

Undergraduate Programs

APPLYING FOR ADMISSION

Admission to Stevens is a process designed to ensure that you have an accurate picture of the opportunities and challenges offered by a Stevens education, and the Admissions Committee has enough information to assess your potential for success. With these goals in mind, several measures are used in making Admissions decisions.

High School Transcript: The most important criterion in our decision to admit you as a freshman is your academic performance in high school. (If you are already studying at the college level and wish to apply for admission to transfer to Stevens, you must have earned at least 30 college credits and submit an official copy of all college transcripts.) We believe that the quality of your recent work is an accurate indication of your preparation for Stevens, thus your high school record should show strong performance in the following areas:

For Engineering (B.E.), as well as Business and the Sciences (B.S.): Four years of English; four years of mathematics — two years of algebra and one year each of geometry and pre-calculus and/or calculus; and at least three years of science — one year each of biology, chemistry and physics. We encourage you to pursue AP Calculus, Computer Science, Economics, English, History, Biology, Chemistry and/or Physics, if possible, depending upon your choice of program.

For Liberal Arts (B.A.): Four years of English; three years of mathematics — two years of algebra and one year of geometry; and three years of science — preferably one year each of biology, chemistry and physics. If you are planning a secondary concentration in one of the sciences, we recommend more extensive preparation than indicated above.

For the Accelerated Pre-Medicine and Pre-Dentistry Programs: Four years of English; four years of mathematics — two years of algebra and one year each of geometry and pre-calculus and/or calculus; and at least three years of science — one year each of biology, chemistry and physics. We encourage you to pursue AP Biology and AP Chemistry, if possible.

For the Accelerated Pre-Law Program: Four years of English; four years of mathematics — two years of algebra and one year each of geometry and pre-calculus and/or calculus; and three years of science — one year each of biology, chemistry and physics. We encourage you to pursue AP English and AP History, if possible.

Please have your guidance/college counselor complete the Secondary School Report (included in your application packet) and submit an official copy of your transcript.

College Entrance Examinations: The College Entrance Examinations are a second and somewhat different test of your abilities. Stevens requires the Scholastic Aptitude Test (SAT I) or the American College Test (ACT). If you are interested in purs-

ing a Bachelor of Science or a Bachelor of Engineering degree, the Admissions Committee encourages you to take three SAT II — English, mathematics level I or level II and a science of your choice.

If you are pursuing the Accelerated Pre-Dentistry program, you must score a minimum of 1300 on the SAT I and take the SAT II in English, mathematics level I or level II, and biology or chemistry. If you are pursuing the Accelerated Pre-Medicine program, you must score a minimum of 1400 on the SAT I in one sitting plus take the SAT II in English, mathematics level I or level II, and biology or chemistry. All accelerated pre-law applicants must take two SAT II — English and a subject of your choice.

We encourage you to begin taking these exams in your junior year of high school. If you are not applying as an Early Decision candidate we recommend that you take all exams by December of your senior year so we can evaluate your scores in a timely manner. Please keep in mind that the Admissions Committee looks at the highest score in each area of the SAT I to compute a total score.

For complete information and registration forms of all tests see your guidance/college counselor or contact the Educational Testing Service (SAT), Princeton, NJ, 08540, www.sat.org or the American College Testing Program (ACT), Iowa City, IA, 52243, www.act.org.

Personal Interview: We require a personal interview of all students applying for undergraduate admission. If you live within 250 miles of our Hoboken campus, interviews are held in the Office of Undergraduate Admissions. Otherwise, we can arrange for you to meet with a Stevens alumnus in your area.

Teacher Evaluations: We require all applicants to submit two teacher evaluations, so we can learn more about your academic and personal qualities, as well as your potential of becoming a successful Stevens student. You will find the appropriate evaluation forms in your application packet and on our web site.

Written Statement: At Stevens, we give you one last opportunity to provide us with information about yourself before the Admissions Committee meets to determine an admissions decision. This may be a talent, fact, experience or thought that you did not include on the application or in your personal interview. Please complete the form in your application packet or visit our web site.

APPLYING FOR ADMISSION

Completing the Application: There are two ways you can complete and submit the Stevens Application for Admission:

- Go directly to www.stevens.edu/admissions to apply electronically. You will also find files for all other forms such as the Secondary School Report and Teacher Evaluations.
- Contact the Office of Undergraduate Admissions for an application packet. Mail the application with your \$45 (\$65 for the accelerated pre-medicine program) fee immediately. Continue to submit the additional information and paperwork required, adhering to the appropriate deadlines.

Deadlines - Applying for Freshman Admission: To be considered for admission to the Class of 2008 please submit your application and additional information required by February 15, 2004. You may submit the Personal Information form with your application fee as soon as you complete your junior year of high school. Once we receive all of the additional information required the Admissions Committee will meet to review your file and make an admissions decision.

Applying Early Decision: If Stevens is your first choice, you may apply for admission as an Early Decision candidate. One advantage of applying Early Decision is that you will receive an admission decision, including notification of an estimated financial aid package if you have applied for it, by December 15, 2003 before January 1, 2004. If you are accepted to Stevens, you must accept our offer by submitting your tuition deposit and also withdraw applications from any other colleges and universities to which you have applied.

To be considered for Early Decision, please indicate this clearly in the space provided on the Personal Information section of the application and submit it with all of the additional information required by November 1.

Applying Early Admission: Under very special circumstances we will accept students who have finished their high school requirements at the end of their junior year. You must adhere to the same requirements and deadlines as those applying for regular admission, meet with the Dean of University Admissions to discuss your candidacy and submit a letter of support from your high school principal or headmaster.

Advanced Placement: Stevens participates in the Advanced Placement (AP) Program of the College Entrance Examination Board. You may receive college credit toward your degree for various examinations. For a detailed list and additional information, refer to the section entitled "Academic Procedures and Requirements" in this catalog. Be sure to list these exams and the scores received on your application.

International Students: Admissions requirements and procedures for international applicants are the same as those for domestic candidates. However, if your first or native language is not English, you are required take the Test of English as a Foreign Language (TOEFL) and earn a score of at least 550 (paper version—213 computer version).

At Stevens, international students are not eligible for financial aid. There are limited merit-based scholarships for which you do not need to apply (all applicants for admissions are automatically considered). Additional sources of money for international students include loan programs and the Stevens Cooperative Education program; information about these programs is listed in this catalog in the section entitled, "Financing the Stevens Education."

The Director of International Admissions, (201) 216-5194, coordinates undergraduate international applications for admission. Once you are on campus, please contact the Office of International Student and Scholar Services in the Wesley J. Howe Center, 5th floor, (201) 216-5189, for assistance.

Transfer Students: Stevens considers transfer students from community colleges and four-year institutions. To earn a degree from Stevens, you must complete 50 percent of your courses at Stevens and at least five courses must be technical electives taken in the junior and senior years.

A minimum grade of "C" is required for undergraduate transfer credit. Courses taken on a pass/fail basis are not acceptable. If a Stevens course includes a laboratory, then you must have also taken a laboratory. A syllabus or course description from the institution's catalog must be sent to ascertain equivalence. Since it is essential that all course prerequisites be met, you should provide complete transcripts with descriptions of the courses and all educational experience as early as possible in the application process. It is also advisable for you to visit with or write to the Office of Undergraduate Admissions, Attn: Transfer Admissions, Stevens Institute of Technology, Hoboken, NJ, 07030, (201) 216-5194. You may be asked to confer with faculty in the departments in which you seek credit for courses taken elsewhere.

The application deadline for transfer admission to Stevens for the fall semester is July 1; November 1 for the spring semester.

Part-time and Evening Study for Non-traditional Students: Stevens does not offer anyone the opportunity to pursue an undergraduate degree by attending part-time and/or solely in the evening. If you want to pursue an undergraduate degree, you can do so on a full-time basis only, and you must register for at least 12 credit hours per semester to be considered a full-time student.

THE CAMPUS VISIT

An important step in selecting a school is visiting it. Not only does the admissions staff want to meet you, we very much want you to see our beautiful and historic 55-acre campus overlooking the Hudson River and exciting New York City. During your visit you have the opportunity to explore our state-of-the-art laboratories, see our residence halls and meet professors and current students. A visit to Stevens also gives you an opportunity to present special circumstances, qualifications or interests that may help us determine your ability to succeed here.

Throughout the year the Office of Undergraduate Admissions offers Information Sessions, Campus Visit Days and Open House events for high school juniors and seniors. These events include an overview of the university, academic programs, applying for admission and filing for financial aid. It also enables you to speak with current students and faculty, and take a tour of campus.

If you live far from campus, there are other options. During the fall, winter and spring seasons, Stevens hosts information sessions in cities across the country. Admissions representatives also travel to a multitude of high schools participating in college fairs. During the summer you may also visit Stevens and make it a part of your family vacation.

Please call the Office of Undergraduate Admissions at (201) 216-5194 to discuss your campus visit plans or visit our web site at www.stevens.edu/admissions for updated information.

Special Approaches to Learning

At Stevens, taking what is learned in the classroom and applying it in a hands-on environment is an integral part of each student's education. Therefore, we offer a variety of opportunities such as cooperative education, internships, research and industry-sponsored projects.

COOPERATIVE EDUCATION

Cooperative Education at Stevens is an exciting opportunity for you to expand upon and apply classroom theory in a professional work environment before you graduate. In addition to the advantages of gaining relevant work experience, co-op earnings can help pay for your college education.

In its simplest terms, "co-op" at Stevens is a five-year academic program in which you alternate semesters of full-time study and full-time professional work related to your major and career goals. The first year is spent at Stevens, completing the academic requirements of freshman year and preparing for the professional world of employment. During the following three years, you alternate semesters of increasingly responsible work in industry and study at Stevens. The fifth (senior) year is then spent at Stevens. Co-op employers range from the giant internationals to small consulting firms. While most jobs are in the New York metropolitan area, Stevens students can, and do, co-op outside the region.

Academic Benefits:

- Through hands-on experience you can feel confident about your chosen field of study very early in your college career.
- Since you apply the fundamentals learned in the classroom to solve problems in industrial or business settings, you strengthen your Stevens education.
- You may have access to state-of-the-art equipment not available on any college campus.

Financial Benefits:

- Over the course of the entire program, co-op earnings can provide a significant portion of your college expenses. Last year salaries ranged from \$12-19 per hour, or \$450-\$750 per week. Thus, over the three-year

<i>Year</i>	<i>Semester</i>	<i>Schedule A*</i>	<i>Schedule B*</i>
1st <i>Year</i>	Fall	Semester 1	Semester 1
	Spring	Semester 2	Semester 2
	Summer		++
2nd <i>Year</i>	Fall	Semester 3	
	Spring		Semester 3
	Summer	Semester 4	
3rd <i>Year</i>	Fall		Semester 4
	Spring	Semester 5	
	Summer		Semester 5
4th <i>Year</i>	Fall	Semester 6	
	Spring		Semester 6
	Summer		
5th <i>Year</i>	Fall	Semester 7	Semester 7
	Spring	Semester 8	Semester 8

■ work term □ class term

□++ open or possible work term

*You will be assigned to Schedule A or B.

work period you can earn up to a total of \$52,000.

- Tuition costs are payable over five years instead of four.
- Upon graduation, you are in an excellent position to be hired quicker and with a higher salary than most students who have no professional work experience.

Professional Benefits:

- Over the course of the entire program, you have the opportunity to work for a maximum of three different companies. In doing so, you can realistically define your career objectives before you graduate.
- You learn how to work with a wide range of personalities and how to become a professional in your field.
- You have the chance to become familiar with a company before accepting a permanent position upon graduation.
- You can develop a network of professional contacts and references that will prove helpful over the course of your entire career.

The Professional Practice Option:

Students who wish to complete their degree in four years have the option of participating in the Professional Practice Program. After the completion of semesters 1–4, you may choose to enter the Professional Practice Program and interview on campus for your first professional assignment while taking semester 5 classes over the summer. You will begin your first assignment in the fall semester and return to the same employer the following summer. Semester 6 courses are taken in the spring. The Professional Practice Program will provide you a meaningful work experience and the opportunity to build an impressive resume through two semesters of assignments. This option is available primarily to Computer, Electrical, and Mechanical Engineering majors. Students from other disciplines can apply after consultation with their academic advisors.

Eligibility:

Co-op is available for full-time undergraduates pursuing a major in one of the sciences, engineering or the liberal arts. You are eligible at the end of your freshman year provided you meet the following requirements:

- complete all freshman year course requirements with a minimum 2.20 GPA;
- regularly attend scheduled Co-op Preparation Meetings; and
- commit to follow a five-year alternative work/study plan.

Due to the unique curriculum of the business program, including the volume of pre-professional experience obtained through a series of required internships, co-op is not an option for these students.

Accreditation:

The Stevens Cooperative Education program is one of only 11 universities to be accredited by the Accreditation Council for Cooperative Education. For more information visit <http://www.co-opaccreditation.org>.

To Apply:

You need to attend the first Co-op Preparation Meeting held during your first semester at Stevens. For more information contact the Office of Cooperative Education, Wesley J. Howe Center, 7th floor, (201) 216-5368, or visit <http://www.stevens.edu/co-op>.

UNDERGRADUATE PROJECTS IN TECHNOLOGY AND MEDICINE (UPTAM)

A unique 10-week summer program of student research, Undergraduate Projects in Technology and Medicine (UPTAM) is designed to stimulate and encourage talented undergraduate students to apply their engineering and scientific training to research problems in medicine, dentistry and the life sciences. Participants are selected on a competitive basis and a limited number of stipends are available.

UPTAM involves Stevens, the University of Medicine and Dentistry of New Jersey, and other area medical facilities. It enables you to apply knowledge of technology to medical research projects often conducted at the laboratories of a participating medical facility. Included among these projects have been:

- Bile acid analysis by mass spectrometry for liver cancer studies;
- Liver cell regeneration, search for mutation, virtual reality techniques, synthetic modification of Taxol, EKG studies using neural networks, countercurrent chromatography and iron metabolism in renal failure; and
- Use of computer graphics for examining the shape of proteins.

UPTAM students have also been involved in designing an oxygen measuring device for newborn infants, a portable artificial respirator, an artificial dialyzer/oxygenator for blood and a lemniscate cardiogram for the diagnosis of heart problems.

As a result of your UPTAM program, you could, as several undergraduates do each year, author or co-author papers and reports with faculty members that may be presented to professional societies or published in professional journals. The stimulus of collaboration with medical researchers and the technical competence gathered through research appears to have aided UPTAM alumni in earning teaching or research assistantships in graduate schools or in entering schools of medicine or dentistry.

PRE-PROFESSIONAL AND ACCELERATED DEGREE PROGRAMS

Stevens provides programs and advising services to students interested in pursuing a career in medicine, dentistry or law.

Pre-Medicine and Pre-Dental

To prepare yourself for medical or dental school, you need an education that includes a strong foundation in the sciences (biology, chemistry, mathematics and physics), highly developed communication skills and a solid background in the social sciences and humanities. In addition, you must show that you have the potential to integrate both the science and the art of healing.

Four-Year Program: Any program at Stevens that includes the following courses satisfies the requirements for admission to accredited U.S. medical schools and dental schools:

- Two years of chemistry with lab (Ch 115, 116, 117, 118, 241, 242)
- One year of general biology and one of advanced biology with lab (Ch 281, 381, 382)
- One year of physics with lab (PEP 111, 112, 221, 222)
- One year of mathematics (Ma 115, 116)
- One year of English, including writing and composition (any Hu 100-level course)

In addition to the above minimum requirements, the courses most often recommended are the following: genetics, biochemistry, immunology, physiology, inorganic and/or physical chemistry and English literature.

You should ask about the requirements of specific schools and prepare your study plans at Stevens accordingly. You should also complete the minimum required courses by the end of your junior year at Stevens so you can take the national exam — the Medical College Admission Test (MCAT) for medical school or the Dental Admission Test (DAT) for dental school — in the spring of your junior year at Stevens. We strongly encourage participation in summer research, such as Undergraduate Projects in Technology and Medicine (UPTAM), community service or hospital service.

Accelerated Three-Year/Seven-Year Programs: The following options leading to combined degrees with a prestigious area medical school or dental school are available through our accelerated three-year programs. Admission to these programs is highly competitive. The requirements are listed in the "Applying for Admission to Stevens" section in this catalog.

The Combined B.S.-M.D. Program gives you the opportunity to earn the B.S. degree in one of the sciences at Stevens and the M.D. degree at the University of Medicine and Dentistry of New Jersey (UMDNJ) - New Jersey Medical School in a total of seven years. If you are a high school senior who has demonstrated academic excellence and a promise for a career in medicine, you can be considered for the B.S.-M.D. program. If accepted to this program, you must complete three years in the Accelerated Chemical Biology program with a GPA of at least 3.40 and obtain acceptable scores on the MCAT exam. Promotion to the medical school is automatic without further application. Stevens awards the B.S. degree upon successful completion of the first year of medical studies.

The Combined B.S.-D.M.D. Program gives you the opportunity to earn the B.S. degree in one of the sciences at Stevens and the D.M.D. degree at the University of Medicine and Dentistry of New Jersey (UMDNJ) - New Jersey Dental School in a total of seven years. If you are a high school senior who has demonstrated academic excellence and a promise for a career in dentistry, you can be considered for the B.S.-D.M.D. program. If accepted to this program, you must complete three years in the Accelerated Chemical Biology program with a GPA of at least 3.40 and obtain acceptable scores on the DAT exam. Your promotion to the dental school in the fourth year of the articulated program is contingent upon satisfying these requirements. Stevens awards the B.S. degree upon successful completion of the first year of dental studies.

Pre-Law

The Stevens humanities curriculum includes a pre-law concentration which prepares you for admission into premier law schools. Our law school advisor helps you choose the courses that suit your talents and interests, as well as prepares you for the Law School Admission Test (LSAT) which you take in your junior year at Stevens.

Undergraduate Programs

The Combined B.A., B.E. or B.S.-J.D. Program gives you the opportunity to earn the B.A., B.E. or B.S. degree at Stevens and the J.D. degree at New York Law School in a total of six years. Stevens awards the B.A., B.E. or B.S. degree upon maintaining a GPA of at least a 3.00 at Stevens and upon successful completion of the first year at New York Law School.

ROTC

Stevens offers Air Force ROTC and Army ROTC through programs at New Jersey Institute of Technology (NJIT) in Newark, NJ, and Seton Hall University in South Orange, NJ.

Air Force ROTC (AFROTC)

Reserve Officer Training Corps (ROTC) is an educational program designed to give men and women the opportunity to become Air Force officers while completing their undergraduate degrees. The Air Force ROTC program is designed to prepare you to assume positions of increasing responsibility and importance in the modern Air Force. Air Force ROTC offers two primary routes to an Air Force commission at over 700 institutions throughout the continental United States, Hawaii and Puerto Rico: The ROTC AF Four-Year Program and the ROTC AF Two-Year Program.

The Four-Year Program: The General Military Course (GMC) is the first half of the Four-Year Program and is generally taken during your freshman and sophomore years. This program allows you to "try out" Air Force ROTC for up to two years without incurring any obligation (unless on an Air Force scholarship). As you attend a one-credit hour class each semester, you'll learn more about the Air Force and the historical development of airpower. The second half, called the Professional Officer Course (POC), is highly competitive. These junior and senior level 3-credit courses cover management and leadership skills, national defense policy and preparation for active duty.

The Two-Year Program: This program, also called the POC, is primarily available to junior college transfer students, sophomores and veterans who have at least two years of college remaining (undergraduate, graduate or combination of the two). It is especially for those who are majoring in selected scientific and technical areas, such as mathematics, physics, meteorology, engineering and computer science. This program is highly competitive, so it is important to apply early in your sophomore year. The leadership, national defense policy and active duty program courses are the same as those offered in the second half of the Four-Year Program.

Aerospace course descriptions include:

AS 100 (1-1.5-1)

A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AS 200 (1-1.5-1)

This course examines general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first bal-

loons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies) and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. The course also examines several fundamental truths associated with war in the third dimension. As a whole, this course provides the students with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal and historical perspective. In addition, the students continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and continue to develop their communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AS 300 (3-1.5-3)

This course is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply the leadership and management principles of this course.

AS 400 (3-1.5-3)

This course examines the national security process, regional students advanced leadership ethics and Air Force doctrine. Special topics focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply the leadership and management principles of this course.

For additional information about the Air Force ROTC program, contact the Department of Aerospace Studies at NJIT, telephone: (973) 596-3626, e-mail: afrotc490@njit.edu.

Army ROTC (AROTC)

Seton Hall has a long tradition of association with the ROTC program. ROTC is a college course in leadership training that is open to all students. ROTC prepares students for success in life by training them to be leaders in their chosen field, whatever that may be. ROTC will not limit your choice in major, your ability to play a sport, join a club, or have a job. Students enrolled in ROTC represent a wide cross-section of the university; the thing they have in common is the desire to excel in college and beyond. ROTC is a college elective that tells future employers that you have real-life experience handling people and solving problems. Enroll for two years with no obligation. Enroll for no cost, when not taken for credit.

For those students who so chose, ROTC can lead to a commission as an officer in the U.S. Army. Army officers are the upper management of the Army. They work in a

wide variety of fields on Army bases around the country and throughout the world. Officers can serve their country full time on active duty or part time as a citizen-soldier in the Army Reserve or National Guard.

The ROTC Program annually awards two-, three- and four-year scholarships on a competitive basis to outstanding young people who are interested in receiving a commission in the United States Army. Scholarships currently provide up to \$17,000 per year for tuition and fees; \$600 as a textbook allowance and a stipend of up to \$400 per month, for up to 10 months each school year. Any citizen, including those who are cross-enrolled at nearby colleges and universities, may apply.

For those considering a nursing career, the Seton Hall ROTC program has been designated as a Program for Nursing Education Center; it works closely with nursing students, enabling many to start their careers successfully as Army nurses. Scholarships for nursing majors are designated annually.

ROTC can be completed in two, three or four years. We work with you to develop the best program to meet your needs. The courses aid students by providing leadership and management experience; developing self-discipline, physical stamina and poise; enhancing development of management skills; and developing qualities basic to success in any career. Depending on the degree program, a maximum of 22 credits in ROTC courses may be applied toward a bachelor's degree.

In keeping with the military's demanding challenges, physical fitness is an extremely important part of the ROTC experience. All cadets participate in supervised physical training designed to gradually bring the individual to a high level of health and fitness.

The advanced course also includes, for qualified cadets seeking a commission, a requirement to attend the five-week National Advanced Leadership Camp (NALC), during the summer between the junior and senior years; the cadet is further trained and evaluated for leadership potential. While at NALC, cadets receive pay, travel and benefits.

Cross-Enrollment: The Department of Military Science offers students attending nearby colleges and universities the opportunity to participate in ROTC through a cross-enrolled program where cadets attending other institutions commute to Seton Hall to participate in ROTC.

Basic courses are as follows:

ROTC 1101/0101 Foundation of Officership (2.0)

Discuss the organization and role of the Army. Introduction to leadership, military customs and traditions. Review the basic life skills pertaining to fitness and communication. Analyze Army values and expected ethical behavior. Corequisite: Leadership Laboratory.

ROTC 1102/0102 Basic Leadership (2.0)

Practice basic skills that underlie effective problem solving and learn briefing techniques and the army writing style. Apply active listening and feedback skills. Examine factors that influence leader and group effectiveness. Examine the officer experience and life in the Army. Corequisite: Leadership Laboratory.

ROTC 2201/0201 Individual Leadership Studies (3.0)

Develop knowledge of self, self-confidence and individual leadership skills. Develop problem solving and critical thinking skills to include goal setting and the deci-

sion-making process. Apply communication, feedback and conflict-resolution skills. Corequisite: Leadership Laboratory.

ROTC 2202/0202 Leadership and Teamwork (3.0)

Focuses on self-development guided by knowledge of self and group processes. Challenges current beliefs, knowledge and skills while focusing on teamwork and group process. Provides equivalent preparation for the ROTC Advance Course as the Leaders Training Course. Corequisite: Leadership Laboratory.

Advanced courses are as follows:

ROTC 3301/0301 Leadership and Problem Solving (3.0)

Examines basic skills that underlie effective problem solving. Analyze the role officers played in the transition of the Army from Vietnam to the 21st century. Review the features and execution of the Leadership Development Program. Analyze military missions and plan military operations for small unit tactics. Corequisite: Leadership Laboratory.

ROTC 3302/0302 Leadership and Ethics

Probes leader's responsibilities that foster an ethical command climate. Develop confidence and leadership competencies. Recognize leader responsibility to accommodate subordinate spiritual needs. Apply principles and techniques of effective written and oral communication. Instruction to National Advanced Leadership Camp (NALC) procedures. Prerequisite: ROTC 3301/0301 Corequisite: Leadership Laboratory.

ROTC 4401/0401 Leadership and Management

Builds on NALC experience to solve organizational and staff problems. Discuss staff organization, functions and processes. Examine principles of subordinate motivation and organizational change. Analyze counseling responsibilities and methods. Apply leadership and problem-solving principles to a complex case study and simulation. Prerequisite: ROTC 3302/0302. Corequisite: Leadership Laboratory.

ROTC 4402/0402 Officership

Capstone course designed to explore topics relevant to second lieutenants entering the Army. Describe legal aspects of decision making and leadership. Analyze Army organization for operations from the tactical to strategic level. Assess administrative and logistics management functions and perform platoon leader actions. Examine leader responsibilities that foster an ethical command climate. Prerequisite: ROTC 4401/0401. Corequisite: Leadership Laboratory.

Advanced Independent Study courses are as follows:

ROTC 5501/0501 Applied Leadership

Independent study of applied leadership through battlefield case studies. Prerequisite: ROTC 4402/0402.

ROTC 5502/0502 Leadership in the 21st Century

Independent study of the demands of leadership in today's Army and the Army of the future. Prerequisite: ROTC 5501/0501.

For additional information about the Army ROTC program, contact the Department of Military Science at Seton Hall University, (973) 763-3078 and (973) 761-9446.

Sponsored Senior Design Program

The Sponsored Senior Design Program provides an opportunity for a team of engineering and/or computer science students to round out their education by completing a two-semester industry-sponsored design project. Typically the sponsoring company proposes one or more potential design projects which are reviewed by a faculty design coordinator.

A suitable project is one that provides value to the sponsor, can be completed in the allotted time and meets the academic requirements of the program. For example, NASA supports the revitalization of aviation transport for small business and personal aircraft with a maximum commute of 800 miles per day; a group of Stevens students designed an aircraft to meet these specifications. Stryker Howmedica Osteonics wants an electronic tracking system to properly align the acetabular implant during hip arthroplasty. Our students met the challenge despite having to eliminate electrical interference from the materials used in the instruments and create a non-reusable subcomponent.

The Stevens Scholars Program

The Stevens Scholars Program offers qualified students the opportunity to focus on several areas of study, and to either participate in undergraduate research or pursue an accelerated program leading to a bachelor's degree in three years or a dual bachelor's/master's degree in four years. As part of the Scholars Program, we offer special honors seminars at the freshman and sophomore levels in chemistry, computer science, mathematics and physics.

In addition to one semester course per semester, Stevens requires Scholars Program students to take H183 through H186, Honors Research Seminars I through IV. Upon completion of the freshman year, you must have a cumulative GPA of 3.20 or better.

As a Stevens Scholar, you have the opportunity to work on a special research project with a Faculty Research Mentor during the summer months. Participation in special research is subject to the availability of suitable projects and the approval of a Faculty Research Mentor. Students working on these projects receive a stipend and, if residence hall rooms are available, free campus housing during each summer project period. If you wish to pursue an accelerated program instead of conducting summer research, you can take up to four tuition-free courses each summer.

Stevens Technical Enrichment Program (STEP)

The Stevens Technical Enrichment Program (STEP) is an umbrella operation whose primary goal is to increase the pool of underrepresented groups within the fields of engineering, science and other technical careers. STEP is comprised of two components: the Bridge Program and the Education Opportunity Fund.

Bridge is a network of interrelated programs, services and activities that promote and support the academic, personal and professional development of its participants who are members of the Stevens undergraduate community. Bridge is committed to working with the "whole" student, and currently offers these services and activities:

mentoring, counseling, tutoring, academic advising, career advising/planning, personal and professional development workshops/seminars, social stress relievers and opportunities for community outreach. Bridge is sub-divided into a summer experience and an academic year program.

Prior to their first year at Stevens, Bridge students attend a rigorous six-week summer residential pre-freshman experience that offers them a simulation of the first semester and the opportunity to begin developing relationships with classmates, faculty and staff. The academic year continues and expands upon the services that are offered during the summer. Stevens' undergraduates who did not participate in the summer program are eligible to join Bridge during the academic year.

The New Jersey Educational Opportunity Fund (EOF) is a state-funded financial aid and support program offered to students who meet the state-mandated financial and education guidelines. EOF students receive a financial award and required specific support services. STEP administers the EOF program and, as such, EOF recipients participate in the programs, services and activities offered by STEP. Prospective EOF freshmen are required to attend the summer pre-freshman experience.

STEP also supports and encourages community outreach efforts and provides guidance and support to the following student run organizations: National Society of Black Engineers (NSBE); Society of Hispanic Professional Engineers (SHPE); Latin American Association (LAA); and the Black Student Union (BSU).

For more information, you may contact the STEP Department, Wesley J. Howe Center, 5th floor, (201) 216-5387.

Study Abroad

Stevens students who have participated in study-abroad programs found that the year or semester abroad enhanced their opportunities for employment and/or professional studies. They also found ample time for sight-seeing and other enriching cultural experiences.

Selected Stevens students may spend their junior year at the University of Dundee in Scotland to take courses comparable to those in the junior year of their Stevens curriculum and receive credit toward the Stevens baccalaureate degree. The University of Dundee is a large, modern university with diverse programs; it has particularly strong programs in civil engineering, manufacturing engineering, electrical engineering and the sciences. The cost of the year abroad at Dundee, including tuition, room and board, is similar to the cost of one year at Stevens. Selection for the University of Dundee program is competitive. To be eligible, you must apply in the spring of your sophomore year, have at least a "B" average and demonstrate personal maturity and a capacity for independent study.

In addition to the University of Dundee Program, other study-abroad opportunities may be available during the sophomore or junior years. Recently, the University of Sydney, Australia, became one of the most popular destinations for Stevens students. Spain, Austria and England are other countries in which Stevens students spend study-abroad terms. Information regarding study-abroad programs and opportunities may be obtained from the Office of the Dean of Undergraduate Academics, Wesley J. Howe Center, 10th floor, (201) 216-5576.

Academic Procedures and Requirements

ACADEMIC STANDING

Academic grades are listed below and quality points per credit are indicated in parentheses:

A	(4.00)	Excellent
A-	(3.67)	
B+	(3.33)	
B	(3.00)	Good
B-	(2.67)	
C+	(2.33)	
C	(2.00)	Fair
C-	(1.67)	
D+	(1.33)	
D	(1.00)	Poor
F	(0.00)	Failure

P (0.00) Indicates a successfully complete Pass/Fail course.

W If you withdraw from a course up until one week before the last class meeting of the semester, "W" is posted.

Exc.If you are excused by a physician from attending physical education classes, you receive an "Exc."

Faculty regulations concerning the abbreviations "Abs." for absent and "Inc." for incomplete are in the *Student Handbook* at http://attila.stevens-tech.edu/student_affairs/handbook/index.html.

Stevens uses the Quality Points System to determine grade point averages (GPA). This means an "A" in a three semester-hour course is worth three times more than an "A" in a one-semester hour course. To determine the number of quality points for any course, the semester hours are multiplied by the value of the letter grade received for the course. To determine the weighted average, the sum of quality points is divided by the sum of quality hours.

Examinations: All students must take a written examination at the end of each term in all major-required core courses. Examinations in all technical, engineering, humanities and management electives are at the option of the specific department(s).

Grade Point Averages (GPA): The Office of the Registrar calculates three different GPAs for each student:

- The semester GPA is determined from all courses taken at Stevens during a semester.
- The graduating GPA is calculated from all courses taken at Stevens that are part of the degree requirement. If a course is repeated, only the last grade is used, even if the last grade is lower than previous grade(s). If the last grade is a withdrawal (W), the previous grade is included. If a course is repeated outside of Stevens, the grade is not included.

- The ranking GPA is calculated from all courses that are part of the degree requirement. In this case, all repeated courses are included and repeated courses taken outside of Stevens are calculated as a "C."

Grade Changes: Grade changes for courses (except for changes from INC) taken in a particular semester are not permitted after the end of the following semester (excluding summers).

Promotion Requirements: To be promoted in good standing, you must have a "C" average (2.00 GPA) for all completed courses designated for degree requirements and a passing grade in each course for degree requirements at the end of the semester.

Graduation Requirements: To be eligible for graduation, you must have a "C" average (2.00 GPA) for eight terms of work and pass all required courses for your curriculum. Each course which is part of an undergraduate degree program must be passed within no more than three attempts. If you receive an "F" in a core course or a concentration elective, you will not be eligible for graduation. You must also maintain at least a 1.75 GPA for all courses taken during the senior year.

ADVANCED PLACEMENT

Stevens participates in the Advanced Placement (AP) program of the College Entrance Examination Board. You may receive college credit toward your degree for the following examinations and corresponding grades.

AP Examination (Grade)	Stevens Equivalent	Credits
Biology (4,5)	Ch 281 and Ch 282	4
Chemistry (4,5)	Ch 107 or 115, 116, 117 and 118	7 or 8
Computer Science A (4,5)	E115	2
Computer Science AB (4,5)	E115	2
Economics - Macroeconomics (4,5)	Mgt 243	3
Economics - Microeconomics (4,5)	Mgt 244	3
English - Language & Composition (4,5)	Humanities course ^a	3
English - Literature & Composition (4,5)	Humanities course ^a	3
Government & Politics - Comparative (4,5)	Humanities course ^b	3
Government & Politics - U.S. (4,5)	Humanities course ^b	3
History - European (4,5)	Humanities course ^b	3
History - U.S. (4,5)	Humanities course ^b	3
Mathematics - Calculus AB (4,5)	Ma 115	3
Mathematics - Calculus BC (4,5)	Ma 115	3
Physics C - Mechanics (4,5)	PEP 101 or PEP 111	3
Physics C - E & M (4,5)	PEP 102 or PEP 112	3
Psychology (4,5)	Humanities elective	3
Statistics (4,5)	E 243 or EM 365	3 or 4

^aYou may receive credit for a spring semester freshman- or sophomore-level humanities course in Group A: Literature/Philosophy as a result of successful AP exam in English.

^bYou may receive credit for a spring semester freshman- or sophomore-level humanities course in Group B: History/Social Science as a result of successful AP exam in government and politics, or history.

COURSE OPTIONS

Course by Examination: This program is an option if you earned a grade point average of 3.0 in the previous semester, have an overall grade point average of 3.0, or are a freshman or transfer student entering Stevens for the first time. This program is

limited to eight courses, one course per semester. Course by examination is not allowed for courses taken previously. The examination is taken prior to the start of a semester and must meet the approval of the Faculty Advisor and the department offering the course.

If you successfully complete the examination, the instructor who administered the examination issues a letter grade. If you do not pass the examination, the unsuccessful attempt is recorded as part of your permanent record and you must enroll in the course.

Course by Application: If a particular course is not offered through the regular schedule, you may take the course by application with the approval of the Dean of Undergraduate Academics and the involved department. Regular enrollment is required and arrangements are made for you to study the material and to be tested during the term. A letter grade is issued at the end of the term.

Extra Courses: If your GPA for the preceding term is 2.8 or if your overall GPA is 2.8 and your Faculty Advisor approves, you may enroll during the following term in one extra course at no additional tuition charge, providing you are enrolled full-time.

Upperclassmen with a GPA of at least 3.2 may take a second extra course without charge if their Advisor approves. Juniors and seniors with a GPA of 3.6 in the preceding term may take a third course at no additional charge provided they show ability to succeed in overload programs and have the approval of their Advisor.

You may use the extra course for elective undergraduate credit; defer it for graduate credit if the course is a graduate offering; or use it as an extra undergraduate course if not used for the degree requirement. These choices are made when you file the application for candidacy during your last semester.

Auditing Courses: To audit a course is to attend classes without receiving credit for the course. You may do this with approval from the Dean of Undergraduate Academics. This course will count as an enrolled course for purposes of computing overload charges, should any be required. In order to change from credit to audit status or audit to credit status in a class, you must file an add/drop form with the Student Service Center before the deadline established by the Registrar.

Pass/Fail: If you are a Dean's List student or have a 3.00 average, you may elect one course per semester under a pass-fail grading system, subject to your Advisor's approval. The course must be an undergraduate course that fulfills the following: a technical elective considered to be outside your area of concentration, or an extra course considered to be beyond the requirements for the undergraduate degree. In either case, the course must be clearly designated on your study plan or application for candidacy as either "extra" or "outside the area of concentration." No graduate course may be taken under the pass-fail grading system regardless of its status. You have until the mid-term date of the semester to designate a course as pass-fail. Freshman physical education students are evaluated on a pass-fail basis. Sophomores, juniors and seniors have the option of pass-fail (or a letter grade) for physical education courses.

Dropping/Withdrawing from Courses: Individual courses may be dropped during the Add/Drop Period in the first two weeks of each semester (one week in summer

sessions) by submitting a Change of Enrollment Form to the Office of the Registrar. When a course is dropped, no record of the student's enrollment in the course remains on the student transcript.

After the Add/Drop Period has passed, students may withdraw from a course up to one week before the last day of classes. When a student withdraws from a course, a grade of W is recorded on the student transcript for that course. The grade of W does not affect the student's graduating GPA. Withdrawing from a course does not jeopardize full-time (at least twelve credits) student status; the total number of credits for which the student is enrolled does not change.

DEAN'S LIST

To be eligible for Dean's List, which is prepared by the Office of the Registrar at the end of each academic term, you must be in good standing, have earned at least 12 credits, have withdrawn from no more than one course and have an overall "B" (3.00) average for the courses completed during the term with no failures.

DEGREES

Stevens awards three baccalaureate degrees: the Bachelor of Engineering (B.E.), the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.).

Degree with Honor and High Honor: The undergraduate Degree with Honor is conferred if you achieve a grade point average of 3.2 for courses taken toward the undergraduate degree. The Degree with High Honor is conferred if you achieve a grade point average of 3.6 for courses taken toward the undergraduate degree.

Degree with Thesis: You may apply for candidacy for Degree with Thesis in either semester of the junior year or in the first semester of the senior year. A candidate for any Degree with Thesis must report the title of the thesis and the name of the professor under direction in writing to the Dean of Undergraduate Academics no later than December 15 of the senior year.

Special Degree Programs: Five special programs are available if you are pursuing a degree in one of the sciences, including computer science, engineering or the liberal arts. If you plan to enter any of the following special degree programs, you should discuss your plans with your Faculty Advisor and the Dean of Undergraduate Academics.

- Simultaneous Degree Program permits you to complete the requirements for your bachelor's and master's degrees in four years, where scheduling permits. You can also complete a B.A. degree in four years along with a B.S. or a B.E. degree.
- Accelerated Degree Program enables completion of all requirements for the bachelor's degree in three years, where scheduling permits.
- Deferred Graduate Credit Program allows you to enroll in extra courses at no extra tuition charge, provided you have maintained an appropriate average. The extra credits may be applied toward the bachelor's or master's degree, but not both, and may not be applied toward make-up courses.
- Double B.E. Degree Program enables you to earn two B.E. degrees, but you must

satisfy all of the requirements in both concentrations; this includes two Senior Design sequences. In addition, you must take at least 24 credits over and above the first B.E. degree.

• Transitional/Reduced Load Program has two options:

1. *Freshman Transition Option* allows freshmen to take one fewer course in each term during the first year to provide them with a smoother transition to college course work load and rigor level. After the successful completion of the year, the students are permitted to take two courses free of charge during the summer, which puts them back on track for four-year completion. Maximum benefit from this option results if chosen as early as possible in the first semester.

2. *Reduced Load Option* allows students to continue with the reduced load after the Freshman Transition Option for the remainder of their academic program and graduate in five years. There is no charge for the fifth year's tuition if the student signs up in the program before the start of the second term of study.

If you wish to sign up for or discuss either option in more detail, contact the Office of Undergraduate Academics at (201) 216-5228.

ENGLISH LANGUAGE PROFICIENCY REQUIREMENT

Since communication skills are essential for today's professional, Stevens Institute of Technology requires that all undergraduates demonstrate writing proficiency before they graduate. Currently, there are three ways in which you can fulfill this graduation requirement:

1. Earn a B- or better in two writing intensive, 100-level Humanities courses and/or have the professors' certification of writing competence.

2. Develop and present an acceptable writing portfolio to the Writing Program Coordinator(s).

3. Pass the Stevens English Competence Exam (SECE).

Written competence is shown with a passing grade for Hum 100 (either an A or a P). You are encouraged to fulfill this requirement within your first two years (60 credit hours) at Stevens. Those students who have not received a grade for Hum 100 by the beginning of their junior year should contact the Writing program Coordinator(s) and arrange for a portfolio evaluation.

Since portfolio evaluations work best with a series of essays developed over time, students should be encouraged to keep writing assignments from their first- and second-year courses. These documents can be used as the foundation for building their complete portfolio during their junior year. A faculty review of the assessment and enhancement of communication skills is underway, which may lead to changes in the manner by which the proficiency requirements described above are met.

ENGLISH LANGUAGE REQUIREMENT FOR INTERNATIONAL STUDENTS

Proficiency in the English language is a graduation requirement, thus all international students must successfully complete humanities studies, which are required each semester of the four undergraduate years. English language competence is also gener-

ally indicated by a score of at least 213 (computer) on the Test of English as a Foreign Language (TOEFL) or a score of at least 5 on all parts of the language examination administered at the American Language Institute of New York University.

Failure to meet an acceptable level of competency may require attendance at non-credit remedial courses during the summer, the academic semesters or during the inter-session period. These classes may be taken at Stevens or at nearby colleges that have specialized English as a Second Language (ESL) classes. Such study may require payments beyond those charged for tuition associated with credit courses at Stevens. In some cases, you may not be allowed to enroll in humanities classes or in other classes at Stevens until you have achieved a satisfactory level of English language ability. You are advised to seek early clarification of these requirements, preferably no later than May 1 if enrollment is planned for the fall semester.

Students with questions in this regard should seek written clarification from the Department of Humanities and Social Sciences.

ONLINE WEB CLASSES FOR UNDERGRADUATES

Undergraduate students may, with junior standing and the permission of their advisor, enroll in up to two online Web courses per semester. These classes are counted as part of the student's regular semester credit load for purposes of computing overload charges, if any apply. Students wishing to take more than two online Web courses require the permission of the Office of the Dean of Undergraduate Academics, and will incur additional charges at the undergraduate per-credit tuition rate for these classes regardless of whether or not they exceed the credit-load limit.

HONOR BOARD

The term "honor," when used in the context of the Stevens Honor System, connotes the desire to see that students do not shortchange themselves or their classmates by receiving credit for work that is not the student's own or for work that is not fairly produced. To this purpose the Honor Board was established in 1908.

The Honor Board is composed of a group of students elected by their classmates. They investigate a situation when a student's honor is questioned and present the evidence to the accused student. This can result in a confession or a presentation of the evidence and its rebuttal by the accused student to the panel of students.

If a student confesses or is found guilty, the Honor Board recommends a penalty to the Dean of Undergraduate Academics. The accused student can appeal the decision of the Honor Board. Appeals are directed to the Faculty Committee on Appeals by submitting a letter to the Dean of Undergraduate Academics up to 14 days after the penalty decision of the Honor Board.

The constitution and by-laws of the Honor Board can be reviewed by visiting their web site at http://attila.stevens-tech.edu/honor_board/.

NON-MATRICULATED STUDENTS

If you want to attend Stevens on a non-matriculated basis, you must have approval by the Dean of Undergraduate Academics. Tuition is charged on a per-credit basis. For details regarding course offerings, visit the Office of the Registrar's web site at www.stevens.edu/registrar.

LEAVE OF ABSENCE

If you are promoted, but wish to voluntarily leave Stevens for personal reasons, you may obtain a Leave of Absence from the Office of Undergraduate Academics, which becomes effective at the end of either the fall or the spring semester. Leave of Absence status provides for unconditional readmission up to the end of one calendar year. At the conclusion of that period of time, if you do not reenter Stevens or do not apply for an additional year's Leave of Absence, the leave is changed to "Withdrawal."

WITHDRAWAL FROM STEVENS

If you wish to withdraw from Stevens you may do so until one week before the last class day of each semester, provided that you properly complete a withdrawal form and file it with the Office of Undergraduate Academics. If you file the withdrawal form after the end of a semester, your academic standing is reviewed by the Faculty Committee on Advanced Standing and Promotions to see if the withdrawal should be recorded.