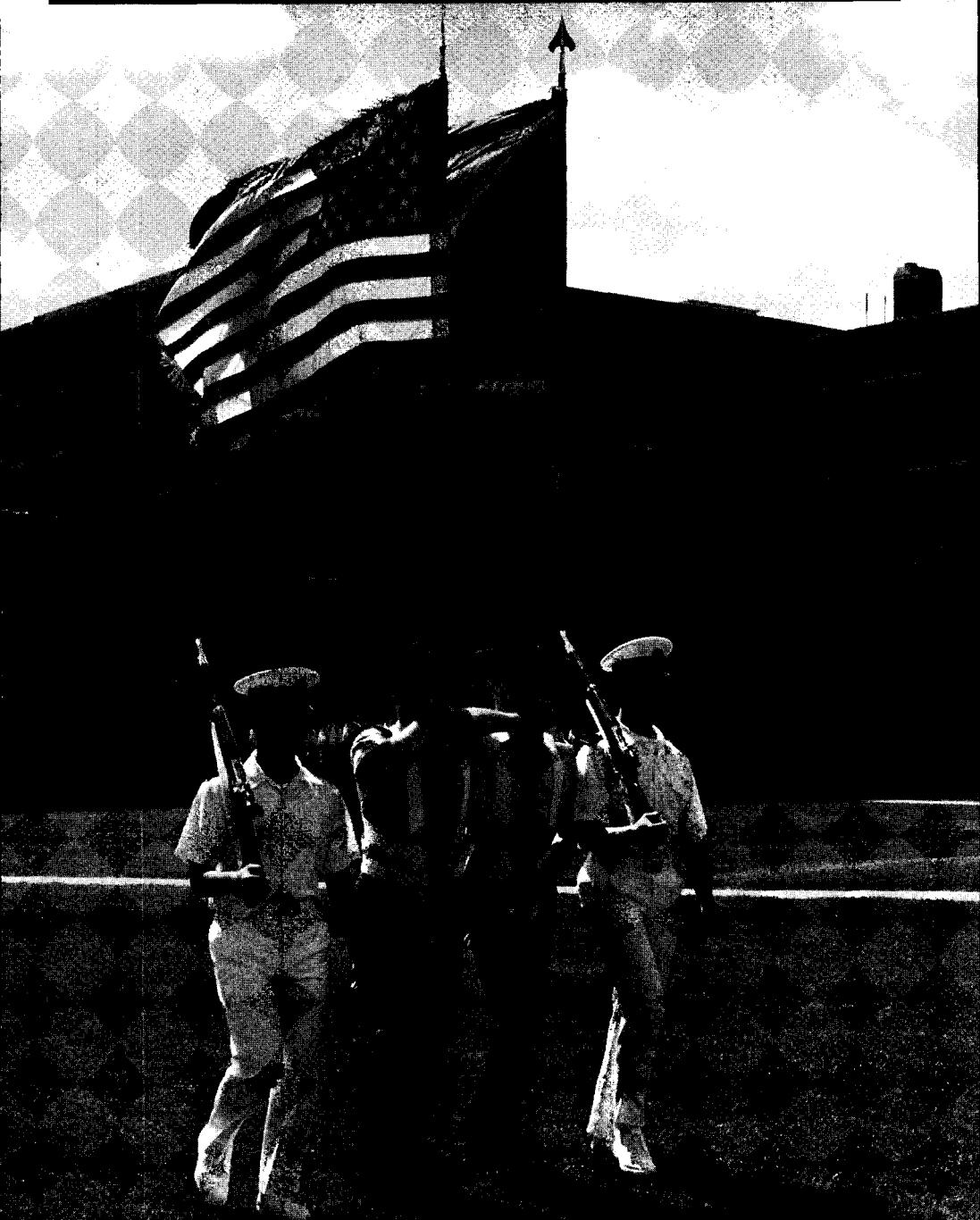
**Immunization**—Students born after 1956 who take more than one University class are required under Minnesota law to submit an Immunization Record form.

The form, which is sent along with the official University admission letter, must be filled out and returned to Boynton Health Service within 45 days of the first term of enrollment in order for students to continue registering for classes at the University. Complete instructions accompany the form.

**Extracurricular Events**—No extracurricular events requiring student participation may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty that any exemption granted pursuant to this policy shall be honored and that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

**Smoke-Free Campus Policy**—Smoking is prohibited in all facilities of the University of Minnesota, Twin Cities campus except for designated private residence hall rooms.

## General Information



## **History and Philosophy**

The Reserve Officers Training Corps (ROTC) has an important role in the national defense framework of our nation. The American tradition of military instruction on civilian college campuses began in 1819 when a former superintendent at West Point established the American Literary, Scientific, and Military Academy, which later became Norwich University. Military instruction soon spread to other institutions—Virginia Military Institute in 1839, the University of Tennessee in 1840, and The Citadel in 1842.

In 1862 the U.S. Congress, foreseeing the dual necessities of creating additional institutions of higher learning as well as providing a means of schooling in the military arts, passed the Morrill Land Grant Act. This act provided money from the sale of government lands to establish colleges and universities and specified that courses in the military arts should be offered at these institutions.

The University of Minnesota opened its doors in 1869 through the benefits made available by the Morrill Act. One of the original nine faculty members was the University's first professor of military science, Major General Richard W. Johnson. For 70 years ROTC training at the University prepared students to enter the Army. In 1939 a Naval ROTC unit was established, and in 1949 an Air Force ROTC program began.

For more than 150 years, ROTC programs on civilian college campuses have provided intelligent, well-educated leaders for the nation's defense. In keeping with the typically American concepts of the citizen-soldier and civilian control of military forces, these programs have produced civilian-oriented military officers from all geographic and social strata whose leadership has been characterized by initiative, ingenuity, and flexibility. And because ROTC officers may return to civilian status when they have fulfilled their military obligation or choose to serve as reserve officers, ROTC programs provide leadership resources not only for national defense but also for civilian enterprise.

## **Programs**

At the University of Minnesota, ROTC programs are offered by the U.S. Army, Navy, and Air Force. ROTC coursework is completed concurrently with degree work so that participants qualify for officer commissions in one of the four military services—Army, Marines, Navy, or Air Force—as they complete requirements for a University degree. ROTC coursework offers students the opportunity to widen their perspective; sharpen their sense of responsibility; develop their ability to organize, motivate, and lead others; and acquire a maturity of judgment that can be a source of strength and self-confidence throughout their careers.

Four-year and two-year programs are available, each offering a different approach toward earning an officer's commission for students who meet selection requirements. Four-year programs consist of a Basic Course and an Advanced Course. The Basic Course is taken during the freshman and sophomore years, and the Advanced Course normally comprises the junior and senior years. Two-year programs consist of only the Advanced Course. Enrollment in an Advanced Course normally obligates students to a service commitment.

## **Curricula**

ROTC courses prepare students for military service as junior officers. Students learn to exercise self-discipline, organize time and effort efficiently, perform effectively under stress, analyze and react quickly and with good judgment, and consistently exhibit exemplary military bearing and appearance. Seniors are placed in positions of command, able to apply the leadership skills they have developed during their preceding years of ROTC training. Following this final year of practical experience, these men and women are well prepared to assume leadership responsibilities as commissioned officers.

The ROTC curricula are administered under the supervision of the University of Minnesota through the Departments of Military Science (Army ROTC), Naval Science (Navy/Marine ROTC), and Aerospace Studies (Air Force ROTC).



Air Force ROTC cadets participate in Leadership Laboratory activities.

## Benefits

ROTC scholarship programs provide up to four years of subsidized education, paying all tuition costs, other instructional fees, and textbook expenses. Additionally, scholarship students receive \$150 per month for a maximum of 40 months. Nonscholarship students in their junior and senior years receive \$150 per month for a maximum of 20 months. While attending summer training, all ROTC students receive approximately \$700, including housing, travel, and subsistence allowances. Students attending summer training to qualify for a two-year program receive the same pay and allowances as ROTC students (see Scholarships).

## Obligations

Students who complete all requirements are commissioned as second lieutenants or ensigns. Upon commissioning, Naval ROTC scholarship students incur a four-year active duty service obligation; nonscholarship students incur a three-year active duty service obligation. Extended commitments to active

duty are required for all pilots (eight years after qualification), naval flight officers (six years after qualification), and Nuclear Propulsion Program officers (five years after commissioning). Air Force pilot and navigator program students incur a commitment of eight and six years, respectively, after completing their training; all other Air Force students incur a four-year commitment. Army students selected for active duty serve for three years; Army scholarship students selected for active duty serve four years. Army students commissioned into the National Guard or Army Reserve serve on active duty for initial schooling and then assume reserve obligations of varying lengths.

## Admission

The three ROTC programs are open to all students. Young men and women are selected on the basis of their own merits. Certain qualifications and eligibility criteria for enrollment and commissioning must be met, however, as set forth in the laws and regulations that govern the programs. Students who do not meet these criteria may enroll in a

course for its educational value but do not receive financial benefits or an officer's commission. Basically, to be eligible for admission to a University of Minnesota ROTC program, applicants must:

- be full-time college students;
- have reached their 17th birthday by June 30 of the year they plan to enroll;
- be of sound physical condition;
- show evidence of moral integrity, satisfactory scholarship and extracurricular activity, and potential officer capabilities; and
- have no moral or personal convictions that will prevent them from conscientiously bearing arms in support and defense of the U.S. Constitution.

**Transfer Students**—Students who have participated in ROTC training at another college or university may request transfer if they were honorably released by the first institution and are accepted by a University of Minnesota ROTC program.

**Advanced Standing**—Students who have participated in ROTC training at another institution may be granted advanced standing for military courses successfully completed.

**Veterans**—Veterans may take advantage of their military service and experience by seeking advanced placement in a ROTC program. G.I. Bill educational benefits and ROTC benefits may be received concurrently. Army students may receive advanced standing for membership in the National Guard or Army Reserve through the Simultaneous Membership Program. After commissioning, veterans can count their prior service for longevity pay and retirement.

**Residence**—Because the University is a state institution, Minnesota residents pay lower tuition than nonresidents and, in many programs, receive priority consideration for admission. To qualify for resident status, students must reside in Minnesota for at least one calendar year before the first day of class attendance. For more information, contact the Resident Classification and Reciprocity Office, 240 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-6330), or the residency office on your campus.

**Reciprocity**—The University has reciprocity agreements with North Dakota, South Dakota, Wisconsin, and Manitoba. If you are a resident of any of these states or this province, you may qualify for reciprocity tuition rates, which are lower than nonresident tuition rates and, in some cases, comparable to resident rates. For more information, contact the Resident Classification and Reciprocity Office, 240 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-6330), or the residency office on your campus.

## Scholarships

Scholarships are available through national or regional selection systems. High school seniors may compete for four-year scholarships.

Completed applications must be submitted no later than November 15 (Army) and December 15 (Air Force and Navy) for enrollment the following fall quarter. College freshmen and sophomores may compete for three- and two-year scholarships.

Students accepted into one of the ROTC nonscholarship programs are normally eligible to compete for the scholarship program after one or two quarters of enrollment. Aptitude for military service and academic performance are major considerations for acceptance.

## Student Activities

Each ROTC department offers a wide range of activities for its students. A variety of local and nationally affiliated organizations offer interested and qualified students the opportunity to participate in activities, both on and off campus, that will develop their leadership and managerial skills. Social events and athletic competitions, scheduled throughout the school year, round out the activities available.

## University Counseling and Consulting Services

University Counseling and Consulting Services (UCCS) offers counseling for academic, career, personal, or relationship concerns. Besides counseling, UCCS features a variety of services. The Career Development Center and the Learning and Academic Skills Center offer

workshops, courses, and materials for career development or academic skills improvement. The Organizational Development Program offers consultation, assessment, team building, conflict mediation, training, and workshops. UCCS's Measurement Services office administers tests; scores exams, surveys, and research instruments for University faculty; and operates the Minnesota Statewide Testing Program for Minnesota elementary and secondary schools. The Testing Center administers admissions, placement, and national tests.

## Other Publications

**Class Schedule**—This quarterly publication lists day school courses complete with hours, rooms, instructors, and prerequisites, as well as registration instructions, examination fees, maps, final exam schedules, grading definitions, and other valuable information.

**Course Guide**—The *Course Guide*, a quarterly publication distributed at the University Bookstores, provides course information in addition to college bulletins and the *Class Schedule*.

## Course Symbols

These symbols are used throughout the course descriptions in this bulletin:

\$ .... Credit will not be granted if credit has been received for the course listed after this symbol.

¶.... Concurrent registration is required (or allowed) in the course listed after this symbol.

# .... Approval of the instructor is required for registration.

Δ .... Approval of the department offering the course is required for registration.

f,w,s,su

..... Following a course number, indicates fall, winter, spring, or summer.

, .... The comma, used in prerequisite listings, means "and."

A prerequisite course listed by number only (e.g., prereq 5246) is in the same department as the course being described.

## University Regents

Thomas R. Reagan, Gilbert, Chair  
H. Bryan Neel III, Rochester, Vice Chair  
Wendell R. Anderson, Wayzata  
Julie A. Bleyhl, Madison  
William E. Hogan II, Minnetonka  
Jean B. Keffeler, Minneapolis  
Hyon T. Kim, St. Anthony  
Warren C. Larson, Bagley  
William R. Peterson, Eagan  
Jessica J. Phillips, Morris  
Stanley D. Sahlstrom, St. Cloud  
Patricia B. Spence, Rice

## University Administrators

Nils Hasselmo, President  
Robert O. Erickson, Senior Vice President for Finance and Operations  
Ettore F. Infante, Senior Vice President for Academic Affairs  
C. Eugene Allen, Provost for Professional Studies  
William R. Brody, Provost for the Academic Health Center  
W. Phillips Shively, Provost for Arts, Sciences, and Engineering  
McKinley Boston, Jr., Vice President for Student Development and Athletics (effective 7/1/95)  
Mark L. Brenner, Acting Vice President for Research and Acting Dean of the Graduate School  
Melvin George, Vice President for Institutional Relations  
Mark B. Rotenberg, General Counsel

## ROTC Administrators

Department of Military Science  
Lieutenant Colonel John W. Oravis, USA  
Professor and Head  
110 Armory (612/624-7300)

Department of Naval Science  
Captain John S. Fitzgerald, USN  
Professor and Head  
203 Armory (612/625-6677)

Department of Aerospace Studies  
Colonel William H. Campbell, USAF  
Professor and Head  
3 Armory (612/624-2884)

*The Armory is at 15 Church Street S.E., Minneapolis, MN 55455.*

## Freshman Liberal Education Requirements

(effective fall 1994 and later for freshmen enrolling with fewer than 39 credits)

A liberal education introduces you to the modes of inquiry and subject matter of the major branches of knowledge, including the factual information and theoretical or artistic constructs that form their foundations; the "ways of knowing"—the kinds of questions asked and how insight, knowledge, and data are acquired and used; the changes over time of their central ideas or expressive forms; and the interrelationships among them and with human society in general. To these ends, study by all undergraduate students on the Twin Cities campus is guided by a common framework.

## The Diversified Core Curriculum

**Physical and Biological Sciences.** Comprehension of physical and biological principles; understanding of and ability to use the methods of scientific inquiry—the ways in which scientists investigate physical and biological phenomena; and appreciation of the importance of science and the value of a scientific perspective.

*Requirement:* A minimum of three courses totaling at least 12 credits, including one course with a laboratory or field experience in the physical sciences and one course with a laboratory or field experience in the biological sciences.

**History and Social Sciences.** Knowledge of how historians and social scientists describe and analyze human experiences and behavior; study of the interrelationships among individuals, institutions, structures, events, and ideas; understanding of the roles individuals play in their historical, cultural, social, economic, and political worlds.

*Requirement:* A minimum of three courses totaling at least 12 credits, including one course with historical perspective.

**Arts and Humanities.** Understanding of approaches to the human condition through works of art, literature, and philosophy; knowledge of how artists create and humanistic scholars think; ability to make aesthetic judgments.

*Requirement:* A minimum of three courses totaling at least 12 credits including courses in two of the following: literature, philosophical perspective, and visual or performing arts.

**Mathematical Thinking.** Acquisition of mathematical modes of thinking; ability to evaluate arguments, detect fallacious reasoning, and evaluate complex reasoning chains; appreciation of the breadth of applications of mathematics and its foundations.

*Requirement:* A minimum of one course totaling at least four credits.

## The Designated Themes of Liberal Education

The designated themes of liberal education offer a dimension to liberal learning that complements the diversified core curriculum. Each of the themes focuses on an issue of compelling importance to the nation and the world, the understanding of which is informed by many disciplines and interdisciplinary fields of knowledge.

*Requirement:* A minimum of six courses (or five courses if one includes an approved practicum), including one course in each of the following:

**Cultural Diversity.** Understanding of the roles gender, ethnicity, and race play in structuring the human experience in and developing the social and cultural fabric of the United States.

**International Perspectives.** Comprehension of the ways in which you are part of a rapidly changing global environment dominated by the internationalization of most human endeavors.

**Environment.** Knowledge of the interaction and interdependence of the biophysical systems of the natural environment and human social and cultural systems.

**Citizenship and Public Ethics.** Reflection on and determination of a clearer sense of your present and future civic relationships and your obligations to the community.

## Writing Skills

The ability to communicate effectively is a hallmark of a liberally educated individual and a key to a successful and satisfying life. To encourage refining of writing skills, the liberal education curriculum includes both writing courses and writing across the curriculum.

*Requirement:* All students will complete the writing requirement specified by the college awarding their baccalaureate degree.

You may satisfy the liberal education requirements with a number of courses and credits different from those of other students because some courses serve multiple goals in the curriculum; e.g., some courses will satisfy a diversified core requirement and a designated theme requirement, and other courses will satisfy the requirements for each of two themes. Thus, you may satisfy the designated theme requirements with a smaller number of courses than is stated in the requirement. Each quarter, the *Class Schedule* will publish the requirements and list all courses that satisfy them. In addition, the *Class Schedule* will list which of these courses are offered that quarter and which are tentatively scheduled for the subsequent quarters during the academic year.

Military Science (Army ROTC)



The Department of Military Science conducts the Army ROTC program to prepare men and women as officer candidates for the Regular Army, National Guard, and Army Reserve. In addition to instruction in military fundamentals common to all branches of the Army, this program develops in students the leadership attributes essential to their future roles as officers. Military science courses are offered in two- and four-year sequences that students complete concurrently with coursework required for earning a University degree. Students register and earn academic credits for Army ROTC courses in the same manner as for other elective courses in the curriculum. An academic minor in military science is available but not required for commissioning as an officer in the U.S. Army.

### Programs

Two programs are available for students to earn their commissions as second lieutenants through Army ROTC.

**Four-Year Program**—The four-year Army ROTC program is divided into two parts, the Basic Course and the Advanced Course. The Basic Course is normally taken during the first two years of college and covers such subjects as customs, traditions, and organizations of the Army; national defense; military history; marksmanship; land navigation; first aid; orienteering; and leadership development. Except for students on scholarship, enrollment in the Basic Course requires no future military obligation by the students. All full-time enrolled students at the University are eligible to enroll in the Basic Course.

After completion of the Basic Course, students who have met the physical and scholastic standards and who have demonstrated the potential to become Army officers are eligible to enroll in the Advanced Course. The Advanced Course is taken during the final two years of college and includes more advanced on-campus instruction and a mandatory six-week Advanced Camp at Fort Lewis, Washington, held the summer between the two years of the course. Full course credit and recommendation for a commission are not granted without camp attendance. Nursing

students attend a special camp. Qualified students also have the opportunity to receive airborne, air assault, and northern warfare training. Enrollment in the Advanced Course requires the student to agree in writing to complete the two years of the course and to accept, if offered, a commission as a second lieutenant.

**Two-Year Program**—The two-year Army ROTC program enables eligible students with acceptable advanced placement credits to bypass the Basic Course and enroll directly into the Advanced Course once they are academic juniors.

The primary method of obtaining advanced placement credits is for students to attend a six-week ROTC Basic Camp at Fort Knox, Kentucky, the summer after their freshman or sophomore years. Veterans and members of the Army National Guard or Army Reserve may use their prior military service to gain advanced placement in the program.

Students who have completed Junior ROTC programs at military schools or high schools are accepted for advanced placement on an individual basis. Students who have ROTC experience at other colleges receive credit for ROTC instruction completed.

Interested individuals must apply in person to the Department of Military Science for advanced placement or participation in the Basic Camp.

Students attending other colleges in the area may also enroll in Army ROTC at the University of Minnesota through Continuing Education and Extension and are eligible for the same programs and scholarships available to University students.

A specially designed program for nursing students is also offered through ROTC to students enrolled in either the four-year or the two-year program.

### Benefits

The department supplies all ROTC texts and uniforms. Students in the Advanced Course also receive a \$150 monthly allowance during those two academic years.

Students attending the Basic or Advanced Camps are paid travel expenses and a salary. All food, housing, and clothing are furnished.

Students who have received their bachelor's degree and have been commissioned through the Army ROTC program may request a delay in reporting for duty in order to continue their education. Normally an additional two years are allowed for graduate study.

## Scholarships

Many Army scholarship programs are available. Students can receive four-year, three-year, or two-year scholarships. Four-year scholarships are offered annually to outstanding high school students selected in national competition. Applications should be submitted between July 1 and November 15 of the applicant's senior year in high school.

All students, whether they are enrolled in Army ROTC or not, are eligible to compete for three- and two-year scholarships after completing their first or second years of college. In addition to the national competition, the professor of military science may award three- and two-year scholarships to students on campus.

For those awarded scholarships, the Army pays tuition, fees, and \$450 for textbook expenses and supplies. In addition, students receive \$150 per month for the duration of the scholarship. Scholarship students selected for active duty incur a four-year active duty obligation after graduation.

Scholarships are also available from the National Guard, Army Reserve, American Legion, Association of United States Army, Reserve Officers Association, Society of American Military Engineers, ROTC Alumni Association, and Veterans of Foreign Wars.

## Commissions and Obligations

Completing the Army ROTC program qualifies graduates for appointments as second lieutenants in the Army, Army Reserve, or Army National Guard. These appointments include an obligation to serve on active duty for a period of three months to four years, depending on Army officer requirements at the time of graduation. Officers commissioned in



Army ROTC students march in the annual tri-service parade.

the Army National Guard or Army Reserve serve for eight years. Nonscholarship and some scholarship students may have a guarantee of reserve forces duty. The branch of service in which students are commissioned will depend on such factors as their interests, their academic majors, their performance at advanced camp, and the needs of the Army.

## **Course Descriptions (Mil)**

### **Leadership Laboratory**

Leadership Laboratory is a series of minicourses, covering military topics, taught to all cadets each quarter. These classes help students develop functional leadership skills in problem solving, decision making, personnel management, and other areas. Progressive and extensive practice in voice command, bearing, and physical fitness is emphasized. (Planned and directed largely by the Cadet Corps; 10 hours required each quarter.)

### **Lower Division**

#### **Military Science I**

##### **Mil 1010. MILITARY SCIENCE I LEADERSHIP LABORATORY. (1 cr per qtr [3 cr max])**

Basic skills and knowledge in drill and ceremonies, first aid, self-defense, land navigation, small-unit operations, communications procedures, and physical conditioning.

##### **Mil 1011f. MILITARY SKILLS I. (2 cr)**

Land navigation and first aid. Hands-on training in rappelling and marksmanship.

##### **Mil 1012w. RIFLE MARKSMANSHIP. (1 cr)**

Small-bore rifle marksmanship techniques. Prone, kneeling, sitting, and standing firing positions. Range safety and equipment care.

#### **Military Science II**

##### **Mil 1220. MILITARY SCIENCE II LEADERSHIP LABORATORY. (1 cr per qtr [3 cr max])**

Leader responsibilities, leadership skills in a small unit, basic military skills, physical conditioning.

##### **Mil 1221w. LEARNING TO LEAD. (2 cr)**

Fundamental leadership traits, principles, and techniques. Assessment and development of leadership skills. Theory and practical application.

##### **Mil 1222s. MILITARY SKILLS II. (2 cr)**

Advanced land navigation and first aid skills. Emphasis on hands-on training. One afternoon field trip to local training area.

### **Directed Studies**

**Mil 3970. DIRECTED STUDIES. (Cr ar; prereq #)**  
Provides flexibility so a student can fit an ROTC course into his/her schedule if it might otherwise prohibit participation in ROTC. Instructor and student determine a mutually convenient time to meet. Course content remains the same as for regularly listed military science course.

### **Upper Division**

#### **Military Science III**

**Mil 3130. MILITARY SCIENCE III LEADERSHIP LABORATORY. (1 cr per qtr, 3 cr max; prereq #)**  
Leadership skills and knowledge for effectively commanding, controlling, and communicating the actions of a small unit and for acquiring requisite military skills in areas such as basic mountaineering, drill and ceremonies, small-unit operations, land navigation, marksmanship, and physical conditioning.

##### **Mil 3131f. LAND NAVIGATION/SMALL-UNIT TACTICS. (3 cr; prereq #)**

Read and interpret military maps; use basic land navigation techniques; develop skills and knowledge required for squad- and platoon-sized tactical operations.

**Mil 3132w. LEADERSHIP ASSESSMENT AND TRAINING: SMALL-UNIT TACTICS. (3 cr; prereq #)**  
Lecture, discussion, and an oral presentation on applying principles of leadership while leading, communicating with, and training subordinates. U.S. Army infantry organizations.

**Mil 3133s. SMALL-UNIT TACTICS. (3 cr; prereq #)**  
Small-unit operations in conventional and unconventional battlefield environments; employment in tactical situations.

#### **Military Science IV**

##### **Mil 3140. MILITARY SCIENCE IV LEADERSHIP LABORATORY. (1 cr per qtr, 3 cr max; prereq #)**

Practical application of skills and knowledge in leading, supervising, instructing, and training others and planning, organizing, coordinating, conducting, and evaluating Army ROTC daily activities and special events.

##### **Mil 3141f. MILITARY MANAGEMENT AND PROFESSIONALISM. (3 cr; prereq #)**

Staff procedures in military organizations; writing skills, training, management, and professional development.

##### **Mil 3142w. LEADERSHIP COMMUNICATIONS AND ETHICS. (3 cr; prereq #)**

Military leadership precepts and practices and communication concepts. Code of military ethics and professionalism.

##### **Mil 3143s. MILITARY LAW. (2 cr; prereq #)**

History and basic concepts of military justice; emphasis on origin, nature, and purpose of Uniform Code of Military Justice and *Manual for Courts-Martial*; relationship between military justice and military discipline; scope and nature of appellate review.

**Naval Science (Navy/Marine ROTC)**



The Naval Reserve Officers Training Corps (NROTC) offers the opportunity for qualified young men and women to earn commissions as Navy or Marine Corps officers as they complete requirements for a University degree. The NROTC program is the largest producer of officers for the Regular Navy.

During their four years of college, NROTC students (midshipmen) complete 28 credits of instruction in naval orientation, naval ship systems, seapower and maritime affairs, nautical navigation, organization, management, and leadership, plus 240 hours of professional training in military drills, ceremonies, courtesies, and honors.

Upon receiving their commissions, graduates move into various career areas. A newly commissioned ensign in the Navy is normally assigned to duty aboard a surface ship, a nuclear-powered submarine, or with an aviation squadron after a period of specialized training in the approved warfare specialty. Newly commissioned Marine Corps second lieutenants can select from several occupational fields, such as infantry, aviation, artillery, and engineering.

## **Student Categories**

Students who study and train with the NROTC unit at the University of Minnesota can be classified into three categories.

**College Program Students**—College program students are enrolled by the Professor of Naval Science. Such students are normally already attending the University or have transferred to the University from other institutions. College program students are issued uniforms and provided naval science textbooks, but they must pay their own tuition and fees. During their junior and senior years (Advanced Course), they are designated as midshipmen in the Naval Reserve and receive \$150 per month for up to 20 months. Upon graduation and commissioning in the Naval or Marine Corps reserve, they serve a minimum active duty obligation of three years. College program students may apply for scholarship status through appointments based on the recommendation of the Professor of Naval Science.

**Scholarship Students**—Scholarship students are appointed through an annual national selection process or through competition with their contemporaries. Once appointed, students are designated as midshipmen in the Naval Reserve and receive tuition, fees, books, and a subsistence allowance of \$150 per month for up to 40 months. Upon graduation and commissioning in the Navy or Marine Corps Reserves, they serve a minimum active duty obligation of four years.

**Naval Science Students**—Naval science students associate with the unit for instruction only, i.e., for courses in navigation or organization and management, registering and paying fees in the same manner as for other academic courses at the University. Such students are not eligible to participate in the summer training programs, be issued uniforms, have access to classified information, or receive any financial benefits. Those who are eligible may qualify for enrollment as NROTC college program students.

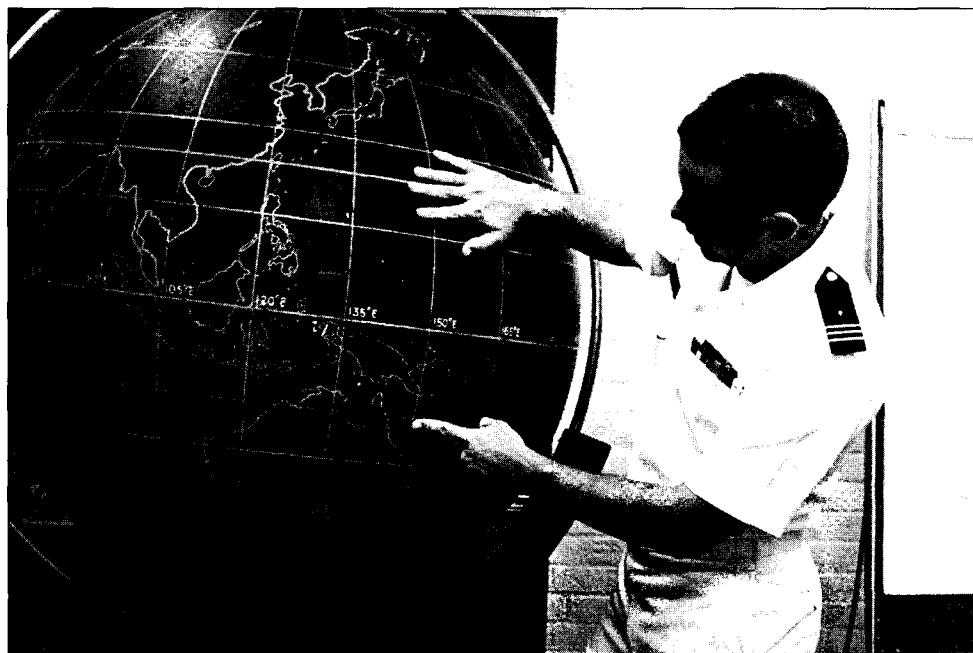
## **Programs**

Four NROTC programs are available that lead to rewarding careers as officers in the Navy or Marine Corps.

**Four-Year College Program**—The Navy/Marine Corps (nonsubsidized) four-year college program is for students who wish to serve their country for a specified period as Reserve officers in the Navy or Marine Corps. Participants are selected from freshmen enrolling at the University.

There are almost no restrictions on undergraduate academic courses students may choose, provided they can be applied to a bachelor's degree. The only requirement is that students successfully complete the required naval science and certain specified University courses before graduation. In addition, students attend a summer training session between their junior and senior years as well as drills during the school year.

After graduation from college and completion of their naval science requirements, students will be commissioned as ensigns in the Naval Reserve or as second lieutenants in the Marine Corps Reserve and serve on active duty for a minimum of three years.



*A midshipman reviews the polar coordinate system for celestial navigation.*

**Four-Year Scholarship Program**—The Navy/Marine Corps four-year scholarship program educates and trains qualified young men and women for service as commissioned officers in the Navy or Marine Corps.

Scholarship recipients are chosen by a national selection board and must be accepted by the University. The application deadline is December 1 for enrollment the following fall quarter. Applicants must successfully complete one year each of calculus and calculus-based physics before their junior year. In addition, they must successfully complete one quarter of the calculus requirement before the end of their freshman year.

Scholarship students are required to complete three summer training periods, for which they receive training pay. After completing naval science requirements and earning a bachelor's degree, students will be transferred to an active duty status and commissioned as officers in the Navy or Marine Corps Reserves, ready to continue and specialize in their chosen military careers and serve on duty for a minimum of four years.

Students already enrolled in the college program may enter the scholarship program

upon nomination by the Professor of Naval Science and selection by the Chief of Naval Education and Training.

**Two-Year College Program**—Students attending or transferring to the University should apply to the two-year college program before March 15 of their sophomore year. Applicants must complete one quarter each of college-level math and science before their junior year. Students selected must attend a six-week course of instruction at the Naval Science Institute (NSI) in Newport, Rhode Island. Any student finishing near the top of the NSI class may be offered a two-year NROTC scholarship. This includes full tuition plus the other scholarship program benefits, and also incurs a four-year active duty obligation.

**Two-Year Scholarship Program**—The two-year scholarship program provides NROTC opportunities to college juniors and seniors. To qualify, applicants must have a 2.50 cumulative GPA and have successfully completed one year of calculus. In addition, they must complete one year of calculus-based physics. Interested students should apply before March 15 of their sophomore year. Selected students must

complete a six-week course of instruction at the Naval Science Institute (NSI) in Newport, Rhode Island. Following NSI, students enroll in the Advanced Course of the NROTC program. Commissioning as an ensign or a second lieutenant follows successful completion of the program and carries an obligation to serve four years of active duty.

**Naval Science Institute (NSI)**—Students selected for either of the two-year programs must attend the Naval Science Institute in Newport, Rhode Island, following their sophomore year of college. These students participate in a six-week course of instruction in naval science and professional training. While at NSI, they receive pay as seaman recruits. Uniforms, room and board are furnished by the Navy. Successful completion of NSI qualifies students for enrollment in the Advanced Course of the NROTC program.

## **Curriculum**

The naval science curriculum covers basic seamanship to fleet operations and provides intensive schooling in the art of being a naval officer. All midshipmen learn about the background and meaning of our national and naval traditions and the importance of professional performance. This awareness, together with the knowledge of and opportunity to practice basic leadership principles, affords them the inner confidence necessary to effectively lead and command others.

Midshipmen take the first- and second-year courses described below. During the third and fourth years, they take Navy or Marine Corps courses. Two-year students complete only the Navy or Marine Corps upper division sequence. In addition to the courses specified, students are required to meet with their NROTC unit for about two hours each week for professional training. During the junior and senior years, these sessions emphasize command and leadership skills. NROTC students are also required to take certain University courses specified by the Navy. Mgmt 3001f—Fundamentals of Management is required during the senior year for Navy midshipmen.

Students register for NROTC courses in the same manner as for other courses in their academic programs. These courses carry academic credit and may be used to fulfill requirements toward a University degree. Students who are not in the NROTC program may enroll in a naval science course as an elective with the instructor's consent.

## **Naval Science (Nav) Course Descriptions**

### **Professional Training**

#### **All NROTC Students— Each Year/Each Quarter**

Nav 0204. PROFESSIONAL TRAINING IN NAVAL SCIENCE. (No cr; prereq enrolled in NROTC; S-N only) Instruction and training in basic military subjects and professional development, including close order drill, military leadership, marksmanship, commands, honors and courtesies, personnel inspections, and other vocational subjects in naval science.

### **Lower Division (Basic Course)**

#### **All NROTC Students—First Year**

Nav 1101f. FUNDAMENTALS OF NAVAL SCIENCE I. (2 cr; A-F only) Naval history and seapower, military organization, customs and traditions, officer and enlisted rank and rating structures.

Nav 1102w. FUNDAMENTALS OF NAVAL SCIENCE II. (2 cr)

Emphasis on the mission, organization, and warfare components of the Navy and Marine Corps. Officer communities, vessel and naval weapons types and characteristics, shipboard duties, seamanship, damage control, and safety. Major challenges facing today's naval officer.

Nav 1103s. SEAPOWER AND MARITIME AFFAIRS. (3 cr, §Hist 5021, §Hist 5022)

Historical influences on the development of the U.S. Navy from the American Revolution to the present. Examination of several critical, contemporary issues in naval/maritime affairs.

#### **All NROTC Students— Second Year**

Nav 3301f. NAVAL ENGINEERING I. (2 cr)

Basic thermodynamics, main steam cycle, conventional fossil fuel propulsion systems, and nuclear power. Internal combustion engine and gas turbine fundamentals.

Nav 3302w. NAVAL ENGINEERING II. (2 cr)

Auxiliary ship support systems. Basic electrical theory and shipboard electrical distribution systems. Ship construction, stability, buoyancy, and compartmentation. Shipboard damage control.

<b>Nav 1203s. SEAMANSHIP AND SHIP OPERATIONS.</b> (3 cr; prereq #) International rules of the nautical road, seamanship, tactical signaling, and maneuvering. Relative motion and ship maneuvering. Application of the maneuvering board in solving motion problems.	<b>Nav 3403s. PRINCIPLES OF NAVAL MANAGEMENT III.</b> (2 cr) Advanced management at the shipboard level; naval correspondence and directives, security, planned maintenance system (PMS).
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## **Upper Division (Advanced Course)**

### **Navy Sequence—Third Year**

#### **Nav 1201f. INLAND AND COASTAL NAVIGATION.** (3 cr)

Piloting, dead reckoning, fixes, running fixes, tides, currents, and anchoring. Rules of the nautical road.

#### **Nav 1202w. CELESTIAL AND ELECTRONIC NAVIGATION.** (4 cr; prereq trigonometry, 1201) Navigation using celestial bodies. Modern electronic navigation systems.

#### **Nav 3303s. SCIENCE AND TECHNOLOGY IN THE DESIGN, CONTRACTION, AND USE OF MODERN WEAPONS SYSTEMS.** (2 cr)

Techniques and methods in fusing scientific principles and current technology to design and construct military weapons and integrated weapons systems. Weapon propulsion, guidance, launching, command, control, and communications. Survey of characteristics of several advanced weapons platforms.

### **Navy Sequence—Fourth Year**

#### **Mgmt 3001f. FUNDAMENTALS OF MANAGEMENT.** (4 cr)

Leadership and management functions required to establish goals, policies, procedures, and plans. Motivation, planning and control systems, concepts of organizational structure and behavior.

#### **Nav 3402w. PRINCIPLES OF NAVAL MANAGEMENT II.** (3 cr)

Management at the shipboard level; formal shipboard organization, divisional organization, and the Uniform Code of Military Justice.

#### **Nav 3403s. PRINCIPLES OF NAVAL MANAGEMENT III.** (2 cr) Advanced management at the shipboard level; naval correspondence and directives, security, planned maintenance system (PMS).

### **Marine Corps Sequence—Third Year**

#### **Nav 3352f. EVOLUTION OF ART OF WAR I.** (2 cr; prereq #)

Principles of war. Evolution of warfare from 3500 B.C. through the French Revolution.

#### **Nav 3353w. EVOLUTION OF ART OF WAR II.** (2 cr; prereq #)

Military technology and theory from the industrial revolution through the armistice preceding World War II.

#### **Nav 3354s. EVOLUTION OF ART OF WAR III.** (2 cr; prereq #)

Warfare from World War II through Operation Desert Storm.

### **Marine Corps Sequence—Fourth Year**

#### **Nav 3452f. AMPHIBIOUS WARFARE I.** (2 cr; prereq #) The origins of amphibious warfare through the Gallipoli campaign.

#### **Nav 3453w. AMPHIBIOUS WARFARE II.** (2 cr; prereq #) Amphibious warfare planning and operations from World War I through World War II.

#### **Nav 3454s. AMPHIBIOUS WARFARE III.** (2 cr; prereq #) Post-World War II amphibious operations; present-day concepts of amphibious operational planning.

Aerospace Studies (Air Force ROTC)



The Air Force ROTC (AFROTC) program enables qualified men and women to work toward commissions as officers in the Air Force while completing requirements for a University degree. Students are commissioned as second lieutenants upon graduation.

The AFROTC curriculum emphasizes development of leadership and communication skills. Students learn ways in which the Air Force supports national policy. Leadership theory and its practical application in directing personnel and programs are emphasized.

AFROTC courses are offered by the Department of Aerospace Studies. Students register for these courses in the same manner as for other University courses.

## **Programs**

AFROTC offers four-, two-, and one-year commissioning programs. Under the four-year program students register for AFROTC courses beginning in their freshman year and complete a four-year academic curriculum that includes a four-week field training encampment between their sophomore and junior years. Students electing the two-year program complete the last two years of the AFROTC program after attending a six-week field training encampment during the summer immediately preceding their last two years at the University. The one-year program is specifically for nursing, law, and electrical engineering students.

The vast scope of the Air Force is difficult to portray in the classroom; Air Force cadets have the opportunity to visit bases for firsthand observation of how the Air Force operates. These trips are frequently made on weekends or scheduled to coincide with school vacation periods. Cadets may be flown by military aircraft to an Air Force base to tour facilities, receive mission briefings, and inspect aircraft and other technical equipment.

## **Scholarship Programs**

AFROTC offers one-, two-, three-, and four-year competitive scholarships to students in selected engineering, science, and other technical majors, as well as to nursing and premedical majors. These scholarships may cover full college tuition and most laboratory,

textbook, and incidental fees, plus a \$150 monthly nontaxable allowance paid directly to the student. Selections are primarily based on overall grade point average (GPA) for selected majors. The Air Force is also currently offering a \$2,000 yearly incentive scholarship to AFROTC juniors and seniors majoring in any field who are not on full scholarship. To apply, students should contact the AFROTC detachment.

Four-year AFROTC scholarships are available on a competitive basis to high school seniors. The application process occurs during the student's senior year. Scholarship recipients are chosen by a national selection committee. The application deadline is in December for enrollment the following fall quarter.

## **Admission**

Entry into the last two years of the AFROTC program is on a competitive basis. Candidates must

- pass the Air Force Officer Qualifying Test (AFOQT)
- pass an Air Force medical examination
- have a 2.00 or higher GPA
- pass a physical fitness test and meet weight standards
- complete field training (a four-week course for the four-year program; a six-week course for the two-year program)

Applicants selected for flight training must be able to complete graduation requirements and be commissioned before reaching 26½ years of age. Other applicants must be able to complete graduation requirements before age 30, although deserving students may obtain a waiver to complete the requirements up to age 35. *Note:* public law currently prohibits AFROTC from giving scholarships to individuals who will be 25 or older before they graduate unless they are veterans.

Admission to AFROTC academic courses is open to all interested students with the approval of the Department of Aerospace Studies.

*Note:* Applicants interested in the two-year program should apply during the fall quarter of their sophomore year.

## **Benefits**

AFROTC offers students a challenging position in the U.S. Air Force immediately after graduation in their choice of career fields. All cadets receive uniforms and AFROTC textbooks free throughout the program. All scholarship recipients and all cadets in their last two years of AFROTC receive \$150 per academic month and may travel on any military aircraft (space-available status). All cadets also have the opportunity for orientation flights aboard Air Force aircraft and visits to Air Force bases.

## **Active Duty Requirements**

Students not programmed for flight training incur a four-year active duty commitment. Those who enter the pilot and navigator programs incur a commitment of eight and six years active duty, respectively, after completing their training.

## **Curriculum**

The first two years of the aerospace studies course, General Military Course (GMC), consists of a one-credit course per quarter. The last two years, Professional Officer Course (POC), consists of a three-credit course per quarter.

In addition to the classroom study, all AFROTC cadets are required to complete 10 hours of Leadership Laboratory each quarter. Students taking the aerospace studies courses for academic credit only and not enrolled in AFROTC are exempt from the Leadership Laboratory requirement.

## **Course Descriptions (Air)**

Any non-AFROTC University of Minnesota student can enroll in any of the academic courses with instructor approval.

### **All AFROTC Cadets— Each Year/Each Quarter**

**Air 0100. LEADERSHIP LABORATORY.** (No cr; S-N only)

Air Force customs and courtesies; drill and ceremonies; issuing military commands; instructing, directing, and evaluating the preceding skills; career opportunities for commissioned officers. Planning and controlling cadet corps military activities; preparing and presenting briefings and other oral and written communications; providing interviews, guidance, and information to increase the understanding, motivation, and performance of other cadets.

### **Lower Division**

**Air 1104f. INTRODUCTION TO THE AIR FORCE.** (1 cr)  
Air Force dress and grooming, customs and courtesies, officer/core values, and officer opportunities/benefits.

**Air 1105w. AIR FORCE INSTALLATIONS/  
COMMUNICATIONS.** (1 cr)

Preparation for communications, interpersonal communication, military history, Air Force organization/chain of command.

**Air 1106s. GROUP LEADERSHIP PROBLEMS.** (1 cr)  
Cadet/officer candidate/officer oral communication and group leadership problems.

**Air 1204f. WRITTEN COMMUNICATION AND AIR  
FORCE HERITAGE.** (1 cr)

**Air 1205w. PRESENTATIONS, QUALITY AIR  
FORCE (QAF), AND LEADERSHIP.** (1 cr)

**Air 1206s. GROUP LEADERSHIP,  
COMMUNICATION, ETHICS, AND VALUES.** (1 cr)

### **Upper Division**

**Air 3301f. AIR FORCE COMMUNICATION AND  
LEADERSHIP.** (3 cr)

Air Force writing and military briefing skills. Leadership theory and applied leadership studies.

**Air 3302w. AIR FORCE MANAGEMENT.** (3 cr)  
Officer as manager. Decision making, organizing, staffing, and controlling. Behavior processes.

**Air 3303s. TOTAL QUALITY MANAGEMENT IN  
THE AIR FORCE.** (3 cr)

Commanding, counseling, officer professional development, establishing standards, ethics in military leadership. Introduction to the Quality Air Force (Total Quality Management).

**Air 3401f. NATIONAL SECURITY POLICY.** (3 cr)  
Communication skills; national security policy, processes, and issues.

**Air 3402w. MILITARY LAW AND SERVICE  
ORIENTATION.** (3 cr)

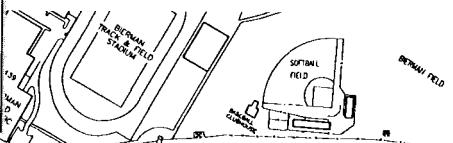
Regional studies, officership, military law.

**Air 3403s. AIR FORCE ROLES/ACTIVE DUTY.** (3 cr)  
Air Force issues, roles, and missions; preparing for active duty.

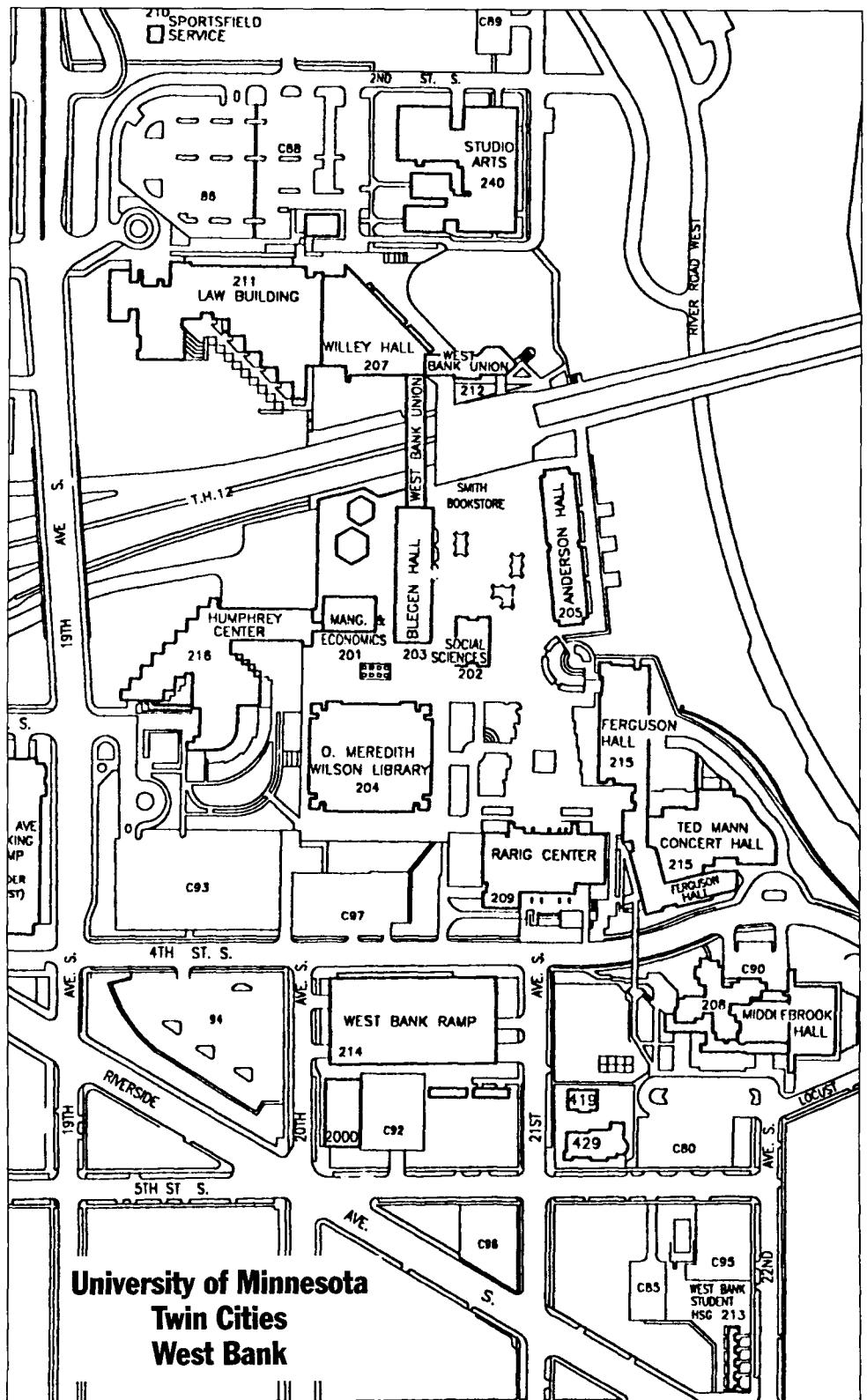
## **Interstate 94 construction**

Interstate 94 will be under construction through fall 1996. For current road information, call the Minnesota Department of Transportation hotline, (612) 582-1539.

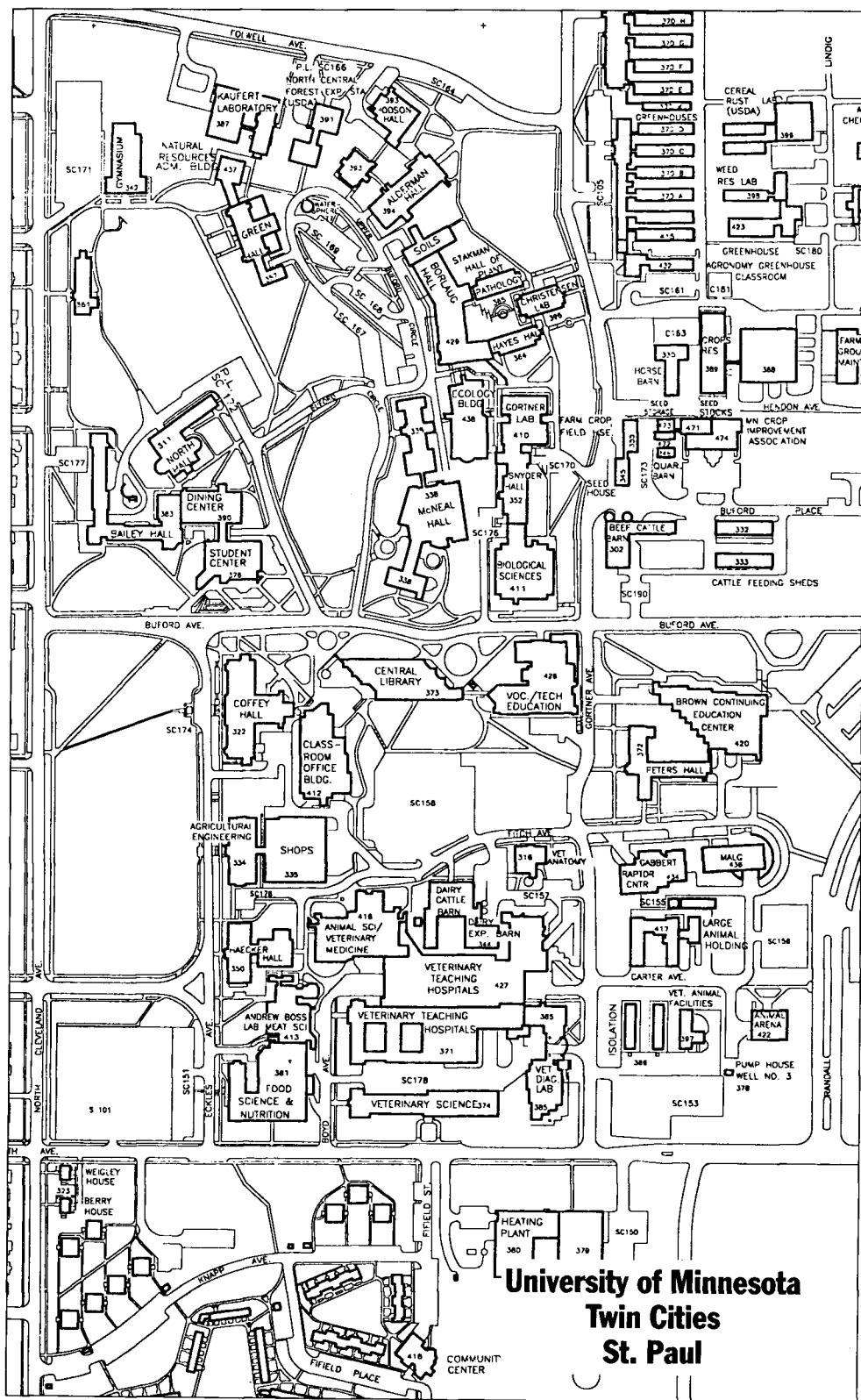
**ROTC Office  
Armory**



**University of Minnesota  
Twin Cities  
East Bank**



# **University of Minnesota Twin Cities West Bank**



**University of Minnesota  
Twin Cities  
St. Paul**

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