

**About the Bulletin:**

The information in this publication, which pertains to the Spring 2013 academic semester, is accurate as of November 1, 2012. Circumstances may require that a given course be withdrawn or that alternate offerings be made. Names of instructors for courses and days and times of class sessions are given in the class schedule, available to students at registration, and on the Web at <http://www.stonybrook.edu/solarsystem>. All applicants are reminded that Stony Brook University is subject to the policies promulgated by the Board of Trustees of the State University of New York. Fees and charges are set forth in accordance with such policies and may well change in response to alterations in policy or actions of the legislature during the period covered by this publication.

The official Undergraduate Bulletin is published online and is updated and archived at the beginning of the registration cycle associated with each fall and spring semester. Typically, the fall edition is published in April and the spring edition is published in November. The April edition of the online bulletin shall encompass academic activities related to Summer Session and Fall semester enrollment. The November edition of the online bulletin shall encompass academic activities related to Winter Session and Spring Semester enrollment. See also, policies on leave of absence and when majors change.

Any information in a printed copy of the Undergraduate Bulletin may be superseded by the appropriate online version. Deadlines to propose changes to the Bulletin are set according to the publication dates. Questions regarding the Bulletin should be directed to [ugbulletin@stonybrook.edu](mailto:ugbulletin@stonybrook.edu). In the event that a conflict exists between information in the online Bulletin and other university sources (e.g., other university websites), the information in the online Bulletin supersedes the information from other sources for courses and academic policies.

The University reserves the right to amend the Undergraduate Bulletin at any time and without notice to reflect modifications in policy, law, or regulation. Potential alterations might include, by way of example only, degree requirements, course offerings, fees, and calendar listings.

Federal and State regulations as well as external accreditation regulations supersede information in the Bulletin.

This publication can be made available in alternative format upon request.

The Undergraduate Bulletin is produced by the College of Arts and Sciences:

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**Campus Safety**

The Advisory Committee on Campus Safety will provide upon request all campus crime statistics as reported to the United States Department of Education. Contact University Police at (631) 632-6350. Visit the United States Department of Education Web site for campus data statistics <http://ope.ed.gov/security/index.aspx> and search for Stony Brook.

**Equal Opportunity and Affirmative Action**

Stony Brook University does not discriminate on the basis of race, religion, sex, color, national origin, age, disability, marital status, or status as a disabled or Vietnam-era veteran in its education programs or employment. Also, the State of New York prohibits discrimination on the basis of sexual orientation.

Discrimination is unlawful. If you are a student or an employee of Stony Brook University and you consider yourself to be the victim of illegal discrimination, you may file a grievance in writing with the Affirmative Action Office within 45 calendar days of the alleged discriminatory act. If you choose to file a complaint within the University, you do not lose your right to file with an outside enforcement agency such as the State Division of Human Rights or the Equal Employment Opportunity Commission.

Any questions concerning this policy or allegations of noncompliance should be directed to:

Affirmative Action Officer  
294 Administration Building  
Stony Brook University  
Stony Brook, NY 11794-0251  
(631) 632-6280  
<http://www.stonybrook.edu/diversity>

The Americans with Disabilities Act (ADA), which became effective January 26, 1992, requires that individuals with disabilities be afforded equal opportunity in the areas of public services and programs, employment, transportation, and communications. Prior to this federal legislation, the University had been subject to similar provisions under Sections 503 and 504 of the Rehabilitation Act of 1973. In compliance with the ADA's broader definition of disabilities, the University makes concerted efforts to provide reasonable accommodation and access to services and programs.

For more information contact: Assistant ADA Coordinator

[Disability Support Services](#)

128 Educational Communications Center

Stony Brook University

Stony Brook, NY 11794-2662

(631) 632-6748/9, V/TDD

### **Student Responsibility**

Students are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in official publications, including, by way of example only, this Undergraduate Bulletin, the University Student Conduct Code, the Student Handbook, and class schedules.

### **Student Consumer Information**

The following information is available through the University's Web site at <http://www.stonybrook.edu/registrar/consumers.shtml>: Stony Brook's academic programs, including the University faculty, instructional, laboratory, and physical facilities; student financial assistance; the University Student Conduct Code and the State University of New York's Rules for the Maintenance of Public Order; campus safety policy and crime statistics; the University alcohol and drug policy; Stony Brook's intercollegiate athletic program participation and financial support; and student retention, graduation, and placement rates.

### **Additional Information**

For general information about undergraduate programs, or to obtain an application, please write or phone:

[Office of Undergraduate Admissions](#)

Stony Brook University

Stony Brook, New York 11794-1901

(631) 632-6868

Fax (631) 632-9898

TDD (631) 632-6859

The general University telephone number is (631) 689-6000.

Stony Brook University thanks the following for use of their photography: John Griffin/Stony Brook University Communications, Jeanne Neville/Media Services, David Roberts, Juliana Thomas.

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### **About Stony Brook**

Close to the historic village of Stony Brook at the geographic midpoint of Long Island, the University campus lies about 60 miles east of Manhattan and 60 miles west of Montauk Point, convenient both to New York City's urban vitality and cultural attractions and the tranquil countryside and beautiful seashore of eastern Suffolk County. For more about Stony Brook: <http://www.stonybrook.edu/sb/ataglance.shtml>

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### **Stony Brook Students**

Undergraduates at Stony Brook can choose from 61 majors and 65 minors, offered through the College of Arts and Sciences, the College of Engineering and Applied Sciences, the Health Sciences Center, the School of Marine and Atmospheric Sciences, the School of Journalism, and the College of Business.

All freshmen are affiliated with undergraduate colleges organized under six different themes. Overall, students from more than 100 countries attend Stony Brook. Many students study abroad in approved exchange programs spread around the globe, in countries such as France, India, Italy, Japan, Madagascar, Tanzania, Spain, Germany, England, and Korea.

The University aims for the highest standards in all of its programs. Its record of placing graduates in the nation's best graduate and professional schools shows that these standards are being maintained, and that an educational experience of high quality is available to the broad and diverse student body at Stony Brook.

### Stony Brook Faculty

The vast majority of Stony Brook's faculty members hold doctoral degrees and are engaged in active research leading to publication, much of it supported by external grants and contracts. It was the productivity and high quality of our faculty that helped earn Stony Brook a ranking among the best public universities in the country.

Eminent faculty members include numerous internationally recognized scholars. Many have earned high honors in their fields, such as Einstein and Distinguished Professor Emeritus C.N. Yang, Nobel laureate in Physics; John Milnor, Distinguished Professor, holder of the prestigious Fields Medal, and Director of the Institute for Mathematical Sciences; Gail Mandel, Howard Hughes Medical Institute Investigator; and University Professor John H. Marburger in Physics and Electrical Engineering, former president of Stony Brook University.

**Distinguished Professors** John Fleagle in Anatomical Sciences; James Glimm in Applied Mathematics and Statistics; Donald Kuspit in Art; William Lennarz and Rolf Sternglanz in Biochemistry and Cell Biology; Clint Rubin in Biomedical Engineering; Benjamin Chu and Iwao Ojima in Chemistry; Arie Kaufman in Computer Science; Lorne M. Golub in Dental Medicine; Douglas Futuyma, Jeffrey Levinton, and James Rohlf in Ecology and Evolution; Armen Zemanian in Electrical Engineering; Gregory Belenky and Serge Luryi in Electrical and Computer Engineering; E. Ann Kaplan and Roger Rosenblatt in English; Donald Weidner and John Parisi in Geosciences; Herman Lebovics in History; Mark Aronoff in Linguistics; Robert Aller, Nicholas Fisher, and Cindy Lee in the School of Marine and Atmospheric Sciences; Miriam Rafailovich in Materials Science and Engineering; H. Blaine Lawson Jr., Dusa McDuff, John Milnor, and Dennis Sullivan in Mathematics; Fu-Pen Chiang in Mechanical Engineering; Sami Said in Medicine; Eckard A.F. Wimmer in Molecular Genetics and Microbiology; Gilbert Kalish in Music; Gail Mandel and Lorne Mendell in Neurobiology and Behavior; Israel Kleinberg in Oral Biology and Pathology; Arthur Grollman in Pharmacological Sciences; Edward S. Casey, Richard Howard, and Don Ihde in Philosophy; Gerald E. Brown, Barry McCoy, George Serman, and Peter van Nieuwenhuizen in the C.N. Yang Institute for Theoretical Physics; Barbara Jacak, Janos Kirz, Konstantin K. Likharev, Edward Shuryak, Philip Solomon, and Gene Sprouse in Physics and Astronomy; Mark Schneider and Jeffrey Segal in Political Science; M. Christina Leske in Preventive Medicine; Arthur A. Stone in Psychiatry; Marvin Goldfried and K. Daniel O'Leary in Psychology; and Stephen Cole in Sociology.

**Distinguished Professors Emeriti** Paul Poppers in Anesthesiology; Jacob Bigeleisen and George Stell in Chemistry; Louis W. Ripa Jr. in Children's Dentistry; Theodosios Pavlidis in Computer Science; Robert Sokal in Ecology and Evolution; Louis Simpson in English; Donald Lindsley in Geosciences; Joel Rosenthal in History; Robert Cess in the School of Marine and Atmospheric Sciences; Herbert Herman in Materials Science and Engineering; Charles Rosen in Music; Seymour Cohen and Edward Reich in Pharmacological Sciences; Paul Grannis and C.N. Yang in Physics and Astronomy; William Van der Kloot in Physiology and Biophysics; Milton Lodge in Political Science; Howard Rachlin in Psychology; Morton Meyers in Radiology; and John Gagnon in Sociology.

**Distinguished Teaching Professors** S. Vitkun in Anaesthesiology; William Jungers and Jack Stern in Anatomical Sciences; Alan Tucker in Applied Mathematics and Statistics; Robert Kerber in Chemistry; Fred Ferguson in Children's Dentistry; H. Barry Waldman in General Dentistry; Michael Barnhart in History; Patrick Grim and Helen Rodnite Lemay in Philosophy; Thomas Hemmick and Harold Metcalf in Physics and Astronomy; Frank Myers in Political Science; Norman Goodman in Sociology; and Jonathan F. Levy in Theatre Arts.

**Distinguished Teaching Professors Emeriti** Elof Carlson in Biochemistry and Cell Biology; S. Stanley Alexander in Dental Medicine; Homer Goldberg and Rose Zimbardo in English; Barbara Elling in Germanic and Slavic Languages and Literatures; Judith Tanur in Sociology; Thomas Liao and John Truxal in Technology and Society; and John Truxal in Technology and Society.

**Distinguished Service Professors** David Krause in Anatomical Sciences; David Hanson in Chemistry; Mario Mignone in European Languages and Cultures; Gilbert Hanson and Robert Liebermann in Geosciences; Malcolm Bowman in the School of Marine and Atmospheric Sciences; Marie Gelato in Medicine; Richard Fine in Pediatrics; Vincent Iacono in Periodontics; Peter Paul in Physics and Astronomy; Dorothy Lane in Preventive Medicine; M. Christina Leske in Preventive Medicine; Said Arjomand and Norman Goodman in Sociology; and David Ferguson and Lester Paldy in Technology and Society.

**Distinguished Service Professors Emeriti** Stanley Alexander in Dental Medicine; Velio Marsocci in Electrical Engineering; Robert Cess in the School of Marine and Atmospheric Sciences; J.R. Schubel, former Dean and Director of the Marine Sciences Research Center; Irwin Kra in Mathematics; Barry Collier in Medicine and Pathology; Sidney Gelber in Philosophy; and Eli Seifman, Social Sciences Interdisciplinary and Director Emeritus of the Center for Excellence and Innovation in Education.

### Academic Programs

The broad range and high quality of the programs at Stony Brook offer undergraduates the opportunity to pursue both traditional and innovative courses of study. In their major areas, students delve deeply into one field, guided by nationally distinguished scholars. Major programs build on the Diversified Education Curriculum (D.E.C.), which stresses writing, quantitative literacy, and the serious examination of intellectual and societal issues. There are frequent opportunities for undergraduates to collaborate with faculty in research projects and creative activities.

The following degrees are offered at Stony Brook: Bachelor of Arts, B.A.; Bachelor of Engineering, B.E.; Bachelor of Science, B.S.; Master of Arts, M.A.; Master of Arts in Liberal Studies, M.A./L.S.; Master of Arts in Teaching, M.A.T.; Master of Business Administration in Technology Management, M.B.A.; Master of Fine Arts in Dramaturgy or Studio Art, M.F.A.; Master of Music, M.M.; Master of Philosophy, M.Phil.; Master of Professional Studies, M.P.S.; Master of Science, M.S.; Master of Social Welfare, M.S.W.; Doctor of Dental Surgery, D.D.S.; Doctor of Medicine, M.D.; Doctor of Medicine and Doctor of Philosophy, M.D./Ph.D.; Doctor of Nursing Practice (D.N.P.); Doctor of Philosophy, Ph.D.; Doctor of Musical Arts, D.M.A.; Doctor of Physical Therapy, D.P.T.; M.S.W./J.D.; and Master of Public Health, M.P.H.

As part of the State University of New York, Stony Brook University is accredited by the Middle States Association of Colleges and Schools. Programs of the College of Engineering and Applied Sciences that are accredited by the Engineering Accreditation Commission and the Computing Accreditation Commission of ABET, <http://www.abet.org> are so identified under the individual program descriptions. The Department of Chemistry is accredited by the American Chemical Society.

### The Schools and Colleges

**The College of Arts and Sciences** offers degree programs in fine arts and humanities, in biological and physical sciences, in mathematics, and in social and behavioral sciences. In addition to departmental majors, special interdisciplinary majors using the resources of two or more departments are offered, as well as programs leading to provisional certification in secondary education. The Diversified Education Curriculum ensures that, in addition to concentration in their chosen major, students build a firm base of academic skills while being exposed to diverse cultural traditions. Independent study and research are available and encouraged. Living Learning Centers, where students share living and study space with like-minded peers, offer residence hall environments designed to enhance learning experiences, career development, and informal contact with faculty members through seminars and other activities.

**The College of Engineering and Applied Sciences** offers a wide range of programs that provide students with opportunities to find work in industry or proceed to graduate study in a variety of fields. Seven programs lead to the degree of Bachelor of Engineering: Biomedical Engineering, Chemical and Molecular Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Science, and Mechanical Engineering. Programs of the College of Engineering and Applied Sciences that are accredited by the Engineering Accreditation Commission and the Computing Accreditation Commission of ABET, <http://www.abet.org> are so identified under the individual program descriptions. The engineering degree programs place a strong emphasis on capstone design experience and research projects in the junior and senior years. Students are also encouraged to work closely with members of the faculty on research projects of interest to them. Four programs lead to the Bachelor of Science degree: Applied Mathematics and Statistics, Computer Science, Information Systems, and Technological Systems Management. These programs emphasize applications of analytical and computing techniques to a wide variety of technical and societal problems as well as the design, operation, and management of computer systems and environments. All of the College's programs give the student latitude to plan a course of study within traditional engineering disciplines or in new interdisciplinary fields.

**The College of Business** offers an undergraduate major and minor in business management and a graduate M.B.A. program. Undergraduate majors receive an education in general management with a specialization in one of four business functions: accounting, finance, marketing, management, and operations. The College of Business requires its majors to obtain a second major or minor to complement their business studies and to gain a broader education as a preparation for business leadership.

The M.B.A. degree is offered in several different formats, including a day program for full-time students, a weekend and evening program for part-time students, and a fast track program for undergraduates who want a joint bachelors-M.B.A. degree. These are 60-credit hour programs with the opportunity to specialize in marketing, finance, general management, human resources, information systems, or health care management. Special Executive M.B.A. programs are offered at Stony Brook Manhattan and on companies' premises.

The business graduate program's curriculum and degree requirements and updates to the undergraduate program requirements are described on the College of Business Web site at <http://www.stonybrook.edu/sbbusiness>

**The School of Journalism** offers an undergraduate major and minor in journalism. Undergraduate students in the journalism major enroll in a wide range of courses that provide students with a comprehensive background in broadcast, print, and online journalism. Students have the opportunity to pursue reporting assignments and internships both on Long Island and in New York City. Students in the major are required to earn 18 credits in one of four multi-disciplinary concentrations outside of the journalism major. The journalism minor is designed for students who seek an understanding of the mission of the press and of journalistic principles, and have a desire to improve critical thinking and writing skills.

**Stony Brook Medicine**, the overarching brand for the Stony Brook University medical enterprise, integrates and elevates all Stony Brook's health-related initiatives: education, research and patient care. It includes the five Health Sciences Schools: Dental Medicine, Health Technology and Management, Medicine, Nursing and Social Welfare, as well as the Hospital, our major centers and institutes, programs, clinics and our community-based healthcare settings. Stony Brook Medicine expresses our shared mission of research, clinical care, and education, a mission embraced by our faculty, staff, researchers, and students. Undergraduate and graduate professional degrees are offered and many health sciences courses are open to students from the other academic areas. For information about the Health Sciences programs, please visit <http://www.stonybrookmedicine.edu/healthsciences> or contact the HSC Office of Student Services, Stony Brook University, Stony Brook, NY 11794-8276, (631) 444-2111.

**The School of Marine and Atmospheric Sciences (SoMAS)** is the center for research, graduate, and undergraduate education, and public service in the marine sciences for the State University of New York system. SoMAS is one of the leading coastal oceanography institutions in the world and is also the focus for the study of atmospheric sciences and meteorology at Stony Brook. The School hosts the Institute for Terrestrial and Planetary Atmospheres, the Waste Reduction and Management Institute, the Marine Disease Pathology and Research Consortium, and the Institute for Ocean Conservation Science. The School offers undergraduate degree programs in Marine Sciences, Marine Vertebrate Biology, Environmental Studies, and in Atmospheric and Oceanic Sciences, as well as minors in Marine Sciences and Environmental Studies. Research opportunities and graduate-level courses are also available to outstanding undergraduate students.

### Health Sciences Schools

**Dean, School of Medicine and Senior Vice President of Health Sciences:**

**Dr. Kenneth Kaushansky**

**Dean, School of Health Technology and Management:**

**Craig A. Lehmann**

**Dean, School of Dental Medicine:**

**Ray C. Williams**

**Dean, School of Nursing and Chief Nursing Officer:****Lee Anne Xippolitos****Dean, School of Social Welfare:****Frances L. Brisbane**

This section provides an overview of Stony Brook's Health Sciences Schools and gives hyperlink references to the programs to which West Campus students may apply. Complete information about Health Sciences programs and courses as well as admission and graduation requirements can be found on the Health Sciences website: <http://www.stonybrookmedicine.edu/healthsciences>.

Enrollment in courses is limited to students enrolled in health sciences programs but some courses are open to West Campus students. The list of open courses is available at the beginning of each enrollment period. Students may also consult the Course Descriptions section in this Bulletin.

**Overview**

Stony Brook Medicine, the overarching brand for the Stony Brook University medical enterprise, integrates and elevates all Stony Brook's health-related initiatives: education, research and patient care. It includes the five Health Sciences Schools: Dental Medicine, Health Technology and Management, Medicine, Nursing and Social Welfare, as well as the Hospital, our major centers and institutes, programs, clinics and our community-based healthcare settings.

Stony Brook Medicine expresses our shared mission of research, clinical care, and education; a mission embraced by our faculty, staff, researchers, and students. It is the embodiment of everything we do on behalf of the health of patients, not only here in our community, but also in the region and worldwide. The Health Sciences Schools enroll over 3,000 students. View the Stony Brook Medicine website at <http://www.stonybrookmedicine.edu/healthsciences>.

**Program Offerings**

Current offerings include both undergraduate and post-baccalaureate programs. The Health Sciences Schools offer the following programs and degrees: (for information on undergraduate Health Sciences programs available to West Campus students, click on hyperlinks below. For expanded information on all undergraduate and graduate Health Science programs, visit <http://www.stonybrookmedicine.edu/healthsciences>.)

**School of Health Technology and Management**

- B.S. Athletic Training
- B.S. Clinical Laboratory Sciences
- B.S. Health Science
- B.S. Respiratory Care
- B.S. Health Science/M.S. Occupational Therapy multi-award degree
- M.S. Health Care Policy and Management
- Advanced Certificate in Health Care Management
- M.S. Physician Assistant(entry-level or post-professional)
- D.P.T. Doctor of Physical Therapy (entry-level or post-professional)

The School of Health Technology and Management offers a general Bachelor of Science degree in Health Science with areas of concentration. Students may declare an interest in the major at any time and, upon completion of certain requirements, may advance to the senior year courses in the major.

Undergraduate students enter other programs at the junior level, although the School of Health Technology and Management also offers students interested in clinical laboratory sciences or respiratory care the opportunity to begin their studies in their freshman year. Freshman applicants who have been admitted to the University and who have accepted the offer of admission may be eligible to declare the four-year, lower-division major in Respiratory Care or Clinical Laboratory Sciences, after an interview with the program director.

**School of Nursing**

- B.S., B.S./M.S., M.S. Nursing
- Post Master's Nursing Certificates
- D.N.P. Doctor of Nursing Practice

**School of Social Welfare**

- B.S., M.S.W., Ph.D. Social Work
- M.S.W./J.D. (Touro Law Center)

**School of Dental Medicine**

- D.D.S. Doctor of Dental Surgery
- M.S., Ph.D. Oral Biology and Pathology
- Post-Doctoral Certificates in Endodontics, Orthodontics, and Periodontics

**School of Medicine**

- M.D. Doctor of Medicine
- M.D./Ph.D., M.S., Ph.D. Basic Sciences
- M.P.H. Master of Public Health

### Combined Undergraduate Programs

- Applied Mathematics & Statistics, BS/Public Health, MPH
- Pharmacology, BS/Public Health, MPH
- Women's Studies, BA/Public Health, MPH
- Earth and Space Sciences, BA/ Public Health, MPH

### Undergraduate Eligibility

All Health Sciences undergraduate programs begin in the junior year except for two programs, the Accelerated 12 Month Bachelor of Science program in the School of Nursing and the senior-year B.S. Health Science in the School of Health Technology and Management.

Students who have 57 university credits, including specific courses, are eligible to apply for admission to the individual programs offered by the Schools of Health Technology and Management, Social Welfare, and Nursing. In addition to the academic courses, HSC programs have additional admissions requirements such as minimum g.p.a. and related health care experience. Programs have different prerequisites and students are advised to consult with appropriate academic advisors.

Students interested in the School of Nursing's Accelerated Bachelor of Science program must have a B.S. or B.A. degree in a non-nursing major as well as specific course prerequisites. Students in the Health Science major are considered for advancement to the HSC senior year curriculum after completion of 91 university credits, including specific courses and program prerequisites. Students in the lower-division Clinical Laboratory Sciences and Respiratory Care majors are advanced to the upper-division program after successful completion of 57 credits and program prerequisites.

Most undergraduate programs are full-time. Part-time studies are offered by the Registered Nurse Baccalaureate program in the School of Nursing.

### Admissions Procedures

Admission to Health Sciences programs is highly selective since enrollment for each program is limited. Programs require a formal application except for the Health Science major in the School of Health Technology and Management. Students can declare as a four year lower division major beginning in freshman year: Clinical Laboratory Sciences and Respiratory Care. Students in these two programs are advanced to the upper-division level after successful completion of program prerequisites.

Applications are available online at [http://www.stonybrook.edu/hscstudents/apply\\_now.shtml](http://www.stonybrook.edu/hscstudents/apply_now.shtml) and should be obtained in the fall preceding the year of anticipated admission. Applications are accepted from both Stony Brook students and from students transferring to Stony Brook from other educational institutions. Stony Brook undergraduate students are not automatically admitted to Health Sciences programs.

Admissions are conducted for the spring, summer, or fall, depending on the starting date of the program. Each School in the Health Sciences is responsible for determining its own admissions policy and for selecting its own students. Admissions decisions are made by committees in each of the programs. Application processing and records are administered by the HSC Office of Student Services.

### Pre-Application Advising

Before applying for admission to the health professions programs, West Campus students can receive advising about course sequences and requirements in the Academic and Transfer Advising Services Center. In addition, programs in the Health Sciences programs hold informational meetings during the academic year at which advisors present overviews of the programs, explain admissions procedures, and advise students individually. The HSC Office of Student Services provides general information regarding all Health Sciences programs.

### Health Sciences Academic Calendars

Health Sciences courses may consist of one term (semester) or one or more session codes (module) as determined by the faculty of each school. Terms are the traditional academic periods from September to December (fall) and January to May (spring). Session codes are academic periods of approximately five weeks in length. When combined, session codes can become a fall term of September to December or a spring term of January to May or June. Health Sciences programs offer courses using both the term and session codes.

Term and session dates, including the beginning and ending dates, add/drop periods, and the session codes required for course registration are listed in the Health Sciences Bulletin and in the Health Sciences academic calendar published by the HSC Office of Student Services. [http://www.stonybrook.edu/hscstudents/academic\\_calendar.shtml](http://www.stonybrook.edu/hscstudents/academic_calendar.shtml)

### Graduate Health Professions Offerings

Stony Brook's Health Sciences Schools offer the following graduate programs: the School of Medicine's M.D. and M.D./Ph.D. programs; the Dental School's D.D.S. program; the School of Health Technology and Management's Physician Assistant program (M.S.), Health Care Policy and Management program (M.S.), Occupational Therapy (B.S./M.S.), and Doctor of Physical Therapy (D.P.T.) programs. The School of Social Welfare offers the M.S.W., dual M.S.W./J.D. (Touro Law Center), and Ph.D. programs. The School of Nursing offers Master's degree programs and the Doctor of Nursing Practice (D.N.P.). The Graduate Program in Public Health M.P.H. is also offered. Ph.D. programs are offered in

anatomical sciences, molecular genetics and microbiology, molecular and cellular pharmacology, physiology and biophysics, and oral biology and pathology. For information about these programs, please visit <http://www.stonybrookmedicine.edu/healthsciences>.

Undergraduate students interested in the graduate health professions programs are strongly encouraged to visit the Academic and Pre-Professional Advising Center for information on programs and admissions requirements. Careful academic planning is needed to have the necessary credentials at the time of application.

Admissions requirements for medicine and dental medicine at Stony Brook as well as at other universities generally require completion of the following courses prior to application:

1. One year of biology with laboratory
2. One year of general chemistry with laboratory
3. One year of organic chemistry with laboratory
4. One year of physics with laboratory
5. One year of English
6. Calculus and Biochemistry are recommended courses (Calculus is required for Stony Brook's School of Dental Medicine)

### **School of Dental Medicine**

Although its program is primarily for post-baccalaureate students, the School of Dental Medicine also offers research opportunities for elective credit to undergraduate students enrolled in courses of study in all departments of the University. To register for these courses, West Campus students should have earned a minimum of 57 University credits, but under appropriate circumstances individuals may be admitted with less than the desirable amount of credit. Permission of the instructor is required for all courses. Opportunities include but are not limited to student research placement and a pre-dental summer research fellowship. Students receive training in various research techniques and can attend our Dean's Lecture Series, consisting of seminars by nationally renowned speakers in dental and craniofacial research.

### **Scholars for Dental Medicine**

Stony Brook University offers an integrated eight-year program for students interested in attending dental school following their undergraduate degree. The Scholars for Dental Medicine program (SFDMM) offers selected students in the Honors College an opportunity to complete a combined Bachelor's/DDS course of study while participating in pre-dental school classes and activities. Students accepted into the program are reserved a seat in Stony Brook University's [School of Dental Medicine](#) upon graduation provided they complete all applicable program requirements. Note: Students may apply for only one of the following: Scholars for Medicine, Engineering Scholars for Medicine, or Scholars for Dental Medicine.

### **School of Medicine**

Although its program is primarily for post-baccalaureate students, the School of Medicine offers research opportunities to undergraduate students enrolled in the University. Further information is available from the Academic and Pre-Professional Advising Center.

### **Scholars for Medicine**

Scholars for Medicine earn a Bachelor's/M.D. degree with four years of undergraduate course work and four years of medical school. All Scholars for Medicine are individually counseled on their careers throughout their participation in the program. Benefits include scholarship opportunities, help in finding laboratory placements for undergraduate research, regular advising from the Directors of the Honors College, WISE Program, Engineering Program, and the premedical advisor, opportunities to meet faculty in the School of Medicine, and support and encouragement in the exploration of undergraduate and career opportunities.

Scholars for Medicine positions are available to select entering freshmen who have been accepted to either the Honors College, WISE Program, or Engineering Program. Eligibility criteria are: nomination of high school seniors by the Honors College; 1350 or above on the SATs; maturity; evidence of social commitment; evidence of interest in science; high moral character; breadth of interests; and strong communication skills.

All acceptances to the Scholars for Medicine Program are conditional. Of critical importance is an ongoing assessment of the candidate's maturity, academic ability, and motivation and readiness to pursue a medical education. Scholars must continue to present exemplary academic accomplishments and those personal characteristics that exemplify a Scholar for Medicine. Students must maintain a minimum specified g.p.a. during the first three undergraduate years. All scholars are required to take the MCAT no later than fall of their senior year in college. Students must attain a specified MCAT score.

Scholars for Medicine students accepted into the combined program before matriculating at Stony Brook will have a place reserved in the Stony Brook Medical School contingent upon the above criteria. Final acceptance is dependent upon the ongoing evaluations by program advisors, letters of evaluation and MCAT performance.

### **Health Professions Area of Interest**

West Campus students interested in any of the undergraduate health professions are strongly encouraged to identify themselves by officially declaring an area of interest. Declaration of major/minor/area of interest forms are available in the Academic and Pre-Professional Advising Center.

Note: Declaring an area of interest is not the same as declaring a major and does not assure acceptance into the Health Sciences programs. All students should declare a major by the beginning of their sophomore year. Students applying for the New York State Tuition Assistance Program (TAP) must declare a major before the first day of classes of the junior year.

## Graduate Study at Stony Brook

The Graduate School offers advanced degree programs in many fields leading to the master's and doctoral degrees. Stony Brook's advanced graduate programs are internationally recognized and consistently receive exceptionally high ratings from external evaluation agencies and scholarly studies. The graduate programs at Stony Brook are among the best in the nation. Stony Brook ranks in the top three of the nation's public research universities and is among the top 25 institutions funded by the National Science Foundation. Award-winning faculty of international stature, in close collaboration with graduate students, conduct their scholarly inquiry using state-of-the-art laboratories, extensive library facilities, and advanced computing equipment. Unique opportunities are available for students to participate in frontier research sponsored by federal agencies, private foundations, and industry. Students in the humanities, arts, and social sciences will also find exciting opportunities to work with scholars and artists who are world leaders in their respective areas.

Graduate study is offered in more than 40 different degree program areas as well as in the five schools of the Health Sciences Center and the School of Professional Development. For a full listing of graduate programs of study, consult the 2008-2010 Graduate Bulletin, available from the Graduate School, Stony Brook University, Stony Brook, NY 11794-4433; (631) 632-7040, or on the Web at <http://www.grad.stonybrook.edu>. Address any inquiries concerning graduate admission, financial aid, scholarships, or fellowships to the specific program.

**The School of Professional Development (SPD)** offers several options for part-time graduate study leading to master's degrees or advanced graduate certificates.

Most SPD students are working adults. To accommodate their needs, SPD schedules courses in a variety of convenient formats. Depending on their program, students may choose to take courses online, in the evening, on weekends, or at off-campus extension sites.

SPD offers nine master's degrees, including the Master of Arts in Teaching, the Master of Arts in Liberal Studies (MA/LS), and the Master of Professional Studies (MPS). Both the MA/LS and the MPS have fully online options. In addition, SPD also offers 11 advanced graduate certificates in areas related to industry (e.g., Human Resource Management and Environmental Management) and education (e.g., Coaching and Educational Computing). For licensed teachers, there is a post-graduate advanced certificate in Educational Leadership, which is offered on-campus and fully online.

There is also a non-matriculating option for those who have earned their bachelor's degrees, but are not currently seeking entrance into a graduate program. This option is useful for students who may want to take graduate courses without the commitment of a degree program, or who need to take additional undergraduate courses to prepare for graduate study.

For complete details, visit SPD on the web at <http://www.stonybrook.edu/spd> or contact the SPD Admissions and Advisement Office. The office is located at N-201 Ward Melville Social and Behavioral Sciences Building, Stony Brook University, Stony Brook, NY 11794-4310; telephone (631) 632-7050 (option 3); fax (631) 632-4992.

## Athletics

<http://goseawolves.cstv.com/>

The Stony Brook University Department of Athletics proudly supports 20 Division I varsity intercollegiate athletic programs that compete at the highest level within the NCAA. The University fields women's programs in soccer, volleyball, basketball, lacrosse, cross country, swimming and diving, indoor track and field, outdoor track and field, tennis, and softball. On the men's side, the Seawolves compete in football, basketball, lacrosse, soccer, cross country, swimming and diving, indoor track and field, outdoor track and field, baseball, and tennis. All of Stony Brook's programs compete as members of the America East Conference except for the Seawolves football program, which has been elevated to a Division I-AA scholarship program and is currently competing as an Associate member of the Big South Conference. All of Stony Brook's men's and women's programs offer athletic scholarships.

The Seawolves 425 student-athletes compete in impressive athletic facilities including the 8,000 seat Kenneth P. LaValle stadium, the 4,000 seat Stony Brook Arena, and the Seawolves Baseball and Softball Complex. The Department of Athletics is also proud of the 6,000-square-foot Goldstein Family Student-Athlete Development Center, which boasts a state-of-the-art computer lab with 24 terminals, a 100-seat study hall/multipurpose function room, a career resource/library, and four private tutor rooms as well as administrative offices for the academic staff. New locker rooms have been added for men's and women's basketball, football, women's volleyball, and men's and women's lacrosse. Other recent renovations have also taken place in the varsity weight room and training room.

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Members of the Council

Subject to the powers of State University trustees defined by law, the operations and affairs of Stony Brook University are supervised locally by a council. The council is appointed by the Governor, with the exception of a student member who has all the rights and responsibilities of the other members, and who is elected by the student body.

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### The Campus

- Our Campus
- The Campus & the Community
- Stony Brook Manhattan
- Stony Brook Southampton
- Research & Technology Park
- Staller Center for the Arts
- Charles B Wang Center
- Stony Brook Union
- Student Activities Center
- Religious Centers on Campus
- Transportation, Parking, and Traffic
- University Police

### The Campus

The fountain in the center of the six-acre Academic Mall is a focal point for social activity. Surrounding the fountain are lawns, shrubs, gardens, trees, and a brook that cascades down steps leading to the campus's main entrance. A nature preserve, bicycle paths, park benches, an apple orchard, and a duck pond are interspersed among the spacious plazas, modern laboratories and classroom buildings, and a performing arts center.

At the center of West Campus stands the Frank Melville Jr. Memorial Library, which holds more than two million bound volumes and some three million in microformat. Around the library are the major academic buildings for the Colleges of Arts and Sciences and Engineering and Applied Sciences, the Van De Graaff nuclear accelerator, the Administration Building, Jacob K. Javits Lecture Center, Computer Science Building, Educational Communications Center, Computing Center, the Stony Brook Union, Indoor Sports Complex, and other service buildings. The Museum of Long Island Natural Sciences, located in the Earth and Space Sciences Building, displays dioramas of Long Island's natural landscape and special temporary exhibits.

The Student Activities Center (SAC) features several multipurpose spaces, as well as areas for study and assembly. The center provides a focal point for the extracurricular activities that are an important part of life on campus. The SAC also includes a student lounge with gaming tables, two large multi-purpose rooms, a Wellness Center, and an art gallery.

Stony Brook's Staller Center for the Arts provides superb performing arts facilities, where artists of international stature appear. The Staller Center also houses the Departments of Theatre Arts, Music, and Art. A broad plaza connects the Melville Library, Stony Brook Union, and the Staller Center.

The Charles B. Wang Center, celebrating Asian and American cultures, is dedicated to presenting the public with a multifaceted, intellectually sound, and humane understanding of Asian and Asian American cultures, and their relationship to other cultures. The Wang Center houses the Asian eatery, Jasmine, and serves as a conference facility and presenting venue for events of cultural, professional, and intellectual caliber.

Encircling the academic buildings are six residential quadrangles. The quads are made up of three to five residential colleges, each housing approximately 220 students. A majority of the student body, and about 90 percent of the freshman class lives on campus. The quads are the basic social units for this on-campus population, providing residence halls, study and social space, and dining facilities. The University has constructed nine additional residences known as West Apartments, which house approximately 1,200 upper-division undergraduates. The Chapin Apartments, comprised of one-, two-, three-, and four-bedroom apartments, provide accommodations to graduate students, families, and domestic partnerships. Chapin is located near the Stony Brook University Medical Center. The Schomburg Apartments offer one- and four-bedroom apartments and are available only to graduate students and domestic partnerships.

Located in single-story buildings on South Campus are the School of Marine and Atmospheric Sciences, the School of Dental Medicine, and the Psychiatry and Behavioral Sciences Department.

See <http://www.stonybrook.edu/sb/maps.shtml> for campus maps and directions.

## The Campus and the Community

Stony Brook is the only major research university on Long Island, one of the nation's largest and most vital suburban regions. As the public university center for Nassau and Suffolk counties, Stony Brook serves the complex, growing Long Island economy through research into local problems, by participating in cooperative programs with governmental agencies at the federal, state, and local levels, and by responding to the region's extraordinary demand for higher education opportunity. Excluding the state and county governments, the University is Long Island's second largest employer, with nearly 14,000 people on the campus payroll. It is the largest single-site employer in Suffolk County.

An important educational center for the Island, Stony Brook also provides a social and cultural focal point, making art, theatre, music, and film available to the local community. Several hundred concerts, lectures, films, theatre productions, art exhibits, and sports events on campus are open to the public each semester, many at no charge, and it is estimated that hundreds of thousands of people annually attend these events or visit the campus to take advantage of other facilities and services. The University offers a specialized referral center for health care, multiple recreational opportunities, and a broad range of other services for individuals and groups in the public and private sectors. Regional business and civic leaders help guide the Stony Brook Foundation-the University's independently incorporated development arm-and community members with special interests in campus programs participate in Friends of the Staller Center for the Arts and the University Hospital Auxiliary.

### Technology, Research, and Industry

The University is an active partner with business on Long Island, a principal regional resource for high-technology research collaboration, and a source of technical support for public-policy challenges. The campus houses several active and innovative centers that work with local businesses. The Long Island High Technology Incubator was developed to provide opportunities for faculty, researchers, and graduate students to develop private companies on Long Island. The Incubator, located just north of the Health Sciences Center, is a 42,000 square foot home of more than 50 companies. The Center for Biotechnology was established in 1983 as a cooperative research and development partnership between universities, private industry, and New York State. Its goal has been to capitalize on the resources of New York's medical biotechnology research for the purpose of fuelling economic development in New York State. The Center is funded by the New York Office of Science, Technology and Academic Research (NYSTAR). The Strategic Partnership for Industrial Resurgence (SPIR) was established in 1994 by the State of New York to utilize the extensive engineering resources of the SUNY system (the Engineering Colleges and programs at Stony Brook and three other schools) to help industry in the State compete more effectively. Its intent is to help companies improve their market posture, retain existing employees, and create new jobs. The Center for Regional Policy Studies conducts basic research in public policy issues and serves as a link between Stony Brook and the public sector.

### Education

Stony Brook plays an important role in local education as well. Liberty Partnerships is a program that sends undergraduate and graduate tutors and interns into the field to help at-risk students remain in junior and senior high school and go on to college. The Teacher Opportunity Corps recruits and trains Stony Brook students from underrepresented groups to become teachers in areas with the greatest need. The Science and Technology Entry Program (STEP), sponsored by the New York State Education Department, provides academic enrichment, counseling, and tutoring for underrepresented minorities and low-income secondary school students interested in scientific, technical, and health-related careers.

The Center for Science and Mathematics Education (CESAME), formerly the Long Island Group Advancing Science Education (LIGASE), attracts, inspires, and educates students and teachers in science and mathematics so they will be committed to the highest standards of leadership, scholarship, and service.

The Center for Excellence and Innovation in Education plays an important role on Long Island by coordinating, supporting, strengthening, and developing undergraduate (pre-service) and graduate (in-service) teacher certification and teacher education programs, educational research and development programs, and school-University partnership programs. The center has had a significant positive impact on the region, and is widely recognized as a symbol of Stony Brook's commitment to teacher education, educational research, and development.

In addition to the University's many degree programs, there are broad opportunities for credit-bearing and noncredit instruction for individuals pursuing specific, limited objectives or seeking personal enrichment.

### Health Care

Unleashing the power of medicine through technology has been the catalyst for sweeping changes in health care this decade. Already the discoveries made by Stony Brook's basic and clinical researchers who develop new approaches to treatment, new drugs, and new methods of transplantation have changed the quality of life for Americans. Stemming from the 1963 mandate of the Muir Report that recommends the creation of new state medical, dental, and nursing schools, the Health Sciences schools-Dental Medicine, Health Technology and Management, Medicine, Nursing, and Social Welfare-offer full-time professional education to more than 2,000 students and conduct programs in research, service, and continuing education. Additionally, the Long Island State Veterans Home serves as a teaching center for students from all professions.

More than 2,500 skilled professionals from the Long Island region have faculty appointments and participate in the Center's five schools. While teaching, full-time faculty pursue scholarly research and publication, as well as curriculum development and active participation in campus committee activities. All Health Sciences students, as part of their clinical training or fieldwork, work for a specific time with some of Long Island's health and welfare agencies. The Health Sciences schools also sponsor conferences, workshops, and lectures for the general community. The Health Sciences schools share instructional space and multidisciplinary laboratories in addition to the support services of the Health Sciences Library and the Collier Learning Center, the Division of Laboratory Animal Resources, Media Services, and the Office of Student Services. The Center also includes a bookstore, bank, and food service area.

As one of the nation's leading academic health centers, Stony Brook's Health Sciences schools are totally committed to fulfilling their abiding missions: research-based patient care, education, basic and clinical research, and community service. Using multi-disciplinary foci and partner-

ships that create a synergy among the schools and departments with external resources, the Health Sciences have developed centers of excellence in cancer, heart, neonatology, autism, and molecular medicine. The Stony Brook Cancer Center, a comprehensive academic center, continues to grow, affecting patient care, as well as clinical, transitional, and basic research programs. The Centers for Molecular Medicine have formalized interdisciplinary collaborations by creating laboratories, some virtual and some real, that extend beyond the traditional departmental boundaries. Its health sciences curricula have been continually refined, strengthened, and expanded, but always in keeping with its educational philosophy emphasizing individualization of instruction and development of the complete professional. The Health Sciences schools have established the Graduate Program in Public Health to train health and health-related professionals who wish to integrate the knowledge, skills, visions, and values of public health into their careers and provide leadership in the field. The program leads to a Master of Public Health (M.P.H.) degree.

Students who would like detailed information on the extensive laboratory and research facilities available for academic programs are encouraged to address their inquiries to the appropriate school or department and the URECA program at <http://www.stonybrook.edu/ureca>.

According to a survey done by the Association of University Technology Managers, Stony Brook University placed 12th among the 139 institutions in the country in royalties generated by its scientific discoveries. Its total was higher than those of New York University, Johns Hopkins, and Harvard. The majority of the University's research contributions come from the Health Sciences schools. Two Health Sciences discoveries, ReoPro, used in coronary disease treatment, and Periostat, used in gum disease treatment, are the greatest royalty income generators. The development of the yeast two-hybrid system by the School of Medicine faculty has revolutionized the study of protein-protein interactions and is one of the most highly cited technologies in biomedical research.

As the major teaching facility for the educational programs of the Health Sciences schools, Stony Brook University Hospital, a 504-bed facility, serves the health care needs of the nearly three million residents of Long Island and provides clinical training for physicians, nurses, social workers, dentists, and allied health professionals. Through subspecialties, the School of Medicine's 19 clinical departments offer consultation and care using a full array of specialized diagnostic and treatment techniques. The hospital is the only tertiary care hospital in Suffolk County and serves as the region's "quaternary" hospital, providing services to the region's high-risk medical patients. There are nine intensive care units dedicated to anesthesia, burn, cardiovascular, coronary, and neonatal and transplant patients. The neonatal intensive care unit provides the only tertiary care services for premature and newborn infants in Suffolk County. Utilizing the latest diagnostic and evaluative techniques, the prenatal diagnostic unit—the only American Institute of Ultrasound Medicine accredited unit on Long Island—identifies problems and solutions for high-risk pregnancies.

In addition to being the only academic-based hospital in Suffolk County, the hospital serves many regional roles. As the designated Regional (Level I) Trauma Center, helicopter and ground transports deliver Suffolk County's most seriously injured and ill patients to the hospital. The seven-bed shock trauma room is specifically designed for treating patients with problems ranging from multiple traumas to cardiogenic shock. The hospital also serves as the county referral center for all psychiatric emergencies. The hospital is designated as the regional perinatal center and the regional kidney transplant center. It also houses a cardiac diagnostic center, a sleep disorders laboratory, and a Lyme disease center. Adults and children with a variety of chronic conditions such as diabetes, cystic fibrosis, and multiple sclerosis receive specialized care and advanced services.

Since the training of health professionals requires special academic programming and support services, significant sections of the data contained in the Undergraduate Bulletin, such as admissions procedures and requirements, registration, student services, educational expenses, financial aid, and the academic calendar, are not applicable to the Health Sciences Center.

### **Stony Brook Manhattan**

Stony Brook Manhattan, an extension center with adjacent locations at 401 Park Avenue South and 387 Park Avenue South, is designed as a classroom and conference facility to accommodate undergraduate, graduate, and non-credit classes, plus seminars, conferences, internships, and events. 401 Park Avenue South features eight classrooms, two conference rooms, faculty office space, and an open area for smaller lectures, receptions, and conferences. 387 Park Avenue South has six larger classrooms, a reception hall, a small conference room, offices, and the ability to host more than 130 people for a lecture in a specially designed triple classroom with movable partitions. For more information about Stony Brook Manhattan, visit <http://www.stonybrook.edu/nyc> or call (646) 472-2000.

### **Stony Brook Southampton**

In 2006, Stony Brook University completed its purchase of the former Southampton College. The School of Marine and Atmospheric Science offers several undergraduate courses at Stony Brook Southampton and operates a marine field station on Shinnecock Bay with access to the Atlantic Ocean.

In addition to the Marine Sciences program, Stony Brook Southampton offers an M.F.A. creative writing program, headed by Professor Robert Reeves. The creative writing program at Southampton also hosts the Writers Conference, a 30-year institution on the East End, annually attracting leading authors and artists from across the country. For more information about Stony Brook Southampton, please visit <http://www.stonybrook.edu/southampton>.

### **Research and Technology Park**

The new 100,000-square-foot Center of Excellence in Wireless and Information Technology (CEWIT) is the first building to be completed in Stony Brook's Research and Technology Park. With more than 70 associated faculty members, 190 Ph.D. students, and 180 master's students engaged in research and development, CEWIT is a next-generation research and educational facility. Though CEWIT projects cover a broad spectrum of wireless and information technologies, four areas will receive particular emphasis: health care systems, transportation and logistics, financial services, and mobile commerce systems. Other research areas include homeland security applications, high-speed computing, cyber-security, radio and digital communications, and 3-D visualization.

The Center's vision is four-fold: to become recognized as a world leader in wireless and IT, to conduct first-class interdisciplinary research in the emerging, critical technologies of the information age, to address the skilled technology worker shortage, and to foster new enterprise development. The Center has obtained more than 12 patents in just the past two years. CEWIT is an unparalleled resource, advancing the science and technology underlying the next epoch of the information revolution.

The Advanced Energy Research and Technology Center (AERTC) is a true partnership of academic institutions, research institutions, energy providers and industrial corporations. Its mission is innovative energy research, education, and technology deployment with a focus on efficiency, conservation, renewable energy, and nanotechnology applications for new and novel sources of energy.

### **Staller Center for the Arts**

Staller Center for the Arts, Stony Brook's cultural showplace, is located in the center of campus. Staller Center offers dozens of performances in dance, music, art, theatre, and film from around the world and is a cultural resource to the campus and community. Jazz greats, cabaret stars, modern dance troupes, and top classical musicians, including the world-famous Emerson String Quartet, Stony Brook's quartet-in-residence, perform at Staller Center. "Not Just for Kids" children's shows bring the best in children's entertainment to families. The Metropolitan Opera ("Met Opera Live in HD") comes to Staller Center on screen in the Main Stage Theatre, broadcast live from the Met during the opera season.

Stony Brook students with valid ID can buy half-price tickets to professional performances starting on the first day of each month and then throughout the month, in-person at the Staller Center Box Office. Student "rush" tickets go on sale 15 minutes before the performance for only \$7 when seats are available. With a Stony Brook student ID, two tickets can be purchased at a discount. Faculty, alumni, and staff are also entitled to two tickets to professional performances at a discount when they buy them in-person at the Staller Center Box Office.

The Main Stage Theatre has more than 1,000 seats, with the more intimate Recital Hall seating 400. The Department of Music students perform often, with recitals and Stony Brook Symphony Orchestra concerts performing on the Main Stage. There are three black box theatres used by the Department of Theatre Arts for plays throughout the school year. The spacious University Art Gallery has free exhibits of outstanding shows by faculty, students, and other professional artists who are invited to exhibit.

Each summer, the Stony Brook Film Festival features 10 days of outstanding independent films in competition, with filmmakers coming from all over the world to introduce their films. The 2009 Stony Brook Film Festival celebrates the festival's 14th year.

For tickets, schedules, and more information, call the Staller Center Box Office at (631) 632-ARTS or you can visit <http://www.stallercenter.com> for a schedule.

### **Charles B. Wang Center**

The Charles B. Wang Center initiates and collaborates with academic departments, student groups, community organizations, and individuals in presenting the public with a multifaceted, intellectually sound, and humane understanding of Asian and Asian American cultures, and their relationship to other cultures. The Wang Center is also a presenting venue for events of cultural, professional, and intellectual caliber that are initiated by and involve the various components of Stony Brook University, Long Island communities and organizations, as well as other regional, national, and international constituencies. The Wang Center is non-partisan and non-sectarian, and upholds the values of pluralism, democracy, and equality.

For more information on the Wang Center's programs, please visit <http://www.stonybrook.edu/sb/wang/index.shtml> or call (631) 632-4400. To be included on the mailing list, please send an e-mail to [wangcenter@stonybrook.edu](mailto:wangcenter@stonybrook.edu). For facilities reservations and inquiries, please contact the Office of Conferences and Special Events at (631) 632-6320 or e-mail [wangreservations@stonybrook.edu](mailto:wangreservations@stonybrook.edu)

### **Stony Brook Union**

The Stony Brook Union includes a 350-seat auditorium, a large multipurpose room, a ballroom that accommodates more than 350, a 100-computer SINC site, meeting rooms, offices, and an Interfaith Center. Many student clubs and organizations host their programs and events in these facilities. In addition to attending club meetings, movies, and concerts, students have access to the Stony Brook Union's Crafts Center, UNITI Cultural Center, hair salon, lounge areas, and food service, which includes several food options including a Glat Kasher Deli.

The Wo/Men's Center, located on the second floor, promotes gender equity on Stony Brook's campus and provides a safe haven for students to learn, discuss, and offer each other support.

The campus radio station, WUSB-FM (90.1), operates from the Union and is staffed by students and volunteers. Student newspapers, the campus television station SBU-TV, student-run audio-visual services, and the Inter-Fraternity and Sorority Council all have offices in the Union. In addition, some academic classes are held in the Union's meeting rooms.

The Union also houses an Information Center, which provides students with campus maps, train and bus schedules, and information about University events. The Information Center's phone number is (631) 632-6830.

Information about the SB Union facility and reservations can be found at <http://studentaffairs.stonybrook.edu/for/index.shtml>

## Student Activities Center

As the "living room" of the Stony Brook campus, the Student Activities Center (SAC) is the gathering place for students, faculty, administrators, and University visitors. For student programs, special events, and conferences, members of our campus community and their guests use SAC facilities: a 525-seat auditorium, ballrooms, an art gallery, lounges, a sculpture garden, and meeting rooms. Other amenities in the SAC, include the Wellness Center, the Seawolves MarketPlace, student club and organization offices, the Teachers Federal Credit Union bank and ATMs, and the U.S. Post Office. The Undergraduate Student Government and Graduate Student Organization offices are on the second floor. The Information Center is located in the Main Lobby and can be reached by telephone at (631) 632-6730.

Information about facility reservations for the SAC can be found at <http://studentaffairs.stonybrook.edu/for/index.shtml>

## Religious Centers on Campus

The Interfaith Center is the representative organization for religious associations and campus ministries who work at the University. Member associations work with administration, faculty, students, and staff in programs that contribute to the human quality of the University and to the integrity of its academic mission. Worship services are held and opportunities are provided to learn about and appreciate the diverse religious traditions of our students. Students should also be aware of Section 224-a of the New York State Education law as it pertains to exceptions from classes and coursework on religious holidays.

The Baptist Campus Ministry (BCM) is affiliated with the Southern Baptist Convention. BCM has a specialized ministry for Asian and Asian-American students that offers counseling, prayer, retreat, worship, and other activities. The Hillel Foundation for Jewish Life is the umbrella organization that serves the needs and concerns of Jewish students on campus, offering cultural, educational, religious, community service, and social programs, as well as overseeing the kosher dining program. The Catholic Campus Ministry offers liturgies, retreats, the sacraments, and opportunities for Christian living and service, as well as full social and educational programs. The Islamic Society of North America addresses the social needs and spiritual development of Muslim students. The Protestant Campus Ministry provides students with the opportunity to worship, attend social gatherings, study, receive counseling, and attend retreats. The Lubavitch Youth Organization offers Jewish programming with the opportunity to partake of traditional Hassidic religious culture.

The Interfaith Center is located on the second floor of the Stony Brook Union. Check with each association for a current schedule of worship services.

Baptist Campus Ministry, Union 278, (631) 632-6564

Catholic Campus Ministry, Union 265, (631) 632-6562

Hillel Foundation for Jewish Life, Union 201, (631) 632-6565

Islamic Society, Union 271, (631) 632-9769

Protestant Campus Ministry, Union 275, (631) 632-6563

Lubavitch Youth Organization, 941-4787

## Transportation, Parking, and Traffic

All vehicles parked on campus are required to have a valid parking permit. Regulations have been established to govern vehicular and pedestrian traffic and parking on highways, streets, roads, and sidewalks owned, controlled, or maintained by the University. These regulations apply to students, faculty, employees, visitors, and all other persons upon such premises.

Online permit registration, campus information, Campus Bus Service schedules, maps, rail links, parking regulations and appeal procedures, and much more can be found on the Transportation and Parking Services Web site at <http://www.stonybrook.edu/tps/>. Commuter students can also sign up to purchase premium parking permits for the Stadium Parking Lot online as well. Payment for premium parking permits can be made by charge card or the fee can be added to your Stony Brook University Account. If you don't have computer access, please call Parking Services at (631) 632-AUTO for more information.

## University Police

The University Police has jurisdiction over the 1,100-acre campus and its buildings. While officers are not specifically assigned to residence halls, those halls are part of regular campus patrols. Trained officers are available to respond and assist around the clock throughout the year.

The members of the University Police are committed to community policing and are actively involved in campus activities. The goal of the Community Relations Team is to educate the campus community on such topics as personal safety, risk awareness, crime prevention (including date and acquaintance rape prevention), drug and alcohol risk awareness, and many other community safety issues. They accomplish this mission through formal and informal talks, student and employee orientations, and the creation and distribution of pamphlets and posters across the campus. The Community Policing Office may be reached at (631) 632-7786.

The University Police can be reached from any campus phone by dialing 911. From off campus and cell phones, dial (631) 632-3333.

## The Undergraduate Community

- Undergraduate Community
- Undergraduate Colleges

### Undergraduate Community

The first universities were founded in Europe, in the Middle Ages, by students who wished to form communities in which they could live and learn together. The modern university continues this tradition. Faculty, students, and staff together have one central goal: learning together in a community.

### The Stony Brook Campus

Close to 35,000 people work and study at Stony Brook, making it larger than the capital cities of several states. Like many small cities, Stony Brook is not only a community in itself; it is a community of communities. Most people who work and study here belong to more than one of the University's many communities.

Students at Stony Brook belong to academic communities, co-curricular communities, and social communities, and many of our communities encompass all three aspects of university life. All undergraduates are required to complete an academic major, which is itself a community, but many majors have clubs to provide further opportunities for students to connect with other students who have similar interests.

An undergraduate student, for example, may be a member of a sports team or one of our many social clubs, be a member of a Living Learning Center, and have an academic major. Stony Brook has launched a variety of efforts to build a strong sense of community within the University. The capstone is a comprehensive system of Undergraduate Colleges organized around themes of general interest to incoming undergraduates. This college system has transformed the way in which students experience the University. The Colleges provide the core for an array of opportunities for students to live, laugh, and learn together.

### Undergraduate Colleges

<http://www.stonybrook.edu/ucolleges/>

Stony Brook's Undergraduate Colleges have transformed the way in which undergraduate students experience University life. Every first-year student enters Stony Brook as a member of one of six Undergraduate Colleges, each of which is centered around themes of general interest.

The Undergraduate Colleges are designed to support and develop the interests of students and to assist them in taking advantage of the vast resources Stony Brook has to offer.

Faculty members participate in the Undergraduate Colleges through various events organized within the College, through College dinners, and through special one-credit seminars. These seminars, required for all first-year students, are designed to introduce students to the University community and to explore their role in this community of learners. Each seminar addresses some aspect within the broad theme of the college, based on the faculty's expertise and interests, and is limited to no more than 20 students. As a result, the Colleges provide opportunities for students and faculty to meet both inside and outside the classroom.

All Undergraduate Colleges include individualized advising and support, special educational and social programs, and opportunities for close interaction with faculty, staff, and fellow students centered around themes of common interest.

Each Undergraduate College has both a commuter and a residential focus. First-year resident members of each College are housed together in the same residential quadrangle. First-year commuters have a centrally located home on the Academic Mall.

Once admitted, students are asked to indicate their College preferences, but most students will find that every College resonates with some area of the student's own interests. For instance, a student might be a fan of computer games, so the College of Information and Technology Studies might be of interest; but if that student also is concerned about environmental issues, the College of Science and Society also will be appealing. The academic themes of the colleges are described below.

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#### College of Arts, Culture, and Humanities

<http://www.stonybrook.edu/ucolleges/ach/>

The College of Arts, Culture, and Humanities is designed for individuals who are interested in the wide scope of human activity—the making of art; the study of behavior; the varieties of language, society, and culture that make up our world. Through programs that point the way to opportunities to think, make, do, and perform, the College is intended to encourage students to stretch their imaginations, hone their skills, and enrich their minds. The Tabler Center for Arts, Culture, and Humanities is located in the center of Tabler Quad and includes a 250-seat performance space for theater, dance, and music; an art gallery devoted exclusively to undergraduate work; practice rooms and artist's studios; a digital arts laboratory with the latest software; and a conference room and classroom.

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#### College of Global Studies

<http://www.stonybrook.edu/ucolleges/gls/>

Through courses and activities in languages, government, international affairs, and more, students in the College of Global Studies examine the complex issues of our contemporary global culture. Programs take advantage of the knowledge and insight of Stony Brook's diverse community; our faculty and students hail from all over the world.

The Center for Global Studies and Human Development is located at the center of the Nobel Halls and includes a large multi-purpose room, seminar rooms, offices, and a computer classroom.

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#### College of Human Development

<http://www.stonybrook.edu/ucolleges/hdv/>

This College is designed around the investigation of the physical, social, and cultural aspects of human evolution and human development. Activities and programs lead to a wide range of careers that focus on human development, from anthropology and education to psychology and the health professions.

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#### College of Information and Technology Studies

<http://www.stonybrook.edu/ucolleges/its/>

The College of Information and Technology Studies is designed for students interested in the growing areas of technology development and information processing and management. The College seeks to infuse students with a sense of wonder as they discover the power of information and technology and consider their own role in shaping the future. The College provides an enriched first-year experience through a learning community focused on leadership, scholarship, integrity, and creativity. The Information and Technology Studies Center is located in Mendelsohn Quad and includes a seminar classroom, a craft workshop, a technology gallery, offices, and a genius bar.

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#### College of Leadership and Service

<http://www.stonybrook.edu/ucolleges/lds/>

Whether it's politics or the Peace Corps, this College engages students who are interested in public service and leadership. Courses and programs emphasize teamwork and problem-solving as students learn about the roles of business, government, and nonprofit organizations in bringing about progress and social change.

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#### College of Science and Society

<http://www.stonybrook.edu/ucolleges/sso/>

The College of Science and Society emphasizes imagination, research, and discovery in a social context. Students explore the power of creativity to transform the environment in which we live. Students are given opportunities to visit laboratories at Stony Brook and other locations where cutting-edge research is carried out. The College focuses on developing a well-rounded student who is intellectually prepared to meet the challenges of today's complex and changing world. The Center for Science and Society is located on the first floor of the Roth Cafeteria and includes a seminar classroom, a conference room, office, and spaces for college programs and studying.

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### Other Communities

#### Academic Peer Advising

This is an upperclass internship program in which interested juniors and seniors are trained to serve as peer advisors to other students. Academic Peer Advisors earn three upper-division credits each semester. For more information about the Academic Peer Advising program, visit the Academic and Transfer Advising Services Center Web site at <http://studentaffairs.stonybrook.edu/apac/index.shtml>

#### Academic Majors

Academic majors allow students to take courses in common and to develop a shared sense of knowledge and understanding with a core of faculty and students. For information about each major, see the chapter "Majors, Minors, and Academic Programs."

#### Academic Minors

Minors often enroll smaller numbers of students than majors. In minors, students can explore a field other than their major specialization. This gives them the opportunity to broaden their understanding and to connect with students from diverse intellectual backgrounds. For information about each minor, see the chapter "Majors, Minors, and Academic Programs."

#### Career Center Undergraduate Internship Program

Students learn to apply classroom learning to real-world experience through an EXT internship. On campus and off campus opportunities available. See Career Center page for more information.



**Living Learning Centers (LLCs)**

<http://www.stonybrook.edu/lc>

Each LLC offers the opportunity to complete an academic minor while taking courses with others living in the same residence hall. Residence hall events are also geared to the theme of the LLC. These are typically upperclass programs.

**Residential Tutoring**

This is a program in which upper division students are trained to assist other students in developing study skills and succeeding in particular courses. Visit <http://www.studentaffairs.stonybrook.edu/rtc> for more information.

**Undergraduate College Fellows**

This two-semester sequence of courses provides an opportunity for students to become peer mentors in their sophomore year and continue their involvement in the Undergraduate Colleges. College Fellows will enroll in a 275 course in the spring semester of their freshman year and a 276 in the fall semester of their sophomore year.

**Undergraduate College Fellows Seminar**

This seminar is taken during the spring semester of the freshman year. The 275 seminar engages students in four main content areas: student development theory, scholarship on mentoring and leadership development, concepts of teaching and learning, programming and event planning. These areas prepare students for supervised learning and teaching experiences that will occur primarily in the fall 276 course.

**Undergraduate College Fellows Practicum**

This second semester of the sequence is taken during the fall semester of the sophomore year and follows the Undergraduate College Fellows Seminar. Students assume higher responsibility and are given opportunities to apply teaching theories and concepts as learned in 275. Students act as a TA for a first-year seminar 101 and enroll in a 276 practicum course.

**Other Social and Academic Clubs and Organizations**

The academic programs listed above, while primarily organized around an academic theme and with an academic purpose, usually include a social aspect. For instance, major and minor programs often host social get-togethers for students to meet other students and the faculty in the program. Similarly, Stony Brook's many social clubs and organizations often have a related academic theme, and Stony Brook also offers clubs specifically dedicated to learning. The following is only a sampling of the many communities available to students:

Asian Students Alliance  
Badminton Club  
Buddhism Study and Practice Group  
Caribbean Students Organization  
Club India  
Feminist Majority Leadership Alliance  
Golden Key International Honor Society  
Math Club  
Minorities in Engineering and Applied Sciences  
Minorities in Medicine  
Musicians' Alliance for Peace  
Native American Cultural Club  
Science Fiction Forum  
Shelanu, a student newspaper  
Sigma Beta Honor Society  
Social Justice Alliance  
Sororities and fraternities  
Statesman, a student newspaper  
Stony Brook Gospel Choir  
WUSB, the campus radio station

A more extensive listing of Stony Brook's clubs and organizations is available at <http://www.ic.sunysb.edu/Clubs>.

## Student Services

- Academic Support Services
  - Academic and Transfer Advising Services
    - Transfer Advising
    - Pre-Health Advising
    - Pre-Law Advising
  - College of Engineering and Applied Sciences Undergraduate Student Office
  - English as a Second Language
  - Intensive English Center
  - Language Learning and Research Center
  - Registrar
  - Mathematics Learning Center
  - Undergraduate Academic Affairs
  - Undergraduate Colleges Introduction
  - Writing Center
- Bookstores
- Campus Recreation
  - Sports Complex Facilities
  - Wellness Center
  - Sports Clubs
  - Intramurals
- Campus Residences
  - Residence Halls
  - Apartments
  - Residence Hall Billing
- Career Center
  - Internships
  - Community Service
- Child Care Services
- Commuter Student Services
- Computing Services
- Counseling and Psychological Services
- Dean of Students
- Disability Support Services
- Division of Student Affairs
- International Services
- Libraries
- Off-Campus Housing Service
- Ombuds Office
- Office of Student Activities
- Student Health Service
- Office of University Community Standards
- Veterans Affairs
- The Wo/Men's Center

## Academic Support Services

Offices and programs that provide academic advice, tutoring, and additional academic support to students:

Academic and Transfer Advising Services (includes Transfer Advising)

College of Engineering and Applied Sciences Undergraduate Office

English as a Second Language

Intensive English Center

Language Learning and Research Center

[Registrar](#)

[Mathematics Learning Center](#)

Undergraduate Academic Affairs

Undergraduate Colleges

Writing Center

## Academic and Transfer Advising Services

The Academic and Transfer Advising Services Center serves students in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism, as well as students interested in pursuing graduate study in the health or law professions. All upperclass students are encouraged to meet with an upperclass academic advisor and their major department advisor at least once each semester. Students obtain assistance from the Center for a variety of academic issues including:

- Planning a schedule of classes,
- Discussing course and major/minor options,
- Selecting/changing a major/minor,
- Meeting D.E.C. and general education requirements,
- Discussing academic standing issues,
- Clarifying academic policies, procedures, and regulations,
- Reviewing degree progress toward graduation,
- Discussing other educational opportunities related to an academic program,
- Discussing a petition for an exception to a policy,
- Seeking approval to take a Challenge exam,
- Learning more about the special programs offered by the Center.

The Center sponsors several outreach programs and events, including the Academic Peer Advisor Program, Major Decisions Week, and Academic Advising Day. The Center is also the home of the Golden Key International Honor Society.

For academic advising questions and other important academic information, students are encouraged to make use of the various advising resources. Students should call or stop by the Center to make a 30-minute advising appointment or to ask a quick question at the "information table" located directly outside the Center. Call to make an appointment or stop by for walk-in advising on Wednesdays from 10:00 a.m. to 3:00 p.m.

Students seeking Pre-health or Pre-law advising should visit the Office of Undergraduate Academic Affairs, E-3310 Melville Library.

Office: Academic and Transfer Advising Services Center

E-2360 Melville Library

Stony Brook, NY 11794-3353

Telephone: (631) 632-7082, option 1

Fax: (631) 632-6997

E-mail: [advising@stonybrook.edu](mailto:advising@stonybrook.edu)

Pre-Health E-mail: [prehealth@stonybrook.edu](mailto:prehealth@stonybrook.edu)

Pre-Law E-mail: [prelaw@stonybrook.edu](mailto:prelaw@stonybrook.edu)

Office Hours: Monday: 10:30 a.m. to 5:00 p.m.; Tuesday-Friday: 9:00 a.m. to 5:00 p.m.

Web sites: General Advising: <http://studentaffairs.stonybrook.edu/apac/index.shtml>

Pre-Health Advising: <http://studentaffairs.stonybrook.edu/prehealth/index.shtml/>

Pre-Law Advising: <http://studentaffairs.stonybrook.edu/prelaw/index.shtml>

## Undergraduate Transfer Advising Services

The office of Transfer Advising Services, housed in the Academic and Transfer Advising Center, provides academic advising to prospective and enrolled transfer students. Advisors are available to help students plan their academic programs and select courses to ensure a smooth transition to Stony Brook. Advisors evaluate transfer credits for Diversified Education Curriculum (D.E.C.) requirements and work with academic departments to facilitate the evaluation of transfer credits for major and upper-division requirements. Advisors enter transfer credits on the Stony Brook record for both new transfer students and for continuing students.

In addition, advisors assist all students seeking advice in selecting summer school courses to be taken at other institutions. The office also has a SOLAR System terminal enabling students to access the online student records system. The Academic and Transfer Advising Services Center, located in room E-2360 of the Melville Library, can be reached by telephone at (631) 632-7082, option 2. Visit <http://studentaffairs.stonybrook.edu/apac/transfer/index.shtml> for more information.

## Pre-Health Advising

There is no pre-medical major at Stony Brook, and there is no preferred major for undergraduates seeking entrance into doctoral-level health professions schools such as medicine, osteopathy, dentistry, podiatry, and veterinary medicine. It is not necessary to major in a natural science; rather, you should pursue a subject you enjoy. It is important to get good letters of recommendation from your professors. It is also important to gain appreciable health-related/research experience related to the field that interests you.

Students seeking Pre-health advising should visit the Office of Undergraduate Academic Affairs, E-3310 Melville Library.

## Pre-Law Advising

There is no special pre-law course of study or major at Stony Brook. Admission to law school depends on the quality of academic work rather than on the field in which it is done. You should enroll in courses at Stony Brook that you enjoy, and that improve reading, critical thinking, communication, writing, and analytical skills.

Students seeking Pre-law advising should visit the Office of Undergraduate Academic Affairs, E-3310 Melville Library.

### **College of Engineering and Applied Sciences Undergraduate Student Office**

The Engineering and Applied Sciences Undergraduate Student Office administers the College of Engineering and Applied Sciences undergraduate academic programs and coordinates undergraduate academic advising. It provides advising and information about the College Diversified Education Curriculum (D.E.C.) requirements, and requirements for admission to its majors. It receives and processes student petitions and grievances, advises students of administrative procedures, and assists with the processing of transfer credits.

The office serves as the center for a number of campus chapters of national professional engineering societies including the honor societies Tau Beta Pi (engineering), Eta Kappa Nu (electrical engineering), Pi Tau Sigma (mechanical engineering), and Upsilon Pi Epsilon (computer sciences). It is also the center for the CEAS Internship Program, publicizing internship openings and assisting corporate offices with selection and placement of student interns. It also disseminates information about special scholarships available to students in the College's majors and coordinates the scholarship application and selection process.

For general academic information about College of Engineering and Applied Sciences degree programs, contact:

Undergraduate Student Office, College of Engineering and Applied Sciences  
Engineering Building 127  
Stony Brook, NY 11794-2200  
Telephone: (631) 632-8381  
Fax: (631) 632-8205  
<http://www.ceas.sunysb.edu>  
Office hours: Monday through Friday, 9:00 a.m.-5:00 p.m.

### **English as a Second Language**

The ESL program offers intermediate and advanced courses aimed at raising students' language abilities to the level desired of college students in the United States. Undergraduate students may be required to take intermediate or advanced ESL writing, depending on their writing placement examination score. A required mixed-skills course is offered in the fall semester for non-native speakers of English who have graduated from American high schools and have been admitted into the University under the English Enhancement Program (EEP).

Traditionally, oral ESL classes are reserved for graduate students; however, undergraduates may elect to take either an intermediate or advanced oral skills class. At least one seat per section in those classes is reserved for undergraduates. For more information, contact the ESL Program at (631) 632-7706 located within the Linguistics Department, (631) 632-7777.

### **Intensive English Center**

The Intensive English Center (IEC) offers an intensive English language program for potential Stony Brook students who need full-time instruction in English prior to matriculation. The program is also open to people who do not plan to enroll at Stony Brook after completing the training but who wish to improve their English for personal or professional reasons.

An applicant who meets the academic criteria for admission may be given conditional admission to the University contingent upon successful completion of the advanced IEC level. Admission must be recommended by the director of the IEC program.

The program consists of a minimum of 18 hours per week of non-credit English language courses, including reading, writing, speaking, and listening skills. Elective courses include: Business English, Conversation, Film and American Culture, Grammar, Pronunciation/Accent Improvement, and TOEFL Preparation. IEC students may audit University courses or, if they are in the advanced IEC level, may register for one course with the permission of the IEC director.

In the summer, IEC students attend English classes and join excursions to places of cultural and historic interest. Participants are eligible to receive a student (F-1) visa, may live on campus, and may use all University facilities.

For additional information, contact:

Intensive English Center  
E-5320 Melville Library  
Stony Brook University  
Stony Brook, NY 11794-3390  
Telephone: (631) 632-7031  
Fax: (631) 632-6544  
E-mail: [iec@stonybrook.edu](mailto:iec@stonybrook.edu)  
Web site: <http://www.stonybrook.edu/iec>

### **Language Learning and Research Center**

The Language Learning and Research Center (LLRC) is where technology is available for the teaching and learning of language, literature, and culture at Stony Brook University. The Center has a wide variety of technology for this purpose including a portable Interactive Whiteboard (Smartboard) and a document presenter. It also has a Stony Brook Instructional Network Computing (SINC) site open for university usage.

#### **Facilities**

The Center contains a great variety of aids for learning and teaching. It has two multimedia "smart" classrooms with 50 seats each containing all of the technology used elsewhere in the Center, but aimed more at classroom instruction instead of individualized learning. It has a materials development area, an audio/video laboratory for audio and video work, a 40-position multimedia computer laboratory with Internet access

(half Macintosh and half Windows), and an older Macintosh computer laboratory that doubles as a video seminar room as well. Multimedia development and checkout of a wide variety of equipment and material is available.

#### **What Can Instructors Do in the LLRC?**

- Reserve smart classrooms, A/V and computer labs for teaching academic courses and/or holding special training sessions.
- Check out instructional materials (software, textbooks, reference books, audio and video tapes, DVDs, laserdiscs, etc.) and equipment (audio/video/DVD players/recorders, PC/Mac laptops, headphones, cameras, tripods, overhead, slide and digital projectors, etc.) for on/off LLRC use.
- Request training on specific software, computer applications or equipment. Recommend purchase of specific materials or equipment.
- Prepare instructional materials using our facilities, materials, and equipment. Convert or duplicate audio-video materials with copyright permission.
- Put materials on reserve for students.

#### **What Can Students Do in the LLRC?**

- Check out materials (software, textbooks, reference books, audio and video tapes, DVDs, laserdiscs, etc.) and A/V equipment (headphones, players/recorders, cameras, etc.) to use in the LLRC.
- Complete assignments: Listen to tapes, watch videos (DVD, VHS, laserdiscs); audio/video record themselves.
- Develop multimedia projects: Use computers, printers and scanners and other technology for preparing assignments and going on-line (research, Blackboard, audio/video conference, etc.).
- Use a wide variety of language software (Power Pronunciation, American Accent Program, 3D Grammar, Focus on Grammar, Kontakte, Spanish Today, French Pronunciation, Writer's Work Bench, Visual Thesaurus, Tell Me More, etc.).

For additional information, contact:

Language Learning and Research Center  
N-5004 Melville Library  
Stony Brook University  
Stony Brook, NY 11794-3381  
Telephone: (631) 632-7013  
Fax: (631) 632-1107  
E-mail: [mozcelik@stonybrook.edu](mailto:mozcelik@stonybrook.edu)  
Website: [www.stonybrook.edu/llrc](http://www.stonybrook.edu/llrc)

#### **Registrar**

The Stony Brook University Registrar's office is located on the second floor of the Administration building.

Visit the Registrar's Web site at <http://www.stonybrook.edu/registrar/> for complete information.

#### **Mathematics Learning Center**

The Mathematics Learning Center offers help to students in math and applied math courses, as well as non-math courses that require mathematical skills. Students do not need to be in serious difficulty before they come for assistance. Assistance is provided individually and in small groups on a first-come, first-served basis. Mathematics faculty members and course TAs also offer hours. The Center is staffed by mathematics faculty, TAs, and tutors with knowledge of all levels of mathematics.

The Mathematics Learning Center has an extensive library of books and CD-ROMs and offers Web access. The Center, located in the Mathematics Building, Room S-240A, is open Monday to Thursday, 10:00 a.m. to 5:00 p.m. and Friday, 10:00 a.m. to 1:00 p.m.; tutors are also available some evenings. For evening hours, call the Center at (631) 632-6825, or visit <http://www.math.sunysb.edu/MLC>.

#### **Undergraduate Academic Affairs**

This administrative academic unit oversees a variety of academic programs that provide services to populations with special interests, abilities, needs, or circumstances. Innovative programs, specialized advising, and enrichment opportunities are offered to students who are academically talented as well as those who need academic support.

The Office of Undergraduate Academic Affairs coordinates the nominations for prestigious scholarship and fellowship opportunities outside the University. The office is also responsible for the coordination and administration of Honors College, Living Learning Centers, Undergraduate Colleges, University Scholars, URECA, and the Multidisciplinary Studies major. It hosts both the Academic Integrity Committee and the Committee on Academic Standing and Appeals for the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism. The Office of Undergraduate Affairs is located in E-3310 Melville Library, and can be reached by phone at (631) 632-7080.

#### **Undergraduate Colleges Introduction**

Stony Brook's Undergraduate Colleges are small but vital communities, offering individualized support while tailoring the first-year experience for students with similar interests. Each incoming freshman is assigned to one of six Undergraduate Colleges: Arts, Culture, and Humanities;

Global Studies; Human Development; Information and Technology Studies; Leadership and Service; or Science and Society. The Colleges are named for distinct themes around which academic and social life revolve: the system is intended to let students explore a wide range of interests, both within their intended majors and across the academic spectrum.

All Undergraduate Colleges include customized advising and support, special educational and social programs, and opportunities for close interaction with faculty and fellow students around themes of common interest. Each freshman is assigned an academic advisor by Undergraduate College. Both commuter and residential students are a full part of College life. First-year residents are housed together in the same residential quadrangle. First-year commuters have access to study space, offices, and programming in the residential quadrangle. Each Undergraduate College is run by a team of faculty members, academic advisors, and student affairs professionals who develop outside the classroom thematic activities and the College curriculum for the first-year seminars.

Every freshman is required to take two first-year seminars: Introduction to Stony Brook 101 in the fall and Undergraduate College Seminar 102 in the spring. Freshmen register for these seminars based on their undergraduate college affiliation: ACH 101/102 for Arts, Culture and Humanities, GLS 101/102 for Global Studies, HDV 101/102 for Human Development, ITS 101/102 for Information and Technology Studies, LDS 101/102 for Leadership and Service, and SSO 101/102 for Science and Society. Students in the Honors College register for HON 106 (fall) and HON 105 (spring). Freshmen students entering Stony Brook in the spring semester must take first-year seminar 102.

## Writing Center

The Writing Center provides free, individual help with writing to all members of the University community, including undergraduate and graduate students, faculty, and staff. Tutors assist with writing projects ranging from freshman composition essays to dissertation proposals. Tutors receive ongoing training in all aspects of the teaching of writing and are prepared to mentor a wide variety of issues (e.g., getting started, developing arguments, revising, editing, learning techniques for editing and proofreading, understanding specific aspects of grammar, and addressing the needs of English-as-a-second-language students).

Although the Writing Center does not provide proofreading or copyediting services, the tutors are always willing to teach strategies to help writers eliminate error on their own.

Sessions generally take three forms: weekly appointments with the same tutor that students can extend through the semester; drop-in sessions that depend on the availability of tutors; and e-tutoring sessions that students can access through the Writing Center's Web site at <http://www.stonybrook.edu/writingcenter>. All tutoring sessions are approximately 50 minutes long.

For hours of operation or to schedule an appointment, call (631) 632-7405.

## Bookstores

The University Bookstore is located on the ground level of the Melville Library, opposite the Stony Brook Union. The bookstore stocks new and used textbooks. Students are encouraged to shop early for the best selection of used books. In addition to course required materials, the bookstore has a large selection of general, reference, and bargain books as well as magazines and the National Campus Bestsellers. The store also carries school and residence hall supplies, imprinted clothing and gifts, greeting cards, and seasonal items.

For more information and store hours, call the University Bookstore at (631) 632-6550 or visit it online at <http://sunysb.bncollege.com>.

The Health Sciences Center Bookstore, located on Level 2 of the Health Sciences Center, stocks textbooks for courses offered by the Schools of Dental Medicine, Health Technology and Management, Medicine, Nursing, and Social Welfare and an extensive selection of professional, trade, and reference books. Special orders are an essential part of the store's customer service and customers have easy access to the hundreds of thousand medical reference titles available through the store's special order service.

For more information, please see <http://www.webmedbooks.com/suny/default2.aspx> or call the HSC Bookstore at (631) 444-3685.

## Campus Recreation

Sports Complex Facilities  
Wellness Center  
Sports Clubs  
Intramurals

### Sports Complex Facilities

The Stony Brook campus has two main facilities where one can exercise during free time. Both are located on the main campus on John Toll Drive across from the Physics Building. Access is free to all students, faculty, and staff with University ID. Students are welcome to bring a guest at a cost of \$5.00 per guest.

The west wing of the **Indoor Sports Complex** opened in the fall of 1990. Connected to the existing gymnasium, the 105,000-square-foot complex seats 4,100 for basketball and volleyball and 5,000 for lectures, concerts, and other special events. The facility houses a four-lane, six-sprintlane track (177 meters in length), six glass back-walled squash courts, and locker rooms. Attractive lobbies, offices, and two concession stands complete the facility.

The **Pritchard Gymnasium**, which is now the east wing of the Indoor Sports Complex, features seating for 1,800 for basketball and volleyball, a six-lane, 25-yard pool, eight racquetball courts, a Universal weight room, a dance studio and exercise room, and three multipurpose courts for basketball, volleyball badminton, or indoor soccer. The courts are available when not in use for scheduled events.

In addition to serving as the center for Division I athletics, the indoor complex also addresses the recreational, educational, and entertainment needs of the University community. Special events include wrestling and basketball championships, trade shows, comedy shows and concerts, and sports clinics.

Highlighting the outdoor facilities is the \$22 million, 8,200-seat **Kenneth P. LaValle Stadium**. The stadium is the home to the Stony Brook football, men's and women's soccer, and men's and women's lacrosse teams. This state-of-the-art facility is the largest outdoor facility in Suffolk County, and has quickly become the venue for some of Long Island's most exciting sports events.

In addition to the Seawolves' athletic events, LaValle Stadium also plays host to high school football, boys and girls' lacrosse, and field hockey championships.

Other outdoor facilities include tennis courts, the baseball field, and the softball complex, which will serve as the host site for the 2005 America East Softball Championships.

Most facilities may be used for recreational purposes when they are not scheduled for classes, special events, or intramurals. Available times for recreational use may be obtained in the Indoor Sports Complex (hours are subject to change). The Indoor Sports Complex is open during the academic year Monday through Sunday from 6:00 a.m. to 11:00 p.m. It is closed on all major holidays. Hours are adjusted for winter and spring breaks.

For racquetball and squash courts reservations, call (631) 632-7200. To contact the equipment rental area and open recreation reservations, call (631) 632-4674. E-mail: [campusrecreation@stonybrook.edu](mailto:campusrecreation@stonybrook.edu).

## Wellness Center

The Wellness Center, located in Room 307 of the Student Activities Center, offers opportunities for students to practice positive lifestyle activities. The Wellness Center includes state-of-the-art fitness equipment, locker rooms, and shower facilities. The fitness equipment includes treadmills, elliptical cross trainers, Concept-II rowing machines, Selectorized weight-training machines, and free-weight equipment.

The Wellness Center also includes two multipurpose rooms located in the basement of the SAC (next to the bank and the post office) that are utilized for fitness classes, the spinning program, and seminars. They are also used as a training space for student clubs. Throughout the year, free seminars are offered on meditation, nutrition, stress management, time management, and other topics. There are classes in body sculpting, kickboxing, Hip Hop, step aerobics, yoga, etc. Stop by at the Wellness Center and sign up for a class or check out the exercise equipment. The time schedule is different every semester, so visit <http://studentaffairs.stonybrook.edu/rec/> or call (631) 632-7209 for updated information.

## Sports Clubs

The Department of Campus Recreation advises all sport clubs. Sport clubs include archery, badminton, ballroom dance, belly dance, crew, cricket, equestrian, fencing, fitness and nutrition, Go club, ice hockey, kumdo, martial arts, men's rugby, NY Aikido and Judo, outdoors club, rollerhockey, Russian Hustle club, scuba, softball, squash, SB soccer, table tennis, tennis, women's lacrosse, women's rugby, and wrestling.

Every club has a contact person available via e-mail to acquire more information about activities. For anyone who is an expert in a sport that is not listed, a new club can be formed. For more information, visit <http://studentaffairs.stonybrook.edu/sac/clubs.shtml>.

## Intramural Sports

Intramural sports offer opportunities for students, faculty, and staff to participate in team and individual sport competitions. These include basketball, beach volleyball, bowling, dodgeball, flag football, indoor and outdoor soccer, softball, volleyball, and wiffleball. Individuals as well as teams are encouraged to participate in intramurals. Usually departments form various teams and play against each other. If a department does not have a team, one can be created. More information is available at <http://studentaffairs.stonybrook.edu/rec/>.

Most athletics facilities may be used for recreational purposes when they are not scheduled for classes, intercollegiate, intramural, or special events. Membership is required for use of the Sports Complex by all non-Stony Brook ID holders. Information pertaining to all physical education and athletic offerings, facility usage, and membership may be obtained in the Sports Complex main office or by calling (631) 632-9271.

## Campus Residences

Information regarding Campus Residences (residence halls and apartments) can be obtained by writing to the Division of Campus Residences, Mendelsohn Quad, or by calling (631) 632-6750, or by visiting the Campus Residences Web site at <http://www.stonybrook.edu/housing>.

Residence Halls  
Campus Apartments  
Residence Hall Billing

## Residence Halls

The Division of Campus Residences is committed to providing quality housing and educational service to its resident students. The residence halls on campus house 60 percent of all undergraduate students. More than 40 professional Campus Residences staff members, assisted by approximately 300 student staff members, help students structure their experience within the framework of the overall Campus Residences program. The emphasis on developing student responsibility is intended to promote standards that encourage personal growth and a rewarding living experience.

The residence halls are organized in quads by groups of three to five residential colleges. Each ensures that students feel part of a small residential community that fosters social, intellectual, and cultural interaction. Each residence hall houses approximately 220 students; nine of the halls are designated as Living Learning Centers. Each quad has a unique atmosphere and personality that is further enhanced and supported by the Undergraduate Colleges, a system of six theme-based academic communities, each of which has its "home" in one of the quads. Every entering freshman is assigned to an Undergraduate College based on his or her preferences. Small seminars, interaction with senior faculty members, one-to-one advising, and programs and activities based on the college theme all enhance the first-year experience.

Each residence hall is supervised by a residence hall director. The RHD works to establish an environment that fosters the academic and personal growth of the resident students. He or she serves as an advisor to the college legislature (student council), provides personal advising, supervises the student staff, and promotes educational programs (e.g., study skills workshops, guest lectures, and résumé writing workshops). The student staff members of each residence hall serve as peer advisors, stimulate social and educational programs, report maintenance concerns, and provide the residents with important information regarding campus programs and policies.

The University is committed to an on-going revitalization project to upgrade all of its residential facilities. The revitalization project, now in its second cycle, includes new furniture in bedrooms and public areas, enhancements to social and recreational facilities, and modernization of the HVAC systems. The University has constructed nine additional residences, known as the West Apartments, which house approximately 1,200 upper-division undergraduates. These three-story buildings are air-conditioned and fully furnished, with full kitchens.

Each residence hall has public lounges, laundry rooms, and recreational facilities. Halls are also equipped with telephone, Ethernet, and cable television hookups, with quality television reception as well as access to more than 50 cable stations (including HBO). There are also state-of-the-art fitness and computing centers located in every Quad, open free of charge to all residents. The fitness centers feature Cybex circuit training, LifeCycle exercise bikes, stair and elliptical machines, and free weights. Aerobics classes are taught in some centers, and staff is available to develop and monitor personal fitness plans for all users.

Computing centers featuring the most current technology in desktop computing run all Microsoft Office applications and provide access to electronic mail and the Internet. Trained staff is available in each center to provide technical assistance and guidance.

Several quads have dining halls. First-year and transfer students living on campus must participate in one of the meal plan options during their first two semesters of residence. Most residence halls have been designated as cooking-free buildings and students living in those buildings are required to enroll in one of the meal plan options offered by Campus Dining Services. Many residence halls offer the option of quiet communities, which have become increasingly popular with the residence hall population.

A large percentage of the on-campus activities take place within the residence halls. Hall Councils are student councils within each building empowered to spend the funds allotted by the Undergraduate Student Government. Hall Councils and the Campus Residences staff plan numerous social and educational activities, including hall dinners, movies, parties, guest speakers, cultural events, academic and career information sessions, and study skills workshops.

The Residence Hall Association, representing all students who live on campus, addresses important issues of concern to quad residents, including an annual review of the residence hall budget. Students are encouraged to become active members of this organization.

## Campus Apartments

The Harry Chapin Apartment Complex provides graduate and family housing. The apartments have one, two, three, or four bedrooms, with kitchen, living/dining room, and bathrooms. All apartments are furnished. Rental agreements are on a 12-month basis. The cost varies depending on the size of the apartment and the number of occupants. The Schomburg Apartments house single graduate students in four-bedroom apartments and married couples and domestic partners in one-bedroom apartments. The West Apartments also offer limited housing for graduate students.

## Residence Hall Billing

The Residence Hall agreement for undergraduates is for the full academic year, although billing is processed each semester. Graduate students are billed monthly, although the rental agreements are made on a 12-month basis. Once a student accepts the key to his or her room, the student becomes financially responsible for the full housing charge. Should an undergraduate student wish to cancel housing at the end of the fall semester, the student must complete a proper checkout (which includes signing out of the room and returning the room key to the Quad Office) by 8:00 p.m. on the last day of the fall semester to avoid being assessed full housing charges for the subsequent spring semester.

## Career Center

The Career Center assists students with all types of career planning and decision-making concerns--from choosing a major and selecting career options, to developing the research, writing, and communication skills necessary to attain career goals and successfully make the transition from college to the world of work. Employment services and resources for information on credit-bearing, paid, and volunteer internships, part-time jobs, and full-time career-related employment are also available. Students are encouraged to undertake periodic self-examination beginning



in the freshman year, to relate their academic expertise to their future aspirations, and select related experiences (work, service, leadership) to complement their academic program. Individual and group consultation is available.

Two credit-bearing courses are offered to educate students about the career development process:

CAR 110 Career Development is designed for second-semester freshmen and sophomores and introduces students to theories of career decision-making, and the relationship between major choice, academic planning, and career options. Two steps in the career decision progression are examined: self-assessment (skills, interests, values, and personality traits) and career exploration. Group career research is undertaken with a presentation component. At the end of the course, students develop written goals for further career exploration.

CAR 210 Career Planning is designed with junior- and senior-year students in mind and addresses career planning, goal setting, professional communication, understanding of job market trends, and career research strategies. This course teaches students a systematic approach to examining the issues involved in entering the job market and making the transition from the role of college student to the role of professional. At the end of the course, students develop their written assignments into a portfolio useful for job and internship applications.

### **Internships**

The Internship Program provides students opportunities to spend a semester, January intersession, or summer working for pay and/or academic credit under the supervision of University faculty and professional staff at a cooperating agency or organization. Interns learn to apply theory to practice; to test their career intentions; to improve their intellectual skills in writing, quantitative analysis, research, and administration; to increase their understanding of social, political, and economic forces; and to acquire work experience that may be useful when seeking employment or applying to graduate or professional school. Zero to six credits may be earned through EXT 288 or EXT 488. Internship credit courses are available in most academic departments; consult your undergraduate program director or the Career Center to determine the best fit course for your internship.

### **Community Service**

The Career Center offers hundreds of community service opportunities with a variety of non profit organizations located on- and off- campus (e.g., healthcare, disability support, mentoring, education, public safety, and environmental organizations), with varying levels of commitment (eg. one day service projects to monthly or weekly commitments). Our programs include: Volunteers for Community Service program (VCS) which matches students with available opportunities for short term and long term service projects; and the AmeriCorps program, a competitive scholarship-based service program requiring 300 hours of service in one year.

### **The Job Search Preparation Program**

The Job Search Preparation Program includes individual advisement (by appointment or walk-in), group seminars, and special events, all designed to assist students in identifying job leads using standard search methods as well as unconventional ways of accessing the hidden job market, writing targeted résumés and cover letters, networking with alumni and employers, and interviewing effectively. Career Center counselors routinely visit classrooms, student organizations, and academic departments when requested.

### **Access to Employers**

Career Center provides students access to employers in a variety of industries through our online recruitment database, ZebraNet. We post thousands of job & internship listings each year. In addition to online postings, Career Center offers 5 Job & Internship Fairs per year where students can meet company representatives, gather information and submit resumes. The On Campus Recruitment program brings employers to Stony Brook to conduct interviews for full time, part time, and internship positions. Employer Prime Time is a venue for company representatives to visit the Career Center and have open talks with students about careers and job options on a drop in basis. Company Presentations are held throughout the semesters by organizations who want to offer a more formalized learning opportunity for students. Industry panels are organized throughout the year, bringing alumni and other professionals to campus to share their experiences and provide advice to job seekers. ZebraCAN is our alumni career advising network; students can access ZebraCAN through their ZebraNET accounts. Lastly, the Career Center often promotes career events held off campus that our students take full advantage of (eg. NYWICI Communications Career Conference, Long Island Works Internship Fair, Boston Career Forum for Japanese Speakers, NY Sports teams Hiring Open Houses, Engineering Fair at Columbia).

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To take advantage of these and many other resources, students are encouraged to visit the Career Center on the Web at <http://www.stonybrook.edu/career> and in person. Located in W-0550 Melville Library, at the foot of the Zebra Path walkway between the Library and Old Chemistry, the office is open weekdays from 8:30 a.m. to 5:00 p.m. Phone: (631) 632-6810 (Voice/TDD).

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## Child Care Services

The University provides on-campus child care services for approximately 160 children ranging in age from two months to five years. [Stony Brook Child Care Services](#) is a nonprofit, nationally accredited center, providing service for University students, faculty, and staff. The Center is staffed by professionals in the early childhood field who are assisted by students enrolled in coursework practice.

The primary aim is to provide a warm, supportive, and creative atmosphere in which each child, and each child's family, is regarded as individual. Hours of operation vary. Fees are charged on a sliding scale based on income.

There is a waiting list for the Center; interested persons should complete an application well before the service will be needed, as placement cannot be guaranteed. Call (631) 632-6930 for more information.

## Commuter Student Services

The Office of Commuter Student Services, a member of the Division of Student Life, is located in room 224 of the Student Activities Center and is open weekdays from 8:30 a.m. to 5:00 p.m. (with later hours available by appointment). It offers services, programs, advocacy and outreach on behalf of undergraduate commuter students.

Programs offered by the office include Lunch and Learn workshops, Commuter Connection breakfasts, Commuter Fall and Spring Festivals, the Academic Achievement Reception, and an Adult Learner/Non-Traditional Student Network. One of its major programs, the Commuter Assistant Program, allows new commuter students the opportunity to be paired with experienced student leaders who can offer support, advice and camaraderie during the new students' first year.

The Office of Commuter Student Services is continuously reaching out and providing information to commuter students through Blackboard, email, campus bulletins and outreach events such as Parking Lot Outreach Days and Commuter Appreciation Days. In addition to providing programs, services and outreach, the office advocates for commuter students by bringing the commuter student perspective to campus committees and programs. In collaboration with campus constituencies such as the Department of Student Activities, the Department of Campus Recreation and the Commuter Student Association, the Office of Commuter Student Services actively assists and encourages commuter students to become full participants in campus life.

The Office of Commuter Student Services can be reached by telephone at (631) 632-7353 or by e-mail at [commuter\\_services@stonybrook.edu](mailto:commuter_services@stonybrook.edu). Visit Commuter Student Services online at <http://studentaffairs.stonybrook.edu/css/index.shtml>

## Computing Services

Stony Brook University provides a wide array of information technology resources designed to assist students in communicating, learning, and conducting day-to-day tasks at the university. As new technologies emerge and best practices evolve, the Division of Information Technology will keep you informed of Stony Brook's latest student services.

The first thing all students need to know is their **Net ID**. The Net ID is required to utilize much of the technology on campus including public computers and printers, Blackboard (our course management system where many professors post course information/assignments), network access in the residence halls, wireless access in academic buildings, library databases, MySBFiles (central file storage), and MySite (virtual workspace). You can set up your NetID by logging into the SOLAR system and clicking on the Net ID Maintenance option.

Public computer labs at Stony Brook are called SINC (Student Instructional Network Computing) Sites and are located throughout the campus in every main academic building. There are a total of 16 SINC sites on the main Stony Brook campus with an additional site at Stony Brook's Southampton campus. SINC Sites provide students with computers (both Windows and Mac), software, printers, scanners and multimedia hardware. Student consultants are available to answer questions and free workshops on common computer applications are offered to students.

For more information about SINC Sites, contact Teaching, Learning + Technology (TLT), S-1460 Melville Library, at (631) 632-8050 or contact the student consultants at (631) 632-9602, [helpme@stonybrook.edu](mailto:helpme@stonybrook.edu), or visit the Web site at <https://tlt.stonybrook.edu>.

The Division of Campus Residences offers Residential Computing Centers for students. These computer labs are available in each residential quad. It is important that students call the individual contact numbers for more information about these computer labs. Contact and general information for these computer labs can be found at <http://studentaffairs.stonybrook.edu/res/computing.shtml> or you can call Campus Residences at (631) 632-6966.

All students receive an e-mail account with an easy-to-remember address (your.name@stonybrook.edu). E-mail accounts are generated automatically for new students and are commonly referred to as Sparky accounts. For more information, visit <https://tlt.stonybrook.edu/StudentServices/Email/Pages/default.aspx>.

The University provides several resources for student file storage and Web space. You can access all of these resources on or off campus via an Internet browser. To learn how to use any of these resources, please visit <https://tlt.stonybrook.edu/StudentServices/Pages/default.aspx> and choose a topic from the left menu bar.

Stony Brook students have a variety of ways to access the Internet (from their residence hall, from the SINC Sites, from the residential computing centers, from wireless locations on campus and from off-campus). Learn more at [http://www.stonybrook.edu/it/student\\_guide.shtml](http://www.stonybrook.edu/it/student_guide.shtml). Go to Internet Access on the left menu bar once you get to this page.

Campus wireless is available to all students through AirNet. To learn how to connect to AirNet and to find out where wireless is located throughout campus, please visit <http://www.stonybrook.edu/it/networking.shtml> and click on Wireless (AirNet) on the left menu bar.

The Print from Anywhere service is available to all registered Stony Brook students. It allows students to send print jobs to the SINC Site Printer Queue from any computer on or off campus. Printouts can be retrieved from any SINC Site.

In an environmentally conscious effort to eliminate unnecessary waste, the University offers students a daily print quota of 40 single-sided or 25 double-sided pages per day. Print balances roll over each morning except on Saturday and Monday. For more information please visit <https://tlt.stonybrook.edu/>

### **Facilities/ComputerLabs/Printing**

Symantec AntiVirus and Microsoft Office are available to all registered Stony Brook students as part of their technology fee. Symantec AntiVirus can be downloaded through Stony Brook's software distribution site, Softweb, (<http://softweb.cc.sunysb.edu>). You need your Stony Brook ID number and birthdate in YYMMDD format to log in to Softweb. To obtain the latest version of Microsoft Office for Windows or Mac, students must bring their Stony Brook ID card to either the Seawolves MarketPlace in the Student Activities Centers or the Matthews Bookstore in the Health Sciences Center. Only one copy for either Windows or Mac is issued per student.

Computer supplies are available in the University Bookstore and the Seawolves MarketPlace. The Seawolves MarketPlace also has campus discounted software and cables for residence hall Internet connections. Additional software titles are available to Stony Brook students at a discounted rate. For more information, please visit <http://www.stonybrook.edu/it/software.shtml>

Educational discounts are available to students purchasing Dell, Apple, or Lenovo computers. Bundled packages come with three-year warranties and accidental damage insurance. For more information, please visit <http://www.stonybrook.edu/it/hardware.shtml>

Students who require assistance with their personal computers should contact Client Support's Student Service Center at (631) 632-9800, or by e-mail at [DoIT\\_SSCSupport@stonybrook.edu](mailto:DoIT_SSCSupport@stonybrook.edu).

### **Counseling and Psychological Services (CAPS)**

Counseling and Psychological Services (CAPS) provides crisis intervention, brief psychotherapy, psychiatric care, and group and couples therapy free of charge for Stony Brook students (including SPD students) who are enrolled in a degree-granting program and registered for at least six credit hours. Counseling services are available year-round. All information about counseling at CAPS is strictly confidential, except for that information needed in situations where there is an imminent threat or danger.

Students do not have to be confronting desperate or overwhelming difficulties in order to benefit from counseling. We encourage students to come in and discuss problems, even if they are not sure that counseling is what they need. For many students, dealing effectively with emotional and social issues increases their success with academic work. CAPS is a place that can help with many issues faced by students.

CAPS also has outreach programs to enhance personal growth and develop skills. The most popular workshops deal with stress management, meditation, and study skills. These programs are free for all Stony Brook students. In addition to workshops, CAPS sponsors a weekly radio program that focuses on health and mental health issues, "Taking Care of Yourself."

During the school year CAPS is open Monday through Friday from 8:30 a.m. to 5:00 p.m., plus Tuesday from 5:00 p.m. to 7:00 p.m. During intersession, summer, and spring break CAPS is open Monday through Friday from 8:30 a.m. to 4:00 p.m. Appointments for an initial visit are made on a same-day or next-day basis by calling (631) 632-6720. In emergency situations, students will be seen right away without a scheduled appointment.

CAPS is located on the second floor of the Student Health Center, near the Stadium on the west campus. HSC students may schedule appointments in the new Health Sciences Center Counseling Center, located on Level 3 (the same level as the HSC Library). Call (631) 632-6720 for appointments and further information.

For mental health emergencies after hours and on weekends, students should call the University Police at 911 from on-campus extensions and (631) 632-3333 if calling from off campus or a cell phone, or go to the University Hospital Emergency Room. Anyone not experiencing an emergency but wanting to speak to someone after hours and on weekends can call the Response Hotline in Stony Brook at (631) 751-7500.

Further information about counseling services can be found on the CAPS Web site at <http://studentaffairs.stonybrook.edu/caps/index.shtml>

## Office of the Dean of Students

The Office of the Dean of Students advocates for student needs, provides leadership for co-curricular programs/activities, and advises the Vice President for Student Affairs, the Provost, and the President on planning initiatives to further build campus community, facilitate student success, and welcome and orient new students.

The Dean of Students provides support in response to student issues, concerns, and emergencies and provides leadership for student life initiatives that promote social responsibility and civility, celebrate diversity, and advance an inclusive campus climate. The Dean of Students Office collaborates with students, faculty, and other departments on advancing holistic student development. It advises the Undergraduate Student Government (USG), and works closely with the Graduate Student Organization (GSO) and other student groups on campus. The office also co-advises the Student Ambassadors Program.

The Office of the Dean of Students is located in Suite 222 of the Student Activities Center and can be reached by telephone at (631) 632-7320. Visit the Web site at <http://studentaffairs.stonybrook.edu/dos/>

## Disability Support Services

Disability Support Services (DSS) coordinates advocacy and support services for students with disabilities. These services assist in integrating students' needs with the resources available at the University to eliminate physical or programmatic barriers and to ensure an accessible academic environment. All information and documentation of student disabilities is confidential.

Students are responsible for identifying and documenting their disabilities through the DSS office. Students receive assistance with special modified housing and on-campus transportation. DSS can assist with University procedures and requirements, arrange for special test accommodations and for the recruitment of readers, interpreters, and note-takers.

The professional counseling staff at DSS includes a Psychiatric Nurse Practitioner, a Learning Disabilities Specialist, and a Clinical Social Worker. These counselors are available for confidential consultation, crisis intervention, and brief supportive counseling as well as referrals for medical and learning disability evaluations. All DSS counselors are available to provide in-service training to the University community.

Students who anticipate requiring assistance should contact Disability Support Services as early as possible to allow for implementing recommended services. The office is located in Room 128 of the Educational Communications Center.

Phone: (631) 632-6748, (631) 632-6548 VOICE/TT  
Web site: <http://studentaffairs.stonybrook.edu/dss/>

## Division of Student Affairs

As campus advocates for all students, the departments within the Division of Student Affairs are responsible for supporting the needs of the student body and providing a positive campus life experience for each student.

The Division consists of the following offices: Campus Recreation; Campus Residences; Career Center; Commuter Student Services; Dean of Students; Disability Support Services; Facilities, Operations, and Reservations of the Student Activities Center and Stony Brook Union; University Community Standards (formerly Judicial Affairs); Student Activities; Student Health Services; University Counseling Center; Veterans Affairs; and the Wo/Men's Center.

Detailed information is available on the Student Affairs Web page at <http://studentaffairs.stonybrook.edu/>.

## Visa and Immigration Services

International Services provides undergraduate students, graduate students, faculty, and scholars from other countries advice and assistance on U.S. government immigration regulations and cross-cultural issues relating to study, teaching, research, and living in the United States.

The International Student and Scholar Advisors are the Designated School Officials (DSO) and Alternate Responsible Officers (ARO) on campus and are responsible for assisting students in obtaining and maintaining valid F-1 or J-1 immigration status in the United States. Personal advising on immigration and cross-cultural issues is available throughout the year.

International Student and Scholar Advisors are available during advising hours Monday through Friday on a walk-in basis and by appointment. In addition, International Services works with community groups and student organizations to provide programs and activities, including orientations, tours, discussion groups, workshops, and other events. International Services also provides a liaison for students with the community-based Host Family Program.

To maintain valid immigration status an F-1 or J-1 international student must be enrolled full-time in an approved course of study and maintain a valid passport, Form I-94, and Certificate of Eligibility Form I-20 or DS-2019. International students should consult an International Student Advisor upon arrival in the United States and before: 1) accepting employment, 2) traveling outside of the United States, either temporarily or permanently, 3) applying for a U.S. visa abroad, 4) transferring to or from another institution within the United States, 5) withdrawing from the University, 6) dropping below a full course of study, 7) changing his or her address in the United States, 8) changing to another non-immigrant or immigrant status (i.e., from F-1 to permanent resident), or 9) changing academic major, level of study, or when experiencing academic difficulty.

All international students are required to attend a mandatory International Student Orientation Program and to meet with an International Student Advisor as soon as possible after their arrival at Stony Brook.

International students are encouraged to keep in close contact with their international student advisers throughout their stay in the United States. Information and important immigration updates are posted on the International Services Web site at <http://www.stonybrook.edu/iaps/international/>.

Visa and Immigration Services is located in the Melville Library, E5310. The telephone number is (631) 632-4685. The fax number is (631) 632-7064.

## Libraries

Stony Brook University Libraries consist of seven libraries located on the West, East, and South campuses. The Libraries serve the needs of our students, faculty, staff, and surrounding community. With more than 2 million bound volumes, 3,000 print journal subscriptions and access to 54,000 electronic journals, 250 electronic databases, 7,000 circulating videos, and 4 million microform publications, the Stony Brook University Libraries are one of the largest academic library systems in the nation.

Details of nearly every collection, service, database, and catalog, along with hours and events, can be found at <http://www.stonybrook.edu/library>.

### The Main Library

The Main Library, located in the Frank Melville Jr. Memorial Library building, is the center of Stony Brook's library enterprise. It is the home to the main stacks (housing humanities and social sciences collections), reference services, the Music Library, the Science and Engineering Library, Special Collections, the map collection, government documents, a patent and trademarks depository, two networked classrooms for research instruction, and a video viewing area.

During the academic year, the Main Library is open Monday through Thursday, 8:30 a.m. to midnight; Friday, 8:30 a.m. to 8:00 p.m.; Saturday, 10:00 a.m. to 6:00 p.m.; and Sunday, noon to midnight. During intersession and other vacation periods, hours are generally 8:30 a.m. to 5:00 p.m., Monday through Friday, and closed weekends. Library hours are subject to change. Call (631) 632-7160 for the updated schedule. Details of nearly every collection, service, database, and catalog, along with hours and events, may be found at <http://www.stonybrook.edu/library>.

### Branch Libraries

The University Libraries encompass five branch libraries. Chemistry, Math/ Physics/Astronomy, and the Marine and Atmospheric Sciences Information Center are located in their departmental buildings. The Science and Engineering Library, located in the North Reading Room of the Melville building, contains reference and circulating collections of biology, computer science, geosciences, and engineering, as well as maps, patents, law books, and government documents. The Music Library, located at the end of the North corridor in the Melville Library building, houses more than 42,000 music recordings including streamed audio for course reserves, 70,000 books, 60 listening stations, 900 performance videos, and 100 periodicals.

The Health Sciences Library is administered separately. For information, visit its Web site at <http://www.hsclib.sunysb.edu/>.

## Collections

### Video Collection

The University Libraries maintain a large collection of video and cinema titles. Currently, there are more than 11,000 video titles and DVDs to serve campus instructional and cultural needs. Most materials circulate for seven days and may be viewed in designated areas in Main Circulation on the third floor.

### Special Collections and Archives

The Special Collections Department offers 18,000 printed volumes, 200 manuscript collections, and 650 historic maps. The manuscript and rare book collections document and support a wide range of disciplines. Collecting areas include: Long Island history, the environment, politics, science and technology, and the arts and humanities. The University Archives houses printed, manuscript, and ephemeral materials created by the faculty, staff, and students of Stony Brook University.

### Map Collection

Located in the North Reading Room, the collection of 130,000 maps includes: Aerial, Atlases, Census, GIS, Historical, Oceanographic, Street, and Topographical maps. To support digital maps, the library also provides GIS software and a loaner GPS unit.

### Patent and Trademark Depository Library

Stony Brook University is home to the only U.S. Patent and Trademark Depository on Long Island. Assistance in conducting patent searches may be obtained in the North Reading Room.

## Services

### Digital Resources

STARS is the Libraries' online catalog, accessible on or off campus via the Library home page. With STARS, you can renew books, find out if a book is checked out, review library fines, and be notified of new arrivals.

The Libraries subscribe to more than 300 electronic databases and more than 40,000 full-text online journals in every field of study. Many articles, statistics, and reports that are no longer available in print, including most indexes and catalogs of these materials, can be accessed online. Some of the better-known databases are: Academic Universe (Lexis-Nexis), Ethnic Newswatch, IEEE, JSTOR, MEDLINE, PsycINFO, ScienceDirect, and Web of Science.

Online databases are available from all computers on and off campus. Wireless access to the Internet is available throughout the Melville Library Building and all the branch libraries.

### **Reference and Instructional Services**

Stony Brook University Libraries offer a wide range of services to assist you with your research and studies. Reference Services include walk-in assistance, as well as telephone, e-mail, and chat.

The Central Reading Room is the place where students and faculty often begin their library research. Individualized assistance from professional librarians is available at the Reference Desk, located in the center of the room. This room also offers access to a microforms collection, current periodicals, computer workstations, and disability support services. Instructional Services helps students navigate the electronic information environment. Workshops, research sessions, and tours are available each semester.

### **Circulation Services**

Circulation Services oversees the maintenance of all materials housed in the Main Library and the branch libraries on the West Campus, and manages all the functions related to the borrowing and returning of library materials, including course reserves.

### **The Stacks**

Located on the second, third, and fourth floors of the Main Library, the stacks are accessible through our third-floor entrance. The Stacks contain collections of bound journals, books, and audio visual material in humanities and social sciences. There are also a variety of study spaces available on each of these three floors.

### **Photocopy Services**

The Libraries provide copiers for public use throughout the Main Library and the branches. Payment of library fines is accepted in the Photocopy Center, Monday to Friday, from 8:30 a.m. to 4:30 p.m.

### **Interlibrary Loan**

Books and journal articles not held by Stony Brook may be borrowed from reciprocating libraries across the country. This service is free and requests are made via the Web through the Libraries' ILL/Document Delivery link.

### **Off-Campus Housing**

Off-Campus Housing is a service provided by the Faculty Student Association to assist students in locating and securing off campus living arrangements. Various housing options are available to rent in the Stony Brook University vicinity including houses, studios, apartments, house shares, and rooms to rent.

The interactive Web site at <http://och.fsa.sunysb.edu/> allows students to search and view available accommodations based on a number of factors including housing preference type, price, and distance from the Stony Brook campus. The site contains useful information such as short-term housing, landlord/tenant information, transportation, and local services, as well as roommate referral and merchandise databases.

The Off-Campus Housing Office is located on the second floor of the Stony Brook Union Building, Suite 250. Regular hours of operation of Monday through Friday 9am-4pm.

### **Ombuds Office**

The University Ombuds Office provides conflict management services to the entire University community. The Ombudsperson is defined as an informal, impartial and independent resource for individuals seeking assistance or information in pursuit of the resolution of a conflict or problem related to their work, studies, or residence at the University. The Ombudsperson will listen to all sides of an issue and may advise, coach, mediate, refer, counsel, or negotiate.

The Ombudsperson does not participate in formal administrative, adjudicative or disciplinary processes.

The services of the University Ombuds Office are available to students, faculty, and staff. All contact with the Ombuds Office is considered confidential in accordance with professional standards of practice. Depending on the nature of the question or problem, the Ombudsperson might offer specific advice or mediation, provide information, or make the appropriate referral. The Ombuds Office is also open to those who simply need someone to listen impartially and privately and suggest a course of action or a range of options.

The University Ombuds Office is located in Room W-0505, Melville Library, on the ground floor, alongside the zebra path. Hours are 9:00 a.m. to 5:00 p.m. Monday through Friday. Walk-in visits are possible, but scheduled appointments are recommended. The phone number is (631) 632-9200; visit the Ombuds Office Web site at <http://www.stonybrook.edu/ombuds> for more information.

### **Office of Student Activities**

All Stony Brook students are encouraged to get involved in activities and programs outside of their classroom experiences to make the most of their college careers. The Student Activities office works with students to offer the campus community co-curricular programs that enhance student life at the University.

Students can choose from more than 250 clubs and organizations to join, or they can create a new student group. The Student Activities office works closely with student groups to plan events such as Opening Activities and Chill Fest at the start of each semester, Homecoming, movies,



guest lectures, educational programs, carnivals, parties, and other types of activities. Students can also enjoy weekends at Stony Brook that include concerts, plays, movies, parties, guest speakers, fairs, and cultural exhibits. Volunteer opportunities to assist with these programs also are available.

The Student Activities office also provides support for campus fraternities and sororities, allowing students the opportunity to develop lifelong friendships, to become involved with community service, and to develop skills towards becoming effective leaders. Fraternity and sorority life focuses on scholarship, leadership, service, and social activities. The Stony Brook campus has 30 fraternities and sororities, including national, local, regional, and cultural chapters.

The Student Activities office also offers a variety of media opportunities. Students can train to work at WUSB 90.1 FM radio station as an on-air personality, or help with production and engineering of shows. Similar opportunities are available at the campus' internal television station, SBU-TV. There are also student publications such as campus newspapers, including *The Statesman*, *The Stony Brook Press*, *Blackworld*, and *Creative Minds*. Web publications include the *Asian American E-Zine* and the *Stony Brook Independent*. Many student clubs and organizations also produce newsletters, journals, and publications to serve their members. The campus is also fortunate to have a college-level chapter of the Society of Professional Journalists, which serves as a pre-professional organization.

The Student Activities office manages the Student Activities Center's Gallery, which offers fine arts, crafts, and photography exhibitions to the Stony Brook community. The art exhibitions relate to the campus' monthly Diversity Celebrations themes (e.g., Hispanic Heritage, Diversity of Lifestyles, Religions, Black History, Women's History, Cultures) and also include group senior shows, community artists, juried shows, and faculty and staff exhibits. Opening receptions and special presentations that compliment the exhibitions are held throughout the academic year. The SAC Gallery is located on the first floor of the Student Activities Center.

Also operated by the Student Activities office, the Stony Brook Union Crafts Center promotes the appreciation of art and fine crafts for Stony Brook students, faculty, staff, and the surrounding community. The Crafts Center offers arts and leisure opportunities through non-credit classes. It is located in Room 049 of the Stony Brook Union.

The Office of Student Activities is located in the Student Activities Center, Room 218, and can be reached by telephone at (631) 632-9392. Visit the Web site at <http://studentaffairs.stonybrook.edu/StudentActivities/>.

### **Student Health Service**

New York State Public Health Law requires that every student demonstrate proof of immunity against measles, mumps, and rubella. This law requires the University to prohibit students' future attendance if they fail to acquire or submit certification of the necessary immunizations. Compliance is mandatory; students who fail to provide proof of immunization will be prevented from registering for courses.

NYS Public Health Law §2167 requires institutions, including colleges and universities, to distribute information about meningococcal disease and vaccination to all students meeting the enrollment criteria, whether they live on or off campus. Stony Brook University requires that all students complete and return an acknowledgement form. The information and acknowledgement form can be downloaded at <http://studentaffairs.stonybrook.edu/shs/forms.shtml>.

The comprehensive infirmary fee entitles students to health services at the campus Student Health Center.

The medical clinic at the health service is staffed by physicians, physician assistants, nurse practitioners, and nurses. To make the best possible use of your time and the staff's, appointments are required for most visits. Students can call or visit the Student Health Service to set up an appointment. In most cases appointments can be made on a same-day basis. There is a gynecology clinic (Women's Center), dermatology clinic, social worker, health educator, massage therapist, and a registered dietician. Pharmacy and laboratory services are available.

The Student Health Service, located in the Student Health Center building, provides health care to all registered students. The health service is open Monday through Friday, 8:00 a.m. to noon and 1:00 p.m. to 5:00 p.m., as well as Tuesdays, 8:00 a.m. to 7:30 p.m. The hours during intersession and in the summer are 8:00 a.m. to 4:00 p.m. When the Student Health Service is closed, students are referred to the Emergency Department of the University Hospital on a fee-for-service basis.

For more information about the Student Health Service, please call (631) 632-6740 or visit <http://studentaffairs.stonybrook.edu/shs/>.

Stony Brook now has a required health insurance plan for all full-time, matriculated, domestic students. This plan pays for most medically necessary bills, such as doctor visits, mental health counseling, prescriptions, emergency room, lab testing, diagnostic testing, surgery, hospitalization, etc. The plan covers our students anywhere in the world, every day, no matter whether on campus or on semester breaks. For more information regarding insurance, please go to <http://studentaffairs.stonybrook.edu/shs/insurance.shtml> or contact the Insurance Office within the Student Health Service at (631) 632-6331.

### **Office of University Community Standards**

The Office of University Standards (formerly Judicial Affairs) supports University educational goals by promoting a just, safe, orderly, civil, and positive University climate for learning, in the classroom, in University residence halls/apartments, and on the campus.

The University Student Conduct Code provides students, faculty, staff, and visitors with a procedural guide to initiate a complaint against a student when their rights as members or visitors to the University community have been allegedly violated. For all students, the Conduct Code supports compliance with state and federal laws pertaining to drugs, alcohol, weapons, physical assault, harassment, sexual harassment, sexual assault or abuse, acquaintance (date) rape, relationship violence, discrimination, and racial and sexual preference harassment. Intervention by the Office of University Standards addresses inappropriate conduct and also serves to educate students on how their conduct affected themselves, others, and the University community.

University expectations for student conduct as outlined in the University Student Conduct Code are reviewed through the Rules Revision Committee that includes student participation.

Students (undergraduate and graduate, resident and commuter) can apply to become Administrative Hearing Board volunteers. When selected, Hearing Board members are trained to hear evidence and render fair and objective decisions on allegations brought to the formal hearing process.

#### Maintenance of Public Order

The University wishes to maintain public order appropriate to a university campus without unduly limiting or restricting the freedom of speech or peaceful assembly. The State University Board of Trustees' Rules for the Maintenance of Public Order (Part 535 of Title VIII—Compilation of Codes, Rules, and Regulations of the State of New York) are printed in the Student Conduct Code brochure. For the Rules of Public Order, please visit <http://studentaffairs.stonybrook.edu/jud/order.shtml>

Questions regarding the Conduct Code, the hearing process, procedures for filing a complaint, or volunteering to become a student hearing board member can be directed to:

Office of University Community Standards  
348 Administration Building  
(631) 632-6705

To obtain a copy of the Conduct Code or Alcohol Policy, see <http://studentaffairs.stonybrook.edu/jud/conduct.shtml>, or visit Room 348 of the Administration Building or the Office of Campus Residences in Mendelsohn Quad, (631) 632-6750, to receive a hard copy.

#### Veterans Affairs

The Office of Veterans Affairs assists students in obtaining the education benefits to which they are entitled to from the Department of Veterans Affairs. The most standard of these services is enrollment certification by which the Certifying Official informs the awarding agency of the student's enrollment status and duration for each benefit period or semester.

The Department of Veterans Affairs recognizes the Veterans Affairs Coordinator as the certifying official and liaison for Veteran students in every academic program offered at Stony Brook University (SBU), including medical, dental, nursing, and health technology programs. The Veterans Affairs Coordinator is also an advocate for the veteran student population and interacts with a vast array of constituencies on their behalf.

In addition to one-on-one counseling for veteran students being called to active duty and VA Work Study placement, students may also visit the SBU VA Web site at <http://studentaffairs.stonybrook.edu/vets/> for more information. The SBU VA Web site is updated each semester and provides links for relevant information pertaining to VA benefits (i.e., health, compensation, home loan, etc.). The Office of Veterans Affairs also coordinates the approval from the State Division of Veterans Affairs/Bureau of Veterans Education for all new academic and certificate programs. It is the sole office on the Stony Brook campus dedicated to veteran students regarding their benefits.

The Stony Brook Veteran Student Organization (VESO) is an Undergraduate Student Government sponsored organization. This club is not affiliated with any outside organization. VESO's primary objective is to create a campuswide awareness of the immense contributions that Veteran Students make to our Stony Brook community. VESO aims to bring issues relevant to veteran students to the forefront. With the help of its membership, VESO intends to continue the history of service and commitment that veterans are known for. VESO's main mission is to unite veteran students with each other and with our campus community, to make their transition from military to civilian life easier, and to provide the necessary guidance and mentoring to all new veteran students.

#### The Wo/Men's Center

The Wo/Men's Center welcomes all students in need of support and strives to promote equal rights for women and men through outreach programs and counseling services. The Wo/Men's Center provides programming and outreach on a wide range of issues that highlight women's and men's growth and development. Topics range from improving communication in relationships to healing from traumatic experiences. The Center has hosted events such as a performance of Eve Ensler's play *The Vagina Monologues*, Meet and Greet the authors of *Souls of My Sisters*, Celebrating Women Artists for Women's History Month, and Take Back the Night. The Center often works in collaboration with other University departments and student groups such as Commuter Student Affairs, the Dean of Students, the University Counseling Center, EAP, the Center for Womyn's Concerns, and Students for Choice.

The Wo/Men's Center offers monthly discussion groups as an opportunity for students to talk with other students about topics such as domestic violence, building community, being a person of color, and how local and federal politics affect women. The Center also offers support groups that meet weekly as a place for students to connect with others. Groups are developed based on student need, such as LGBT support group, Beyond Food and Body (Body Image support group), Dissertation Support Group, and mindfulness meditation groups. Interested students should call the Center at (631) 632-9666 for more information about groups currently offered.

In addition to providing outreach programs, the Wo/Men's Center is a free resource for undergraduate and graduate students to obtain counseling for any issue including, but not limited to, relationship and family problems, adjusting to college, coming out, depression, anxiety, eating disorders, and rape and sexual assault. Professionally trained masters-level and doctoral-level clinicians and graduate-level clinicians-in-training provide counseling services. Call the Center to make an appointment. Client information is kept confidential.

The Wo/Men's Center also houses a Lending Library for student use. Book topics range from Health and Wellness, Feminist Studies, and Fiction. Please stop by or call for library hours and information.

The Wo/Men's Center is committed to challenging oppression in all forms and recognizes the demands that face college students. To help meet these challenges, we offer afternoon and evening hours during the academic year, Monday through Thursday from 12:00 p.m. to 8:00 p.m., and Friday 12:00 p.m. to 6:00 p.m. in the Stony Brook Union, Room 216.

Please contact (631) 632-WOMN (9666) or e-mail [womenscenter@stonybrook.edu](mailto:womenscenter@stonybrook.edu) for more information or visit online at [http://studentaffairs.stonybrook.edu/cpo/wgrc\\_index.shtml](http://studentaffairs.stonybrook.edu/cpo/wgrc_index.shtml). For after-hours emergencies, please call the University Police at 911 from any on-campus extension, or (631) 632-3333 from off-campus or cellular phones.

## About Academic Policies

Policies and requirements of students are applied based on academic milestones or on the university calendar. A student milestone includes completion of a certain number of credits, matriculation at the University, or declaration of a major or minor. See also “Which Major and Minor Requirements apply to me?”

Unless stated otherwise, academic policies are considered in effect as of the most recent publication of the online bulletin, or around April 1 for Summer/Fall and November 1 for Winter/Spring. The University reserves the right to amend the Undergraduate Bulletin at any time and without notice to reflect modifications in policy, law, or regulation. Potential alterations might include, by way of example only, degree requirements, course offerings, fees, and calendar listings. In the event of a change, the university will attempt but is not required to notify students.

Several policies are considered in effect as of the first day of matriculation, as of completing a university milestone, on a semester-by-semester basis, or on a rolling basis. Examples of policies are below. For students returning to the university after a leave of absence or withdrawal, see also Leave of Absence and Returning to the University.

### Matriculation policies

- policies that are in effect as of when a student matriculates or rematriculates
- e.g., Gen Ed (DEC), credit requirements and degree requirements

### Milestone policies

- policies dependent upon student action or achievement
- i.e., declaration of a major or minor
- Major and minor requirements or course information does not change for a given semester after students have begun to enroll for that semester.
- See “which major and minor requirements apply to me?” in this Bulletin

### Semester-by semester

- Course prerequisites, grading and content of individual courses.
- Major and minor requirements or course information does not change for a given semester after students have begun to enroll for that semester

### Rolling policies

- Policies that are in effect for all students at the time of policy implementation or revision
- e.g., all other policies not covered in matriculation, semester or milestone policies

## Admissions

Stony Brook University is a highly selective institution, seeking to enroll those students who demonstrate the intellectual curiosity and academic ability to succeed. Stony Brook evaluates applicants on an individual basis. There is no automatic cutoff in the admission process, either in grade point average, rank, or test scores. The Admissions Committee seeks to enroll the strongest and most diverse class possible.

- Applying to Stony Brook
- Application Status and Admission Decisions
- Restricted Majors
- Advanced Placement Credit
- Freshman Applicants
- Transfer Applicants
  - Application Procedures for Transfer Students
  - Joint Admissions
  - Evaluation of Transfer Credit
  - Transfer Credit Policies
  - College-Level Examination Programs and Other Credit by Examination
- Educational Opportunity Program/Advancement on Individual Merit (EOP/AIM)
- Admission of International Students
- Admission for Second Bachelor's Degree
- Admission of Students with Disabilities
- Pre-Enrollment Deposit and Refund Policy
- Admission for Non-Degree Study
- Opportunities for High School Students
- Summer Sessions Admission
- Winter Session Admission

### Applying to Stony Brook

All applicants must submit a completed application for undergraduate admission to Stony Brook University. Stony Brook accepts both the SUNY Application and the Common Application.

Please visit <http://www.stonybrook.edu/admissions> to apply online.

Telephone: (631) 632-6868

E-mail: [enroll@stonybrook.edu](mailto:enroll@stonybrook.edu)

### Application Status and Admission Decisions

Applicants may check their application status and view admission decisions by logging in to Stony Brook's secure SOLAR System with their Stony Brook I.D. and password.

### Restricted Majors

Applicants who do not specify a major on their application are considered for admission to the University rather than to a particular major. Admission to Stony Brook University does not guarantee acceptance into majors in applied mathematics and statistics, biomedical engineering, business management, chemical and molecular engineering, civil engineering, computer engineering, computer science, electrical engineering, engineering science, information systems, mechanical engineering, music, pharmacology, technological systems management, or certain health sciences degree programs (nursing, social work, and athletic training for freshmen; nursing social work, respiratory care, athletic training, clinical laboratory sciences, and the health science/occupational therapy combined degree program for transfers). These programs have specific admission requirements and/or application deadlines. See the alphabetical listing of Approved Majors, Minors, and Programs for admission requirements and application deadlines for specific majors.

### Advanced Placement Credit

Advanced placement credit is granted to students who have taken the appropriate CEEB advanced placement examination. Students must request that their test scores be forwarded to Stony Brook's Undergraduate Admissions Office. While each academic department determines the minimum test score required to receive equivalency for a Stony Brook course, a minimum of two general elective credits is guaranteed with a score of three. The table lists available AP exams, the relevant scores, and Stony Brook equivalency and applicability to degree requirements.

Subject	AP Exam	Score	SBU Equivalent	Credits	DEC & Skill
Art	Art History	4 or 5	ARH 101, 102	6	G
	Art History	3	none	3	G
	Studio (drawing)	4 or 5	ARS 154	3	G
	Studio (drawing)	3	none	3	G
	Studio (2D or 3D)	3,4 or 5	none	3	G
Biology	Biology	3,4 or 5	none	3	E
Calculus	AB	4 or 5	MAT 131, placement 7	4	Skill 1, C
	BC	4 or 5	MAT 131, 132 placement 9	8	Skill 1, C
	AB or BC	3	none	3	Skill 1
Chemistry	Chemistry	4 or 5	CHE 131 and 132 (waiver of CHE 133, 134)	8	E
	Chemistry	3	none	3	E

Chinese	Language & Culture	3,4 or 5	CHI 212	3	Skill 3
Computer Science	A	3	CSE 110	3	none
	A	4 or 5	CSE 114 (waiver of 110)	4	none
Economics	Macro	3,4 or 5	none	3	F
	Micro	3	none	3	F
	Micro	4 or 5	ECO 108	3	F
English	Language/Comp	3,4 or 5	none	3	Skill 2; 1st crs, A
	Literature/Comp	3,4 or 5	none	3	Skill 2; 1st crs, A
Environmental Science	Environmental Science	3,4 or 5	none	3	E
French	Language & Culture	3,4 or 5	FRN 212	3	Skill 3
German	Language & Culture	3,4 or 5	GER 212	3	Skill 3
Government & Politics	Comparative Govt	4 or 5	POL 103	3	F
	Comparative Govt	3	none	3	F
	US Govt & Politics	4 or 5	POL 102	3	Skill 4, F
	US Govt & Politics	3	none	3	Skill 4, F
History	European	4 or 5	HIS 101, 102	6	F
	European	3	none	3	F
	US	4 or 5	HIS 103, 104	6	Skill 4, F
	US	3	none	3	Skill 4, F
	World	3,4 or 5	none	3	F
Human Geography	Human Geography	3,4 or 5	none	3	F
Italian	Language & Culture	3,4 or 5	ITL 212	3	Skill 3
Japanese	Language & Culture	3,4 or 5	JPN 212	3	Skill 3
Latin	Vergil	3,4 or 5	LAT 251, 252	6	Skill 3
Music Theory	Music Theory	3,4 or 5	MUS 119	3	G
Physics	B	3,4 or 5	none	3	E
	C: Mechanics	4 or 5	PHY 125	4	E
	C: Mechanics	3	none	2	none
	C: Electrical & Magnetic	4 or 5	PHY 127	3	E
	C: Electrical & Magnetic	3	none	2	none
Psychology	Psychology	4 or 5	PSY 103	3	F
	Psychology	3	none	3	F
Spanish	Language	3,4 or 5	SPN 212	3	Skill 3
	Literature	3,4 or 5	none	3	Skill 3, G
Statistics	Statistics	3,4 or 5	AMS 102	3	Skill 1, C

### Freshman Applicants

All applicants are evaluated with careful consideration given to a range of factors, including the rigor of their high school curriculum, academic achievements, and personal strengths and talents.

Successful freshman applicants will typically have:

- a high school diploma or equivalent (a Regents diploma is preferred for New York State residents);
- a strong high school academic program that includes:

- 3 units of mathematics (4 units required for engineering, applied sciences, and pharmacology)
- 4 units of English
- 4 units of social studies
- 3 units of science (4 units required for engineering, applied sciences, and pharmacology)
- 2 or 3 units of a foreign language;
- Standardized test scores that indicate the promise of success in a rigorous undergraduate course of study. SAT or ACT scores are required. SAT II scores in mathematics and one other area of the student's choice are recommended.

Note: freshman applicants taking the ACT will be required to submit the version with the optional writing section.

- Students who show evidence of leadership, special talents or interests, and other personal qualities through extracurricular activities, volunteer work, and other nonacademic pursuits will receive special consideration.
- Stony Brook's Admissions Office may request recommendations from counselors and teachers.

### Restricted Majors

Applicants who do not specify a major on their application are considered for admission to the University rather than to a particular major. Admission to Stony Brook University does not guarantee acceptance into the following restricted majors, which have additional admission requirements.

Majors in the College of Engineering & Applied Sciences: Successful applicants in these majors will, in addition to our regular admission criteria, typically have earned outstanding grades in high school calculus and physics, and performed exceptionally well on the Math section of the SAT and/or ACT. Consideration is given to students who have performed well in advanced science and math courses, as well as those who have participated in science, math, and research competitions.

- Applied Mathematics and Statistics
- Biomedical Engineering
- Chemical and Molecular Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Engineering Science
- Information Systems
- Mechanical Engineering
- Technological Systems Management

Business Management: Successful applicants will, in addition to our regular admission criteria, typically display evidence of achievement in mathematics and writing and will have performed particularly well on both the Math and Critical Reading sections of the SAT and/or ACT.

Music: In addition to the application to the University, a separate [Music Major Application](#) is required. Students who perform successfully in the audition and their theory placement and musicianship exams will be admitted to the music major upon admission to the University. In addition, students participating in this audition process may be considered for scholarship offers and the opportunity to study with Performance Faculty.

Pharmacology: Successful applicants will, in addition to our regular admission criteria, typically have earned outstanding grades in high school calculus and physics, and performed exceptionally well on the Math section of the SAT and/or ACT. Consideration is given to students who have performed well in advanced science and math courses, as well as those who have participated in science, math, and research competitions.

Restricted Majors in the Health Sciences: These health sciences majors are upper-division and require completion of 57 college credits and specific courses/grade prerequisites. Those interested in these upper-division majors may apply for admission as a freshman in the College of Arts and Sciences, where they can enroll in the course prerequisites. An application to the upper-division program will need to be filed through the Health Sciences [Office of Student Services](#) the year in which you anticipate completing all prerequisites.

- [Athletic Training](#)
- [Nursing](#)
- [Social Work](#)

Freshman applicants admitted to the University but not initially accepted into their major of choice may apply for admission into the major after satisfying the requirements as outlined in the Undergraduate Bulletin description of the major.

### Application Procedures for Freshmen

The priority application deadline for freshmen is January 15 for the fall and November 1 for the spring; the priority deadline for all supporting credentials (high school records, SAT/ACT scores, and letters of recommendation) is February 1 for the fall and November 1 for the spring. Applications and credentials received after these dates will be reviewed on a space-available basis. There are additional application procedures, eligibility requirements, and/or deadlines for:

- [EOP/AIM](#)
- [Honors Programs](#)
- [International Students](#)

- Restricted Majors
- [Home-Schooled](#)

### Scholarships

For the most up-to-date and complete information about scholarships at Stony Brook, visit <http://www.stonybrook.edu/scholarships> or call Stony Brook's Office of Financial Aid and Scholarship Services at (631) 632-6840.

### The Honors College

The Honors College offers a limited number of students the opportunity to become members of a special community of scholars and pursue a challenging four-year curriculum designed to promote intellectual curiosity, independence, and critical thinking. As the most selective academic program for undergraduates at the University, Honors College applicants are expected to demonstrate overall academic excellence in high school, possess outstanding standardized test scores, have a record of advanced or college-level coursework, and display evidence of strong writing ability. Exceptional talent in the fine and performing arts also serves to qualify a student for admission. All students admitted to the Honors College receive scholarship support. Visit <http://www.stonybrook.edu/honors> for more information.

### University Scholars

Incoming freshmen with an exceptional record of academic performance in high school are automatically considered for University Scholars, which provides special privileges and academic opportunities. Visit <http://www.stonybrook.edu/admissions/newhonors/uscholars> for more information.

### Scholars for Dental Medicine

Scholars for Dental Medicine offers selected students in the Honors College an opportunity to complete a combined Bachelor's/DDS course of study while participating in pre-dental school classes and activities. Students accepted into the program are reserved a seat in Stony Brook University's School of Dental Medicine upon graduation, provided they complete all applicable program requirements. Visit <http://www.stonybrook.edu/admissions/newhonors/scholarsdentalmed> for more information.

### Engineering Scholars for Medicine

The Engineering Scholars for Medicine Program is an integrated eight-year BE/MD course of study offered to exceptional high school students. The program is an outstanding opportunity for high-achieving students who wish to pursue both their interests in the engineering and medical fields. Visit <http://www.stonybrook.edu/admissions/programs/engsfmed> for more information.

### Scholars for Medicine

Each year a very small number of exceptional applicants are considered for the Scholars for Medicine highly selective eight-year combined undergraduate and medical degree track within the Honors College and Women in Science and Engineering (WISE) program. Visit <http://www.stonybrook.edu/scholarsformedicine> for application procedures and deadlines.

### Honors Program in Computer Science

The Honors Program in Computer Science offers small classes, provides advanced courses in select topics, and gives students admission to the joint B.S./M.S. Program in Computer Science. For more information, please visit <http://www.cs.stonybrook.edu/undergrad/Honorsprogram.html>.

### Women in Science and Engineering (WISE)

WISE is a multifaceted program designed to engage women who have ability and interest in mathematics, science, or engineering in the excitement and challenge of research. WISE applicants must be women who are moving directly from high school to college and have a demonstrated aptitude and interest in science, mathematics, or engineering. All women accepted into WISE receive scholarship support. Please visit <http://www.stonybrook.edu/wise> for more information.

### Credit for Courses Taken While in High School

#### Advanced Placement Credit

Advanced placement credit is granted to students who have taken the appropriate CEEB advanced placement examination and scored a 3 or higher. See AP Credit.

#### Courses Offered by Colleges

Courses offered by regionally accredited colleges and completed while the student was in high school will be evaluated for transfer credit according to the guidelines in the "Application of Transfer Credits to General Education Requirements" section in the "Academic Policies and Regulations" chapter.

#### International Baccalaureate

With its origins in Europe, the International Baccalaureate Program-now offered by some American high schools-leads to a diploma or certificates of examination. Stony Brook University will award six credits for International Baccalaureate higher level exams with scores of 5 or better for year-long courses.



**General Certificate of Education Advanced Level (A-Level)\***

With its origins in the United Kingdom, the General Certificate of Education or GCE is a secondary-level academic qualification that continues to be a popular measure of academic aptitude in other countries, including Hong Kong, Pakistan, India, Nepal, Singapore, and Sri Lanka. Stony Brook University will award up to eight credits per subject for A-level (Advanced) exams in year long courses with grade equivalents of C or better.

**Transfer Applicants**

Individuals who registered at a college or university after graduating from high school are eligible to apply for transfer to Stony Brook. Admission is available for full or part-time study. Applicants are required to have performed well in a strong academic program. If the applicant has earned fewer than 24 credits, high school transcripts and standardized test scores must also be submitted.

Application Procedures for Transfer Students

Joint Admissions

Evaluation of Transfer Credit

Transfer Credit Policies

College-Level Examination Programs and Other Credit by Examination

**Application Procedures for Transfer Students**

The priority application deadline for transfer applicants is March 1 for the fall and November 1 for the spring. Applications received after these dates will be reviewed on a space-available basis.

For admission purposes, you are a transfer student if you have registered at a college or university after graduating from high school. Applicants are required to have performed well in a strong academic program. If you have earned fewer than 24 credits at the time of application, your high school transcripts and SAT scores must also be submitted (only students with strong secondary school credentials will be considered for admission).

Special consideration will be given to qualified graduates of university-parallel programs, i.e., A.A. and A.S. degree recipients from colleges within the State University of New York and City University of New York systems. Students are not, however, guaranteed admission into the program of their choice. Graduates of career-oriented programs (A.A.S. and A.O.S.) will be considered for admission on an individual basis and in competition with other transfer applicants.

Offers of admission are conditional, pending receipt of all official records showing successful completion of academic work in progress.

**Restricted Majors**

Applicants who do not specify a major on their application are considered for admission to the University rather than to a particular major. Transfer students with more than 56 credits must indicate a major on their application to be eligible for financial aid. Admission to Stony Brook University does not guarantee acceptance into the following restricted majors, which have additional admission requirements.

Majors in the College of Engineering & Applied Sciences: Successful applicants in these majors will, in addition to our regular admission criteria, typically have earned outstanding grades in college calculus and physics. Consideration is given to students who have performed well in advanced science and math courses, as well as those who have participated in science, math, and research competitions.

- Applied Mathematics and Statistics
- Biomedical Engineering
- Chemical and Molecular Engineering
- Computer Engineering\*
- Computer Science\*
- Electrical Engineering\*
- Engineering Science\*
- Information Systems\*
- Mechanical Engineering\*
- Technological Systems Management

Business Management\*: Successful applicants will, in addition to our regular admission criteria, have a more competitive grade point average and will have successfully completed college calculus and microeconomics.

Music: In addition to the application to the University, a separate [Music Major Application](#) is required. Students who perform successfully in the audition and their theory placement and musicianship exams will be admitted to the music major upon admission to the University. In addition, students participating in this audition process may be considered for the opportunity to study with Performance Faculty.

Pharmacology: Acceptance into the program requires an application process involving reference letters, a personal statement, and an interview. Applications are available through the [Undergraduate Pharmacology website](#).

Health Sciences Majors: These majors are upper-division and require completion of 57 college credits and specific courses/grade prerequisites. An application to the major of interest will need to be filed through the Health Sciences [Office of Student Services](#) the year in which you anticipate completing all prerequisites. Do not file an application through the Office of Undergraduate Admissions.

- [Athletic Training](#)
- [Clinical Laboratory Sciences](#)
- [Health Science, BS / Occupational Therapy, MS](#)
- [Nursing](#)
- [Respiratory Care](#)
- [Social Work](#)

Transfer applicants who have not yet completed the prerequisites for the upper-division health science program in which they are interested should attend an [information session](#) for that program. You will learn more about the admissions requirements for the program, including specific courses prerequisites, minimum GPA, and related health care experience. You will also learn about the application deadline and start date.

Transfer applicants admitted to the University but not initially accepted into their major of choice may apply for admission into the major after satisfying the requirements as outlined in the Undergraduate Bulletin description of the major.

\*Those enrolled in Joint Admission Programs at Suffolk County Community College or Nassau Community College will be reviewed for admission in accordance with the program guidelines.

Please note that additional admission requirements need to be fulfilled for:

- [EOP/AIM](#)
- [Honors Programs](#)
- [International Students](#)
- Restricted Majors

Offers of admission are conditional, pending receipt of all official transcripts showing successful completion of academic work in progress. It is the student's responsibility to see that a final college transcript is sent to the Undergraduate Admissions Office prior to registration. Applicants who expect to be degree recipients (A.A. or A.S.) should present evidence of receipt of the degree prior to registration for advising purposes. Note: Any deliberate falsification or omission of data (including transcripts) may result in denial of admission or dismissal.

### Joint Admissions

Stony Brook participates in a Joint Admissions Program with both Nassau Community College and Suffolk County Community College. Through this program, students are jointly admitted to one of the participating colleges and to Stony Brook. Participating students must remain in good academic standing prior to commencing their studies at Stony Brook.

Further information and details on this program are available from an admissions counselor at Stony Brook or from the admissions office at one of the participating colleges.

### Evaluation of Transfer Credit

Stony Brook routinely provides equivalents for several SUNY and CUNY institutions. Many of these course equivalents can be viewed online at <http://www.stonybrook.edu/transfer>. Students needing additional information should consult an admissions counselor.

### Transfer Credit Policies

1. Transfer courses are evaluated individually.

- Courses taken at institutions in the United States: Credits for all courses passed with a letter grade of C or higher at regionally accredited institutions or recognized by the Program on Noncollegiate Sponsored Instruction of the State of New York and recorded on official transcripts will be evaluated and may be accepted for applicability to specific Stony Brook University degree requirements. Credits for successfully completed courses from these institutions for which a grade equivalent to "P" or "S" was assigned may also be accepted. Credits for courses from institutions with other than regional accreditation are evaluated for transfer purposes on a case-by-case basis.
- Courses taken at institutions outside the United States: College-level courses completed outside the United States and recorded on official transcripts will be evaluated for transfer credit, provided that the institution where the courses were taken is accredited by the Ministry of Education in that country. International transfer students who have completed college level courses outside the United States may be requested to submit proof of accreditation by the Ministry of Education or provide a WES (World Education Service) evaluation.

2. All academic courses successfully completed at a fully accredited college or university are transferable; however, the University reserves the right to determine what constitutes an academic course. Most baccalaureate degrees at Stony Brook require 120 credits. After earning 57 credits, the student must complete 36 credit hours at Stony Brook. The University will, therefore, accept a maximum of 84 transfer credits.
3. Graduates of SUNY or CUNY colleges who earned an Associate in Arts or Associate in Science degree prior to matriculation at Stony Brook University receive transfer credit for all credit completed as part of their associate degree requirements. Official proof of an A.A. or A.S. degree must be submitted by October 1 if the student enters the University in the fall semester or by February 15 if the student enters the University in the spring semester.
4. Transfer credit is entered on the official University transcript. Grades received for transferred courses are not shown nor are they included in the calculation of the student's cumulative grade point average at Stony Brook University.
5. Almost all credits earned at community and technical colleges are considered to be lower-division credit.
6. Transfer courses are reviewed individually by the Undergraduate Transfer Office for their applicability toward fulfillment of general education requirements. Applicants who have completed college-level study at an institution outside of the United States will have their credits evaluated for application to the University's general education requirements by the Transfer Office.
7. Courses satisfactorily completed elsewhere toward the intended major or needed to fulfill the 39 upper-division credits requirement must be evaluated by the appropriate academic department for specific applicability. No transferred course with a grade lower than C may be counted among the 39 upper-division credits required for graduation. Forms for requesting the evaluation of specific courses for major and upper-division credit are available in the Undergraduate Transfer Office and in the Engineering and Applied Sciences Undergraduate Student Office. Students may begin the evaluation process as soon as they accept the offer of admission.
8. Courses taken at other universities and colleges in a technology curriculum will normally not be transferred as equivalents to engineering or applied sciences courses.
9. Credit may be given for courses taken in foreign secondary schools having a thirteenth-year equivalent to the first year of college. Students who have studied in such schools should consult the Undergraduate Admissions counselor for international students before seeking a departmental course evaluation.
10. Courses offered by regionally accredited colleges and completed while the student was in high school will be evaluated for transfer credit according to the guidelines in the Application of Transfer Credits to General Education Requirements of the Undergraduate Bulletin.
11. International Baccalaureate: With its origins in Europe, the International Baccalaureate Program—now offered by some American high schools— leads to a diploma or certificates of examination. Stony Brook University will award six credits for International Baccalaureate higher-level exams with scores of 5 or better for year-long courses.
12. General Certificate of Education Advanced Level (A-Level): With its origins in the United Kingdom, the General Certificate of Education or GCE is a secondary-level academic qualification that continues to be a popular measure of academic aptitude in other countries, including Hong Kong, Pakistan, India, Nepal, Singapore, and Sri Lanka. Stony Brook University will award up to eight credits per subject for A-level (Advanced) exams in year long courses with grade equivalents of C or better.
13. Students will receive transfer credit for a maximum of four credits of 100-level physical education courses.
14. Advanced placement credit is granted to students who have taken the appropriate CEEB advanced placement examination and scored a 3 or higher. Click here for a table listing of available AP exams, the relevant scores, and Stony Brook University equivalency and applicability to degree requirements. Students must request that their test scores be forwarded to Stony Brook University's Undergraduate Admissions Office from [AP Services](#); P.O. Box 6671; Princeton, NJ 08541-6671; (609) 771-7300 or (888) 225-5427 (toll-free in the U.S. and Canada).
15. Students must list on their application for admission all institutions attended after high school graduation. Those who fail to do so will not receive this transfer credit and may be subject to a range of possible disciplinary actions, including admission revocation and expulsion.

Students who would like additional information should consult the Undergraduate Transfer Office.

### **College-Level Examination Programs and Other Credit by Examination**

Stony Brook accepts up to 30 credits by examination in partial fulfillment of the bachelor's degree. Included in this total may be credit based on standardized external examinations such as AP, CLEP, and Stony Brook's own Challenge Program. Credit by examination may not be used to satisfy most Diversified Education Curriculum requirements; however, they may be used to satisfy one course in each of categories E, F, and G. See AP credits.

The University awards credit for the CLEP (College-Level Examination Program) subject examinations only. Credit is not awarded for the CLEP general examinations. CLEP exam credit will not be awarded for language exams for a language formerly studied. No student may take a CLEP exam in a subject matter that is a prerequisite for a course already passed, or is similar in subject matter to a course taken. The scores received must be equivalent to a grade of C. A maximum of 30 credits by examination may be applied toward the degree.

Credit requested for examinations or programs (e.g., military) not specifically mentioned above must be substantiated by the appropriate documentation. Requests for reviews of students' qualifications must be submitted in writing to the Undergraduate Admissions Office.

## Educational Opportunity Program/Advancement on Individual Merit (EOP/AIM)

EOP/AIM provides academic support and financial aid to New York State residents who show promise for mastering college-level work, but who may otherwise not be admitted. Offered primarily to full-time students, EOP/AIM accepts students who qualify both academically and financially for the program. Applicants are encouraged to apply early, as there is limited space in the program.

### Eligibility

To be eligible for admission to EOP, an applicant must be:

- a U.S. citizen or permanent U.S. resident, and a New York State resident for 12 months prior to enrollment,
- ineligible for admission under traditional standards, but demonstrate potential for completing a college program, and
- in need of financial assistance within established income guidelines (see table).

In selecting students for the program, priority is given to applicants from historically disadvantaged backgrounds.

For updated Economic Eligibility Requirements, visit the EOP/AIM Web site at <http://www.stonybrook.edu/eopaim/eligibility.shtml>

### Household Categories:

#### Income from Non-Employment Sources:

a. Supported by one or more individuals whose combined total annual income is from Social Security or sources other than employment and which does not exceed the applicable amount under "Category A."

#### Salary/Wage Income:

- b. Supported by one or more workers whose combined total annual income does not exceed the applicable amount under "Category B."  
c. For households supported by one worker with two or more employers, which does not exceed the applicable amount under "Category C."

### Exceptions to Income Guidelines

1. The student's family is the recipient of Family Assistance or Safety Net payments through the New York State Office of Temporary and Disability Assistance; or through a county Department of Social Services; or of Family Day Care payments through the New York State Office of Children and Family Assistance;
2. The student lives with foster parents who do not provide support for college and the student's natural parents provide no such support;
3. The student is a ward of the state or county.

All applicants for admission through EOP/AIM must also be academically eligible for acceptance at the time of application.

To be academically eligible, freshman applicants typically have earned:

1. High school average below minimum for regular admission to the University;
2. Three-year sequence of mathematics and science; and
3. Minimum combined SAT Math and Critical Reading score of 850 (minimum Critical Reading score of 450 or a TOEFL score of 550 written or 213 computer-based).

Freshmen may also be considered with a GED score of 2850 or higher (SAT scores are also required).

High school seniors wishing to apply to the University through EOP/AIM should contact their school guidance office or the Undergraduate Admissions Office at (631) 632-6868.

Transfer students applying for admission must have been enrolled in EOP, College Discovery, HEOP, SEEK, or a similar support program at their previous college, unless none existed at the time the student entered. Transfers typically have a minimum g.p.a. of 3.0 with at least 24 credits completed at their previous college. If your previous college did not have EOP or a similar program, you may be considered for transfer eligibility and should notify Stony Brook University.

Please see <http://www.stonybrook.edu/eopaim/eligibility.shtml> for EOP/AIM income eligibility requirements.

### Fee Waiver

Both freshman and transfer applicants to EOP may qualify for an application fee waiver. If the applicant is found to be ineligible for academic or financial reasons, or if the applicant's campus does not offer EOP, the applicant will be billed for the fee.

### Support Services

On acceptance into EOP/AIM, each student is assigned to a professional counselor who provides academic advising and encourages academic achievement. All EOP/AIM freshmen are required during their first year to enroll in either AIM 102 Expository Writing or AIM 104 Literary Analysis and Critical Reasoning, as determined by their writing placement score. Tutorial assistance in academic subjects is provided for EOP/AIM students, who are encouraged to use all academic support services available through the program or other University offices.

Entering freshmen admitted through EOP/AIM are required to attend an intensive summer program designed to enhance academic skills and better prepare them for the rigorous academic atmosphere that they will be entering.

## Admission of International Students

Early completion of the application is crucial. International applicants should keep in mind the following deadlines for completed applications: for the fall semester the deadline is March 1; for the spring semester, it is October 1.

Original certified transcripts with grades from secondary school and college courses are required. These transcripts must be in the original language and accompanied by an English translation with an explanation of the marking system. Secondary school records must reflect academic achievement equivalent to the minimum for admission when converted to the American grading scale. A minimum g.p.a. of 3.00 is required of international students who wish to transfer from other colleges in the United States. A minimum of one full year of study in a parallel program reflecting a g.p.a. of 3.00 or higher is required of transfer applicants whose secondary school achievement falls below the standard required for freshman admission (See transfer credit policies).

All persons whose native language is not English are required to demonstrate English proficiency by satisfying one of the following:

- TOEFL minimum score of 80 IBT
- TOEFL minimum score of 550 PBT (paper-based test)
- TOEFL minimum score of 213 CBT (computer-based test)
- SAT Critical Reading score of 430 or higher
- IELTS score of 6.5 or higher
- Proof of attendance at Stony Brook's Intensive English Language Center with completion of the advanced level.
- For transfers, completion of an English composition or writing class with a grade of C (2.0) or higher at a college or university within the U.S.

It is also necessary to provide financial documentation, which indicates that the applicant's sponsor(s) has sufficient funding to pay for all educational and personal expenses while in the United States. The amount considered as sufficient funding may vary from year to year. For forms and details, visit <http://www.stonybrook.edu/admissions>

Please note that additional requirements need to be fulfilled for:

- Honors Programs
- Restricted Majors

It is assumed that all international students require on-campus housing unless documented evidence of alternate living arrangements is filed with the application.

## Admission for Second Bachelor's Degree

Students who previously earned a bachelor's degree, either at Stony Brook or another institution, may be eligible for the Second Bachelor's Degree Program. A second bachelor's degree may only be earned in a discipline that is significantly different from the first Bachelor's Degree.

Visit [http://www.stonybrook.edu/admissions/applying/second\\_deg](http://www.stonybrook.edu/admissions/applying/second_deg) for admission criteria and application procedures for the Second Bachelor's Degree Program.

## Admission of Students with Disabilities

The academic admission procedures for students with a disability, including students with a learning disability, are the same as for all other applicants. An interview is strongly recommended. The Admissions Office works closely with the Disabled Student Services Office throughout the admissions process.

## Pre-Enrollment Deposit and Refund Policy

Each new student is required to pay an advance tuition deposit and an additional deposit when housing is requested. Fall deposits, which are applied against charges incurred by the student in the first semester, are due by May 1.

Tuition deposit refund requests must be made in writing to Student Accounts Office, 254 Administration, Stony Brook University, Stony Brook, New York 11794-1301, or faxed to (631) 632-1308 by the appropriate deadlines below.

**Fall:** Refund requests for deposits made for the Fall semester must be received by the date printed on the acceptance letter; For Fall, the due date is May 1 or 30 days after the offer of admissions, whichever is later. **However, there are no refunds of the tuition deposit after the first day of classes.**

**Spring:** Refund requests for deposits made for the Spring semester must be received within 30 days after the offer of admissions or **the first day of Spring classes, whichever is earlier. There are no refunds of the tuition deposit after the first day of classes.**

A housing deposit is required to reserve a housing assignment on campus. If a student no longer plans to reside on campus, he/she may request a partial refund of his/her housing deposit in accordance with the appropriate semester deadlines. If a student chooses to request a refund after making a room deposit, a forfeit fee of \$100 per each request will be assessed.

There are no refunds of the housing deposit after the start of classes, regardless of whether or not the student is enrolled for the semester.

**Fall:** The last day to cancel housing and receive a partial refund of the housing deposit is August 15. Applicants who submit a housing deposit after August 15th for the Fall semester must request a refund by the start of classes.

**Spring:** Applicants requesting a partial refund of the housing deposit made for the Spring semester must request the refund by January 15.

Applications for a partial refund of the housing deposit must be made in writing:

Fax the request to (631) 632-9211 or mail to:

**Office of Campus Residences**

Mendelsohn Quad  
Stony Brook University  
Stony Brook, NY 11794-444

For more information, see the Office of the Bursar website: <http://www.stonybrook.edu/bursar>

## Admission for Non-Degree Study

A non-matriculating undergraduate is a student who is taking courses at Stony Brook, but not pursuing a Stony Brook degree. Non-matriculating students offered admission for the fall or spring semester may enroll in classes on a space-available basis beginning the last business day before the start of classes.

Students with special circumstances may apply and will be reviewed for admission on a selective case-by-case basis. Applicants will normally be considered only for part-time non-matriculated admission. Successful applicants for fall or spring semester non-matriculated undergraduate admission typically have:

- A high school diploma or equivalent (a Regents diploma is preferred for NYS residents)
- At least 24 college credits with a minimum cumulative grade point average of 3.00 in a strong academic program. Those with fewer than 24 college credits are usually expected to have a high school grade point average of 90 or higher and a combined math/critical reading SAT score of 1200 or higher in a strong college preparatory program

The following are required to be considered for fall or spring semester non-matriculated undergraduate admission:

- A completed [Application for Non-Matriculated Undergraduate Admission](#), along with a letter from the applicant that clearly describes his/her special circumstances
- A non-refundable application fee of \$50.00 must accompany the application; check or money order should be made payable to Stony Brook University Acct. #910554
- Official copies of all college transcripts (and high school transcripts and SAT/ACT scores for applicants with fewer than 24 college credits)

Non-matriculated students are not eligible to receive most kinds of financial aid. Students from other institutions who plan to study at Stony Brook as visiting students should see a financial aid counselor on their home campus about continuing to receive financial aid. All non-matriculated students must fulfill health requirements set forth by Student Health Services.

Those students who are permitted to enroll on a non-matriculating basis cannot graduate from the University in this status. Courses and grades earned may be applied toward a degree program at Stony Brook and used to fulfill the University's residence requirements should a student subsequently be permitted to matriculate. As with matriculated students, a permanent record is kept by the University's Office of Records. Non-matriculated students' academic performance is reviewed at the conclusion of each semester. Students who earn less than a 2.00 cumulative grade point average at the completion of each semester are not permitted to continue. Students are permitted to complete a maximum of 24 credits on a non-matriculating basis. Upon completion of 24 credits, students who wish to continue their studies at Stony Brook University must apply for matriculation. Students who do not wish to matriculate or are not admitted as a matriculated student will not be permitted to continue their studies at the University.

## Opportunities for High School Students

### Young Scholars Program for High School Students

The Young Scholars Program offers academically talented high school students who live within commuting distance of Stony Brook the opportunity to complement their high school study with part-time coursework at Stony Brook for a reduced fee. The courses are scheduled in the late afternoon, early evening, and on Saturday. In past semesters, course offerings have included Calculus III: Differential Equations, Spanish Composition and Conversation, Introduction to Sociology, Introduction to Psychology, and Logical and Critical Reasoning.

For each course the title, credits, and grade will be recorded on an official Stony Brook transcript. The student may later use these courses toward a degree at Stony Brook or offer them as transfer credit at another college or university.

Applicants should have junior or senior standing with an average of 90 or above, should have taken honors and advanced placement courses when available, and have Regents scores in the high 80's or 90's. Participants must have the approval of their parents and guidance counselor or principal before acceptance into the program.

To obtain an application and description of course offerings, visit the Web site at <http://www.stonybrook.edu/admissions/youngscholars> or contact the Office of Undergraduate Admissions:

Office of Undergraduate Admissions  
118 Administration Building  
Stony Brook University  
Stony Brook, NY  
11794-1901  
(631) 632-6860

### Accelerated College Education (ACE) Program for High School Students

The ACE program offers academically talented high school students the convenience of enrolling in Stony Brook University courses taught in their high school. In past semesters, course offerings have included Introduction to Engineering Science, Principles of Geology, Intermediate Italian I, News Literacy, Oceanography, and Multivariable Calculus with Linear Algebra. High schools participating in the ACE program include Cold Spring Harbor, Deer Park, Half Hollow Hills, Half Hollow Hills West, Northport, Paul D. Schreiber, Port Jefferson, Sayville, Smithtown East, Smithtown West, and Ward Melville.

For each course the title, credits, and grade will be recorded on an official Stony Brook transcript. The student may later use these courses toward a degree at Stony Brook or offer them as transfer credit at another college or university.

To learn more about the ACE Program, visit the Web site at <http://www.stonybrook.edu/ugadmissions/programs/ace/> or contact the Office of Undergraduate Admissions:

Office of Undergraduate Admissions  
118 Administration Building  
Stony Brook University  
Stony Brook, NY  
11794-1901  
(631) 632-6880

### Summer Sessions Admission

Each year the University offers a wide range of courses, from lower division (100 and 200 level) to upper division (300 and 400 level) during the Summer Sessions, which consists of three sessions, each equivalent to a semester. These classes are the same as those offered during the academic year and offer the same number of credits. During the summer most classes meet two or three times per week, although some may meet as often as five times per week. Day and evening classes are available in both sessions.

The University has an open enrollment policy during the summer. All graduates of accredited high schools or equivalency programs may attend Summer Sessions classes at Stony Brook. In addition, high school students who have completed their junior year by the end of June may take selected introductory-level summer courses if their grade point average is 85 or higher.

Admission to summer classes is for the Summer Sessions only. Those students who wish to continue studying at Stony Brook during the academic year, either toward a degree at Stony Brook or as non-degree students, must apply for admission following the procedures outlined in this Bulletin. Upon acceptance as students at Stony Brook they may use Summer Sessions credits taken at Stony Brook toward fulfillment of their academic requirements.

### Tuition<sup>1</sup>

New York State Resident Tuition:	
Part time Student (per credit hour) <sup>3</sup>	\$207.00/credit
Out-of-State Resident Tuition:	
Part-time student (per credit hour) <sup>3</sup>	\$536.00/credit

<sup>3</sup>Prices are approximate and subject to change

### Housing

Undergraduate apartment single occupancy	TBA
Undergraduate apartment double occupancy	TBA

### Fees

College Fee <sup>3</sup>	\$85/credit
Comprehensive fee <sup>2</sup> <sup>3</sup>	\$120.00/session
Undergraduate student	\$15.00

activity fee <sup>3</sup>	
Late registration fee	\$40.00/session
Deffered payment fee	\$30.00/session
Late payment fee	\$40.00/session

<sup>1</sup>Note that there is no full-time tuition cap during the Summer Session. All Summer Session tuition is charged per credit.

<sup>2</sup>The comprehensive fee provides funding for the Student Health Center, as well as the increasing transportation and technological needs of the campus

<sup>3</sup>Prices are approximate and subject to change

To request information about Summer Sessions, please visit our Web site at <http://www.stonybrook.edu/summer> or write or phone:

Summer Sessions  
Administration Building, Room 276  
Stony Brook University  
Stony Brook, NY  
11794-1970  
(631) 632-7070

### Winter Session Admission

Stony Brook University offers a variety of undergraduate courses and study abroad programs during Winter Intersession, which usually consists of one three-week session. Classes are the same as those offered during the academic year and offer the same number of credits.

The University has an open enrollment policy during the Winter Session. All graduates of accredited high schools or equivalency programs may attend Winter Session classes at Stony Brook. Those students who wish to continue studying at Stony Brook during the academic year, either toward a degree at Stony Brook or as non-degree students, must apply for admission following the procedures outlined in this Bulletin. Upon acceptance to Stony Brook, Winter Session credits taken at Stony Brook may be used to fulfill academic requirements

### Tuition

<b>New York State Resident Tuition :</b>	
Part-time Student (per-credit hour) <sup>1</sup>	\$207.00/credit
<b>Out of State Resident Tuition:</b>	
Part-time Student (per-credit hour) <sup>1</sup>	\$536.00/credit

### Fees

College fee <sup>1</sup>	\$85/credit
Comprehensive fee <sup>1</sup>	\$90.00/session
Undergraduate student activity fee <sup>1</sup>	\$5.00/session

To request information about Winter Session, visit <http://www.stonybrook.edu/winter> or write or phone:

Winter Session  
Administration Building, Room 276  
Stony Brook University  
Stony Brook, NY  
11794-1970  
(631) 632-7070

### Financial Information

Students are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in official publications, including this Undergraduate Bulletin, the Student Handbook, and class schedules.

Charges are posted to the student's account at the time of registration. It is the student's responsibility to pay his or her student account after registration. All tuition, fees, and charges must be paid by the due date. Student accounts can be paid by credit card or check on the SOLAR System Web site.

Failure to satisfy this financial obligation by the due date of the billing statement will result in late fees, and will prevent students from receiving transcripts, diplomas, and certifications, and from registering for future semesters. Nonpayment does not constitute official withdrawal, which must be done through the Registrar's Office. Failure to attend classes will not relieve students of their financial obligation or entitle students to a refund. The date of official withdrawal determines eligibility for any refunds in accordance with the schedule found under Refund of Tuition. All tuition, fees, and charges are subject to change without notice.

- Tuition and Fees



- Payment of Fees and Charges
- Anticipated Aid
- Refund Policy
- Other Expenses
- Financial Aid
- Other Financial Assistance

### Tuition and Fees

For complete and official tuition and fee information, visit the Bursar/Student Accounts Web site at <http://www.stonybrook.edu/bursar/tuition/>

### Payment of Fees and Charges

It is the student's responsibility to pay his or her student account after registration. After enrolling for classes for the fall and spring semesters, all students will be sent an e-mail indicating that the billing statement is available in SOLAR; instructions for making payments by mail, in person, or via the online SOLAR System at <http://www.stonybrook.edu/solarsystem>. All tuition, fees, and charges must be paid by the due date.

During the Summer Session, payment of tuition and fees is due on the first day of the Session. Winter Session billing information is available online at <http://www.stonybrook.edu/winter/billing.shtml>

Tuition, fees, and other University charges assessed on each fall and spring billing statement will be due in full by the due date appearing on the SOLAR account. All billing statements will be available in SOLAR. No paper billing statements will be printed or mailed.

Students must have proof of anticipated financial aid, waivers, or scholarships to properly defer payment. Without satisfactory evidence to defer, students are expected to pay charges themselves and wait for reimbursement when the financial aid, waiver, or scholarship funds are actually received. Students have the option to enroll on the Solar System in the Time Option Payment Plan (TOPP) while waiting for the financial aid package to be completed. Students should apply early for any financial aid.

Payments made by check or money order must be made payable to Stony Brook University, and sent to P.O. Box 619, Stony Brook, NY 11790. Any returned payments are subject to a handling fee and may be subject to a late payment fee. Mailed payments must be postmarked by the due date to avoid the late payment fee. Students are encouraged to pay by using the SOLAR System. Payment may also be made with Visa, MasterCard, Discover, and American Express. Payment with a credit card or check may be made using the SOLAR System at <http://www.stonybrook.edu/solarsystem>.

Students registering on or after the first day of classes are required to pay a late registration fee. The late registration period ends at the close of the second week of classes.

Failure to pay the amount due on fall and spring semester bills by the due date will result in an automatic assessment of the incremental late payment and/or Administrative fee. Incremental late payment /administrative fees, up to a total of \$200 per semester, will be assessed on all accounts not completely paid by the due dates indicated on each successive account statement. Students should apply early for any financial aid in order to have their account paid before the University billing due dates. Late fees will not be removed because of pending financial aid.

Failure to pay Summer Session charges by the first day of the Session will result in a deferred payment fee per session. Unpaid Summer Session charges are subject to additional late payment fees. A schedule of the assessment of these fees is available at the Summer Session Web site at <http://www.stonybrook.edu/summer/money/index.html>.

The Student Accounts Office offers a Time Option Payment Program (TOPP). This program allows for the budgeting of expenses on a monthly basis. This is not a loan of any sort; therefore, no interest is charged. There is a semester processing fee to help defray the administrative expenses of the program. For further information please go to <http://www.stonybrook.edu/bursar> or contact the Student Accounts Office at (631) 632-2455. The TOPP program is not available for the summer sessions.

Students who fail to satisfy the financial obligations incurred at Stony Brook are not eligible to continue at the University or participate in room selection. No student may receive a degree, certificate of completion, or transcript until all charges due to the University or any of its related divisions are paid in full. Delinquent accounts will be transferred to private collection agencies and/or the New York State Attorney General's Office for collection, and are subject to additional interest and/or collection charges.

### Anticipated Aid

Students receiving awards provided by the State of New York, managed by the University, or payable to the University, may utilize deferment equal to the amount of the award. Documented proof of the amount of the award must be presented at the time of payment for the deferment to be applied to the account (only current awards are deferrable).

Deferment may be granted to students for the following types of awards:

1. Tuition Assistance Program: All New York State residents are encouraged to file for Tuition Assistance Program (TAP) awards. Students should apply for TAP awards at the earliest possible date, preferably no later than June 10, if they expect to receive award certification from TAP prior to the beginning of classes in the fall. Students are reminded that failure to file an application in a timely manner can preclude their receiving award credit or deferment.

2. Federal Perkins Loan, Federal Direct Stafford and PLUS loans, Federal Supplemental Educational Opportunity Grant (SEOG), and Federal Pell Grants: Students who have filed applications prior to the specified deadlines and who qualify for these awards will receive award notification from the Office of Financial Aid and Scholarship Services prior to registration. Offered awards can be accepted using the SOLAR System.
3. Veterans Educational Benefits: The Office of Veterans Affairs offers deferments to eligible students based on their anticipated receipt of V.A. educational assistance. The deferments allow students to postpone payment of all or part of their tuition charges and fees until the end of the semester for which the charges are incurred. Students wishing to obtain a deferment should obtain a bill covering all current charges from the Student Accounts Office before visiting the Office of Veterans Affairs to request a deferment.
4. Office of Vocational Rehabilitation: Deferment based on Office of Vocational Rehabilitation benefits may be obtained by presentation of an award letter or a voucher from the Office of Vocational Rehabilitation indicating the amount of the award and period covered. All such letters and vouchers must be accompanied by a Tuition Assistance Program Award Certificate, if applicable, and submitted to the Student Accounts Office.
5. Private, Public, or Industrial Scholarships, Grants, Internships, and Loans (including Foreign Student Government Scholarships and Vocational Rehabilitation Grants): All students who can present notification of awards payable to the University, or jointly payable to the University and the student in the above categories, are eligible for a deferment equal to the amount of the award. In cases where the award is payable to the University and the student, the student will be required to submit a copy of the award letter to the Student Accounts Office to receive deferment.

### Refund Policy

All requests for refunds must be submitted in writing to the following address:

Refunds, Student Accounts Office  
254 Administration Building  
Stony Brook University  
Stony Brook, NY 11794-1301

### Refund of Pre-Enrollment Tuition Deposits

Each new student is required to pay an advance tuition deposit. Deposits are due by the date indicated on the deposit card, which is sent in the students' Admissions Packet. Deposits are applied to charges incurred by the student in the first semester. Requests for refunds will be granted under the following conditions:

1. A request for a refund of the tuition deposit must be made in writing to the Student Accounts Office and received by the date printed on the deposit card or 30 days after the offer of admission, whichever is later.
2. If enrolled in another SUNY school, a student must provide satisfactory proof of such enrollment to the Student Accounts Office.

After the first day of classes, pre-enrollment tuition deposits will be forfeited.

For more information, visit the Office of the Bursar website at <http://www.stonybrook.edu/bursar>

### Refund of Housing Deposits

Each student is required to pay a room deposit when requesting a future room assignment; this deposit will be applied to the housing charges. A request for refund of the room deposit must be made in writing to the Division of Campus Residences (by August 15th for the fall semester and by January 15th for the spring semester). If a student chooses to request a refund after making a room deposit, a forfeit fee per each request will be assessed. **There are no refunds of the room deposit after the start of classes regardless of whether or not the student is enrolled for the semester.**

Applications for a partial refund of the housing deposit must be made in writing.  
Fax the request to (631) 632-9211 or mail to:

Office of Campus Residences  
Mendelsohn Quad  
Stony Brook University  
Stony Brook, NY 11794-4444

For more information, visit the Office of the Bursar website at <http://www.stonybrook.edu/bursar>

### Refund of Tuition

Students who withdraw from the University or decrease their academic load are liable for payment of tuition in accordance with the following schedules:

The first day of classes as published by the University in the academic calendar shall be considered the first day of the semester, quarter, or other term.

Certification of the effective date of withdrawal must be made by the Registrar's Office.

After 100 percent liability, a student is liable for tuition and all fees in full. Students who register for courses and do not file the appropriate withdrawal or do not drop before the end of the fourth week of classes are liable for their full charges.

Note: Non-attendance of classes does not classify as an official withdrawal, and does not relieve the student of his or her financial obligation, or entitle the student to a refund.

More information can be found in the University's Refund Policy publication, available in the Student Accounts Office.

No money shall be refunded for tuition unless application for a refund is made within one year after the end of the term for which the tuition requested to be refunded was paid to the State University.

### Exception

There is no tuition or fee liability for a student who withdraws to enter military service prior to the end of an academic term for those courses in which he or she does not receive academic credit. Acceptable proof must be submitted.

### Refund of Registration-Related Fees

During the period of zero percent liability, refunds will be processed for registration-related fees, such as the comprehensive fee, student activity fee, and specific course fees, such as engineering or physical education laboratory fees. After zero percent liability, all fees are due in full.

Students who register for courses and who do not file the appropriate withdrawal or do not drop before the end of the fourth week of classes are liable for their full charges.

Academic Year (Fall and Spring terms):		
Withdrawal during	Refund	
	Tuition	Fees
First week	100%	100%
Second week	70%	0%
Third week	50%	0%
Fourth week	30%	0%
Fifth week	0%	0%

Five-and Six-Week Summer Session:		
Withdrawal during	Refund	
	Tuition	Fees
First week	100%	0%
Second week	30%	0%
Third week	0%	0%

### Refund of Room Fee

When occupancy levels are at or above 100 percent capacity, residents wishing to cancel their housing will be billed a pro-rated portion of their housing fees through the end of the week in which they last occupied a space in the residence halls.

More importantly, should the total occupancy in the residence halls fall below 100 percent of utilization, students who cancel their housing assignment after the start of the semester will be responsible for the full cost of room rent for the semester. No pro-rations of room rent will be offered.

### Refund of Student Activity Fee

As determined by the Undergraduate Student Government and the Graduate Student Organization, full refunds of the student activity fee will be granted if the student withdraws during the first week of classes. No refunds will be granted for withdrawals after the first week of classes.

### Refund of Meal Plan Fee

Students who withdraw from the University or who wish to cancel their meal plan because they have moved off campus or to a building/area designated as a cooking area must notify the Meal Plan Office either in writing or in person. Students cancelling their meal plans who fail to contact the Meal Plan Office will be charged the full amount of the meal plan. All credits are prorated.

For more up-to-date information, refer to the meal plan brochure, consult the Web at <http://www.campusdining.org>, or call or visit the Meal Plan Office, Suite 250, Student Union, (631) 632-6517.

**Refund of College Fee, Late Registration Fee, and Lost Campus Card Fee**

These fees are not refundable.

**Refunds Caused by Overpayment or Processing Errors**

Refunds of amounts paid will be made when a student overpays his or her tuition and fees provided the student has made a written request to the Student Accounts Office within one year after the end of the term that the money was paid to the University. Overpayments by credit card payments will be processed as credit card refunds.

**Other Expenses****Food**

All resident students will be enrolled in a Resident Meal Plan unless they have previously completed two semesters of study at Stony Brook and reside in a designated cooking area. Failure to select a dining option will result in an enrollment in the Silver Meal Plan (Meal Plan 2). All students who reside in residence hall areas designated as mandatory meal plan areas must enroll in a Resident Meal Plan regardless of class status or tenure at Stony Brook. All meal plans are annual.

Students who wish to cancel their meal plans should see the section "Refund of Meal Plan Fee" in the "Financial Information" section of this Bulletin.

For more up-to-date information, refer to the meal plan brochure, or call or visit the Meal Plan Office, Suite 250, Student Union, (631) 632-6517. Similar plans will be offered in coming years, but prices cannot be predicted. It is expected, however, that future price ranges will not vary greatly from those now in effect.

**Food Service**

Campus Dining Services serves the Stony Brook community daily with a wide variety of cuisines including vegan, vegetarian, Kosher and Halal. Currently, there are 10 dining locations. These include two resident dining locations: Kelly Dining Center and Roth Food Court. There are many coffeehouses on campus including Starbucks in the Stony Brook Union, Pura Vida (certified fair trade/organic) in Roth, Kelly Coffee and Tea House and Dunkin Donuts at Tabler Cafe. Jasmine Food Court in the Charles B. Wang Center features Indian, Thai, Japanese Grill and made-to-order sushi. All locations offer healthy options and grab and go items.

For more information, go to <http://www.campusdining.org> or go to SBU Eats on facebook.

**Books and Supplies**

The average estimated expense is \$900 for nine months (September to May). This figure is used for computing the basic student aid budget.

**Miscellaneous Expenses**

The average estimated personal expense is \$1,292 for nine months. This figure is used for computing the basic student aid budget.

**Travel Expenses**

The average estimated expense is \$500 for nine months on campus for a student living in a residence hall. The average estimated expense is \$2,550 for nine months for a student residing with parents and commuting to the campus. These amounts are also used for computing the basic student aid budget.

**International Academic Program Expenses**

Students who participate in SUNY International Academic Programs pay the normal SUNY tuition. They must also pay round-trip transportation and housing costs. Programs in some countries also carry a program fee to cover exceptional administrative expenses. The costs of studying abroad do not usually exceed those of studying as a resident student at Stony Brook.

**Off-Campus Housing Service**

The Off-Campus Housing Office provides information concerning rentals of rooms, apartments, and housing within a 15-mile radius of the University. All landlords listing property with the University must sign a statement assuring nondiscriminatory practices; listings do not become available until such assurance is received. The Off-Campus Housing Office and the University may not become parties to landlord-tenant disputes.

The average price per month for a furnished room is \$400 to \$500. Kitchen privileges are most often included in this price. Rooms available in houses rented by other students are also listed as houses to share. That is, arrangements can sometimes be made to share a complete house for \$400 to \$600 per month plus a percentage of the utility costs.

Apartment listings cover those available in standard apartment complexes and in private homes. The usual rental rate of a studio apartment (one large room, bathroom, closets, kitchenette) in a house is approximately \$500 to \$750 per month. A studio apartment in one of the apartment facilities usually costs between \$600 and \$800. Apartments in housing complexes usually provide more space and privacy. A conventional one-bedroom apartment, including living room, dining room, kitchenette, bathroom, and closet space, usually ranges in price from \$750-\$1100 per month. Utility costs, except electricity, are often included in the price.

There are also listings for house rentals in the area. These rentals range from \$850 to \$2,200 per month, not including utilities. The price depends on the number of rooms in the house, the condition of the house, and its proximity to the campus.

## Financial Aid

The Office of Financial Aid and Scholarship Services administers several federal and state programs that provide funds to assist eligible students in pursuing their academic goals. These programs are the Academic Competitiveness Grant (ACG), Federal Perkins Loan, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Work-Study (FWS), and Educational Opportunity Program (EOP). The office also manages the Federal Pell Grant, Federal Direct Stafford and PLUS Loan Programs, the New York State Tuition Assistance Program (TAP), the National Science and Mathematics Access to Retain Talent Grant (SMART), and the New York State Aid for Part-Time Study (APTS) Program. These programs are described below, together with other sources of state and federal assistance for which prospective students might qualify while attending Stony Brook.

The basic applications for programs administered by the Office of Financial Aid and Scholarship Services are the Free Application for Federal Student Aid (FAFSA), the Express Tuition Assistance Program Application (ETA), and the Aid for Part-Time Study (APTS) application. Application forms and information about application guidelines and deadlines are available at the Office of Financial Aid and Scholarship Services, 180 Administration Building, (631) 632-6840, or on the financial aid web site at <http://www.stonybrook.edu/financialaid>

Note: The ETA is available to the students after filing the FAFSA; please see the New York State Programs section for further information about the application process for a Tuition Assistance Program (TAP) Grant.

Students should be aware that the University will implement all changes in standards and/or policies that are prescribed by the federal and state regulations governing financial aid administration.

## FEDERAL PROGRAMS

### Application Procedures

Students wishing to apply for federal and state aid begin the application process by completing a FAFSA (Free Application for Federal Student Aid) online at <http://www.fafsa.ed.gov>

Upon filing, the applicant will receive a document known as the Student Aid Report (SAR), which indicates his or her Expected Family Contribution (EFC). This EFC is used to determine the applicant's eligibility for one or more of the federal programs.

The information contained in the SAR will be transmitted electronically to Stony Brook if the applicant included the institution's Title IV School Code (002838) on the FAFSA. This information is necessary before a financial aid award package can be provided to the student. The Office of Financial Aid and Scholarship Services notifies each student once their award package has been completed. Students can accept their awards online, in real time, using the SOLAR System.

If the student's application is selected for verification, he or she will be asked to provide additional documentation to substantiate the accuracy of the information filed on the FAFSA. This documentation must be compared to the SAR data and corrections made if necessary. The Office of Financial Aid and Scholarship Services must be in receipt of the data from a correct and valid SAR before payment of awards can be made.

### Requirements and Responsibilities of Recipients

To receive financial assistance through any of the federal programs, the student must: 1) be a citizen, permanent resident alien, or other eligible resident of the U.S.; 2) be matriculated into a degree program; 3) register with Selective Service, if required; and 4) not owe refunds of any awards made previously through one or more of the federal programs, or be in default on repayment of any student loan.

Before receiving payment, the student must sign a statement of educational purpose confirming that all money received will be used for the costs of postsecondary education only (i.e., tuition, fees, books, and living expenses).

### Satisfactory Academic Progress Policy for Federal Financial Aid

All students must maintain satisfactory academic progress. Students must first meet the University Academic Standing guidelines as defined in the Undergraduate Bulletin.

Eligibility for assistance from the Federal Pell Grant, Federal SEOG, Federal Perkins Loan, Federal Work-Study, and Federal Direct Stafford and PLUS Loan programs is contingent on the student's meeting "quality" and "quantity" standards. Students are ineligible to receive federal aid when their time of attendance or quantity of credits attempted has exceeded 150% of the time/credits attempted necessary to complete their degree requirements.

Please visit the Financial Aid Website for comprehensive details about the administration of these federal guidelines. <http://www.stonybrook.edu/finaid/receiving/sap.shtml>

### "Emancipated" or "Independent" Student Status

The designation of independent status refers only to whether or not a student is required to report parental income when applying for financial aid. The University adheres to current federal guidelines for validating the status of a student as independent or emancipated for financial aid purposes.

These guidelines define an independent student as being in one of the following categories:

- 24 years of age or older by December 31 of the award year
- a veteran of the U.S. armed forces
- enrolled in a graduate or professional program (beyond a bachelor's degree)

- married
- a ward of the court
- having legal dependents other than a spouse

**Effective for summer 2009 the following additional criteria may qualify a student to be viewed as independent for federal financial aid purposes:**

- Being in foster care when the student was 13 years of age or older
- Student has been deemed an emancipated minor as determined by the court in their state of legal residence
- Student is currently in legal guardianship as determined by a court in their state of legal residence
- If at any time on or after July 1, 2008 the student's high school or district homeless liaison determined that the student was an unaccompanied youth or was homeless
- If at any time on or after July 1, 2008 the director of an emergency shelter program funded by the U.S. Department of Housing and Urban Development determined that the student was an unaccompanied youth or was homeless
- If at any time on or after July 1, 2008 the director of a runaway or homeless youth basic center or transitional living program determined that the student was an unaccompanied youth who was homeless or self-supporting and at risk for being homeless

**Note: Independent status under the federal definition does not necessarily ensure independent status for state aid programs.**

### **Federal Pell Grant**

#### **Selection of Recipients and Allocation of Awards**

The Federal Pell Grant Program is an entitlement program. Eligibility and award amount are based on need. Financial need is determined by a formula applied to all applicants. The formula was developed by the U.S. Department of Education and is reviewed annually by Congress. The Expected Family Contribution (EFC) is calculated by this formula.

The applicant must be pursuing a first bachelor's degree and enrolled for at least three credits in an approved postsecondary institution.

#### **Award Schedule**

Please visit the Financial Aid web site to view current award amounts. <http://www.stonybrook.edu/finaid/programs/grants.shtml> The Pell award is not duplicative of state awards.

### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

#### **Selection of Recipients and Allocation of Awards**

The applicant must be 1) in exceptional financial need and 2) pursuing a first bachelor's degree.

#### **Award Schedule**

Awards range from \$100 to \$1,000, and are made on a funds-available basis. Priority is given to Pell Grant recipients. In addition, students must apply by the priority deadline to be considered. Contact the Office of Financial Aid and Scholarship Services for further details.

### **Federal Perkins Loan**

#### **Selection of Recipients and Allocation of Awards**

At Stony Brook, Federal Perkins Loans are available to matriculated students enrolled at least half time as undergraduate degree candidates. Awards are made on a funds-available basis. Students must apply by the priority deadline to be considered. Contact the Office of Financial Aid and Scholarship Services for further details.

#### **Award Schedule**

Annual loan limits are established at \$5,500 for undergraduate students.

Actual Federal Perkins Loans are limited based on annual allocations and collections, and presently average \$1,500 per year at Stony Brook.

#### **Repayment**

The current interest rate, payable during the repayment period, is 5 percent on the unpaid principal. Repayment begins nine months after the last date of enrollment and may extend over a period of ten years. Payment may be extended over an additional ten-year period for certain low-income students, and may be deferred for up to three years for certain categories of borrowers. Information on loan cancellation provisions for borrowers who go into certain fields of teaching or specified military duty is available through the Office of Financial Aid and Scholarship Services.

### **Federal Work-Study Program (FWS)**

#### **Selection of Recipients and Allocation of Awards**

The FWS program provides part-time employment to undergraduate students who need the income to help meet the costs of postsecondary education.

Stony Brook University strives to make employment reasonably accessible to all its eligible students who have financial need. In the event that more students are eligible for FWS than there are funds available, preference is given to students who applied by the priority deadline. (Contact the Office of Financial Aid and Scholarship Services for further details.)

### **Award Schedule**

The Office of Financial Aid and Scholarship Services assists recipients of a FWS award by conducting a job fair during the first week of classes in the fall semester. Students may also use the Career Center website to locate and secure employment on campus.

Students interested in participating in Stony Brook's Community Service Program, a program that provides students with the opportunity to serve the public interest while earning Federal Work-Study wages, should contact the Career Center.

### **Direct Stafford Loans**

To be eligible for a Direct Stafford Loan, a student must be enrolled at least half time in an approved program of study.

Direct Stafford Loans, from the William D. Ford Federal Direct Loan (Direct Loan) Program, are low-interest loans for eligible students to help cover the cost of higher education. Eligible students borrow directly from the U.S. Department of Education (the Department) by applying through Stony Brook University.

Direct Stafford Loans include the following types of loans:

**Direct Subsidized Loans**—Direct Subsidized Loans are for students with financial need. You are not charged interest while you're in school at least half-time and during grace periods and deferment periods.

**Direct Unsubsidized Loans**—You are not required to demonstrate financial need to receive a Direct Unsubsidized Loan. Interest accrues (accumulates) on an unsubsidized loan from the time it's first paid out. You can pay the interest while you are in school and during grace periods and deferment or forbearance periods, or you can allow it to accrue and be capitalized (that is, added to the principal amount of your loan). If you choose not to pay the interest as it accrues, this will increase the total amount you have to repay because you will be charged interest on a higher principal amount.

### **Loan Schedule**

Please visit the Stony Brook University Financial Aid Web site for information about annual and aggregate Stafford limits: <http://www.stonybrook.edu/financialaid>

### **Repayment of Subsidized Loans Borrower Grace Periods**

After you graduate, leave school, or drop below half-time enrollment, you have a period of time before you have to begin repayment. This "grace period" will be six months for the Federal Stafford Direct Loan Program.

Students have a choice of several repayment plans that are designed to meet the different needs of individual borrowers. The amount paid and the length of time used to repay loans will vary depending on the repayment plan chosen. Generally, students have from 10 to 25 years to repay their student loans, depending on which repayment plan they selected. Please visit <http://www.studentaid.ed.gov> to view more details about student loan repayment options.

### **Federal Direct PLUS Loan for Parents**

Parents of dependent students may apply for a Direct PLUS Loan to help pay their child's education expenses as long as certain eligibility requirements are met. Borrowing amount is based on the student's cost of attendance and existing financial aid. To read more about PLUS loans visit the Financial Aid website at <http://www.stonybrook.edu/financialaid>

## **NEW YORK STATE PROGRAMS**

Note: Where any question of eligibility exists, a prospective student should contact New York State Higher Education Services Corporation (HESC) at (888) NYS-HESC.

### **Tuition Assistance Program (TAP)**

#### **Application Procedures**

To apply for TAP, students should begin by completing the Free Application for Federal Student Aid (FAFSA). Students who file the FAFSA electronically (<http://www.fafsa.ed.gov>) will be able to link to the online TAP application at the end of the FAFSA session. If the student missed the NYS link, or filed a paper FAFSA, they can go to "Anytime TAP on the Web" at <http://www.hesc.org> to complete the application process.

HESC determines the applicant's eligibility and sends an award certificate directly to the applicant indicating the amount of the grant.

### **Requirements and Responsibilities of Recipients**

**To receive an award through the Tuition Assistance Program, the applicant must:**

- meet one of the United States citizenship requirements;
- meet New York State residency requirements;
- enroll in an approved program of study in a New York State postsecondary institution;
- be matriculated;
- declare a major by the first day of classes of their junior year;
- be in good academic standing;
- not be in default on any student loan;
- have a minimum tuition liability of at least \$200 per academic year (\$100 per semester, \$67 per trimester);
- not exceed the income limitations established for the program;
- meet the high school graduation requirement. Students who first received aid in:
  - a. academic year 1996-97 to academic year 2006-07 must have:
    - a high school diploma, or the recognized equivalent of a high school diploma (e.g., GED), or a passing score as determined by the U.S. Secretary of Education on a federally approved ability-to-benefit test.
  - b. academic year 2006-07, must have:
    - a U.S. high school diploma, or the recognized equivalent, or a passing score on a federally approved ability-to-benefit test independently administered and evaluated as provided by the NYS Commissioner of Education.
  - c. academic year 2007-08 and thereafter, must have:
    - a U.S. high school diploma, or the recognized equivalent, or a passing score on a federally approved ability-to-benefit test identified by the NYS Board of Regents and independently administered and evaluated by the Commissioner of Education.

To receive state-sponsored grants or scholarships, the student must be in good academic standing. For financial aid purposes, good academic standing is measured based on Pursuit of program and Satisfactory Academic Progress. Details of these requirements can be found on the financial aid website at <http://www.stonybrook.edu/financialaid>, or by visiting the NY State Higher Education Services web site directly at <http://www.hesc.org>

Students who fail to meet the academic standing requirements will be ineligible to receive their term TAP payment. A waiver of the minimum achievement standards may be granted under certain extenuating circumstances. Students who do not meet the requirements will receive notification from the TAP Certifying Officer as to their next appropriate course of action.

Students who receive TAP awards and permanently withdraw or take a leave of absence may jeopardize their eligibility for future TAP awards. To speak to a TAP representative, call the Registrar's Office at (631) 632-6175.

**"Independent" Student Status**

A student must apply for TAP as either a dependent student, which requires parental income information, or an independent student, which does not require parental income information. Applicants must report parental income unless the student meets certain conditions established in law and regulation that show the student to be financially independent of the parents. These conditions apply only to the TAP program and differ from the conditions used in defining "financial independence" for other aid programs such as Pell Grants or for public assistance. For a detailed description of the factors used to determine a student's dependency status for NY State programs please visit <http://www.hesc.org>

**Selection of Recipients and Allocation of Awards**

The Tuition Assistance Program is an entitlement program for those NY State residents who meet the eligibility rules.

Undergraduate students may generally receive TAP awards for four years of study; students enrolled in approved five-year programs or in a state-sponsored opportunity program may receive undergraduate awards for five years.

**Award Schedule**

The amount of the TAP award is scaled according to level of study, tuition charge, and net taxable income (taken from the New York State tax return[s] filed in the year previous to the academic award year). All income data are subject to verification by the New York State Department of Taxation and Finance.

**Part-Time TAP Program**

Part-time students at approved schools in New York State who were first-time, full-time freshmen in 2006-07 may be eligible for Part-Time TAP to help them pay for college beginning in 2007-08. Part-Time TAP is a grant and does not have to be paid back. Part-Time TAP is not the same as Aid for Part-Time Study.

**Student Eligibility**

To be eligible for Part-Time TAP, a student must:

- Be a first-time freshman in the 2006-07 academic year or thereafter
- Have earned 12 credits or more in each of the two prior consecutive terms, for a minimum total of 24 credits earned
- Maintain a minimum of a "C" average

In addition, the student must:



- Be a United States citizen or eligible noncitizen
- Be a legal resident of New York State
- Have graduated from high school in the United States, or earned a GED, or passed a federally approved "Ability to Benefit" test as defined by the Commissioner of the State Education Department
- Be matriculated in an approved program of study and be in good academic standing
- Be charged at least \$200 tuition per year
- Be taking 6 but fewer than 12 credits per semester or 4 but fewer than 8 credits per trimester
- Not be in default on a student loan or on any repayment of state awards
- Meet income eligibility limitations

### **Aid for Part-Time Study Program (APTS)**

The Aid for Part-Time Study Program provides grant assistance for eligible part-time students enrolled in approved undergraduate studies. Awards provide up to \$2,000 per year and cannot exceed tuition charges.

### **Application Procedures**

The student must complete an Aid for Part-Time Study application and submit it to the Office of Financial Aid and Scholarship Services by the last day of the add/drop period for the semester in which he or she is seeking an award. Signed photocopies of New York State tax returns from the prior year must be submitted along with the application.

### **Requirements and Responsibilities of the Recipient**

Applicants must: 1) be working toward an undergraduate degree or enrolled in a registered certificate program; 2) enrolled as a part-time student for a minimum of three credits, but less than twelve; 3) maintain good academic standing; 4) be a resident of New York State; 5) be either a U.S. citizen or eligible non-citizen; 6) meet the income limits as defined on the HESC website <http://www.hesc.org>; 7) not have used all Tuition Assistance Program (TAP) eligibility; 8) have a tuition charge of at least \$100 per year; and 9) not be in default of a Federal Family Education Loan.

### **Award Schedule**

APTS awards cannot exceed the cost of tuition and are determined each semester by dividing the total program allocation by the number of qualified applicants who complete the application process by the deadline.

### **Educational Opportunity Program (EOP)**

Educational Opportunity Program (EOP) funds are allocated on the basis of need to undergraduate students enrolled in Stony Brook's Advancement on Individual Merit (AIM) Program.

The AIM program provides an opportunity to attend college for capable students who have not had the same opportunity as others to realize their academic potential because of limited financial resources and inadequate academic preparation. To be admitted to the University through the AIM program, the applicant's high school academic performance must have been below the level normally used to determine admission to the University. In addition, the applicant must meet financial eligibility guidelines established by New York State and Stony Brook University.

A student who is admitted to the University through the AIM program is offered financial and personal counseling and is eligible to receive a range of academic support services. These services include tutoring, special academic advising, skills improvement activities, and special development classes and programs. At the same time, these students participate fully in all campus academic and social activities. Many students who enter complete a bachelor's degree program, and many continue their education in graduate and professional schools throughout the country.

### **For further information on EOP/AIM, contact:**

The EOP/AIM Program W-3520 Library Stony Brook University Stony Brook, NY 11794-3375 Telephone: (631) 632-7090

## **VETERANS AFFAIRS (VA) EDUCATIONAL BENEFITS**

### **Division of Military and Naval Affairs (DMNA) Education Incentive Program**

#### **Application Procedures**

The student must complete a Recruitment Incentive and Retention Program application at his or her guard unit. The unit commander or other authorized representative determines and certifies (if eligible) the applicant's eligibility for this program. If certified, the applicant must bring the Certificate of Eligibility to the Office of Veterans Affairs at Stony Brook to register. The student is encouraged to make an appointment to review necessary documentation. Students may call the Office of Veterans Affairs at (631) 632-6700 for an appointment.

Note: This is a newly instituted program; procedures are subject to change. Further inquiries about the program should be directed to DMNA at (800) 356-0552.

#### **Requirements and Responsibilities of Recipients**

Participants in this program must be members of the Army/Air Guard or New York Naval Militia in good standing, having successfully completed initial active duty training or naval enlisted code training. The program is limited to undergraduate study.

The student must be matriculated and enrolled for a minimum of six credit hours per semester. Participants must be in good academic standing. Good academic standing is determined by the campus and is defined as not being on academic probation.

Participants are required to apply first for all available financial aid (FAFSA). Proof of application must be presented to DMNA.

### **Selection of Recipients and Allocation of Awards**

The Education Incentive Program allows an eligible guard or militia member to receive tuition assistance equal to the amount of tuition costs remaining after all other student aid, except loans, is applied against the undergraduate in-state annual tuition of SUNY institutions up to \$3,400 per academic year.

### **Award Schedule**

The voucher amount is the current cost of tuition (excluding the college fees) at the institution minus any grants received through the Federal Pell Grant, New York State TAP, New York State Aid for Part-Time Study, ACES (Army Continuing Education System) program or other types of grants/programs. Benefits received under the Montgomery G.I. Bill Act of 1984 shall not be considered educational aid for purposes of this program.

Additional scholarship and grant programs administered by NY State are detailed on the HESC website (<http://www.hesc.org>).

### **Application Procedures**

Students interested in applying for benefits under any of the VA educational assistance programs should contact the Office of Veterans Affairs, Administration Building Room 347, for applications, information, and assistance. Call (631) 632-6700 or visit <http://www.studentaffairs.stonybrook.edu/vets/>

### **Services Available:**

- Guidance to veterans, veterans' dependents, and active duty service members in reference to eligibility requirements.
- Assistance in obtaining a full or partial deferment of tuition, fees, and charges.
- Assistance in completion of forms.
- Forwarding of forms and supporting documentation to appropriate agencies.
- Liaison between the University and the Veterans Administration to ensure student eligibility, enrollment, etc.
- Coordination of a VA workstudy program.

Note: A student making an initial application for VA benefits should bring a certified copy of his or her DD-214 to the Office of Veterans Affairs. The student should maintain records of correspondence with the Veterans Administration, including a log of all payments received (i.e. date the checks were issued, amount, and period covered). The student is responsible for making arrangements for alternative means of payment for educational expenses (i.e., financial aid, loans, etc.) in the event that VA benefits are not received by the expected date.

### **The Montgomery G.I. Bill-Chapter 30**

Eligibility for this program requires individuals to have served for two or three years of continuous active duty after July 1, 1985, and to have contributed \$100 per month for the first 12 months of service. Entitlement accrues at the rate of one month for each month of active duty up to 36 months. Applications and benefits are processed through the VA Regional Office in Buffalo, NY. Eligible veterans generally have ten years from date of discharge or release from active duty in which to use these benefits. Post Vietnam-Era Veterans Educational Assistance Program (VEAP)-Chapter 32 is a voluntary contributory program for persons who served between January 1, 1977 and June 30, 1985. Under this program, the appropriate branch of the military will match the individual's contribution on a two-to-one basis. The maximum period of entitlement is 36 months.

### **Survivors and Dependents Educational Assistance-Chapter 35**

This program provides benefits to the spouses and children of veterans deemed "100-percent service disabled" and to the surviving spouses and children of veterans who died in service. Forty-five months of entitlement are permitted under this program.

### **Vocational Rehabilitation for Disabled Veterans-Chapter 31**

Vocational rehabilitation is intended to help the service-disabled veteran select, prepare for, and secure employment that is compatible with his or her interests, abilities, physical capabilities, and goals. Entitlement may be provided for up to 48 months. An eligible veteran generally has 12 years from the date of discharge or release from active duty in which to use these benefits.

### **Selected Reserve Educational Assistance Program-Chapter 1606**

The MGIB-SR program may be available to you if you are a member of the Selected Reserve. The Selected Reserve includes the Army Reserve, Navy Reserve, Air Force Reserve, Marine Corps Reserve and Coast Guard Reserve, and the Army National Guard and the Air National Guard. This benefit may be used for degree and certificate programs, flight training, apprenticeship/on-the-job training, and correspondence courses. Remedial, deficiency, and refresher courses may be approved under certain circumstances. This program provides benefits to individuals enlisting, re-enlisting, or extending their enlistment with the Selected Reserve or National Guard for six or more years of service. Entitlement is for a maximum of 36 months or the equivalent in part-time training.

### **Reserve Educational Assistance Program (REAP)-Chapter 1607**

The Reserve Education Assistance Program (REAP) provides education assistance to Guard and Reservists who have served 90 days or more in a contingency operation after September 11, 2001. Basic Eligibility Criteria determined by the Department of Defense and Homeland Security for this program: Individual must: 1) have been called to active duty under federal authority for a contingency operation as determined by Congress or the President, 2) have served on active duty in a contingency operation for at least 90 continuous days after September 11, 2001, and 3) remain within your component to use benefits. Each service member has 36 months of full-time entitlement. VA Educational Benefits begin after the 90-day minimum service period is completed. There is no time limit for using benefits, provided you remain within your component.

Note: Once you leave your component or are discharged (except for disability), you are no longer eligible for REAP Chapter 1607 benefits.

For more information on VA Educational programs and benefits, please visit <http://www.gibill.va.gov/>

### **Division of Military and Naval Affairs (DMNA) Recruitment Incentive and Retention Program (RIRP)**

#### **Application Procedures**

The student must complete a Recruitment Incentive and Retention Program application at his or her reserve or guard unit. Eligible service members must apply to a New York State institution of higher learning for admission and complete admission requirements. For every semester, he or she must apply for all available student financial aid. Proof of financial aid is required for each semester (e.g., TAP Award Certificate and Student Aid Report (SAR)). In addition, he or she must complete DMNA RIRP Memorandum of Understanding and DMNA Form 96-1 every semester. The unit commander or other authorized representative determines and certifies (if eligible) the applicant's eligibility for this program.

### **Army National Guard (ARNG) Federal Tuition Assistance (FTA) Program (Previously known as the ACES Program)**

The New York Army National Guard (ARNG) Federal Tuition Assistance (FTA) helps soldiers pursue their civilian education goals. ARNG FTA can be applied to a course or program taken at a regionally or nationally accredited, public or private, college, university, vocational, technical, or trade school located inside or outside of New York. The ARNG Federal TA program may also fund clock hours for vocational and technical training courses and certificates offered by non-degree-granting accredited institutions.

For more information regarding required documents, you can visit the Web site at <http://www.dmna.state.ny.us/education/> For more information, please contact your Educational Service Representative, call DMNA at (518) 786-4937/4350, or e-mail [education@ny.ngb.army.mil](mailto:education@ny.ngb.army.mil)

Note: The procedures of this program are subject to change. To schedule an appointment with the Office of Veterans Affairs, please call (631) 632-6700.

### **Army Reserves Tuition Assistance (TA)**

#### **Application Procedures**

Each eligible service member must go to <http://www.goarmy.com/reserve/benefits.html> and log into his or her AKO account. Each applicant must complete DA Form 2171E-R electronically by entering his or her information, school information, degree plan, program major, and course information. Print, review, and sign the Statement of Understanding form, the Recoupment Acknowledgement form, and the DA Form 2171E-R. The service member must obtain the appropriate signature from his or her unit commander or designated unit representative. Completed forms must be mailed or faxed with a tuition/fees statement, class schedule, degree plan, and grades from the previous semester to: HQ USASOC, ATTN: Education Services, Bldg. E-2929, 1 Desert Storm Drive, Fort Bragg, NC 28310 or fax at (910) 432-8935.

For more information, please contact the USASOC Counselor Support Staff at (910) 432-6055/1958/0941.

### **Other Financial Assistance**

#### **Student Employment Opportunities**

The University provides a number of student employment opportunities not based on financial need. Wages vary and are paid by the employing department of the University. To find out about such opportunities, students should attend the Part-Time Job Expo organized during the first week of classes in the fall semester. On campus job opportunities are posted in a variety of places: the SOLAR system, FSA, and through the Career Center's ZebraNET online jobs database.

#### **Faculty-Student Association**

The Faculty Student Association (FSA), which operates an array of auxiliary business services and programs for the campus such as Campus Dining Services, University Bookstore, Matthew's Medical Bookstore, and the Seawolves MarketPlace, employs students in a wide range of capacities.

The FSA Student Staffing Resources Office (SSR) provides résumé building, training, internships, student entrepreneurship and employment opportunities and offers many other resources to provide students with hands-on work experience, skill development, and a source of income. SSR is dedicated to providing placement, advising, and special training programs for its on-campus employment and internship opportunities. FSA also offers a range of scholarship and work-incentive awards to student staff who demonstrate excellence or innovation in job performance.

To apply, students should submit an FSA Student Employment application to Suite 250 in the Stony Brook Union, or complete an online application at <http://naples.cc.sunysb.edu/FSA/semplay.nsf/application>

#### **Parents' Affiliation**

If a student's parents belong to a union or fraternal group, the student could be eligible for financial aid. Other sources of scholarships include Boy or Girl Scouts, Chambers of Commerce, Daughters of the American Revolution, Elks, Junior Achievement, and Parent-Teacher Associations.

### **Scholarships and Grants from Private Sources**

Many private student aid programs are available. Awards may be based on need, need plus other criteria, or other criteria alone. Students are encouraged to investigate scholarships for which they may be eligible. Among the criteria considered may be academic achievement, artistic talent, athletic ability, career plans, community activities, leadership potential, parents' employers, proposed college major, religious affiliation, and special interest.

### **Job Locator Service**

The Career Center's Job Locator Service provides job listings for paid, part time work off campus through ZebraNET, its online jobs database. Some off campus employers require students to have transportation; others are on the bus or train routes.

### **Professional Associations**

Often organizations of professionals in specific career fields will provide scholarships, fellowships, or internships for college students. To learn more about professional associations, visit the Career Center.

### **Records & Registration**

- The SOLAR System
- Degree Audit Report
- Change of Address
- Registering for Classes
- Late Registration
- Add/Drop Period
- Closed Courses and Courses Requiring Permission
- First-Week Attendance
- Enrollment Status
- Course Load and Course Withdrawal
- Final Examinations
- Taking Time Off
- Grading and the Grading System
- Courses without P/NC option
- Curriculum Policies
- Multiple Registrations for the Same Course
- Application of Transfer Credits to General Education Requirements (D.E.C.)
- Transferring Coursework after Matriculation
- Academic Credit by Examination and Other Credit Options
- Transcripts
- Application for Graduation

### **The SOLAR System**

Stony Brook's student online access system, the SOLAR System, at <http://www.stonybrook.edu/solarsystem>, provides students with access to course information, semester class schedules, class registration, unofficial transcripts, financial aid, billing and payment information, as well as links to other important sites such as academic calendars. Access is through the student's Stony Brook ID and password.

### **SOLAR System Messaging**

When students log onto the site, they can also access messages sent through the University's messaging system, by which students are notified of important information specific to their own registration, record, or financial account. Messages may include important registration information, such as: the student has been enrolled into a class from the automatic waitlist, a class has been cancelled, or the student has been given permission to register for a course. Students should log onto their SOLAR System pages frequently for important updates, especially during registration periods and at the beginning of classes.

Students may also maintain personal information, such as an e-mail address, through the site. Students are encouraged to maintain a current, active e-mail address to ensure receiving communications from University offices and departments. The Registrar staff may not reset SOLAR passwords. To reset a SOLAR password, click on 'SOLAR Password Help' on the SOLAR homepage.

### **Degree Audit Report**

The Degree Audit Transcript (available through the SOLAR System, at <http://www.stonybrook.edu/solarsystem>) provides an Undergraduate Advisement Report which evaluates and reports a student's progress toward fulfilling general education degree requirements. The report is

designed to be a helpful advisory tool and is not an official evaluation of a student's progress. The degree progress report does not review major and minor requirements. Major or minor requirements must be reviewed by the academic department.

### Change of Address

To ensure prompt receipt of important University communications, students should maintain an up-to-date home/ mailing address on the Web through the SOLAR system at <http://www.stonybrook.edu/solarsystem> or in person at the Registrar's Office (identification is required). International students must report changes of address to the International Services office. On-campus housing address changes must be made through the appropriate Campus Residences quad office rather than through the SOLAR System or the Registrar's Office; foreign students must also report the change to International Services. Degree candidates confirm the diploma mailing address on the graduation application. If they wish to change their address, they may contact the Registrar's office up until the diploma has been ordered.

### Registration for Classes

Students should register for classes as soon as they are eligible to do so. With the assistance of an academic advisor, each student selects a group of courses. The student must register for classes each semester in accordance with instructions issued by the Registrar's Office and the online Class Schedule as a prerequisite to class attendance. It is the student's responsibility to see that the program conforms with academic regulations and meets degree requirements. It is the student's responsibility to plan class schedules to avoid conflicts with Evening Midterm Exams, Final Exams, and regular class meeting times. Exam schedules may be found at <http://www.stonybrook.edu/registrar/finals.shtml>. **Please Note: Instructors are not obligated to give makeup examinations or make other arrangements to accommodate students.**

Before registering for the first time at the University, all new students participate in an orientation, which includes an academic advising program. During orientation, students receive academic information and advice from faculty members, professional advisors, and student orientation leaders. Incoming transfer students attend sessions at which they discuss the applicability of their previous coursework to Stony Brook's graduation requirements, including their planned major department. At orientation, students register for the coming semester.

Continuing students register each semester through the SOLAR System at <http://www.stonybrook.edu/solarsystem> or in person at the Registrar's Office. Advance registration begins in November for the following spring and in April for the following fall. All continuing students should advance register. Final registration takes place during the week before and through the first ten days of classes.

Each continuing student is assigned an enrollment appointment on the basis of class standing and cumulative credits, including in-progress credits and other factors. For instance, seniors with a greater number of credits are assigned an earlier enrollment appointment than seniors with fewer credits. Students begin to register at the time of their enrollment appointment and may register anytime thereafter during the open enrollment period. Enrollment appointments may be viewed by logging onto the SOLAR System. Registration instructions can be accessed at <http://www.stonybrook.edu/registrar>.

After registering, students are billed and payment is due on the date indicated on the bill. Payment may be made through the SOLAR System, which also provides information to students on their individual accounts and financial aid.

Note: Nonpayment of tuition by registered students does not constitute official withdrawal from the University. Students must officially drop all courses (down to 0) via the SOLAR System prior to the start of the semester. As of day one of the semester, students must submit the Undergraduate Withdrawal/Leave of Absence form through the Registrar's Office to avoid financial liability. Instructions may be found on the Registrar's webpage at <http://www.stonybrook.edu/registrar/canwithloa>, and Request can be found at <http://www.stonybrook.edu/registrar/forms.shtml>.

### Late Registration

Students who have not registered prior to the start of classes are considered to be registering late and are assessed a late registration fee. See the fee information in the Financial Information chapter for full details. The late registration period corresponds to the add/drop period. See the "Add/Drop Period" entry below for additional information on registering for courses after the start of classes.

### Add/Drop Period

The add/drop period begins on the first day of classes and ends at the close of business (4PM) on the tenth business day of classes of the fall or spring semester, the fifth business day of classes of six-week summer sessions, or the third business day of classes of three-week winter sessions. Many courses require students to have permission to register after the course has closed or after the start of classes. Permission requirements for individual courses are noted in the online Class Schedule. See the section "Closed Courses and Courses Requiring Permission" below.

Students may drop most courses through the SOLAR System. Some courses require permission to drop; these are noted in the online Class Schedule. In addition, some freshman-level courses in mathematics, chemistry, and physics have an extended add/drop period, usually after students have been notified of the results of the first exam, which allows students to drop to a less advanced level course.

See the entries "Course Load and Course Withdrawal" and "Withdrawal from the University" in this Bulletin for more information on dropping and withdrawing from individual courses and withdrawing from all courses (withdrawing from the University).

After the end of the add/drop period, students may only add a course following procedures, established by the appropriate faculty Committee on Academic Standing and Appeals (CASA), for petitioning for an exception to the deadline, described in "Petitioning for Exceptions" later in this chapter. Students may drop a course after the end of the add/drop period, but full-time students (those registered for 12 or more credits) must maintain at least 12 registered credits during the fall and spring semesters. A grade of "W" (withdrawal) will be recorded on the transcript when a course is dropped after the end of the add/drop period. (See "Course Load and Course Withdrawal") Students granted permission to make changes in registration after deadlines stated in the academic calendar will be assessed a petition fee.

### **Closed Courses and Courses Requiring Permission**

When courses require permission or if a course is closed, students must contact the instructor or the department to request that their name and ID be added to the SOLAR system permission list for that course. Once the permission has been approved and processed, students will receive a message with the registration information on the SOLAR System and must register themselves through the SOLAR System.

When a course is closed, departments may offer the option to place a student on their manual waitlist; for certain classes, the student may use an automated waitlist. Students should consult the department office for information about their waitlist policy. Courses that offer the automated waitlist option are noted in the online Class Schedule; students wishing to register for these courses must add themselves to the waitlist for the class using the SOLAR System. Once registered for a waitlisted course, it is the responsibility of the student to check for SOLAR messages regarding that waitlisted course.

### **First-Week Attendance**

Students are expected to attend all classes from the first day of the semester on, including those for which they are on a waitlist. Those who, during the first five days of the semester, do not attend a class for which they are registered risk losing their right to remain in the course. A faculty member has the prerogative, if published, of de-registering students not in attendance, particularly if others are seeking to add the course. To avoid an NR (No Record) on the transcript, students must take responsibility for dropping a course through the SOLAR System or in person at the Registrar's Office before the end of the ninth week of classes.

### **Enrollment Status**

Enrollment status is an eligibility requirement for most forms of financial aid, health insurance coverage, and intercollegiate athletics, and provides priority registration for on-campus housing. Enrollment status is determined on the basis of the number of credits for which a student is enrolled after the tenth day of classes each semester. Students registered for 12 or more credits are considered full time. Students are responsible for determining the implications of changing their enrollment status.

### **Course Load and Course Withdrawal**

Full-time matriculated students—that is, those students who seek to earn a degree from the University—normally register for 12 to 19 credit hours per semester. See Note #3.

Continuing students with a cumulative grade point average of 3.00 or higher (with no Incomplete or Q grades) will have their credit limit raised to 23 after the start of the semester, as per the Academic Calendar.

Students with a cumulative grade point average between 2.50 and 2.99 may submit a petition for an overload to the appropriate Committee on Academic Standing and Appeals. Majors in the College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, and the School of Journalism may submit petitions to the Office of Undergraduate Academic Affairs, Room E3310 of the Melville Library. Majors in the College of Engineering and Applied Sciences may submit petitions to the Undergraduate Student Office, Room 127 Engineering Building.

Students with a cumulative grade point average below 2.50 are not eligible to request an overload.

Please note: Students with an incomplete grade, Q grade, or in their first semester at Stony Brook are not eligible to request an academic overload, regardless of GPA.

After the tenth class day and through the ninth week of classes in the fall and spring semesters, a full-time student may withdraw from one or more courses providing that the student maintains full-time status (a minimum of 12 registered credits). A grade of "W" will appear on the transcript indicating withdrawal for each course. Part-time students may withdraw from any number of courses and will receive a grade of "W" for each course withdrawal.

Tuition liability policies apply for all course withdrawals and course cancellations.

For fall and spring semesters only: After the tenth class day, full-time students who wish to drop one or more classes and thereby carry fewer than 12 credits (an "underload") must petition the appropriate Committee on Academic Standing and Appeals. Approval for an underload, granted for the current semester, is allowed only in emergency situations. Before requesting an underload, the student should determine the consequences of dropping below 12 credits for scholarships, loans, and intercollegiate athletic eligibility. Students with approved underloads will be charged at the

full-time tuition rate. Students who have chronic difficulties that make full-time study inappropriate should only register for 11 or fewer credits (part-time status).

During summer and winter terms, students may withdraw to zero credits at any time before the last day of classes, but a grade of "W" (withdraw) will be noted on the transcript for each course withdrawal after the end of the add/drop period.

After the ninth week of classes for fall and spring semesters, a student who wishes to withdraw from a course may do so only by withdrawing from all courses in that semester or by withdrawing from the University. Such withdrawal requests must be requested by the last day of classes.

Students officially withdraw from a course by dropping it via the SOLAR System or in person at the Registrar's Office. Students withdrawing from all their courses (or withdrawing from the University) may do so in writing or in person at the Registrar's Office. Students who withdraw from the University and whose cumulative grade point average is less than 2.00 are required to wait for at least one semester before they are permitted to re-enroll. To learn more about taking a leave of absence, please refer to the "Leave of Absence and Returning to the University" section in this Bulletin.

**Course cancellation:**

Courses can only be completely removed from the student record if the request is received by the registrar's office by the end of the add/drop period of the given semester.

Notes:

1. Non-attendance or notification of the instructor alone does not constitute official withdrawal.
2. Citizens of other countries who are in the U.S. on an F-1 or J-1 visa must register for at least 12 credits each fall and spring semester unless formal approval to do otherwise has been obtained from International Services. International students holding other visas should consult International Services.
3. The credit limit during preregistration is 17 credits (16 credits for students in their first semester at the University). Certain programs have exceptions to these limits. This credit limit applies to all students until either the end of summer orientation or one week before the start of classes (whichever is later). At that point, the limit is raised to 19 credits.
4. The combined total of registered and waitlisted credits is 19 credits at any point during the registration period.

**Final Examinations**

The academic calendar provides seven days each semester for a Final Examination Period. The last examination of the course, whether comprehensive or covering only a portion of the material, must be given during the Final Examination Period at the time designated for the course. Exceptions may only be granted by the dean of the faculty member's college for compelling academic reasons. Unit exams may only be given during the last week of the semester if a final examination is also given during the Final Examination Period. Instructors are reminded that students who request accommodation for religious reasons are entitled to that accommodation under New York State law. It is the responsibility of the student to plan class schedules to avoid conflicts with Evening Midterm exams and regularly scheduled classes, and to avoid conflicts with Final Exams. Final schedules may be found online at <http://www.stonybrook.edu/registrar/finals.shtml>.

**Taking Time Off**

## Withdrawal from the University

### CANCELLATION OF ENROLLMENT PRIOR TO THE SEMESTER START

Students who have enrolled and wish to cancel enrollment prior to the semester start date must drop all courses (down to 0 credits) via the [SOLAR System](#). As of day one of the semester, students must follow the procedure outlined below for requesting a Permanent Withdrawal or Leave of Absence. Please see the [Undergraduate Academic Calendar](#) for semester start date.

Note to New Admits:

Any new admit, whether freshman or transfer, who cancels enrollment prior to the semester start via the SOLAR System must re-apply through the [Undergraduate Admissions Office](#) if they intend to return to the University. Admission will be based on availability and students are not guaranteed acceptance for a future semester.

### PERMANENT WITHDRAWAL

As of day one of the semester, students who wish to Permanently Withdraw from the university must submit the Undergraduate Withdrawal/Leave of Absence Request form to the Registrar's Office. Students should select the Permanent Withdrawal option if they are certain that they will not be returning to Stony Brook as an undergraduate student. Students will be withdrawn from all current and future semesters.

Students who wish to return to the university after requesting a Permanent Withdrawal must rematriculate.

Note to New Admits: Any new admit, freshman or transfer, who requests a Permanent Withdrawal before the add/drop deadline of the semester, must re-apply through the [Undergraduate Admissions Office](#) if they intend to return to the University. Admission will be based on availability and students are not guaranteed acceptance for a future semester. Please see the [Undergraduate Academic Calendar](#) for the add/drop deadline date.

### LEAVE OF ABSENCE

As of day one of the semester, students who wish to take a Leave of Absence from the university must submit the Undergraduate Withdrawal/Leave of Absence Request Form to the Registrar's Office. Students should select the Leave of Absence option on the Undergraduate Withdrawal/Leave of Absence Form if there is any chance that they may return to Stony Brook as an undergraduate student. The date on which the form is filed, not the date of last class attendance, is considered the official date of withdrawal.

At the time they withdraw from the University, students have the option of indicating whether they intend to return. This "leave of absence" may be canceled if the student attends another college while on leave from Stony Brook and fails to maintain a C average at that institution. A student in that situation should consult a Stony Brook admissions counselor at the earliest opportunity.

Students who withdraw from the University and whose cumulative grade point average is less than 2.00 are required to wait for at least one semester before they are permitted to re-enroll. Students who submit withdrawal forms after the first ten class days but not later than the last day of classes in a semester will be assigned a withdrawal (W) for each course. Withdrawal after the last day of classes does not relieve students of financial obligation.

Non-attendance does not constitute official withdrawal (Leave of absence). Notification of the student's instructors does not constitute official withdrawal (Leave of absence). Non-payment of tuition and fees does not constitute official withdrawal (Leave of absence).

Note to New Admits: Any new admit, whether freshman or transfer, who requests a Leave of Absence before the add/drop deadline of the semester, must re-apply through the [Undergraduate Admissions Office](#) if they intend to return to the University. Admission will be based on availability and students are not guaranteed acceptance for a future semester. Please see the [Undergraduate Academic Calendar](#) for the add/drop deadline date.

### MILITARY LEAVE

As of day one of the semester, students who wish to take a Military Leave must submit the Undergraduate Withdrawal Request Form to the Registrar's Office. Students are required to obtain authorized signature on the above named form from the [Office of Veterans Affairs](#).

### MEDICAL LEAVE

As of day one of the semester, students who wish to take a Medical Leave must submit the Undergraduate Withdrawal/Leave of Absence Request Form to the Registrar's Office. Students must submit signed medical documentation that states the student cannot attend classes for the semester in which they plan to take the medical leave of absence. Specific diagnosis information is not required. Any request that is submitted without proper medical documentation will be processed as a Leave of Absence.

### TRANSFER TO OTHER SUNY SCHOOL

As of day one of the semester, students who wish to withdraw due to attendance at another SUNY school must submit the Undergraduate Withdrawal/Leave of Absence Request Form to the Registrar's Office. Students must submit an enrollment verification stating full-time status from the new SUNY School the student is attending.

### AUTHORIZED SIGNATURES REQUIRED

The following students are required to obtain authorized signature on the Withdrawal/Leave of Absence Form from the appropriate office:

#### STUDENTS

International Students (F1, F2, J1, J2 Visas)  
EOP/AIM Students  
Honors College Students  
Athletes  
Freshmen (First two semesters)

#### OFFICE

[Visa and Immigration Services](#)  
[EOP/AIM Office](#)  
[The Honors College](#)  
[Athletics Academic Advising](#)  
[Undergraduate Academic Colleges](#)



**STUDENTS WITH A CUMULATIVE GPA LESS THAN 2.0 AND/OR STUDENTS WHO HAVE WITHDRAWN IN A PREVIOUS SEMESTER**

Students who take a leave of absence after classes begin and have a cumulative GPA lower than 2.0 and/or students who have withdrawn or taken a leave of absence in a previous semester must wait one full Summer/Fall or Winter/Spring term to re-enroll in classes. Any future enrollment will be cancelled.

**NEW ADMITS**

Any new admit, whether freshman or transfer, who cancels their enrollment prior to the semester start via the SOLAR System or requests a Permanent Withdrawal or Leave of Absence before the add/drop deadline of the semester, must re-apply through the [Undergraduate Admissions Office](#) if they intend to return to the University. Admission will be based on availability and students are not guaranteed acceptance for a future semester.

After the add/drop deadline, new admits that request a Permanent Withdrawal or Leave of Absence are subject to the same guidelines of continuing students.

Please see the [Undergraduate Academic Calendar](#) for the add/drop deadline date.

**IMPACT ON FINANCES**

Taking time off from the university could impact student finances. Please refer to the following offices: Tuition Assistance Program, Registrar's Office (631) 632-6175; Financial Aid (631) 632-6840; Meal Plan (631) 632-6430; Campus Residences (631) 632-6750.

Returning to the University

1. Students who indicate at the time of official withdrawal that they may wish to return to Stony Brook will be approved routinely for return to the University during the three semesters following the one in which they withdrew if:

- a. the student leaves in good academic standing;
- b. there has been no previous withdrawal;
- c. the student has no disciplinary action pending or in force.

2. College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, and School of Journalism students who have not been enrolled at Stony Brook for four consecutive semesters and have not earned any Stony Brook credits will be assigned a new matriculation date and will be responsible for the academic requirements in effect at the time of their return. This includes students completing coursework for a Stony Brook degree at other institutions. These rematriculated students will be required to meet with an academic advisor before registering for classes upon their return. Note: Summer terms are not considered to be semesters and credits earned during the summer do not count toward maintaining matriculation.

3. College of Engineering and Applied Sciences students will be assigned a new matriculation date after one semester of absence from the University and will be responsible for the academic requirements in effect at the time of their return. They will be required to meet with a faculty advisor before registering for classes. In addition, students who withdraw from the University and return at a later date to complete degree requirements are required to have formally reevaluated all courses more than six years old that were taken at Stony Brook or elsewhere to fulfill major requirements.

4. Educational Opportunity Program students must obtain clearance for re-admission from the EOP/AIM Office and meet with their AIM counselor.

5. Prior to registering for classes, all foreign students returning to the University must obtain a visa clearance from International Services.

6. Students who withdraw from the University and whose cumulative grade point average is less than 2.00 are required to wait for at least one semester before they are permitted to re-enroll.

Students who have taken a Permanent Withdrawal: Student who wish to return to the university after requesting a Permanent Withdrawal must rematriculate.

**WHAT IS THE REMATRICULATION PROCESS?**

Student must submit the Undergraduate Rematriculation Form to the Registrar's Office. Visit the [forms](#) page to download the form. There is a rematriculation fee. Once this form is processed by the Registrar's Office, the student is required to meet with an Academic Advisor before being able to enroll for classes.

NOTE: Students who do not attend the semester in which they rematriculate are not eligible to enroll for future semesters. These students must follow the Rematriculation Process for the new semester in which they plan on attending, and must submit a rematriculation form and rematriculation fee.

**Academic Renewal Policy**

Students who, for financial or personal reasons, have not been enrolled at the University for at least ten consecutive semesters and who, after rematriculation, complete at least 12 (but no more than 24) credit hours in good academic standing, may be eligible for academic renewal. Under this policy, the student's cumulative grade point average will be re-initialized and calculated based on course grades earned as of the date of rematriculation, although the original grades and g.p.a. remain on the transcript. To qualify for graduation, students must earn a minimum of 36 credits after rematriculation and a cumulative g.p.a. of 2.00 at Stony Brook after re-initialization of the cumulative g.p.a. Those who wish to be considered for degrees with distinction must earn at least 55 credits at Stony Brook after re-initialization of the cumulative g.p.a. For advice about eligibility, students should speak with an advisor in the Academic and Transfer Advising Services Center.

**Grading and the Grading System**

Either a letter grade or status report is assigned each semester for every course for which a student is registered after the second week of classes. Students can view their grades on SOLAR.

The term "letter grade" refers to A through F and in certain circumstances to S grades.

All courses used to meet Diversified Education Curriculum requirements and courses used to meet major requirements, including, in engineering majors, the technical electives, must be taken for a letter grade. Students should consult the "Requirements for the Major" section of their major for any exceptions to this policy.

Final grades appearing on a student's academic record cannot be changed after one calendar year from the start of the term in which the grade was assigned. Exceptions may be made if the instructor is on leave in the term following the one in which the grade is assigned or if the student is on leave because of disabling illness in that term. Grade changes are done in conjunction with the instructor, the department, and the Dean, and then sent to the Registrar's Office for posting. A final grade cannot be changed on the basis of work completed after a term has ended. Final grades appearing on a student's academic record at the time of graduation cannot be changed to any other grade subsequent to receiving a degree. Requests for changes to an undergraduate academic record after the degree has been officially granted will be considered only under exceptional circumstances within six months of the conferral.

A	(superior work)
A-	
B+	
B	(good work)
B-	
C+	
C	(Satisfactory work)
C-	
D+	
D	(minimum passing credit)
F	(Failing work)
I	(Incomplete)
NC	(No Credit)
NR	(No Record)
P	(Pass)
Q	(Academic dishonesty)
R	(Pending completion of second semester of a year-long course)
S	(Satisfactory work)
U	(Unsatisfactory work)
W	(Withdrawal)

#### Graded/Pass/No Credit Option (GPNC)

Within the specific limits noted below, a student may elect to have the final grade in any course recorded on the official academic record as the grade as assigned by the instructor, a P (Pass) or as NC (No Credit) if the reported letter grade is F. Neither P nor NC is calculated into the grade point average (g.p.a.). Students may elect this option through the ninth week of classes.

Note: Most graduate and professional schools require that prerequisite courses be taken for a letter grade and many can interpret NC grades as being equivalent to a grade of F, and a grade of P as equivalent to a D. Students should consult the appropriate pre-professional or departmental advisors regarding the implications of electing the GPNC option.

Note: Students must remain in compliance with Federal and State Satisfactory Academic Progress Guidelines. To avoid impacting Financial Aid or TAP awards, questions should be directed to Financial Aid or Registrar's Office (for TAP).

The following provisions reflect the intent of this option, which is to encourage students to explore other and sometimes less familiar areas of study.

1. The GPNC process requires students to select a threshold letter grade as the minimum acceptable grade for the course. If a student should achieve his/her minimum grade or higher, the achieved grade will be the final reported grade on the transcript and will be factored into the GPA. If a student should achieve a grade less than the threshold but higher than F, the final reported grade on the transcript will be P (Pass). If a student fails the course, the final reported grade on the transcript will be NC (No Credit).
2. Courses graded P or NC cannot be used to satisfy D.E.C. (general education) requirements, but may be used to satisfy the university upper-division credit requirement.
3. Election of the GPNC option must be completed before the end of the ninth week of the semester as specified in the academic calendar at <http://www.stonybrook.edu/registrar>. After the date specified in the academic calendar, no changes either to or from the GPNC option may be

- made. Students may not petition to change a course to letter-graded after the deadline for changing courses to or from the GPNC option has passed.
- The GPNC option may be elected only once for a given course. The GPNC option may be elected more than once per course (but only once per distinct course topic) in courses designated as repeatable for credit. See link for more information on repeatable courses.
  - Students may elect the GPNC option for no more than one course per term.
  - The Registrar does not communicate to the instructor of a course the names of students who elect the GPNC option.
  - Courses for which the grade of P or NC is recorded are not considered among the minimum of 12 credits required for a student to be on the Dean's List.
  - Majors and minors in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism have specific restrictions on the use of the GPNC option to satisfy their requirements. Refer to the specific major or minor requirements in the "Approved Majors, Minors, and Programs" chapter of this Bulletin for details. Students in the College of Engineering and Applied Sciences may not take any courses in the major, including technical electives, under the GPNC option. Only Open Electives may be taken under the GPNC option.
  - Certain courses may not be taken under the GPNC option, such as developmental courses, or courses with special grading bases such as S/U, or ABC/U. Courses not available for the GPNC option are noted in the Bulletin course descriptions and/or here.

See also "Limits on Course Credits and Grading Options."

#### Satisfactory/Unsatisfactory (S/U)

Some courses are designated as S/U grading and students will not receive a letter grade (A through F) for them. Students may not elect to take such courses under the GPNC option.

S/U grading is not calculated into the grade point average (g.p.a.). Courses with S/U grading are counted among the 100 credits required for the degree that must be taken for a letter grade. They also apply to the criteria for Dean's List.

#### Withdrawal (W)

A mark of W is recorded when the student withdraws from a course after the first ten days of classes. The W is used to indicate that the student withdrew after the end of the add/drop period. The W is not calculated into the grade point average (g.p.a.).

#### Grade Point Average (g.p.a.)

For the purpose of determining grade point average, grades are assigned point values as follows:

A 4.00	B- 2.67	D+ 1.33
A- 3.67	C+ 2.33	D 1.00
B+ 3.33	C 2.00	F 0.00
B 3.00	C- 1.67	Q 0.00

Calculate the Quality Points for each course by multiplying the Point value of the grade by the total number of Credits for the course:

Grade	Point Value		Course Credits		Quality Points
A	4.00	X	3	=	12
B	3.00	X	4	=	12
C+	2.33	X	3	=	6.99
D	1.00	X	3	=	3
F	0.00	X	3	=	0
			_____		_____
Total			16		33.99

#### The following grades are not calculated into the g.p.a.: P, NC, NR, R, S, U, W

Grades for courses transferred from other institutions do not affect the grade point average. Grades earned in developmental courses are not calculated in the cumulative g.p.a., but are included in the term g.p.a., Dean's List and academic standing calculations.

#### Limits on Course Credits and Grading Options

There are limits on the number of credits from certain courses that can be applied toward the baccalaureate degree. Listed below are the maximum numbers of credits that can be applied toward the total number of credits required for a degree:

**Independent study** (30 credits): courses with numbers 273, 287, 444-449, 484-489, 499

**Internships** (12 credits): of which no more than 6 credits may be EXT 288

**Activity-related courses** (9 credits): AFS 283, LHD 307, LHD 308, PSY 283

**Undergraduate teaching practica** (6 credits)

#### Specific Course Limitations for degrees:

For the courses listed below, there is a limit on how many credits may be applied to specific degrees. For the B.A. candidate, the limit is 30 credits; B.S. candidates 60 credits; B.E. candidates 90 credits.

The limited courses are ARS 154; BUS 210, BUS 214, BUS 348; MUS individual instrument or voice instruction courses; student teaching courses numbered 449, 450, 451, 452, and 454; THR 244, THR 295, THR 296, THR 301-307, THR 340; BME, CME, ESE, ESG, ESM, and MEC courses; HAD, HAN, HAS, HBA, HBM, HDH, HDO, HDP, HNI courses; HWC fieldwork courses

**Credits by approved examinations** (30 credits): Approved examination programs are Advanced Placement examinations, College Level Examination Program subject examination, Regents College examinations, Stony Brook Challenge examination

**Graduate courses** (6 credits)

**Developmental courses:** AIM 102, MAP 101, and MAP 103 are developmental courses

**Repeated courses:** Courses may not be repeated for credit unless specifically noted as repeatable in the Undergraduate Bulletin course description. See the entries "Retaking Courses" and "Repeatable Courses" for more information.

**Restrictions on Credits Earned with a Grade of P:** At least 100 credits of the 120 credits required for the baccalaureate degree must be passed with a letter grade (A through D or S).

**Courses without P/NC option**

The following courses do not offer the P/NC option.

<b>Course</b>	<b>Title</b>
ACH 102	Arts, Culture and Humanities
AIM 102	Expository Writing
AIM 104	Lit Analysis, Critical Reasoni
AMS 475	Undergrad Teachng Practicum
AMS 476	Undergrad Teaching Practicum
BME 120	BME Programming Fundamentals
BME 213	Studies in Nanotechnology
BME 311	Bioimaging
BME 371	Biological Microfluidics
BME 400	Research and Nanotech
BME 402	Contemporary Biotechnology
BME 440	Biomedical Engrng Design
BME 441	Sr Design Proj in Biomed Eng
BME 475	Undergrad Teaching Practicum
BUS 112	Intro to Business and Environ
BUS 294	Principles of Management
BUS 314	Federal Income Taxation II
BUS 315	Accounting for Small Bus Entrp
BUS 349	Prncpls of Marktng Sust Prods
BUS 368	Marketing New Sustainable Prod
BUS 373	Supply Chain and Envir Mgt
BUS 374	Environmental Impact of Bus
BUS 393	Principles of Project Mgt
BUS 400	External Auditing
CEF 347	Intro to Special Education
CHE 125	Chemistry Learning Strategies
CHE 385	Tools of Chemistry
CME 330	Principles of Engg for CE
CME 333	Bus Economics for Engineers
CME 369	Polymer Engineering
CME 372	Colloids, Micelles & Emul Sci
CME 475	Undergraduate Teaching Prac
CME 480	Cell Bio for Chemical Eng
CME 481	Advanced Cell Bio for CE
CSE 114	Computer Science I
CSE 150	Fndtns Comp Sci: Honors
CSE 160	Comp Sci A: Honors
CSE 214	Computer Science II
CSE 215	Foundations of Comp Science

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CSE 219	Computer Science III
CSE 220	Systems-Level Programming
CSE 260	Comp Sci B: Honors
CSE 300	Technical Communications
CSE 302	Professnl Ethics for Comp Sci
CSE 303	Intro to Theory of Computation
CSE 304	Compiler Design
CSE 305	Principles of Database Systems
CSE 306	Operating Systems
CSE 307	Principles of Progr Languages
CSE 308	Software Engineering
CSE 310	Computer Networks
CSE 311	Systems Administration
CSE 312	Legal Issues in Info Systems
CSE 320	Computer Org & Architecture
CSE 323	Human-Computer Interaction
CSE 327	Computer Vision
CSE 328	Fundamentals of Comp Graphics
CSE 332	Introduction to Visualization
CSE 333	User Interface Development
CSE 334	Intro to Multimedia Systems
CSE 336	Internet Programming
CSE 346	Computer Communications
CSE 350	Theory of Computation: Honors
CSE 352	Artificial Intelligence
CSE 364	Advanced Multimedia Techniques
CSE 366	Intro to Virtual Reality
CSE 370	Wireless and Mobile Networking
CSE 371	Logic
CSE 377	Intro to Medical Imaging
CSE 378	Intro to Robotics
CSE 380	Cmptr Game Prgmng
CSE 381	Advanced Game Programming
CSE 390	Topics in Computer Science
CSE 391	Topics in Computer Science
CSE 392	Topics in Computer Science
CSE 393	Topics in Computer Science
CSE 394	Topics in Computer Science
CSE 408	Network Security
CSE 409	Computer System Security
CSE 475	Undergrad Teaching Practicum
CSE 487	Research in Computer Science
CSE 495	Sr Honors Research Project I
CSE 496	Sr Honors Research Project II
EEO 271	Electrical Circuit Analysis I
EEO 301	Signals and Systems
EEO 304	Elec Instr Op Amps
EEO 306	Random Signals & Systems

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EEO 311	Electronics Circuits II
EEO 314	Mos Transistor Modeling
EEO 315	Electronics Circuits I
EEO 316	Int Elect Dev Circ
EEO 323	Electromagnetics
EEO 331	Intro to Semiconductor Devices
EEO 340	Nanotechnology, Engg, and Sci
EEO 352	Electronics Laboratory I
EEO 353	Electronics Laboratory II
EEO 363	Fiber Optic Communications
EEO 366	Mixed Signal Systems on Chip
EEO 401	RF/Microwave Circuits
EEO 415	Intro to Microelecmech Sys
EEO 425	Elec Mach and Energy Conv
EEO 440	Engineering Design I
EEO 441	Engineering Design II
EEO 482	Power Sys Engg I
EEO 488	Internship in EE
ESE 124	Computer Tech for Elect Dsgn I
ESE 201	Engg & Tech Entrepreneurship
ESE 211	Electronics Laboratory A
ESE 218	Digital Systems Design
ESE 224	Cmptr Tchnq for Electr Dsgn II
ESE 231	Intro to Semiconductor Devices
ESE 271	Electrical Circuit Analysis I
ESE 290	Transitional Study
ESE 300	Tech Commun for EE/CE
ESE 301	Eng Ethics and Soc Impact
ESE 304	Apps of Operational Amplifiers
ESE 305	Deterministic Signals & Systms
ESE 306	Random Signals & Systems
ESE 311	Analog Integrated Circuits
ESE 314	Electronics Laboratory B
ESE 315	Control System Design
ESE 319	Electromag and T Lines
ESE 324	Electronics Laboratory C
ESE 325	Modern Sensors
ESE 330	Integrated Electronics
ESE 333	Real-Time Operating Systems
ESE 337	Digital Signal Process: Theory
ESE 340	Basic Communication Theory
ESE 341	Int Wrls Cellu Commu
ESE 342	Digital Communications Systems
ESE 344	Software Techniques for Engnrs
ESE 345	Computer Architecture
ESE 346	Computer Communications
ESE 347	Digital Signal Process: Implem
ESE 350	Electrical Power Systems

ESE 352	Electromech Energy Converters
ESE 355	VLSI System Design
ESE 358	Computer Vision
ESE 360	Network Security Engineering
ESE 363	Fiber Optic Communications
ESE 366	Mixed Signal Systems on Chip
ESE 372	Electronics
ESE 373	RF Electr for Wireless Commun
ESE 380	Embedded Microproc Syst Des I
ESE 381	Embedded Microproc Syst Des II
ESE 382	Digital Des Using VHDL & PLDs
ESE 440	Engineering Design I
ESE 441	Engineering Design II
ESE 475	Undergrad Teaching Practicum
ESE 476	Instructional Lab Practicum
ESE 488	Internship Electr/Comp Engrnrng
ESE 499	Research in Electrical Science
ESG 375	Fund. of Professional Engg
ESL 192	Intermediate Composition
ESL 193	Advanced Composition
ESL 194	Acad English Skills for US Res
ESM 213	Studies in Nanotechnology
ESM 378	Materials Chemistry
ESM 400	Research and Nanotech
ESM 475	UndergradTeaching Practicum
EST 213	Studies in Nanotechnology
EST 310	Design of Computer Games
EST 323	Human-Computer Interaction
EST 341	Waste Treatment Technologies
EST 400	Research and Nanotech
GLS 102	Global Studies
HAD 210	INTRO CLIN LAB SCIEN
HAD 304	Introd to Forensic Science
HAD 313	CLINICAL BIOCHEM
HAD 315	HEMATOLOGY I
HAD 330	FNDNS IN PHLEBOTOMY
HAD 331	Introd to Biochemistry CLS
HAD 363	COMPUTER APPLIC CLS
HAD 380	Clinical Microbiology I
HAD 381	Clinical Microbiology II
HAD 390	INDEP STUDY:CLIN LAB
HAD 397	CLIN MICRO PRACTICUM
HAD 398	CLIN HEMAT I PRACT
HAD 403	MEDICAL MOLECULR BIO
HAD 406	Intro to Clinical Cytogenetics
HAD 411	CLINICAL BIOCHEM II
HAD 412	CLINICAL BIOCHEM III
HAD 414	COAG, URIN & BODY FLD

HAD 416	IMMUNOHEMATOLOGY
HAD 425	Parasitology/Mycology
HAD 432	PHARMACOLOGY
HAD 440	Forensic Sciences Clinical
HAD 445	Selected Topics in Toxicology
HAD 460	CLINICAL LAB QM
HAD 468	Lab Inform Systems Internship
HAD 490	INDEP STUDY/ CLIN LAB
HAD 492	Research Tutorial
HAD 493	Adv Seminar in Cln Lab Science
HAD 494	CLIN CHEM PRACTICM
HAD 496	Clin Histocompatibility Pract
HAD 497	IMMUN HEMATLGY PRACT
HAD 498	COAG,URINALYSIS PRAC
HAL 205	Intro to Athletic Training
HAL 210	Emergency Care/Athlet Injuries
HAL 300	Kinesiology
HAL 305	Prevent & Care Athlet Injuries
HAL 306	Prophylctc Taping Bracng Equip
HAL 320	Clin Eval Diag Lumbar Spine
HAL 321	Clin Eval Diag Head/Cervl Spn
HAL 345	Therapeutic Modalities
HAL 351	Research Methods Biostatistics
HAL 355	Gen Med Condtns & Disabilities
HAL 360	Rehab of Athletic Injuries
HAL 370	Exercise Physiology
HAL 375	Supplement Use Sport Perform
HAL 435	Org&Admin in Athletic Training
HAL 450	Senior Research Seminar in AT
HAL 481	Athletic Training Practicum I
HAL 482	Athletic Training Practicum II
HAL 483	Athletic Training Practicum III
HAL 484	Athletic Training Practicum IV
HAL 485	Athletic Training Practicum V
HAL 486	Athletic Training Practicum VI
HAN 200	Anat & Phys Health Science I
HAN 202	Anat & Phys Health Science II
HAN 300	Health Care Issues
HAN 312	Med Term and Human Anaty
HAN 333	Communication Skills
HAN 335	Professional Ethics
HAN 364	Issues HC Informatic
HAN 383	Professional Writing
HAN 395	Radiation Physics in Medicine
HAN 401	Radiobiology and Health Physic
HAN 402	Radiographic Anatomy and Path
HAN 404	Radiology Instrumentation
HAN 405	Radiographic Technique



HAN 406	Radiologic Procedures Postn I
HAN 413	Pharmacology for Phar Techns
HAN 416	Special Issues Emerg Care Resu
HAN 417	Cardiac Medical Emergencies
HAN 426	Instrumentatn Nuclear Med Tech
HAN 427	Nuclear Medicine Procedures
HAN 429	Radiopharmcy Thrpy Nuclear Med
HAN 432	Intro Hlth Care Management
HAN 434	CORP COMPLIANCE& REG
HAN 435	SALES MARKT HLTH CARE
HAN 436	TQM/CQI IN HLTH CARE
HAN 440	INTRO COMM HLTH EDU
HAN 443	Aging and Disability
HAN 446	Disability Health and Commty
HAN 447	Children with Disabilities
HAN 448	Disability and Employment
HAN 449	Project in Disability Studies
HAN 450	INTRO TO PUBLIC HLTH
HAN 452	EPIDEMIOL & BIOSTAT
HAN 453	Research Methods in Public Hea
HAN 456	SOCIALBEHAV ASP HLTH
HAN 462	DEVEL HLTH INFO SYS
HAN 464	HLTH INFOR SYS MGT
HAN 466	APPL HLTH CARE INFORM
HAN 467	UTILIZAT OUTCOME RES
HAN 470	Envir/Occup Hlth Safety Engrng
HAN 471	Trauma and Trauma Systems
HAN 472	Weapons of Mass Destruction
HAN 474	INDUSTRIAL HYGIENE
HAN 476	Hazrd Matrls Emerg Response
HAN 477	HAZMAT Training for EMS
HAN 478	Intern in Environmental Hlth
HAN 481	INTRO TO ANESTHESIA
HAN 482	INTROD TO PATHOLOGY
HAN 483	CARDIO PHYSLGY ASATT
HAN 485	CLINICAL MONITORING
HAN 486	PRIN PRACT RAD THERP
HAN 488	Med Imaging Radiographic Antmy
HAN 489	PHARMACOLOGY ASATT
HAN 492	Radiation Oncology/Medical Phy
HAN 499	Health Science Teaching Prac
HAO 310	Neuroscience
HAO 313	INTRO OCCUPTNL THRPY
HAO 315	FOUNDATIONS OF OT
HAO 319	KINESIOLOGY FOR OT
HAO 320	GROWTH & DEVELOPMENT
HAO 323	Mental Health Concepts
HAO 324	Psychosocial Theory & Practice

HAO 330	Occ Thrpy Thry Prac Pediatrics
HAO 332	Occup Thrpy Theory Pract Adlt
HAO 334	ACUTE CARE
HAO 338	SUBSTANCE ABUSE & OT
HAO 340	Prosthetics and Orthotics
HAO 374	Professional Behaviors I
HAO 385	Conditions in Occupationl Thrpy
HAO 396	Fieldwork IA
HAO 397	Fieldwork IB
HAO 398	Fieldwork IC
HAO 421	Physical Agent Modalities OT
HAO 430	SENSORY INTEGRATION
HAO 440	Gerontology and Occup Thrpy
HAO 451	Introd Rsrch for Occup Therapy
HAO 458	Intro Evid Based Pract for OT
HAO 461	Functional Anatomy for OT
HAO 485	VISION, PERCEPTION, COGNITION
HAO 490	INDEPENDENT STUDY
HAO 491	CASE STUDIES I
HAS 190	INT TO HLTH PROFSSNS
HAS 300	ISSUES IN HLTH CARE
HAS 332	Management Concepts
HAS 335	MEDICAL ETHICS
HAS 350	INTRO TO STATISTICS
HAS 351	RESEARCH LIT/DESIGN
HAS 363	COMPUTER LITERACY
HAS 391	READNGS IN HEALTH
HAS 399	ALLIED HLTH:IND STDY
HAS 490	RESEARCH TUTORIAL
HAT 210	Intro to Respiratory Care
HAT 304	Cardiopulmonary Physiology
HAT 306	Patient Evaluation
HAT 320	Cardiovascular Diag & Treat I
HAT 330	Pulmonary Pathology
HAT 331	Respiratory Care Techn I
HAT 332	Respiratory Care Techniques II
HAT 333	PULMONARY DIAG TECH
HAT 340	CARDIOVASCULAR CLIN
HAT 350	Basic Respiratory Care Clinica
HAT 353	PULM DIAGNOSTIC CLNL
HAT 402	ADV CARDIAC LIFE SUP
HAT 404	Neonatal Resuscitation
HAT 410	Introduction to Clinical Educa
HAT 411	CLIN TEACH RESP CARE
HAT 415	Respiratory Care Techniques IV
HAT 420	CARDIOVAS DX & DX II
HAT 431	Respiratory Care Techn III
HAT 432	Perinatal Respiratory Care

HAT 450	CRITICAL CARE CLIN
HAT 451	PERINATAL RESP CLIN
HAT 470	Polysomnographic Technology I
HAT 471	Polysomnographic Technology II
HAT 475	Polysomnographic Tech I Clin
HAT 476	Polysomnographic Tech II Clin
HAT 482	PHYSIO MONITOR CLINIC
HAT 487	Cardiopulmonary Rehab Clinical
HAT 490	INDEPENDENT STUDY
HAT 493	SEM/RDGS:RESP CARE I
HAT 494	Seminar/Readings Resp Care II
HBA 398	RESEARCH PRJ:ANATOMY
HBA 399	RESEARCH PRJ:ANATOMY
HBA 460	Regional Human Anatomy Cyto
HBA 461	REGIONAL HUM ANATOMY
HBC 331	INTROD BIOCHEMISTRY
HBH 330	FUND PHARMACOLOGY I
HBH 331	FUND PHARMACOLOGY II
HBH 332	PHARM CARD RESP SCIN
HBH 393	TOPICS IN PHARMACLGY
HBH 394	TOPICS IN PHARMACLGY
HBH 396	SUMER RSRCH:PHARMCGY
HBH 398	RESRCH PR:PHARMACLGY
HBH 399	RESRCH PR:PHARMACLGY
HBI 398	RES PROJ BIOMED SCI
HBP 310	PATHOLOGY
HBP 393	Special Topics Pathology Lit
HBP 394	Special Topics Pathology Lit
HBP 398	RSCH PROJ: PATHOLOGY
HBP 399	RSCH PROJ: PATHOLOGY
HBP 401	APPLIED IMMUNOLOGY
HBY 350	PHYSIOLOGY
HBY 390	Topics in Physiology
HBY 393	SP T:PHYSIO/BIOPHSCS
HBY 394	SP T:PHYSIO/BIOPHSCS
HBY 398	RSCH:PHYSIO/BIOPHSCS
HBY 399	RSCH:PHYSIO/BIOPHSCS
HD 322	Summer Research: Oral Biology
HD 422	Summer Rsch Oral Biology Path
HDH 301	DENT HEALTH READINGS
HDO 320	Research: Oral Biology Path
HDO 321	Oral Biology Research II
HDO 322	Summer Research: Oral Biology
HDO 420	Oral Biology Research III
HDO 421	Oral Biology Research IV
HDO 422	Summer Rsch Oral Biology Path
HDP 320	PERIODONTAL RESEARCH
HDP 321	PERIODONTAL RESEARCH

HDP 322	PERIODONTAL RESEARCH
HDV 102	Human Development
HMC 331	LEGAL/ISS IN HLTH CA
HMC 361	LITERATURE & MEDICIN
HMC 487	Independent Study
HMH 401	INTRO MEDICAL PHYS
HMO 401	RESEARCH IN PERINATA
HMO 402	RSH PRJ IN OB/GYN
HMO 490	IND STUDY CYTOGENET
HMO 492	IND STUDY REP BIO
HMP 425	INDEP RES NEUROPSYCH
HMP 430	INDEPENDENT STUDY
HNC 310	Pathology
HNC 330	Fund of Pharmacology I
HNC 331	Fund of Pharmacology II
HNC 340	NOVICE TO EXPERT
HNC 350	Perspectives in Nursing Educ
HNC 360	Stat Mthds for Hlth Care Rsrch
HNC 366	Group Theory
HNC 370	HEALTH ASSESSMENT
HNC 440	RESEARCH IN NURSING
HNC 450	Health Assessment
HNC 469	NSG PRAC FAMILY COMM
HNC 470	Nursing Mgt Practicum BS
HNC 471	Nursing Mgt Practicum BS/MS
HNC 479	PROF/MGT/LGL/ETH ISSUES
HNC 482	Directed Studies
HNC 483	Peri-operative Elective
HNC 491	Ptnt Fmly Cntr Cre Prtner Hlth
HNC 492	Complementary Alternative Thrp
HNC 493	End of Life Care of the Adult
HNC 499	CLINICAL EPIDEMIOLOGY
HNI 290	Introduction to Nursing
HNI 301	BIOMATH
HNI 350	Perspectives in Nursing Educ
HNI 360	Stat Mthds for Hlth Care Rsrch
HNI 362	Ecological Framework Nursing
HNI 363	NUTRITION
HNI 364	Fund Concepts Of Nursing Pract
HNI 366	Group Theory
HNI 367	Introduction Healthcare Policy
HNI 370	HEALTH ASSESSMENT
HNI 373	Psych Mental Hlth Nursing
HNI 374	Community Health Nursing
HNI 376	Clinical Assistantship in NP
HNI 440	RESEARCH IN NURSING
HNI 463	Parent/Child Hlth: Obstetrics
HNI 464	Parent/Child Hlth (Pediatrics)

HNI 473	Adult Health Nursing
HNI 474	Capstone Nursing Practicum
HNI 479	PROF/MGMT/LEGAL IMPL
HNI 482	GUIDED STUDIES
HNI 483	Peri-operative Elective
HNI 491	Ptnt Fmly Cntr Cre Prtner Hlth
HNI 492	Complementary Alternative Thrp
HNI 493	End of Life Care of the Adult
HNI 498	Maintenance of Matriculation
HSQ 221	Lifeguard Training I
HSQ 222	Lifeguard Training II
HSQ 223	Water Safety Instructor
HSQ 270	Emgrey Response, CPR, Safety
HSQ 271	Instructor of CPR
HSQ 272	Instructor of First Aid
HSQ 325	Instr of Adapted Aquatics I
HSQ 326	Instr of Adapted Aquatics II
HSQ 329	Fieldwork in Adapted Aqu Instr
HWC 210	INTRO TO SOCIAL WORK
HWC 300	Intro to Fields of Practice
HWC 304	Contemporary Social Justice Is
HWC 305	Practice Processes Soc Work I
HWC 306	Practice Process Social Wrk II
HWC 307	Pract Processes in SW III
HWC 308	HBSE I
HWC 309	HBSE II
HWC 310	Political Economy Soc Welfare
HWC 311	SW POLICY SERV ANALY
HWC 312	SW Policy Inst Oppression
HWC 313	Research in Social Work I
HWC 314	Research in Social Work II
HWC 315	Integrating Seminar I
HWC 316	Integrating Seminar II
HWC 317	Issues in Death and Dying
HWC 321	Ethnic Sensitive SW Pract
HWC 323	Growing Old in America
HWC 324	Child and Adolsents Who Grieve
HWC 325	Anger Management
HWC 329	Complementary Alternative Med
HWC 330	Case Management Human ServIces
HWC 340	Social Issues Popular Culture
HWC 343	Work with Chld Alchl Sub Abuse
HWC 344	Overview of Substance Abuse
HWC 349	Overvw Soc Wrk Spec Population
HWC 351	Law and Social Change
HWC 361	Impl Racism for Social Welfare
HWC 362	Impl Child Abuse Maltreatment
HWC 363	Homelessness, Poltcs & PubHlth

HWC 364	Impact of Sexual Assault
HWC 369	Youth and Violence
HWC 375	Child Welfare: An Overview
HWC 379	Special Topics Social Welfare
HWC 380	Overview of Family Violence
HWC 390	HIV/AIDS
HWC 395	Independent Study
HWC 396	Marketing Health & Human Serv
IEC 101	INTENS EGL BEGINNER
IEC 102	INTENS EGL LO-INTER
IEC 103	Intensive Intermediate EGL
IEC 104	Intensive High Intermed EGL
ISE 215	Foundations of Comp Science
ISE 218	Computer Organization
ISE 300	Technical Communications
ISE 302	Professnl Ethics for Comp Sci
ISE 305	Database Design and Practice
ISE 311	Systems Administration
ISE 312	Legal Issues in Info Systems
ISE 315	Database Transaction Proc Syst
ISE 320	Information Management
ISE 321	Network Administration
ISE 323	Human-Computer Interaction
ISE 332	Introduction to Visualization
ISE 334	Intro to Multimedia Systems
ISE 340	Design of Computer Games
ISE 364	Advanced Multimedia Techniques
ISE 377	Intro to Medical Imaging
ISE 378	Intro to Robotics
ISE 390	Topics in Information Systems
ISE 391	Topics in Information Systems
ISE 475	Undergrad Teaching Practicum
ISE 487	Rsrch in Information Systems
ITS 102	Topics in Info & Tech Studies
LDS 102	Leadership and Service
MAP 101	Fundamentals of Arithm & Algeb
MAP 103	Proficiency Algebra
MAT 371	Logic
MEC 125	Fund of Machining Practices
MEC 213	Studies in Nanotechnology
MEC 220	Practical Electerronics MechEng
MEC 400	Research and Nanotech
MEC 440	Mechanical Engrng Design I
MEC 441	Mechanical Engrng Design II
MEC 475	Undergrad Teaching Practicum
SSO 102	Science and Society
WRT 101	Introductory Writing Workshop
WRT 102	Intermed Writing Workshop A

## Curriculum Policies

### Undergraduate Course and Curricular Numbering System

100-199 Introductory courses; appropriate for and generally taken by freshmen.

200-299 Intermediate courses; appropriate for and generally taken by sophomores.

300-399 Upper-division courses; appropriate for and generally taken by juniors and seniors.

400-499 Upper-division major courses, seminars, directed readings and research, and teaching practica; appropriate for and generally taken by juniors and seniors. A few 400-level courses for seniors only are so noted.

Courses with hyphenated numbers (e.g., HIS 495-HIS 496) are year-long courses. Students will not be awarded credit for either course unless they complete both semesters.

### Renumbered Courses

The notation (“formerly ABC ###”) after a course number and title indicates that the course designator or number has been changed. Courses renumbered from lower-division (100-200) to upper-division (300-400) level may not be used retroactively to satisfy the 39 upper-division credit requirement of the University unless specifically noted in the course description. The newly renumbered or designated courses may not be repeated for credit.

### Southampton Courses and DEC or Skill Designators

If a course satisfies a DEC or Skill, the DEC &/or Skill designator is indicated in the Course Description listings of this Bulletin following the course number (e.g. HIS 104 K&4 or WRT 103-A).

Courses offered in Southampton that are also offered on the west campus are tagged with a “-S” location marker on class schedule and student transcripts to simplify class searches and student enrollment. Courses with the same subject designator and course number offered on both campuses are identical in content and satisfy the same prerequisites and requirements for graduation. For example, MAR 303 on the west campus is the same MAR 303-S on the Southampton campus. The “-S” location marker is only noted on student transcripts and class schedules when the course is offered in Southampton and is not noted in the *Bulletin* or Course Catalog description for the course. Course subject designators for courses that are only offered at Southampton do not carry the “-S” suffix (e.g. CSK, EDP, EHI, EHM, ENV, SBC, SUS).

### Enrichment Courses

These courses are restricted to specific groups of students. Introduction to Stony Brook 101, Undergraduate College Seminar 102, and SBU 101, one-credit courses for first-semester freshmen and transfer students, introduce students to the Stony Brook academic environment. All freshmen entering Stony Brook in the fall semester are required to take ACH/GLS/HDV/ITS/ LDS/SSO 101 in the fall and ACH/GLS/ HDV/ITS/LDS/SSO 102 in the spring, based on their undergraduate college affiliation. Freshmen entering Stony Brook in the spring semester must take first-year seminar 102. Students in the Honors College register for HON 106 (fall) and HON 105 (spring). AIM 102 and 104 are open to students in the EOP/AIM program only. See the descriptions of each of these courses in the Course Descriptions section of this Bulletin.

### Multiple Registrations for the Same Course

### Mutually Exclusive Courses

### Crosslisted Courses

### Co-scheduled Courses

## Auditing

Auditing refers to the practice of attending a course for informational instruction only. The privilege of auditing courses is limited to matriculated students and senior citizens. Matriculated students who wish to audit a course must first obtain permission from the instructor. Senior citizens must arrange to audit courses through the School of Professional Development. An auditor does not receive academic credit for the course, nor does the University maintain any record of the auditor’s attendance in the course.

Individual instructors may establish policies for auditors in their courses. In general, auditors are expected to refrain from participating in class discussions and from turning in or asking for grading of homework, term papers, or examinations. After the end of the add/drop period, the student may not change status in a course from auditor to registered.

### Course Prerequisites

Students should meet the prerequisites to a course before taking the course. Prerequisites indicate through specific coursework the type of knowledge, the level of academic maturity, or the acceptance to a specific program that a student should have achieved before taking a course.

Completion of the prerequisites may be in progress at the time the student advance registers for the following semester. The University has the option to de-register, by the end of the first week of classes, any student not meeting the prerequisites to a course. In addition, some courses enforce prerequisites at the time of registration. Students who believe they have satisfied the prerequisites to a course through transfer work or through other study or experience should seek permission of the instructor before registering. Permission of the instructor supersedes stated prerequisites. Certain courses may be taken only with the permission of the instructor or of the department; this is listed as a prerequisite to the course.

Advisory prerequisites indicate the type of knowledge a student should have in order to do better in a course than would be expected without that knowledge. Students electing to take a course without satisfying the advisory prerequisite should expect to have to work harder and not do as well as students who have completed the advisory prerequisite.

#### Limits on Course Credits and Grading Options

There are limits on the number of credits from certain courses that can be applied toward the 120 required for the B.A. or B.S. degree, or the 128 required for the B.E. degree. Listed below are the maximum numbers of credits that can be applied toward the total number of credits required for a degree:

**Independent study** (30 credits): courses with numbers 273, 287, 444-449, 484-489, 499

**Internships** (12 credits): of which no more than 6 credits may be EXT 288

**Activity-related courses** (9 credits): AFS 283, LHD 307, LHD 308, PSY 283

**Undergraduate teaching practica** (6 credits)

Maximum numbers of credits that can be earned in non-liberal arts and sciences courses: B.A. candidates 30 credits; B.S. candidates 60 credits; B.E. candidates 90 credits

The following courses are non-liberal arts and sciences courses: ARS 154; BUS 210, 214, 348; MUS individual instrument or voice instruction courses; student teaching courses numbered 449, 450, 451, 452, and 454; THR 244, 295, 296, 301-307, 340; BME, CME, ESE, ESG, ESM, and MEC courses; HAD, HAN, HAS, HBA, HBM, HDH, HDO, HDP, HNI courses; HWC fieldwork courses

**Credits by approved examinations** (30 credits): Approved examination programs are Advanced Placement examinations, College Level Examination Program subject examination, Regents College examinations, Stony Brook Challenge examination

**Graduate courses** (6 credits)

**Developmental courses** (0 credits): AIM 102, MAP 101, and MAP 103 are developmental courses

**Repeated courses** (0 credits): Courses are not repeatable unless specifically noted as repeatable in the Undergraduate Bulletin course description. See the entries "Retaking Courses" and "Repeatable Courses" earlier in this chapter for more information.

Restrictions on Credits Earned with a Grade of P: Students must complete at least 100 credits of the 120 required for the B.A. or B.S. or of the 128 credits required for the B.E. degree with a letter grade. In addition, courses taken under the Pass/No Credit option will not satisfy D.E.C. or general education requirements.

#### Multiple Registrations for the Same Course

##### Definitions:

Repeat: to take a course again that IS marked as "may be repeated." Examples include topics courses, teaching seminars or internships.  
Retake: to take a course again that is NOT marked as "may be repeated."

##### Repeatable Courses

1. Certain courses note in their descriptions that they "may be repeated once" or "may be repeated as the topic changes." Students may repeat such courses within those restrictions and receive credit each time.
2. Each grade for such repeated courses is computed in the student's grade point average; a repeat grade does not replace the original grade.
3. Only courses stating in the description that they may be repeated may be taken more than once for credit.

##### Retaking Courses

1. Unless a course is designated as repeatable for credit, students must obtain written permission from their general academic advisor to retake the course during the fall and spring semesters (see 6 and 7 below). Permission to retake is rarely given to students who received a letter grade of C or better.
2. Students are considered to have taken a course if they remain in the course past the add/drop deadline, regardless of the grade received in the course.
3. Credits for retaken courses will count once toward cumulative credits, but will count each time toward semester load. Each grade received in the course will be averaged into the cumulative grade point average. A retake grade does not replace the original grade.
4. Students who receive permission to retake a course may not exercise the P/NC option for that course.



5. Students wishing to take a course more than twice must submit a petition to the appropriate committee on academic standing and appeals. In support of this petition form, students must include written approval from the undergraduate program director of the department offering the course.
6. Students wishing to retake courses should consider doing so in the summer and winter sessions, if possible, as their registration opportunities in fall or spring semesters may be limited.
7. Although students are permitted to register for a second attempt of any course in summer or winter without written permission, it is expected that they will consult with an academic advisor.
8. Students registering for 'High Demand/Controlled Access Courses' (HD/CA) for the first time will have priority to do so. Students wishing to take an HD/CA course for a second time must meet with an academic advisor to request permission. If permission is granted, and if seats remain available, students will have the opportunity to register after all students taking the course for the first time have been accommodated. Alternatively, students may retake HD/CA courses during the summer or winter sessions without priority limitations, or may take an equivalent course at another institution. Students seeking to take courses at other institutions should seek pre-approval from the relevant department at Stony Brook and file a Transfer Course Evaluation Form with the Transfer Office. All other aspects of the course retake policy (as detailed in items 1-7) remain in effect for HD/CA courses.

HD/CA courses:

ANP 300

AMS 102, AMS 110, AMS 151, AMS 161

BIO 201, BIO 202, BIO 203, BIO 204, BIO 205, BIO 207, BIO 315, BIO 358

CHE 129/CHE 131/CHE 141, CHE 132/CHE 142, CHE 133/CHE 143, CHE 321, CHE 322, CHE 326

ECO 108, ECO 303, ECO 305, ECO 320

MAP 103

MAT 122, MAT 123, MAT 125/MAT 131/MAT 141/AMS 151, MAT 126, MAT 127, MAT 132/MAT 142

PHY 121/PHY 131, PHY 122/PHY 132, PHY 123, PHY 124, PHY 125, PHY 126, PHY 127, PHY 133, PHY 134

POL 201

PSY 201, PSY 310

SOC 202

### **Mutually Exclusive Courses**

Mutually exclusive courses are courses whose content is so similar that students who have taken one will be repeating the material if they take the other. Such courses are identified in their Under-graduate Bulletin descriptions with the notation "not for credit in addition to ABC ###." Students risk losing both credits and grade in the second of two courses that are designated mutually exclusive.

### **Crosslisted Courses**

Crosslisted courses are courses offered under the auspices of two or more departments and are identified by the notation "This course is offered as both ABC ### and XYZ ###" in the Undergraduate Bulletin and the course catalog in the SOLAR System, and by the notation "Crosslisted with ABC ###" in the Class Schedule. Crosslisted courses may also be indicated with a slash, such as AFH/PHI 379 or HIS 334/WST 336. The title, course description, prerequisite(s), and credit hours for crosslisted courses are identical. A crosslisted course is taught by the same instructor and meets in the same location and at the same time as the course with which it is crosslisted. Students may register under either designator but may not repeat the course by enrolling a second time under the other designator.

### **Coscheduled Courses**

Coscheduled courses are upper-division undergraduate courses that are taught at the same time and in the same location as graduate courses. The undergraduate and graduate versions of the course must have separate requirements as described in the syllabi for the courses and separate grading policies for undergraduate and graduate students.

## **Application of Transfer Credits to General Education Requirements (D.E.C.)**

The Diversified Education Curriculum (D.E.C.), Stony Brook's general education curriculum, is outlined in the section on Graduation Requirements. Transferred courses must carry at least 3 semester hours of credit to be applicable to any Entry Skill or D.E.C. category.

College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, School of Journalism

1. All Entry Skills requirements may be met either through a specified examination, through courses taken at Stony Brook, or through transfer of equivalent courses. Satisfaction of these requirements will be evaluated at the time of matriculation.
2. All students may satisfy D.E.C. categories A through K by transferring from regionally accredited colleges and universities coursework that meets the criteria of the category. Survey and introductory courses will not satisfy categories I, J, and K.
3. Categories I and J may also be satisfied by transfer of six credits of college-level study abroad (with no more than 3 credits in an elementary foreign language) in a geographic area appropriate to the category.
4. A course evaluated to be equivalent to a Stony Brook course will satisfy the category of the Stony Brook course.

Note: Once matriculated at Stony Brook, students may not satisfy D.E.C. category A by transfer.

#### College of Engineering and Applied Sciences

1. All Entry Skills requirements may be met either through a specified examination, through courses taken at Stony Brook, or through transfer of equivalent courses. Satisfaction of these requirements will be evaluated at the time of matriculation.
2. All students may satisfy D.E.C. categories A through K by transferring credits from regionally accredited colleges and universities coursework that meet the criteria of the category. Survey and introductory courses will not satisfy categories I, J, and K. (Candidates for the B.E. degree are not required to complete D.E.C. category K.)
3. Categories I and J may also be satisfied by transfer of six credits of college-level study abroad (with no more than 3 credits in an elementary foreign language) in a geographic area appropriate to the category.
4. A course evaluated to be equivalent to a Stony Brook course will satisfy the category of the Stony Brook course.

Notes: Once matriculated at Stony Brook, students may not satisfy D.E.C. category A by transfer. To satisfy D.E.C. categories I and J, one course must be in the humanities disciplines and one course must be in the social and behavioral sciences disciplines.

#### SUNY General Education Requirements and Stony Brook Equivalents (D.E.C.)

All students must satisfy Stony Brook's Entry Skills and Diversified Education Curriculum (D.E.C.) requirements. Skill and D.E.C. requirements may be satisfied by transfer as noted above. Students with transfer credits from another SUNY college or university and who have satisfied any SUNY general education requirement may be able to apply these courses toward Stony Brook's Skill and D.E.C. requirements.

SUNY General Ed.	Stony Brook
Mathematics	Skill 1
Foreign Language	Skill 3 (see note 1)
Basic Communication	D.E.C. A
Information Management	see note 2
Natural Sciences	1 course D.E.C. E
Social Sciences	1 course D.E.C. F
American History	Skill 4
Western Civilization	see note 3
Other World Civilizations	see note 3
Humanities	1 course D.E.C. B or G
The Arts	D.E.C. D

Notes:

1. If satisfied with an 85 or higher on the New York State Regents examination or a grade of C or higher in a second-semester college elementary foreign language course.
2. This requirement is incorporated into Stony Brook's major requirements.
3. At Stony Brook, category I courses satisfy Western Civilization; category J courses satisfy Other World Civilizations; and courses designated to satisfy Skill 4 satisfy American History. Categories I and J build on entry-level coursework and many transferred courses satisfying the two corresponding SUNY categories will not satisfy Stony Brook's D.E.C. categories. Survey and introductory coursework will not satisfy categories I and J. Note that a course evaluated to be equivalent to a Stony Brook course will satisfy the category of the Stony Brook course.

### Transferring Coursework After Matriculation

#### Study at Other Institutions

For transfer credit policies on coursework taken prior to matriculation, see Transfer Credit Policies and Application of Transfer Credits to General Education Requirements.

Students who wish to transfer credit from other institutions after matriculation at Stony Brook must study at a regionally accredited institution and earn a grade of C or higher in any course taken. In addition, if the student plans to transfer courses from an institution for which printed transfer equivalencies are not available (i.e., published Transfer Credit Guides and printed transfer equivalency sheets), the student must secure prior formal approval from the University. The Undergraduate Transfer Office maintains Transfer Credit Guides to selected schools with course equivalencies to Stony Brook offerings. These Guides are available at the Transfer Office or on its Web site at <http://www.stonybrook.edu/transfer>. Forms for securing prior approval are also available in the Undergraduate Transfer Office. Students must arrange to have official transcripts sent to the University upon completion of courses taken.

Currently enrolled students in the College of Arts and Sciences, College of Business, the School of Marine and Atmospheric Sciences, or the School of Journalism should consult with the Undergraduate Transfer Office before taking general education or elective courses elsewhere.

Students who plan to transfer courses toward major requirements should get prior approval from the major department. Engineering and Applied Sciences students must receive a departmental advisor's approval before taking a course elsewhere.

#### Summer Study Elsewhere

To ensure that courses will be fully acceptable for transfer credit, students planning to take summer courses elsewhere should discuss their plans in advance with both the appropriate departmental academic advisor and Stony Brook's Undergraduate Transfer Office. If the student plans to transfer courses from an institution for which printed transfer equivalencies are not available, the student should secure prior approval for courses toward major requirements from the major department, and for courses toward general education requirements and elective credit from the Transfer Office. After the University receives an official transcript indicating that the student has completed the courses with grades of C or higher, appropriate transfer credit will be noted on the student's academic record.

### Academic Credit by Examination and Other Credit Options

Stony Brook accepts up to 30 credits by examination in partial fulfillment of the bachelor's degree. Included in this total may be credit based on standardized external examinations such as AP, CLEP, Regents College Examinations, and Stony Brook's own Challenge Program (see below). Credit by examination may not be used to satisfy most Diversified Education Curriculum requirements; however, they may be used to satisfy one course in each of categories E, F, and G, and AP credit may be used to satisfy the first course of category A and category C. Credit by examination does not count toward the University's residence requirement.

Credit requested for examinations or programs (e.g., military) not specifically mentioned below must be substantiated by the appropriate documentation. Requests for reviews of students' qualifications must be submitted in writing to the Undergraduate Admissions Office.

#### Foreign Language Challenge Exam Program

Stony Brook University's Foreign Language Challenge Exam program permits students to meet requirements, earn credit, and receive advanced placement by taking examinations in place of foreign language courses. Students interested in taking a Challenge Exam must complete the Challenge Exam form and meet with an academic advisor in the Academic and Transfer Advising Services Center, certifying eligibility before making payment or scheduling an exam. For more information, visit <http://studentaffairs.stonybrook.edu/apac/index.shtml>

The guidelines for the Challenge Exam are as follows:

1. Only matriculated undergraduates are eligible to take a Challenge Exam.
2. The relevant academic department determines the foreign language courses, if any, for which it will offer Challenge Exams.
3. A maximum of 15 credits may be accumulated through the Challenge Exam program. This total is included in the 30-credit limit on examination credits, including AP and CLEP, which can be applied toward the bachelor's degree.
4. Challenge Exams cannot be taken in foreign language courses that are pre-requisites for courses already passed.
5. Challenge Exams cannot be taken for 111-level courses since they does not satisfy the skill 3 foreign language requirement.
6. Challenge Exams cannot be taken in foreign language courses that already appear on the student's Stony Brook transcript, including courses transferred, registered (except during add/drop period), passed, failed, withdrawn, or incomplete.
7. Students may not take a Challenge Exam if they received credit in high school or college in the course being challenged or a higher level course.
8. Students may not take a Challenge Exam if they graduated from a high school where the language of instruction was the same as the course being challenged.
9. Challenge Exams cannot be taken more than once for the same course.
10. Challenge Exam credit does not count toward full-time student status or academic standing.
11. Challenge Exam credit does not fulfill the University residence requirement or satisfy the 55 credits in residence required of candidates for degrees with distinction.
12. Challenge Exam credit may be used to fulfill upper division credit for foreign language courses at the 300-level and higher.
13. Challenge Exam credit may be used to fulfill foreign language major and minor requirements, pending approval from the Undergraduate Program Director in the respective department.
14. Students who receive academic advising and academic departmental approval to take a Challenge Exam are eligible to take the exam by the end of the current semester, unless the applicant ceases to meet the eligibility requirements.
15. The grading option for Challenge Exams is satisfactory/unsatisfactory (S/U). S grades appear on the student's transcript. U grades do not appear on the student's transcript.

16. Credit is not awarded for Challenge Exams in foreign languages not included in Stony Brook's curriculum.

17. The University does not guarantee proctors for every language.

Information for students enrolled in the Chinese or Japanese Teacher Preparation Program: Students enrolled in the CHI or JPN Teacher Preparation Program may earn up to twenty-one (21) Challenge Exam credits. They are exempt from items 7 and 8 noted above, but are not permitted to enroll in CHI 111 or JPN 111 if they receive Challenge Exam credit for any CHI or JPN courses at the 112-level or higher. Approval for Challenge Exam courses is required by the respective Language Advisor and the Foreign Language Director.

## Transcripts

Students who desire transcripts of their academic record at Stony Brook, either for their own use or to have forwarded to another institution or agency, can be ordered directly from the students SOLAR account, under Records and Registration, SU Request Official Transcript or by submitting a written request to the Registrar's Office at least ten days before the transcript is needed. A form for this purpose is available from the Registrar, or can be downloaded and printed from the Registrar's Webpage at <http://www.stonybrook.edu/registrar/forms.shtml>. Requests may also be made by letter or facsimile transmission. There is a charge for each official transcript (see Registrar website for details); payment should be made to the Bursar's Office. If submitted by mail, the request and check payable to Stony Brook University should be sent to the Bursar's Office, P.O. Box 619, Stony Brook, NY 11790-1351. Partial transcripts of a student's record are not released unless required by law. Transcripts will be issued only if the student's financial record shows no outstanding obligation. Students also may view their unofficial transcripts using the SOLAR system at <http://www.stonybrook.edu/solarsystem>.

## Application for Graduation

To become a candidate for graduation, a student must "Apply for Graduation" on SOLAR. If a student is not enrolled at Stony Brook for the term they want to earn their degree, they must file an Application for Degree form in the Registrar's Office. May and August candidates who wish to be included in the May Commencement Program must file by the previous February.

Deadlines:

December and January candidates: end of the second week of the Fall semester.

May and August candidates: end of the second week of the Spring semester.

Students who miss the deadline dates noted in the Academic Calendar will not be included in the Commencement publications. Exact deadlines appear in the academic calendar, available at <http://www.stonybrook.edu/registrar>.

To change your Graduation date, a student must complete a "Change of Graduation" form, available at the Registrar's office or on the Registrar's Webpage using the link "Forms" at <http://www.stonybrook.edu/registrar/forms.shtml>.

Diplomas take 4-6 weeks to receive after the degree has been completed and posted to the record.

## Degree Requirements

- Overview - Degree Requirements
  - State University of New York General Education Curriculum
  - Stony Brook University General Degree Requirements
    - Entry Skills
    - Diversified Education Curriculum (D.E.C.)
    - Requirements for Majors in CAS, CoB, SoMAS, and School of Journalism
    - Requirements for Majors in CEAS

### Overview - Degree Requirements

General education courses, the major, and electives are the three components of a university education. By completing a major, students learn to use the methods of a discipline to gain insight into its subject matter, about which they acquire some depth of knowledge. General education courses provide breadth of knowledge within a balanced liberal arts framework. Electives give students freedom to choose courses that enhance their educational goals beyond the basic requirements set by the faculty.

General education requirements help students to place the more specialized parts of their undergraduate study, their major and pre-professional training in a cultural and historical context. They also develop the intellectual skills necessary to enhance learning during the university years and later. In this complex world, distant places and history affect all human life. The knowledge of the variety, richness, and interdependence of the human experience that students gain during their undergraduate years will enrich their future professional and personal lives. The person with a broad education in the arts and sciences and with well-developed communication and quantitative skills is most likely to flourish in changing times.

## State University of New York General Education Curriculum

The Trustees of the State University of New York have established a fundamental curriculum with specified learning outcomes that all students in colleges and universities in the state university system must have satisfied upon graduation. Stony Brook's Diversified Education Curriculum (D.E.C.) has been reviewed and, in the best judgment of the faculty, incorporates these outcomes and expands upon them to ensure that Stony Brook's graduates will have the intellectual skills and understanding necessary to flourish in their future professional and personal lives. The Diversified Education Curriculum requirements are detailed in the University Degree Requirements section later in this chapter. The SUNY general education curriculum specifies learning outcomes in the following areas:

### Mathematics

Students must show competence in arithmetic, algebra, geometry, data analysis, and quantitative reasoning. Stony Brook's Entry Skill 1 Basic Mathematics Competence meets this learning outcome. Note that students must also satisfy category C of the Diversified Education Curriculum, Mathematical and Statistical Reasoning.

### Basic Communication and Critical Thinking Competency

Students must identify, analyze, and evaluate arguments as they occur in their own or others' work; develop well-reasoned arguments; produce coherent texts within common college-level written forms; demonstrate the ability to revise and improve such texts; research a topic, develop an argument, and organize supporting details; develop proficiency in oral discourse; and evaluate an oral presentation according to established criteria.

Stony Brook's D.E.C. category A, English Composition, and the upper-division writing requirement and other major requirements, meet these learning outcomes.

### Foreign Language

Students must demonstrate basic proficiency in the understanding and use of a foreign language and knowledge of the distinctive features of cultures associated with that language.

Stony Brook's Entry Skill 3, Elementary Foreign Language Competence, meets these learning outcomes. Students must complete the second semester-level of an elementary foreign language if they have not earned an 85 or higher on the Regents examination in a foreign language.

### Information Management

Students must perform the basic operations of personal computer use; understand and use basic research techniques; and locate, evaluate, and synthesize information from a variety of sources.

Stony Brook's faculty expect that all students will acquire these skills early in their education at the University. D.E.C. and major requirements reinforce skills necessary to be successful in the 21st century.

### Natural Sciences

Students must show understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis and application of data, concepts, and models in one of the natural sciences.

Stony Brook's D.E.C. category E, Natural Sciences, meets this learning outcome. Note that Stony Brook students must complete two category E courses and must also complete category H-Implications of Science and Technology.

### Social Sciences

Students must demonstrate understanding of the methods of social scientists in exploring social phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical and interpretive analysis and knowledge of major concepts, models and issues of at least one discipline in the social sciences.

Stony Brook's D.E.C. category F, Social and Behavioral Sciences, meets this learning outcome. Note that most Stony Brook students must complete two Category F courses.

### American History

Students must demonstrate knowledge of a basic narrative of the political, economic, social, and cultural history of the United States, including knowledge of the unity and diversity of American society; knowledge of common institutions in American society and how they have affected different groups; and an understanding of America's evolving relationship with the rest of the world.

For students who matriculated prior to Spring 2004: Stony Brook's D.E.C. category K, American Pluralism, meets these learning outcomes. Students in B.A. or B.S. degree programs must complete one category K course. Students who graduate with a B.E. degree are not required to complete D.E.C. category K.

For students who matriculated Spring 2004 or later: all students in the College of Arts and Sciences, College of Business, School of Journalism, and School of Marine and Atmospheric Sciences are expected to show basic competence in American History by passing a course designated as meeting "Skill 4: American History Competence."

### Western Civilization

Students must demonstrate knowledge of the development of the distinctive features of the history, institutions, economy, society, culture, etc., of Western civilization, and relate its development to that of other regions of the world.

Stony Brook's D.E.C. category I European Traditions meets this learning outcome. Students must complete one category I course.

### Other World Civilizations

Students must demonstrate knowledge of the distinctive features of the history, institutions, economy, society, culture, etc., of a non-Western civilization.

Stony Brook's D.E.C. category J, The World Beyond European Traditions, meets this learning outcome. Students must complete one category J course.

### Humanities

Students must demonstrate knowledge of the conventions and methods of at least one of the humanities in addition to those encompassed by other knowledge areas required by the SUNY general education curriculum.

Stony Brook's D.E.C. categories B, Interpreting Texts in the Humanities, and G, Humanities and Fine Arts, satisfy this learning outcome. Note that all Stony Brook students must complete one category B course and most students must complete two category G courses.

### The Arts

Students must demonstrate understanding of one of the principal forms of artistic expression and the creative process inherent to that art form.

Stony Brook's D.E.C. category D, Understanding the Fine and Performing Arts, meets this learning outcome. Most students must complete one category D course.

### Note to Transfer Students:

Students transferring to Stony Brook from other SUNY institutions should consult the Transfer Credit Policies section in the Academic Policies and Regulations chapter of this Bulletin for details on how their courses apply to Stony Brook's Diversified Education Curriculum.

## Stony Brook University General Degree Requirements

Note: The degree progress report, accessible through the SOLAR (Student OnLine Access to Records) System, is a computer-generated report indicating each student's progress toward fulfilling degree requirements. The report is designed to be a helpful advisory tool and is not an official evaluation of a student's progress. The degree progress report DOES NOT review Major/Minor requirements. Major (and Minor, if applicable) requirements must be reviewed with the departmental representative.

The award of a degree is conditioned upon satisfactory completion of all current degree and instructional requirements at the time of such award and compliance with University procedures and regulations, including the resolution of any outstanding charges of fees or misconduct.

### Credit Hour Requirement

Bachelor of Arts degree: Completion of at least 120 credit hours of passing work.

Bachelor of Science degree: Completion of at least 120 credit hours of passing work.

Bachelor of Engineering degree: Completion of at least 128 credit hours of passing work.

Restrictions on the number of credits that may be counted toward graduation requirements are stated under "Limits on Course Credits and Grading Options" section of this Bulletin. Among the kinds of courses with restrictions are independent study, activity-related courses, and developmental and repeated courses.

### Liberal Arts and Sciences Requirement

State education guidelines require students to complete a minimum number of credits in the liberal arts and sciences. Stony Brook degree requirements are structured so that students satisfy this requirement by completing the other requirements for the degree.

### Residence Requirement

After the 57th credit, at least 36 credits must be earned at Stony Brook.

### Notes:

1. Special restrictions apply to students earning a Bachelor of Engineering degree. Refer to the section "Additional Requirements/ Restrictions for the B.E. Degree" below for details.
2. Credits earned in Study Abroad programs-except those sponsored by Stony Brook-do not count toward residency.
3. Credits earned in National Student Exchange programs do not count toward residency.

### Grade Point Average (g.p.a.) Requirement

A minimum cumulative grade point average of 2.00 is required for all academic work at Stony Brook. (Note: Grades from other institutions are not included in the Stony Brook g.p.a.)

### Major Requirement

Each candidate for a degree must satisfy the requirements of a declared major. Major requirements are detailed in the Approved Majors, Minors, and Programs section of this Bulletin. Students are required to declare a major upon earning 45 credits.

### Upper-Division Credit Requirement

Each candidate must earn at least 39 credits in upper-division courses (numbered 300 and higher).

Some of these credits may be earned through courses transferred from other colleges and individually evaluated at Stony Brook as upper division. See "Transfer Credit Policies" in the Academic Policies and Regulations chapter.

### Upper-Division Writing Requirement

All bachelor's degree candidates must satisfy a writing requirement established in their major discipline. Individual programs and departments appraise the writing of students in their major according to their standards of acceptable communication in their disciplines. The specific form of the requirement for each major is listed under each department. Students with more than one major should consult with the program director in each major in order to determine the appropriate upper division writing requirement(s) for graduation.

### General Education Requirements: Entry Skills and Diversified Education Curriculum

Candidates for degrees in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism must have satisfied Entry Skill 1: Basic Mathematics Competence; Entry Skill 2: Basic Writing Competence; Entry Skill 3: Elementary Foreign Language Proficiency; Entry Skill 4: American History Competence; and the Diversified Education Curriculum for these students detailed in this chapter.

Candidates for degrees in Applied Mathematics and Statistics, Computer Science, and Information Systems, Technological Systems Management, and candidates for the Bachelor of Engineering degree must have satisfied Entry Skill 1: Basic Mathematics Competence; Entry Skill 2: Basic Writing Competence; and the Diversified Education Curriculum for these students detailed in this chapter.

### Additional Requirements/ Restrictions for the B.E. Degree

#### **Residence Requirement**

At least seven engineering courses (those with the designator BME, ESE, ESG, ESM, or MEC) and/or approved technical elective courses must be completed in the College of Engineering and Applied Sciences at Stony Brook. For the majors in biomedical, computer, electrical, and mechanical engineering, at least five of the seven courses must be offered by the department of the student's major.

The following courses may not be used to meet this requirement: ESE 211, 314, and 324; ESG 217, 312, and 316; MEC 200, 316 and 317; and ESE, ESG, BME, and MEC 300, 440, and 441. BME, ESE, ESG, and MEC 440 and 441 must be taken at Stony Brook.

#### **Technical Electives**

Students in majors leading to the B.E. degree must complete a defined number of technical elective courses in their major. A copy of technical elective requirements and the current list of approved technical elective courses for each engineering major are available in the relevant engineering department.

#### **Entry Skills**

All students in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism are expected to show basic competence in mathematics, writing, a foreign language, and American history. Students directly admitted to the majors in the College of Engineering and Applied Sciences must show basic competence in mathematics and writing.

The Skills should in many cases be satisfied upon entry to Stony Brook. However, since completion of Skills is required for graduation, several courses satisfy the Skills. In addition to the notes indicated below, this Bulletin contains a comprehensive summary of courses that satisfy Skills and D.E.C. Note that not all courses are offered each semester. Students should refer to [www.stonybrook.edu/solarsystem](http://www.stonybrook.edu/solarsystem) for accurate course offerings each semester.

#### **Skill 1: Basic Mathematics Competence**

Students should be able to formulate and solve mathematical problems arising in their University work.

Basic Mathematics Competence may be satisfied before entering Stony Brook in any of the following ways:

1. By having passed, while in high school, the New York State Regents Examination in Math B with a score of at least 75;
2. By having achieved a score of 530 or higher on the SAT II in mathematics; or a score of 560 or higher on the mathematics portion of the SAT I; or a score of 56 or higher on the mathematics portion of the PSAT; or a score of 23 or higher on the American College Testing (ACT) Test in Mathematics;

3. By having received a score of 3 or higher on an AP examination in calculus or statistics;
4. By having satisfied the SUNY general education requirement in mathematics.

All entering students who have not achieved basic mathematics competence must satisfy the requirement in one of the following ways:

1. By scoring at placement level 3 or higher on the proctored mathematics placement examination before or during their first year at Stony Brook. (See <http://assess.math.sunysb.edu/> for more information.) Students who do not attain the proficiency-level score must enroll in the appropriate course during their first year on this campus.
2. By earning a grade of C or higher in the developmental class MAP 103 or in a transferred course of at least three credits evaluated by Stony Brook as equivalent to MAP 103. Credit toward graduation will not be given for such transferred courses taken after matriculation.
3. By passing a Stony Brook course that meets the mathematics requirement of the Diversified Education Curriculum.
4. By receiving credit for any transfer course evaluated as satisfying the mathematics requirement of the Diversified Education Curriculum. Students who received transfer credit for such a course taken for college credit while they were in high school must attain the proficiency-level grade on the proctored University placement test to satisfy this requirement, unless the course was taken on the campus of an accredited college and taught by a member of the college faculty.
5. By passing with a grade of C or higher, while enrolled in a degree program at any two- or four-year college, any other mathematics course (excluding basic arithmetic, elementary algebra, and business or finance mathematics courses) of at least three credits counting toward graduation.
6. By obtaining Challenge credit for any MAT or AMS course.

#### Skill 2: Basic Writing Competence

Students should be able to formulate and express their ideas in a clear, articulate manner.

Students satisfy Skill 2 by one of the following ways:

1. by having passed WRT 101 at Stony Brook,
2. by earning a grade of C or higher in a college writing course judged to be equivalent to WRT 101,
3. by earning a score of 1050 or higher on the combined verbal and writing portions of the SAT I, or
4. by earning a 24 or higher on the combined English/Writing portions of the ACT, or
5. by earning a score of 3 or higher on the AP English/Comp or English/Lit examinations.

Note:

1. Satisfaction of the SUNY general education requirement in basic communication and critical thinking does not necessarily satisfy Stony Brook's basic writing competence requirement.

#### Skill 3: Elementary Foreign Language Proficiency

Because of the increasing globalization of culture, society, and the economy, students should have proficiency in a foreign language. Students demonstrate achievement of foreign language proficiency before entering Stony Brook in any of the following ways:

1. A third-year high school Regents examination score of 85 or higher;
2. A Stony Brook Foreign Language Placement exam score allowing enrollment in an intermediate-level language course (numbered 200 or above);
3. A score of 530 or higher on the SAT II in a foreign language;
4. A score of 3 or higher on a foreign language or literature AP exam;
5. If students have previously attended at least two years at a secondary school or university where the primary language of instruction is other than English, then transcripts from the institution may be submitted to demonstrate foreign language proficiency.

All entering students who have not demonstrated basic foreign language proficiency are urged to complete this requirement early in their academic careers. Students achieve foreign language proficiency at Stony Brook in one of the following ways:

1. Enrolling in and passing with a letter grade of C or higher the second semester of an elementary foreign language course numbered 101 or 112, or enrolling in and passing a foreign language course at the intermediate level or higher;
2. Obtaining equivalent transfer credit for the second-semester introductory or higher level foreign language course, passed with a grade of C or higher;
3. Passing a Stony Brook Challenge examination for a foreign language course numbered 101 or 112 or higher.

Notes:

1. Literature and culture courses taught in English translation under the auspices of the foreign language departments do not satisfy the foreign language proficiency requirement.
2. No credit is awarded for Stony Brook Challenge examinations taken to fulfill the foreign language proficiency requirement unless the student meets the requirements outlined in "Guidelines for the Stony Brook Challenge Program," available in the Academic and Transfer Advising Services Center.
3. Students who know a language not offered at Stony Brook may satisfy the foreign language proficiency requirement through the Challenge Examination Program by meeting the "Guidelines for the Stony Brook Challenge Program," although no credit will be awarded.
4. Satisfaction of the SUNY general education requirement in foreign language does not satisfy Stony Brook's foreign language proficiency requirement.



## Skill 4: American History Competence

The SUNY General Education American history requirement provides students with the knowledge of a basic narrative of American history--political, economic, social, and cultural--including knowledge of unity and diversity in American society. It enhances students' knowledge of common institutions in American society and furthers their understanding of the United States' evolving relationship with the rest of the world.

Students achieve American history competence in any of the following ways:

1. Enrolling in and passing with a letter grade one of the following courses: AFS 396, HIS 103, HIS 104, HIS 261, HIS 262, HIS 263, HIS 264, HIS 265, HIS 266, HIS 268, HIS 321, HIS 325, HIS 326, HIS 327, HIS 333, HIS 365, HIS 369, HIS 370, HIS 375, HIS 376, HIS 377, HIS 396, HIS 397, HIS 399, HIS/AFS 277, HIS/AFS 325, HIS/WST 333, POL 102, POL 105, WST 396
2. Receiving transfer credit for one of the courses above
3. Receiving transfer credit for any course that meets the SUNY-GER American history requirement
4. Scoring 3, 4, or 5 on the AP U.S. History exam or the AP U.S. Government and Politics exam

**The Diversified Education Curriculum (D.E.C.)**

The D.E.C. is the Stony Brook version of a general education program that is integral to most college and university curricula. It introduces students to a breadth of knowledge that balances and complements the depth of study provided by their major field. The D.E.C. is designed to accomplish several goals: First, to develop an understanding of how different disciplines define, acquire, and organize knowledge; second, to enhance understanding of Western and non-Western cultures as well as their reciprocal influence on each other; third, to provide a basis for an examination of values; fourth, to develop analytic, synthetic, linguistic, computational, communication, and information-gathering skills useful for lifelong learning; and, finally, to provide a common foundation for wide-ranging dialogue with peers on issues of significance. In its multiple facets, the D.E.C. encourages students to develop a critical and inquiring attitude, an appreciation of complexity and ambiguity, a tolerance for and empathy with persons and groups of different backgrounds or values, and a deepened sense of self. In short, the goal of the D.E.C. is to prepare students to appreciate and be able to function effectively in an increasingly complex world.

The D.E.C. is structured in three tiers. See detailed descriptions of the tiers as well as of each D.E.C. category.

D.E.C. courses are indicated in the Course Descriptions listings at the back of this Bulletin; the D.E.C. category letter (A through K) is tagged to the course number (e.g., WRT 103-A). Courses with a D.E.C. category tag that are taken for the major can also be used to satisfy the appropriate D.E.C. category.

**Note on Courses Satisfying D.E.C. Categories:**

A student's general education record may not be changed retroactively. The University may change the D.E.C. category of a course, but for a particular student, the course will count only toward the requirement it fulfilled at the time the student took the course.

**Important Notes:**

- All courses offered to satisfy D.E.C. requirements must be taken for a letter grade. Courses taken under the Pass/No Credit option will not satisfy D.E.C. requirements. Categories A and C must be passed with a grade of C or higher.
- A course is assigned to one D.E.C. category only and will satisfy only that category.
- If no letter tag appears after a course number, that course may not be used to satisfy any D.E.C. requirement.
- Coursework completed while registered for independent study courses (including directed readings and research courses) may not be used to satisfy any D.E.C. requirements.
- College courses taken while the student was in high school will be evaluated for applicability to D.E.C. categories. College writing courses completed at the high school will satisfy Skill 2 and D.E.C. A part 1 if the student receives a grade of C or higher. Students must take D.E.C. A, part 2 at Stony Brook.
- AP, CLEP subject examinations, RCE, or Challenge credit, or other approved credit by examinations with appropriate scores, may be used to satisfy one course in each of the categories E, F, and G. Course credit by examination may not be used in any other category except students may use AP credit for the first course of category A and for category C.
- Transferred courses must carry at least three semester hours of credit to be applicable to any category.
- Courses transferred from SUNY institutions meeting SUNY general education requirements do not necessarily satisfy D.E.C. categories. See the section "Application of Transfer Credits to General Education Requirements" in the Academic Policies and Regulations chapter for details.

**D.E.C. Requirements for Students with Majors in the College of Arts and Sciences, the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism**

Students are encouraged to visit the Academic and Transfer Advising Services Center for a formal review of their D.E.C. requirements at least two semesters prior to their expected date of graduation. Students can use these pages to record courses used toward these requirements.

The D.E.C. is structured in three tiers.

**University Skills: Tier I**

This tier consists of D.E.C. categories A through D and should typically be completed in the first year of study.

This group of requirements focuses on ways of learning essential to the entire academic experience and subject matter intrinsic to liberal learning.

**Category A English Composition (2 courses)** \_\_\_\_\_, \_\_\_\_\_

The ability to communicate effectively in written English is essential to success both in the University and in society. Students satisfy this requirement 1) by passing WRT 101 Introductory Writing Workshop, and 2) by passing WRT 102 Intermediate Writing Workshop A.

Notes:

1. A score of 3 or higher on the AP English/Comp or English/Lit examinations, or a score of 1050 or higher on the combined verbal and writing portions of the SAT I, or a 24 or higher on the combined English/Writing portions of the ACT, or a grade of C or higher in a college writing course judged to be equivalent to WRT 101 satisfies the first course of the two-course requirement.
2. Students must begin satisfaction of the D.E.C. A requirement in their first year at Stony Brook and must take writing courses in continuous sequence: ESL 192/ESL 193/WRT 101/WRT 102, until completion of the writing requirement. For a student with a score of less than 1050 on the combined verbal and writing portions of the SAT, or less than 24 on the combined English/Writing portions of the ACT, a writing sample will be evaluated and the student placed into the appropriate writing course.
3. All transfer and re-matriculated students who have passed, with a grade of C or higher, a composition course judged to be equivalent to WRT 102 will have satisfied this requirement.
4. College courses taken while the student was in high school may only be considered for equivalency to WRT 102 if taken on the college campus.
5. Once matriculated, students must complete D.E.C. A at Stony Brook; transfer credits will not be accepted to satisfy this requirement after matriculation except with prior approval by the Director of the Program in Writing and Rhetoric.

**Category B Interpreting Texts in the Humanities (1 course)** \_\_\_\_\_

Category B courses help students develop skills of interpretation and analysis that will enable them to examine subject matter critically, not only in the humanities, but in all other college courses.

**Category C Mathematical and Statistical Reasoning (1 course)** \_\_\_\_\_

Category C courses help students understand and use quantitative skills and ideas critical to higher education.

Notes:

1. The course offered for category C must be passed with a letter grade of C or higher.
2. A score of 4 or 5 on the AP mathematics examination or a score of 6 or higher on Stony Brook's proctored mathematics placement examination satisfies category C.

**Category D Understanding the Fine and Performing Arts (1 course)** \_\_\_\_\_

Category D courses acquaint students with the works of creative artists and performers and their artistic medium, such as art, music, or theatre. The basic terminology, analytical tools used to interpret one of the arts, and representative works in a particular field are examined. Such exposure is essential to intellectual growth and the development of a humanist foundation from which to approach other disciplines.

Disciplinary Diversity: Tier II

This tier consists of D.E.C. categories E through G and should typically be completed before the 57th credit or by the end of sophomore year.

This group of requirements exposes students to the modes of thinking, methods of study, and subject matter of major branches of knowledge—natural and physical sciences, social and behavioral sciences, and arts and humanities.

**Category E Natural Sciences (2 courses)** \_\_\_\_\_, \_\_\_\_\_

Category E courses expand students' knowledge about objects and processes observable in nature, whether animate as in the biological sciences, or inanimate as in the physical sciences of chemistry or physics.

**Category F Social and Behavioral Sciences (2 courses)** \_\_\_\_\_, \_\_\_\_\_

Category F courses focus on individual and group behavior within society. These disciplines use methods such as historical analysis of documents, or survey and interview data, to observe and analyze human activity and society.

**Category G Humanities (2 courses)** \_\_\_\_\_, \_\_\_\_\_

Category G courses examine disciplines and methods that express the way people view the human condition.

Expanding Perspectives and Cultural Awareness: Tier III

This tier consists of D.E.C. H through K. Since courses in these categories are built on study from Tier I and II, these courses should typically be completed after the 57th credit or after sophomore year, but can be completed at anytime during the undergraduate career, where prerequisites are met.

This group of requirements challenges students to confront their own perceptions of the world and the people in it. Courses in these categories build on study in the earlier categories.

**Category H Implications of Science and Technology (1 course) \_\_\_\_\_**

Category H courses are designed to help students understand the social and global implications of science and technology and to examine examples of the impact of science, culture, and society on one another.

**Category I European Traditions (1 course) \_\_\_\_\_**

Category I courses consider the Western cultural tradition through specialized study of a European nation or area from one or more viewpoints (e.g., historical, artistic, social, political).

**Category J The World Beyond European Traditions (1 course) \_\_\_\_\_**

Category J courses increase students' understanding of a nation, region, or culture that is significantly different from the United States and Europe in at least one respect.

**Category K American Pluralism (1 course) \_\_\_\_\_**

Category K courses enable students to build upon their knowledge of diverse traditions in order to examine in detail the role of these traditions in forming American society. Some D.E.C. K courses explore our nation's diversity of ethnic, religious, gender, and intellectual traditions through a multicultural perspective. Others explore the relationship of a specific ethnic, religious, or gender group to American society as a whole.

Important Notes:

- See important notes here in the "Diversified Education Curriculum" section of this Bulletin

**D.E.C. Requirements for Students with Majors in the College of Engineering and Applied Sciences**

Students are encouraged to visit the College of Engineering and Applied Science Undergraduate Student Office for a formal review of their D.E.C. requirements at least two semesters prior to their expected date of graduation. Students can use these pages to record courses used toward these requirements.

University Skills: Tier I

This tier consists of D.E.C. categories A through D and should typically be completed in the first year of study.

This group of requirements focuses on ways of learning essential to the entire academic experience and subject matter intrinsic to liberal learning.

**Category A English Composition (2 courses) \_\_\_\_\_, \_\_\_\_\_**

The ability to communicate effectively in written English is essential to success both in the University and in society. Students satisfy this requirement 1) by passing WRT 101 Introductory Writing Workshop, and 2) by passing WRT 102 Intermediate Writing Workshop A.

Notes:

1. A score of 3 or higher on the AP English/Comp or English/Lit examinations, or a score of 1050 or higher on the combined verbal and writing portions of the SAT I, or a 24 or higher on the combined English/Writing portions of the ACT, or a grade of C or higher in a college writing course judged to be equivalent to WRT 101 satisfies the first course of the two-course requirement.
2. Students must begin satisfaction of the D.E.C. A requirement in their first year at Stony Brook and must take writing courses in continuous sequence: ESL 192/ESL 193/WRT 101/WRT 102, until completion of the writing requirement. For a student with a score of less than 1050 on the combined verbal and writing portions of the SAT, or less than 24 on the combined English/Writing portions of the ACT, a writing sample will be evaluated and the student placed into the appropriate writing course.
3. All transfer and re-matriculated students who have passed, with a grade of C or higher, a composition course judged to be equivalent to WRT 102 will have satisfied this requirement.
4. College courses taken while the student was in high school may only be considered for equivalency to WRT 102 if taken on the college campus.
5. Once matriculated, students must complete D.E.C. A at Stony Brook; transfer credits will not be accepted to satisfy this requirement after matriculation except with prior approval by the Director of the Program in Writing and Rhetoric.

**Category B Interpreting Texts in the Humanities (1 course) \_\_\_\_\_**

Category B courses help students develop skills of interpretation and analysis that will enable them to examine subject matter critically, not only in the humanities, but in all other college courses.

**Category C Mathematical and Statistical Reasoning (1 course) \_\_\_\_\_**

Category C courses help students understand and use quantitative skills and ideas critical to higher education.

Notes:

1. The course offered for category C must be passed with a letter grade of C or higher.
2. A score of 4 or 5 on the AP mathematics examination or a score of 6 or higher on Stony Brook's proctored mathematics placement examination satisfies category C.

**Category D Understanding the Fine and Performing Arts (1 course) \_\_\_\_\_**

*Required only for Computer Science students who matriculate Spring 2006 or later, and Information Systems students who matriculate Fall 2006 or later.*

Category D courses acquaint students with the works of creative artists and performers and their artistic medium, such as art, music, or theatre. The basic terminology, analytical tools used to interpret one of the arts, and representative works in a particular field are examined. Such exposure is essential to intellectual growth and the development of a humanist foundation from which to approach other disciplines.

Disciplinary Diversity: Tier II

This tier consists of D.E.C. categories E through G and should typically be completed before the 57th credit or by the end of sophomore year.

This group of requirements exposes students to the modes of thinking, methods of study, and subject matter of major branches of knowledge—natural and physical sciences, social and behavioral sciences, and arts and humanities.

**Category E Natural Sciences (2 courses) \_\_\_\_\_, \_\_\_\_\_**

Category E courses expand students' knowledge about objects and processes observable in nature, whether animate as in the biological sciences, or inanimate as in the physical sciences of chemistry or physics.

**Category F Social and Behavioral Sciences (1 course) \_\_\_\_\_**

Category F courses focus on individual and group behavior within society. These disciplines use methods such as historical analysis of documents, or survey and interview data, to observe and analyze human activity and society.

**Category G Humanities (1 course) \_\_\_\_\_**

Category G courses examine disciplines and methods that express the way people view the human condition.

Expanding Perspectives and Cultural Awareness: Tier III

This tier consists of D.E.C. H through K. Since courses in these categories are built on study from Tier I and II, these courses should typically be completed after the 57th credit or after sophomore year, but can be completed at anytime during the undergraduate career, where prerequisites are met.

This group of requirements challenges students to confront their own perceptions of the world and the people in it. Courses in these categories build on study in the earlier categories.

**Category H Implications of Science and Technology (1 course) \_\_\_\_\_**

Category H courses are designed to help students understand the social and global implications of science and technology and to examine examples of the impact of science, culture, and society on one another.

**Category I European Traditions (1 course) \_\_\_\_\_**

Category I courses consider the Western cultural tradition through specialized study of a European nation or area from one or more viewpoints (e.g., historical, artistic, social, political).

**Category J The World Beyond European Traditions (1 course) \_\_\_\_\_**

Category J courses increase students' understanding of a nation, region, or culture that is significantly different from the United States and Europe in at least one respect.

Note: In choosing courses to satisfy D.E.C.s I and J, students must choose one with a humanities designator and one with a social and behavioral sciences designator.

**Category K American Pluralism (1 course) \_\_\_\_\_**

*Not required for students seeking the Bachelor of Engineering degree, but is required for students seeking a Bachelor of Science or a second Baccalaureate degree in the College of Engineering and Applied Sciences.*

Category K courses enable students to build upon their knowledge of diverse traditions in order to examine in detail the role of these traditions in forming American society. Some D.E.C. K courses explore our nation's diversity of ethnic, religious, gender, and intellectual traditions through a multicultural perspective. Others explore the relationship of a specific ethnic, religious, or gender group to American society as a whole.

Important Notes:

- See important notes here in the "Diversified Education Curriculum" section of this Bulletin

### **Important Policies & Expectations**

- Academic Progress & Standing Policy
- Academic Integrity
- Minimal Instructional and Student Responsibilities
- Student Educational Records and Family Educational Rights and Privacy Act (FERPA)
- Student Participation in University-Sponsored Activities
- Equivalent Opportunity/Religious Absences
- Research Involving Human Subjects
- Research Involving Safety Considerations
- Use of Laboratory Animals in Research or Instruction
- Changes in Regulations and Course Offerings

### **Academic Progress & Standing Policy**

Academic Progress

The University expects students to earn at least 18 credits in two consecutive semesters (credit requirement waived for part-time students enrolled in less than 12 credits) to ensure timely degree progress. Summer and fall credits are considered one semester; winter and spring credits are considered one semester. Students who do not meet this expectation will receive communication from the University to speak with an academic advisor.

Academic Standing

The University expects students to maintain a minimum cumulative grade point average (GPA) of 2.0 to remain in good academic standing. For purposes of enrollment certification and participation in athletic and other co-curricular activities, students who are registered at Stony Brook and whose academic standing is good, first semester warning, warning, probation, or conditional reinstatement are considered to be in good standing.

Academic standing is reviewed at the end of each fall and spring semester, and includes cumulative fall, winter, spring, and summer coursework taken at Stony Brook. Students placed on an academic standing level other than good will receive communication from the University at the end of each fall and spring semester. Students also receive an academic advising hold on SOLAR and are unable to make schedule changes until they contact an academic advisor.

Only remarks of suspension, conditional reinstatement, and dismissal appear on students' official Stony Brook transcripts.

Students on first semester warning, warning, and probation are limited to 16 credits each fall and spring semester. Students on conditional reinstatement are limited to 15 credits each fall and spring semester.

Students who withdraw from the University and whose cumulative GPA is less than 2.0 are required to wait for at least one fall or spring semester before they are permitted to re-enroll. To learn more about taking a leave of absence, please refer to the "Leave of Absence and Returning to the University" section in this Bulletin.

### **Academic Standing Levels and Actions**

Good Academic Standing

Students who earn at least a 2.0 cumulative GPA and are not on academic warning are in good academic standing.

### **First Semester Warning**

Students who earn less than a 2.0 cumulative GPA at the end of their first semester are placed on first semester warning. Students on first semester warning who earn less than a 2.0 cumulative GPA in their second semester, but at least a 2.0 second semester GPA will be placed on probation. Students on first semester warning who earn less than a 2.0 cumulative GPA in their second semester AND less than a 2.0 second semester GPA will be placed on suspension.

### **Warning**

Continuing students in good academic standing who earn less than a 2.0 semester GPA for two or more consecutive semesters are placed on warning.

### **Probation**

Students on first semester warning who earn less than a 2.0 cumulative GPA in their second semester, but at least a 2.0 second semester GPA are placed on probation. Students on probation who earn less than a 2.0 cumulative GPA in the following semester will be suspended.

Continuing students in good academic standing who earn less than a 2.0 cumulative GPA are placed on probation.

### Suspension

Students on first semester warning who earn less than a 2.0 cumulative GPA in their second semester AND less than a 2.0 second semester GPA are placed on suspension. Students who earn a 1.0-1.99 second semester GPA may petition for immediate reinstatement. Students who earn less than a 1.0 second semester GPA are not eligible to petition for immediate reinstatement.

Students on probation who earn less than a 2.0 cumulative GPA are suspended. Students who earn at least a 2.0 semester GPA may petition for immediate reinstatement. Students who earn less than a 2.0 semester GPA are not eligible to petition for immediate reinstatement.

Suspended students are not eligible to enroll in subsequent semesters at Stony Brook until they successfully petition for conditional reinstatement.

### Conditional Reinstatement

Students who have been suspended and successfully petition for reinstatement are placed on conditional reinstatement. Reinstated students are required to sign a contract agreeing to conditions for reinstatement, including regular meetings with an academic advisor as well as expectations regarding minimum grade point average and credit completion. Contract details are determined on an individual basis, but most students are required to earn at least a 2.5 semester GPA and 12 credits.

### Dismissal

Academic records for students on conditional reinstatement are reviewed at the end of each fall and spring semester. Students who fail to meet the conditions for reinstatement are dismissed from the University.

Grade Point Average and Credits Earned	Academic Standing Notation	Action Recommended or Required
2.0 or higher cumulative GPA and not on warning	Good Academic Standing	None
<i>New students:</i> <2.0 first semester GPA	First Semester Warning	Advising required
<i>Continuing students in good academic standing:</i> <2.0 semester GPA for two or more consecutive semesters	Warning	Advising required
<i>Students on first semester warning:</i> <2.0 cumulative GPA, but >2.0 second semester GPA <i>Continuing students in good academic standing:</i> <2.0 cumulative GPA	Probation	Advising required
<i>Students on first semester warning:</i> <2.0 cumulative GPA, but 1.0-1.99 second semester GPA -> suspended but eligible to petition for immediate reinstatement <2.0 cumulative GPA and <1.0 second semester GPA -> suspended and NOT eligible to petition for immediate reinstatement <i>Students on probation:</i> <2.0 cumulative GPA, but >2.0 semester GPA -> suspended but eligible to petition for immediate reinstatement <2.0 cumulative GPA and <2.0 semester GPA -> suspended and NOT eligible to petition for immediate reinstatement	Suspension	Advising/Petition required
	Conditional Reinstatement	Contract required
Not meeting conditions of conditional reinstatement contract	Dismissal	

### Integrity

Committees on Academic Standing and Appeals (CASA)

Undergraduate students whose declared major is in the College of Engineering and Applied Sciences (CEAS) should make requests in matters outlined below to the Committee on Academic Standing and Appeals of CEAS. Declared CEAS majors include applied mathematics and statistics, biomedical engineering, chemical and molecular engineering, computer engineering, computer science, electrical engineering, engineering science, information systems, mechanical engineering, and technological systems management. See also the entry Petitioning for Exceptions below.

All other students, including those who have not declared a major (indicated by GEN on the student's record), and those who have declared an area of interest (e.g., pre-business GBS, pre-computer science GCS, pre-nursing GNS) should make requests in matters outlined below to the Committee on Academic Standing and Appeals of the College of Arts and Sciences. See also the entry Petitioning for Exceptions below.

Both committees operate under faculty legislation and consider exceptions to regulations pertaining to such matters as registration changes, course loads, and academic standing. The CEAS committee also deals with academic dishonesty and academic grievances. Note: Not all exceptions to regulations or deadlines are petitionable. Changing to or from the P/NC option after the deadline published in the academic calendar is not petitionable.

In exceptional circumstances, students may petition the appropriate Committee on Academic Standing and Appeals for permission to withdraw from a course after normal deadlines. Students who obtain permission to add or drop courses after the normal deadlines will be charged \$20 for each program change form processed by the Registrar. Students who, because of extraordinary situations beyond their control, are granted permission to withdraw from all courses and who will not be in attendance during the semester are not charged a fee.

The Committee on Academic Standing and Appeals of the appropriate college considers all petitions for reinstatement in cases of academic suspension. (See the section Academic Standing, Support, and Retention) Students who are granted reinstatement will be assessed a \$50 processing fee.

#### Petitioning for Exceptions

Students are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in official publications including this Undergraduate Bulletin, the Student Handbook, and online class schedules.

Occasionally extraordinary circumstances necessitate that a student request an exception to an academic regulation or deadline. These may include exceptions to registration processing dates and exceptions to regulations on academic standing. Students must file a petition with the appropriate Committee on Academic Standing and Appeals. See the entry Committees on Academic Standing and Appeals (CASA) above. Note that changing to or from the P/NC option after the deadline published in the academic calendar is not petitionable.

Most petitions for exceptions must be accompanied by documentation demonstrating why the student was unable to comply with the regulation or deadline for which the student is requesting an exception. Ignorance of deadlines or regulations is insufficient cause to grant an exception.

Students with majors in the College of Engineering and Applied Sciences may obtain written information about academic regulations, guidelines, and procedures from the Engineering and Applied Sciences Undergraduate Student Office, where petitions are filed. All other students should consult the Academic and Transfer Advising Services Center or, for EOP/AIM students, the Office of Special Programs, and file petitions with the Office of Undergraduate Academic Affairs.

#### Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Academic dishonesty can range from simple breach of class or University guidelines, such as using a cell phone in an exam, to very serious cases which may result in expulsion. The Academic Judiciary Committee for the College of Arts and Sciences (which also includes classes taught by the College of Business, the School of Marine and Atmospheric Sciences, and the School of Journalism) and the Committee on Academic Standing and Appeals of the College of Engineering and Applied Sciences are responsible for enforcing the guidelines for academic integrity in each college, and for the consideration of individual cases. Any suspected instance of academic dishonesty will be reported to the appropriate committee. The judiciary committee of each college has jurisdiction over all courses offered in that college. Either committee may inform pre-professional committees about any findings of academic dishonesty which, in its judgment, are of sufficient seriousness. It is the responsibility of all students to make themselves familiar with the University's policies and procedures regarding academic integrity as well as any additional guidelines issued by instructors for specific classes. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary Web site at <http://www.stonybrook.edu/uaa/academicjudiciary/>

All students found guilty of academic dishonesty are required to take the University's course on academic integrity (the "Q Course") and additional penalties including suspension or expulsion may also be levied. Information about the procedures for hearings and other functions of these committees dealing with academic integrity is available on the Web site referenced above, as well as in the Office of Undergraduate Academic Affairs and in the Engineering and Applied Sciences Undergraduate Student Office.

Students who have been found guilty of academic dishonesty and, as a consequence, have been assigned a Q grade may not graduate with University honors. Requests for exceptions to this policy for students with majors in the College of Arts and Sciences, School of Business, School of Journalism, the School of Marine and Atmospheric Sciences, and students enrolled in Sustainability programs are reviewed by the University's Academic Integrity Officer. No exceptions will be made for students graduating with majors in the College of Engineering and Applied Sciences.

#### Scholarly and Scientific Misconduct

While most cases of academic dishonesty fall under the jurisdiction of the judiciary committees, students involved in allegations of scholarly or scientific misconduct as defined below are subject to the campus policy and procedure for investigating such allegations as filed in compliance with the requirements of the Public Health Service's Office of Research Integrity.

Scholarly and scientific misconduct are defined as: fabrication, falsification, plagiarism, or other serious deviation from accepted practices in proposing, carrying out, or reporting results of scholarly activities; and retaliation of any kind against a person who reported or provided information about suspected or alleged misconduct and who has not acted in bad faith. This definition is not meant to include actions involving honest error or honest differences in interpretations or judgments of data.

### **Academic Grievances**

The Academic Judiciary Committee for the College of Arts and Sciences and the Committee on Academic Standing and Appeals in the College of Engineering and Applied Sciences consider students' complaints of arbitrary, capricious, malicious, or otherwise improper actions related to grading and other evaluations, assignments, examinations, other requirements for credit, and any other academic matters. While such grievances are most often brought by students against instructors, the committees consider grievances involving any member of the academic community on the West Campus. The committees, however, cannot intervene in matters covered by the procedures set forth in the Policies of the Board of Trustees, the Rules for the Maintenance of Public Order, or the collective bargaining agreements between New York State and United University Professions (the faculty-staff union) or GSEU (the Graduate Student Employees Union).

The committees consider only charges of clearly improper academic practices; they will not intervene in disagreements about an instructor's intellectual judgment (e.g., grading). Grievances should be brought to a committee only after students or others have unsuccessfully pursued other avenues of redress, such as discussion with the instructor and department chairperson. Grievances should be put in writing, including all pertinent details, and should be submitted to the appropriate committee within one month of the alleged impropriety. Further information about academic grievance procedures may be obtained from the Academic Judiciary Web site at <http://www.stonybrook.edu/uaa/academicjudiciary/as> as well as from the Office of Undergraduate Academic Affairs or the Engineering and Applied Sciences Undergraduate Student Office.

For more information on responsibilities and integrity, see the section Office of University Community Standards.

### **Minimal Instructional and Student Responsibilities**

#### **Minimal Undergraduate Student Responsibilities**

By accepting responsibility for their education, students enhance the development of their academic, social, and career goals. It is expected that students accept responsibility for their academic choices as part of their educational experience at Stony Brook. Services are available to assist students with academic advising, long-range goals, and career exploration. Students are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in official publications, including, by way of example only, this Undergraduate Bulletin, the University Conduct Code, the Student Handbook, and class schedules.

#### **Responsibilities in the Classroom**

Students are expected to attend class regularly unless other arrangements are made; arrive for class on time and leave the classroom only at the end of class; engage in class discussions and activities when appropriate; exhibit classroom behavior that is not disruptive of the learning environment; secure and turn off all electronic communications and entertainment devices during class time unless otherwise directed by the course instructor. Any use of a cell phone or other unauthorized electronic device during an examination may lead to an accusation of academic dishonesty.

#### **Absentee Policy**

Students are expected to report for their examinations and major graded coursework as scheduled. If a student is unable to report for any examination or to complete major graded coursework on time, the student must contact the faculty member immediately. If the student cannot reach the faculty member, then s/he should contact the Director of Undergraduate Studies.

Although faculty will consider each student's request on its own merits and not attempt to define ahead of time the validity of all possible reasons a student might give for missing an examination or the date to turn in major graded coursework, instructors are expected to accept an excuse of significant illness, tragedy, or other personal emergencies and to make reasonable alternative accommodations for the student. It shall be the student's responsibility to provide sufficient documentation to support any such request. Accommodations for other reasons will be at the discretion of the faculty.

#### **Course Responsibilities**

Students are expected to observe the requirements for the course and consult with the instructor if prerequisites are lacking; obtain and understand the course syllabus; keep up with the coursework and take all scheduled examinations; address any conflicts in syllabus and exam scheduling with the instructor as soon as possible; review all graded material and seek help if necessary; notify the instructor as soon as possible of any disabilities that might interfere with completion of coursework; complete the course evaluation form fairly and thoughtfully.

#### **Academic Progress**

Students are expected to take an active part in assessing their academic progress each semester, and to monitor their progress towards completion of graduation requirements. They are expected to review academic policies and procedures described in the current Undergraduate Bulletin and its Supplements; know basic University, college, and departmental graduation requirements in their chosen majors and minors so they may plan completion of these requirements; maintain personal copies of a tentative degree plan, progress reports, general educational material, and transfer



credit evaluations until after graduation; see that any academic records from other universities are transferred and received by all the appropriate offices (Admissions and Undergraduate Transfer Office) for evaluation.

### **Interactions with Faculty, Instructors, and other Students**

Students are expected to understand the concept of academic honesty and adhere to its principles; be respectful and polite to all instructors and other students; be familiar with and abide by the University's sexual harassment policies as well as University policies regarding consensual relationships between instructors and students; consult the Student Conduct Code about other aspects of student conduct in and out of the classroom.

### **Minimal Instructional Responsibilities**

Instructors at Stony Brook have teaching responsibilities that involve a broad range of methods. The following list of responsibilities does not define good teaching; it defines only a minimal set of conditions and practices that faculty members and teaching assistants are expected to observe in performing their teaching functions.

### **Classroom and Conference Responsibilities**

- Instructors must meet their classes regularly and promptly, at times and places scheduled.
- Classes should be canceled only for the most serious reasons, and students should be given advance notice, if at all possible, of instructors' absences.
- Instructors must schedule and maintain regular office hours to meet their students' needs, minimally three hours per week in the instructor's office or another officially designated space on campus at times convenient to the schedules of as many students as possible. The instructor may choose to augment these hours with electronically based communication.
- Office hours should be announced in class and posted outside instructors' offices and in department offices.
- Instructors should be available for appointments with students who are unable to meet with them during regularly scheduled office hours.
- Instructors are responsible for careful supervision and classroom preparation of teaching assistants assigned to their courses.
- The policy on electronic devices, described in the section Minimal Student Responsibilities, shall be announced before each course examination.

### **Course Definition and Requirements**

- Instructors must adhere to the course descriptions in the Undergraduate Bulletin.
- Prerequisites that are not stated in the Bulletin or the Supplement or the Class Schedule may not be imposed.
- A written syllabus that clearly defines the content, goals, and requirements of each course must be distributed at the beginning of the course, made readily available throughout the Add/Drop period, and kept on file in the department office. The syllabus should include the Provost's Americans with Disabilities Act statement and information about examination dates and times, the policy on make-up exams, office hours, and the basis for the final grade.
- Instructors are required to assign grades on the basis of the body of work for which all students are responsible, as described in the syllabus.
- Instructors must conduct any teaching and course evaluation survey that has been approved by their departments, or by the College or University Senates. The results of class evaluations should be used in periodic reviews and revision, when appropriate, of the course.

### **Assessment of Student Performance**

- Homework assignments, examinations, and term papers should be evaluated and returned promptly. Written comments, explaining the instructor's criteria for evaluation and giving suggestions for improvement, should be provided.
- Instructors are responsible for providing students with appropriate and timely notification about their academic performance in a course. An examination or other assessment measure should be administered, graded, and returned to students before the end of the ninth week of classes.
- Examinations and term papers submitted at the end of the term should be graded and either returned to students or retained for one semester.
- Any change to the course grading policy during the semester must be announced and made available to all students enrolled in the course. Assigning additional work to individual students who wish to improve their grades, during or after the semester, is prohibited.
- Instructors must observe the Final Examination Schedule available at <http://www.stonybrook.edu/registrar>. Instructors of courses taught on the semester schedule may only give a unit exam in class during the last week of the semester if a final examination is also given during the Final Examination Period.
- Instructors must observe state laws, federal laws, and University policies regarding accommodations as noted in the Bulletin (e.g., student participation in University-sponsored activities or equivalent opportunity/religious absences). Accommodations such as make-up exams, assignments, or other coursework that fall outside of the purview of these laws and policies are at the discretion of the instructor.

### **Professional Conduct and Interaction with Students**

- Instructors must report all suspected occurrences of academic dishonesty to the Academic Judiciary Committee (for classes in the College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, and School of Journalism) or the Committee on Academic Standing and Appeals (for classes in the College of Engineering and Applied Sciences).
- Instructors should always be aware that in teaching and advising they represent the University. They are bound by the University's sexual harassment policies. Instructors are also bound by University policies that prohibit any consensual relationships with students that might compromise the objectivity and integrity of the teacher-student relationship. Examples include romantic, sexual, or financial relationships.
- Instructors should strive to maintain the privacy and confidentiality of students' examinations, homework, and final grades.
- In dealing with students, instructors should be polite, helpful, and fair. They should take into account the wide range of cultural factors and physical challenges that can affect learning, and should attempt to help students overcome any disadvantages.

## Student Educational Records

The Federal Family Educational Rights and Privacy Act of 1974, as amended, sets out requirements designed to protect the privacy of students concerning their records maintained by the campus. FERPA affords students certain rights with respect to their education records. These rights include:

- The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.
- The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.
- The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent to school officials with legitimate educational interests, including but not limited to administrative, academic, or support personnel (including law enforcement and health services); University attorneys, auditors, or collection agents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by State University to comply with the requirements of FERPA. The Office's address is: Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 20202

In addition, Stony Brook University is authorized to release "Directory Information" concerning students. Directory Information includes: student's name, addresses, telephone numbers, major field of study, class, participation in officially recognized activities and sports, weight and height of members of athletic teams, likenesses used in University publications, dates of attendance, degrees and awards received and previous institutions attended.

Currently enrolled students have the right to have this directory information withheld from the public if they so desire. Forms requesting the withholding of directory information are available at the Registrar's Office, 2nd floor of the Administration Building. At least ten days should be allowed for processing of these requests.

## Student Participation in University-Sponsored Activities

By their participation in campus-related activities such as research conferences, dramatic or musical performances, intercollegiate athletic competitions, or leadership meetings, students make contributions to the University. In recognition of the students' commitment both to their regular academic programs and to related activities, the University makes every effort to accommodate unique situations.

Students are responsible for presenting a printed copy of semester obligations to all their professors at the beginning of the semester to alert them to activities that may present conflicts. Instructors are required to make arrangements for students to complete examinations, quizzes, or class assignments early or late if the student's participation in a University-related activity results in the student's absence from the class when such work is due. Some events occur only by invitation during the semester, and instructors should make accommodations for these students.

## Equivalent Opportunity/Religious Absences

Some students may be unable to attend classes on certain days because of religious beliefs. Section 224-a of the New York State Education Law provides that:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he or she is unable, because of his or her religious beliefs, to register or attend classes or to participate in any examination, study, or work requirements on a particular day or days.

2. Any student in an institution of higher education who is unable, because of his or her religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his or her religious beliefs, an equivalent opportunity to register for classes or make up any examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.
4. If registration, classes, examinations, study, or work requirements are held on Friday after 4:00 p.m. or on Saturday, similar or makeup classes, examinations, study, or work requirements, or opportunity to register shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study, or work requirements, or registration held on other days.
5. In effectuating the provisions of this section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his or her availing himself or herself of the provisions of this section.
6. Any student who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his or her rights under this section.
7. It shall be the responsibility of the administrative officials of each institution of higher education to give written notice to students of their rights under this section, informing them that each student who is absent from school, because of his or her religious beliefs, must be given an equivalent opportunity to register for classes or make up any examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to such student such equivalent opportunity.
8. As used in this section, the term "institution of higher education" shall mean any institution of higher education, recognized and approved by the Regents of the University of the State of New York, which provides a course of study leading to the granting of a post-secondary degree or diploma. Such term shall not include any institution which is operated, supervised, or controlled by a church or by a religious or denominational organization whose educational programs are principally designed for the purpose of training ministers or other religious functionaries or for the purpose of propagating religious doctrines. As used in this section, the term "religious belief" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under section 501 of the United States code.

For more information, visit <http://www.stonybrook.edu/commcms/provost/events.shtml>

### **Research Involving Human Subjects**

Experiments conducted by Stony Brook personnel, on or off campus, in which human subjects are involved are required to be reviewed and approved by the campus Committee on Research Involving Human Subjects (CORIHS) before they can begin. This requirement extends to questionnaires, both written and oral, and other instruments of personal data collection. Application forms for approval of such experiments can be obtained in most departmental offices or from the University coordinator for research compliance in the Office of the Vice President for Research. A faculty advisor is required for any student-conducted experiment involving human subjects.

Undergraduates are often asked to act as subjects in experiments. They should be aware that their rights as subjects include knowing that an experiment has received the approval of CORIHS. State University policy forbids campuses to require the participation of students as subjects in human research. In almost every instance of such participation, an informed consent form is required of the subject. This form outlines the risks and benefits of participation, enumerates the subject's rights, and describes the nature of the subject's participation. Inquiries about subject rights should be directed to the executive secretary of the Committee on Research Involving Human Subjects in the Office of the Vice President for Research.

### **Research Involving Safety Considerations**

Campus committees also review and approve projects involving safety concerns. These include the use of radioactive materials or devices that generate ionizing radiation and the use of recombinant DNA techniques or activities that may involve biologically or chemically hazardous materials. The appropriate forms to request approval for such projects are generally available in departmental offices. Questions may also be directed to the University coordinator for research compliance in the Office of the Vice President for Research.

### **Use of Laboratory Animals in Research or Instruction**

Any research, teaching, or creative activity that involves the use of vertebrate animals must be approved by the Institutional Animal Care and Use Committee (IACUC) prior to ordering animals and prior to commencement of the activity. Applications for such approval may be obtained from the director of the Division of Laboratory Animal Resources (DLAR) or from the University coordinator for research compliance. The chairs, deans, and division heads of departments in which laboratory animals are routinely used also have a supply of these applications.

The following is a brief summary of the federal, state, and campus regulations that govern the use of laboratory animals at Stony Brook:

1. Except as stated in provision 2, all vertebrate animals must be ordered through DLAR. If a University purchase order is unacceptable to the supplier, the DLAR must be so informed in order to determine whether another supplier may be contacted.
2. The IACUC may waive the requirement of mandatory acquisition of animals through DLAR in cases where the activity involves fieldwork. Such a waiver is granted when the detailed methods of observation, capture, or tagging of vertebrate animals are determined by the IACUC to be in compliance with applicable regulations governing such work.
3. Use of privately owned animals is prohibited.
4. Users of vertebrate animals must adhere to policies set forth in the N.I.H. Guide for the Care and Use of Laboratory Animals (available from all chairs, deans, and division heads).
5. In the event that the animals must be euthanized, the method of euthanasia must conform to those in the 1986 report of the A.V.M.A. Panel on Euthanasia, or subsequent revisions (available from all chairs, deans, and division heads). Methods of euthanasia for species not covered by this report must be employed as per IACUC recommendation.
6. All individuals involved in research or teaching activities in which animals are used must attend the training session given by the director of the DLAR in order to satisfy requirements indicated in Stony Brook's assurance filed with the NIH.
7. IACUC approval is required in cases where members of the University propose to engage in collaborative work that involves the use of animals in facilities other than those under the auspices of Stony Brook University.

## Changes in Regulations and Course Offerings

The University reserves the right to change academic requirements and regulations or to change or cancel any course for whatever reason it may deem appropriate. New and revised courses, new and revised majors and minors, and changes in academic requirements and regulations are reflected here as changes occur. Course changes are also reflected in the course catalog available through the SOLAR System, <http://www.stonybrook.edu/solarsystem>

## Selecting an Academic Program

- Selection of Area of Interest
- Academic Major
- Which Major and Minor Requirements Apply to Me?
- Academic Minor
- Double Majors
- Double Degrees
- Second Bachelor's Degree Program

## Selection of Area of Interest

All newly admitted freshmen, except those accepted into majors with approved limited access, are placed in the GEN (general program) category. At orientation, incoming freshmen are encouraged but not required to declare one of several areas of interest for which an advisor's signature is not required. These areas of interest are listed on the Major/Minor Declaration Form, which is used for officially declaring an area of interest, major, minor, secondary education option, addition of major or minor, and change of major or minor. The forms are available from the Registrar's Office, the Academic and Transfer Advising Services Center, and online at <http://www.stonybrook.edu/registrar>

New freshmen who do not wish to declare an area of interest will remain in the GEN (general program) category. Those who have declared an area of interest may change to another area of interest.

By officially declaring an area of interest, the student indicates his or her preference, but it does not guarantee a place in any major that has limited acceptance.

## Academic Major

All students are required to declare and complete the requirements of an academic major prior to receiving a degree.

Students are awarded a Bachelor of Arts (B.A.), a Bachelor of Science (B.S.), or a Bachelor of Engineering (B.E.) degree. Each academic major description states which degree is awarded. Students wishing to explore possible majors should review in this Bulletin the requirements and descriptions of the ones they are considering, then discuss their academic plans with an advisor in the department sponsoring the major, an advisor in the Academic and Transfer Advising Services Center, or, for freshmen, their Undergraduate College Advisor.

All majors offered include in their Bulletin entry a definition of the discipline and the goal of the major, as well as general information about careers pursued by students who have completed the major. The entry includes a list detailing the requirements for the major plus a suggested sequence of courses over eight semesters that includes major and general education requirements.

Major departmental programs consist of study concentrated in one of the academic departments of the College of Arts and Sciences, College of Business, College of Engineering and Applied Sciences, School of Marine and Atmospheric Sciences, or the School of Journalism, allowing students to explore in some depth the content, methods, and achievements of a given academic discipline. An interdisciplinary or interdepartmental major enables the student to investigate an area of interest that transcends the limits of individual academic departments by combining appropriate courses from two or more disciplines to create an integrated core of study directed toward a special goal.

All majors, minors, and programs offered through the College of Arts and Sciences, College of Business, College of Engineering and Applied Sciences, School of Marine and Atmospheric Sciences, and School of Journalism, are described in detail with their requirements and appear in alphabetical order in the section Approved Majors, Minors, and Programs. The department chairperson, the undergraduate director, the administrative assistant or undergraduate secretary, the office location, phone number, e-mail address for student questions, and Web address are listed in the header to each major program entry. Finally, because Stony Brook offers many minors appropriate to students in various majors, minors of particular interest to students in each major are listed as well.

Students should declare a major, or area of interest, as soon as possible to receive academic advising and information provided by major departments and programs.

Most forms of financial aid also require that the student have an officially declared major in order to be considered for eligibility.

Declaration and Change of Major for College of Arts and Sciences, School of Marine and Atmospheric Sciences, School of Journalism

The Major/Minor Declaration Form, available in the Registrar's Office and online at <http://www.stonybrook.edu/registrar>, is used to declare a major officially. The signature of a departmental advisor is required for all majors in the College of Arts and Sciences, School of Marine and Atmospheric Sciences, and School of Journalism.

Students are required to declare a major upon earning 45 credits. New transfer students who matriculate as sophomores, juniors, or seniors must declare a major during their first semester at Stony Brook.

Academic departments advise students about the courses and major(s) in their departments and sign students into the majors. The signed Major/Minor Declaration Form must be submitted to the Registrar's Office for processing.

New transfer students who have indicated a major on their application for admission should confirm their major status in person with their chosen department or program early in their first semester at Stony Brook.

Students who have declared a specific major may change at any time before graduation. Students should discuss the change with an advisor in the desired program, obtain the appropriate signature on the Declaration of Major form, and submit the form to the Registrar's Office for processing.

Declaration and Change of Major for College of Engineering and Applied Sciences, College of Business

All programs in the College of Engineering and Applied Sciences and the College of Business currently limit the number of students accepted. While acceptance criteria are based mainly on demonstrated scholastic ability, extraordinary personal circumstances, experiences, and academic background may also be considered in the evaluation process.

Qualified freshman and transfer applicants who have specified their interest in Applied Mathematics and Statistics, Biomedical Engineering, Chemical and Molecular Engineering, Computer Engineering, Computer Science, Electrical Engineering, Engineering Science, Information Systems, Mechanical Engineering, or Technological Systems Management may be accepted directly into one of these majors upon admission to the University. Admission to the University, however, does not guarantee either immediate or future acceptance into the major for which the student applied.

Requirements for acceptance of continuing students into a major are listed with each major. Transfer students are urged to contact the appropriate undergraduate program director as early as possible.

Students who are planning on a major in the College of Engineering and Applied Sciences should consult the Undergraduate Student Office in CEAS for advising on appropriate course selection. Students who pursue the business management major should contact the Office of Student Services in the College of Business for advisement.

Health Sciences Center Majors

Most majors in the Health Sciences Center undergraduate programs in the School of Nursing, School of Social Welfare, and School of Health Technology and Management are limited-admission, junior/senior level programs. Continuing and transfer students who wish to enter one of these programs must formally apply for admission after completing the appropriate course and credit requirements.

The School of Health Technology and Management offers three programs that students can declare as a major beginning in freshman year: clinical laboratory sciences, respiratory care, and health science. Students in these programs are advanced to the upper-division level after successful completion of program prerequisites.

Students interested in any of the undergraduate health professions are strongly encouraged to identify themselves by officially declaring an area of interest. Detailed information about the Health Sciences Center programs is listed in the Health Sciences Schools section of this Bulletin.

### Which Major and Minor Requirements Apply to Me?

Students are required to declare a major upon completing 45 credits, including transfer and AP credits; they are encouraged to do so earlier. New transfer students who matriculate as sophomores, juniors, or seniors must declare a major during their first semester at Stony Brook. (See “selecting an academic major” in this bulletin.) This policy addresses a common student question: “Which requirements apply for my major or minor?”

A. Students must satisfy the requirements as published in the official undergraduate Bulletin for the semester in which the student declares the major or minor, unless overridden by conditions in B, C or D below. The “requirement term” is notated on the transcript as the declaration date for the major. See the ‘declaring a major or minor’ section of this Bulletin.

B. Students who declare a major or minor at the point of application without initial consultation with the department or program director must consult with the department or program director during their first semester of matriculation. Failure to do so could delay graduation. Students in this category must satisfy the requirements as published in the official Undergraduate Bulletin for the first semester of matriculation.

C. Students who return after taking time off may be assigned a new matriculation date depending on the length of absence and the degree program. Students in this category will be responsible for the academic requirements in effect at the time of their return, including but not limited to major and minor requirements and university degree requirements. (see “Leave of Absence and Returning to the University” in this Bulletin)

D. Departments may allow exceptions or modifications to individual major or minor requirements when appropriate, as determined on a case-by-case basis.

E. Students who wish to adopt a requirement term other than defined by A, B, or C above must receive documented consent from the department or program director. This consent must be transmitted to the Registrar in an approved format. Examples of when a student may wish to use a requirement term other than the default:

1. If requirements change for a major or minor
2. If a student has been pursuing a major or minor in practice, but has not yet declared the major or minor
3. If a student takes time off and re-matriculates

Note: a student may have one requirement term for a major and another requirement term for a minor or second major, depending on when the student declared each.

Where course offerings have changed so that the required courses that would apply to particular students are no longer in the curriculum, the department will designate comparable alternatives to enable such students to complete the major without delaying their graduation.

Typically, the fall edition of the Bulletin is published in the preceding April and the spring edition is published in preceding November. The April edition of the online bulletin shall encompass academic activities related to Summer Session and Fall semester enrollment. The November edition of the online bulletin shall encompass academic activities related to Winter Session and Spring Semester enrollment.

See also: “Restricted Majors” in this Bulletin.

### Academic Minor

Although students are not required to complete a minor in order to graduate, many minors are available for those who wish to develop another area of specialization without the full depth of an academic major. An academic minor is a specified sequence of courses totaling between 18 and 24 credits and requiring at least nine credits of upper-division work. It does not lead to a degree.

Participation in a minor is optional for most majors and includes not only completing the required sequence, but consulting the director of the minor initially and as work in the minor proceeds. Many major departments also offer a minor in the discipline; the requirements for the minor are described with the corresponding major program entry. In addition, interdisciplinary minors that draw on courses from a variety of disciplines are described in the alphabetical listings of Approved Majors, Minors, and Programs. Minor entries include the name and academic affiliation of the minor director and additional information such as office location, phone number, and e-mail and Web addresses where available.

To assist students in selecting optional minors, a listing is included in the header of each major program, indicating minors of particular interest to students with that major. A maximum of three minors may be noted on a student’s transcript.

For more information, consult the relevant minor director or the Academic and Transfer Advising Services Center.

#### Declaration of Minor

The Major/Minor Declaration Form, available from the Registrar’s Office, the Academic and Transfer Advising Services Center, and online at <http://www.stonybrook.edu/registrar>, is used to declare a minor officially; the signature of the minor director is required. Students may have up to three declared minors recorded on their University transcript. Minors are not noted on diplomas.

## Double Majors

When a student officially declares and completes two majors (a double major), the student receives one baccalaureate degree upon graduation. The student must fulfill the graduation requirements of the degree-granting college when specifying B.A. or B.S. or B.E. The University does not officially recognize triple majors.

Students who wish to complete two majors must obtain the approval of the two departments or programs involved. Certain combinations of majors are not permitted. The number of credits taken to fulfill the requirements of both must total at least 60. Students should submit a Major/Minor Declaration Form to add a second major when both majors are in the College of Arts and Sciences, the School of Marine and Atmospheric Sciences, or the School of Journalism. Students must be formally accepted through direct admission or application to majors in the College of Engineering and Applied Sciences, the College of Business, and in the School of Health Technology and Management (except the major in Health Science).

Note 1: For students with majors in both the College of Engineering and Applied Sciences and the College of Arts and Sciences or the College of Business or the School of Marine and Atmospheric Sciences or the School of Journalism, the D.E.C. and general education requirements for the College of Engineering and Applied Sciences are required.

Note 2: Health Sciences Center students interested in pursuing a double major should consult their program directors and refer to the Health Sciences Bulletin.

Double Majors for Students in College of Arts and Sciences, College of Business, Health Sciences Center, School of Marine and Atmospheric Sciences, School of Journalism

Double majors may be composed of the following combinations and will result in only one of three degrees (B.E., B.S., or B.A.):

- Any two majors (except Multidisciplinary Studies) within or between the College of Arts and Sciences or the College of Business or the School of Marine and Atmospheric Sciences or the School of Journalism

or

- A major in the College of Engineering and Applied Sciences plus a major in the College of Arts and Sciences or the College of Business or the School of Marine and Atmospheric Sciences or the School of Journalism

or

- A major in the Health Sciences Center's School of Health Technology and Management plus a major in the College of Arts and Sciences or the College of Business or the College of Engineering and Applied Sciences or the School of Marine and Atmospheric Sciences or the School of Journalism

Double Majors for Students in College of Engineering and Applied Sciences

## Bachelor of Science Degree

Double majors leading to a Bachelor of Science degree may be composed of either of the following combinations:

- A major in applied mathematics and statistics (AMS) plus a major in computer science (CSE), information systems (ISE), or technological systems management (TSM), or any major in the College of Arts and Sciences, College of Business, the School of Marine and Atmospheric Sciences, or the School of Journalism

- A major in technological systems management (TSM) plus a major in applied math and statistics (AMS), computer science (CSE), information systems (ISE), or any major in the College of Arts and Sciences, College of Business, the School of Marine and Atmospheric Sciences, or the School of Journalism

- A major in computer science (CSE), information systems (ISE) plus any major in the College of Arts and Sciences, College of Business, the School of Marine and Atmospheric Sciences, or the School of Journalism

Note: It is not possible to have a double major consisting of computer science and information systems.

## Bachelor of Engineering Degree

For a Bachelor of Engineering, the first major must be an engineering major chosen from the following:

biomedical engineering (BME), chemical and molecular engineering (CME), civil engineering (CIV), computer engineering (ECE), electrical engineering (ESE), mechanical engineering (MEC), or engineering science (ESG)

The second may be any of the following:

applied mathematics and statistics (AMS), computer science (CSE), information systems (ISE), journalism, technological systems management (TSM), or any major in the College of Arts and Sciences or the College of Business.

Note: It is not possible to have two engineering majors.

## Double Degrees

Qualified students may be granted permission to earn double degrees at the undergraduate level only if one of the majors leads to a degree that is specified as professional or clinical (externally certified) and the total number of credits completed for the two degrees is at least 144. See paragraphs at the end of this section for additional restrictions.

Only the following currently offered undergraduate programs are considered to be professional or clinical degree programs:

- Bachelor of Engineering degrees in biomedical engineering, chemical and molecular engineering, civil engineering, engineering science, electrical engineering, computer engineering, and mechanical engineering (Note: Students planning to complete a B.E. degree and a B.A. or B.S. degree in the College of Arts and Sciences must complete the D.E.C. requirements of the College of Arts and Sciences);
- Bachelor of Science degree in nursing;
- Bachelor of Science degree in social welfare;
- Bachelor of Science degrees in clinical laboratory sciences, respiratory care, and athletic training.

Students who are planning to complete more than one major in the College of Engineering and Applied Sciences (CEAS) should note that this will lead only to a double major, not a double degree, regardless of the type of degree program. Students completing a degree in CEAS may only receive double degrees if the second degree is outside CEAS.

Students who are planning to complete the majors in biology and in clinical laboratory sciences should note that these programs will lead only to a double major, not a double degree.

Students who are planning to complete a bachelor of science degree in nursing or a bachelor of social work degree in social welfare and any other major should note that these programs will lead only to a double degree, not a double major.

Students must be formally admitted to each unit granting the degree and have written approval from the dean of each college. Approval is subject to review and final authorization by the Office of Undergraduate Academic Affairs.

### Requirements within the minimum 144 credits for double degrees with HSC:

- 1) 90 credits in the liberal arts (i.e., traditional disciplines such as English, history, chemistry, economics)
- 2) 36 of the 90 liberal arts credits earned at Stony Brook (other liberal arts credit may have been transferred)
- 3) 15 of the 36 liberal arts credits earned at Stony Brook in upper division credits (courses numbered 300 or higher)

Note: Minimum HSC credits are determined by the department and school of the selected major.

## Second Bachelor's Degree Program

A student who has received a bachelor's degree from Stony Brook or another accredited institution and who wishes to earn a second degree from a West Campus program must apply and be accepted as a matriculated student for the second baccalaureate. After completing the first degree, the student must earn at least 36 credits in residence at Stony Brook and complete a new major in a significantly different discipline. Of these 36 credits, 21 must be at the upper-division level (courses numbered 300 or higher), primarily from courses chosen for the major. Students also are required to fulfill the "Expanding Perspectives and Cultural Awareness" portion of the Diversified Education Curriculum that is described in the Degree Requirements section. These courses must be completed at Stony Brook University. Coursework completed for the first bachelor's degree, whether taken at Stony Brook or elsewhere, does not count toward completing these requirements. Sequential bachelor's degree students who wish to qualify for degrees with distinction must complete 55 credits in coursework at Stony Brook toward the second degree. All sequential bachelor's degree candidates must have completed, with a C or higher, courses judged equivalent to Stony Brook's general education requirements in English composition and mathematics or complete these courses at Stony Brook. For purposes of registration and academic standing, matriculated candidates for a second baccalaureate will be treated as seniors.

## Special Academic Opportunities

- Accelerated Bachelor's and Master's Degrees
- Graduate Courses
- The Honors College
- Independent Study
- International Academic Programs
- Internship Program
- Supplementary Internship Program for Students in CEAS
- Living Learning Centers
- National Student Exchange
- Post-Baccalaureate Pre-Health Program
- Scholars for Medicine
- Undergraduate Research and Creative Activities Program (URECA)
- Undergraduate Teaching Assistantships



- University Scholars
- Women in Science and Engineering (WISE)

### Accelerated Bachelor's and Master's Degrees

Stony Brook offers a number of accelerated bachelor's/master's degree programs that allow students to use graduate courses taken as an undergraduate toward both the undergraduate and graduate degrees, thus reducing the normal time required to complete both bachelor's and master's degrees.

Below are the standards for such programs.

1. Students must apply and be admitted to the accelerated degree program. Applicants must have completed a minimum of 60 credits of college work with a g.p.a. of 3.00 or higher in all college work. The application must include approval by both the chairperson of the department offering the bachelor's degree and the graduate studies director of the program offering the master's degree.
2. Students can double count a maximum of 15 credits of graduate courses toward the undergraduate and graduate portion of the accelerated program.
3. Although the university allows undergraduate students enrolled in an accelerated program to use a maximum of 15 graduate credits toward the undergraduate portion of the accelerated degree, the maximum allowance may be less than 15, depending on the specific program. The department requirement in this case supersedes the university standard. Please consult the appropriate department.
4. Per state regulation, a student must spend at least one year in full-time residency for the masters portion of the program. Students must earn a minimum of 30 graduate credits for the masters portion of the program.
5. Students must complete a minimum of 105 undergraduate credits. All other undergraduate degree requirements remain in effect.
6. The degrees may be awarded upon completion of the respective requirements for each program. The masters degree may not be awarded before completion of the undergraduate degree.
7. Undergraduate course credits may not be used to satisfy graduate degree requirements.

### Accelerated Bachelor's/Master's Degrees

Stony Brook offers the following accelerated degree programs:

Applied Mathematics and Statistics, B.S./M.S.  
 Biochemistry, B.S./Chemistry, M.S.  
 Chemistry, B.S./M.S.  
 Computer Engineering, B.E./M.S.  
 Computer Science, B.S./M.S.  
 Electrical Engineering, B.E./M.S.  
 Engineering Chemistry, B.S./Chemistry, M.S.  
 Engineering Chemistry, B.S./Materials Science, M.S.  
 Engineering Science, B.E./Materials Science, M.S.  
 Pharmacology, B.S./M.P.H.  
 Political Science, B.A./Public Policy, M.A.  
 Theatre Arts, B.A., Theatre Arts, M.A.  
 Women's and Gender Studies, B.A., M.P.H.

### B.A./M.B.A. and B.S./M.B.A. Programs

Through collaboration between the College of Business, the College of Arts and Sciences, the College of Engineering and Applied Sciences, and the School of Marine and Atmospheric Sciences, Stony Brook offers accelerated Bachelor's/Master's degree programs leading to a Master of Business Administration (M.B.A.) plus a choice of nearly any undergraduate major (B.A. or B.S.). These represent almost all undergraduate degree programs we offer, with the exception of engineering majors (B.E.), the undergraduate business major, those majors that are inactive, those that require student teaching, or those that have special licensing guidelines. Students should contact their primary department advisor as well as the College of Business to discuss eligibility and specific requirements for this unique program. Please refer to the Accelerated Bachelor's/ Master's Degree Program Regulations, and note that summer coursework is required for timely completion of the M.B.A.

### B.A./M.A.T., B.S./M.A.T. and B.A./M.A. Programs Leading to Teaching Certification

Through collaboration between the College of Arts and Sciences, the School of Professional Development, and the Professional Education Program, Stony Brook offers accelerated bachelor's/ master's degree programs leading to New York State certification in either secondary education or Teaching English to Speakers of Other Languages (TESOL). Please consult with department advisors for eligibility and specific program requirements:

Biology/Adolescent Education: Biology (B.S./M.A.T.)\*

Chemistry/Adolescent Education: Chemistry (B.S./M.A.T.)\*

English/Adolescent Education: English (B.A./M.A.)

Earth and Space Science/ Adolescent Education: Earth Science (B.S./M.A.T.)\*

French Language and Literature/ Adolescent Education: French (B.A./M.A.T.)

History/Adolescent Education: Social Studies (B.A./M.A.T.)

History (B.A./M.A.)

Italian Studies/Adolescent Education: Italian (B.A./M.A.T.)

Linguistics/Teaching English to Speakers of Other Languages (TESOL) (B.A./M.A.)

Mathematics/Adolescent Education: Mathematics (B.S./M.A.T.)

Physics/Adolescent Education: Physics (B.S./M.A.T.)\*

Spanish Language and Literature/ Adolescent Education: Spanish (B.A./M.A.T.)

\*A General Science Extension: Grades 7 to 12 may be added to any of these programs upon completion of a minimum of 18 credits in a combination of two additional sciences other than the primary science upon request.

### College of Engineering and Applied Sciences Accelerated Degree Programs

Several accelerated degree programs are available through the College of Engineering and Applied Sciences. Please consult with department advisors for eligibility and specific program requirements:

Applied Math and Statistics, B.S./M.P.H. #

Biomedical Engineering, B.E./M.S.

Mechanical Engineering, B.E./M.S.

### Graduate Courses

Upper-division students with superior academic records may take graduate courses with the permission of the Dean of the Graduate School, or continuing education courses with permission of the Dean of the School of Professional Development, for undergraduate credit. (Teaching practica, readings, research, or other independent study are excluded.) Permission of the instructor and the chair of the department offering the course is also necessary. Permission forms are available online from the Graduate School (<http://www.grad.sunysb.edu>), the School of Professional Development, and various advising offices and must be presented, after the necessary signatures are obtained, at the Registrar's Office when registering for the approved course.

Students should discuss their plans to take graduate courses with their advisors in order to assess whether the credit will be applicable to their degree requirements. Students with majors in the College of Engineering and Applied Sciences who would like to apply graduate credits to their majors must get the approval of their department's undergraduate program director; approval forms are available in the CEAS Undergraduate Student Office.

Graduate courses taken while a student is an undergraduate remain part of the undergraduate record. The student cannot subsequently receive graduate credit for such courses, except in the case of approved five-year programs leading to both a baccalaureate and a master's degree.

Unless credits are earned as part of an accelerated degree program, no more than six graduate credits (including those taken through the School of Professional Development) may count toward the bachelor's degree.

### The Honors College

Faculty Director: Jeffrey Edwards

Administrative Director: Jessica Klare

Office: N-3070 Library

Phone: (631) 632-4378

E-mail: [honorscollege@stonybrook.edu](mailto:honorscollege@stonybrook.edu)

Web site: <http://www.stonybrook.edu/honors>

The Honors College, the most selective academic program for undergraduates at the University, offers a limited number of exceptional students from each class the opportunity to become members of a special community of scholars. Through the college, these students pursue a challenging four-year curriculum designed to promote intellectual curiosity, independence, and critical thinking.

Acceptance

Honors College admissions decisions are based on both quantitative and qualitative criteria. Among these are a record of high academic and creative achievement, extraordinary motivation, diversified interests, intellectual curiosity, and sufficient maturity to carry out a challenging program of study. To enter the Honors College as a first-year student, an applicant must demonstrate overall academic excellence in high school by such accomplishments as achieving high grade averages in major subject areas, a minimum unweighted cumulative average of 93 (on a 100 point scale) or 3.7 (on a 4.0 scale), combined critical reading and math SAT scores of at least 1300, a record of advanced or college-level coursework, and evidence of superior writing ability. Demonstrated talents in the creative arts are also considered in the admissions process. Similar criteria apply to students who wish to enter as sophomores or juniors. The Honors College Academic curriculum is designed as a four-year formative experience. Thus, students who have been enrolled in college for more than one year are not typically admitted.

### Curriculum

Honors College students must fulfill Skills 1, 2, 3, and 4 (see Note below) as outlined in the D.E.C. requirements for the College in which they are enrolled.

A. Honors College students who enter as first-year students must take HON 105, 106, 201, 301, 401, 495, and 496 or their equivalents. Students shall take both HON 105 and 106 in the first year. HON 201, HON 301, and HON 401 are to be taken in their numerical order during the three subsequent years. Students may take only one Honors College seminar in a given semester, and one seminar during an academic year. Students who enter the Honors College after the first semester of their first year are required to follow a modified course program according to the time spent in the College. (Those entering as sophomores, for example, must take HON 105 and 106 or substitute equivalent courses.)

### Course Sequencing

First year	HON 105 and HON 106
Second year	HON 201
Third year	HON 301
Fourth year	HON 401

B. Students who receive a grade of C- or lower in an Honors College course (those with the HON designator) may repeat the course toward Honors College requirements. No HON course in which a grade of C- or lower was received may satisfy an Honors College requirement.

C. Each student entering as a first-year student is required to take four topics courses (HON 110-120). Students entering as sophomores are required to take two topics courses; those entering as juniors are required to take one.

D. Honors College students must take four additional complementary electives within the two disciplinary domains (including at least one course in each) other than that of their major (or one of their majors). The three disciplinary domains are: natural sciences and quantitative disciplines, fine arts and humanities, and social sciences. One of these courses must be from D.E.C. category K. Students are urged to take at least one of these courses in a foreign language at the intermediate level or higher or in the literature of a language other than English. These complementary elective courses must be passed with a grade of C or higher, and each course must be at least 3 credits. A course used to satisfy a skill requirement cannot also be used to satisfy a complementary elective requirement.

E. Every Honors College student must submit a letter of intent containing a detailed description of the student's intended senior honors project. The Letter of Intent must be submitted to the Honors College Faculty Director for approval no later than the midpoint of the final semester of each student's junior year. A progress report must be submitted at the end of the first semester of project work. An appropriate thesis (single-authored by the student) must be submitted at the end of the second semester and an oral report must be made at the annual Honors College Symposium. The grade on the senior project must be C or higher. These rules apply to students doing their senior honors projects under the HON designator or under a departmental designator. Students must obtain Honors College approval for registration under a designator other than HON.

Note: Students who need to satisfy the Skill 3, Elementary Foreign Language Competence requirement, through coursework must earn a B or higher in the second semester of an elementary foreign language course to satisfy the requirement.

### Independent Study

In the course of completing a degree program, a student may wish to undertake independent study through directed readings and research courses under departmental auspices. Independent study projects may be distributed throughout the undergraduate years, although in most cases, students should complete the freshman year and several general education courses before proposing independent study.

Through procedures established by departments, a student may enroll for up to 6 credits of directed readings, research, or internship in a single department in a single semester. More than 6 credits are permissible if they are in more than one department but students may not apply more than 12 credits of internship toward the 120 credits minimum required for the Bachelor of Arts or Bachelor of Sciences degrees or toward the 128 credits minimum for Bachelor of Engineering. During the summer a student may earn 6 credits in a single department in each term.

See also Limits on Course Credits and Grading Options in the Academic Policies and Regulations chapter.

### International Academic Programs

Dean: William Arens

Office: E-5340 Melville Library  
Phone: (631) 632-7030  
Web site: <http://www.sunysb.edu/studyabroad>

An academic experience abroad can be beneficial for students who want to remain competitive for future employment or professional study. The office of International Academic Programs offers undergraduates the chance to study overseas while earning credits toward their degree. Students can take advantage of this opportunity as individual participants in international exchanges at a foreign university, or as a group member of a Study Abroad program under the supervision of a Stony Brook faculty member. Exchanges involve a variety of languages, including English, while Study Abroad programs are all conducted in English. Programs extend over an academic year, semester, summer session, or winter intersession.

#### Program Selection and Eligibility

Students from all disciplines are encouraged to investigate the feasibility of an international experience from a list of programs directly sponsored by Stony Brook University (see below) or from programs administered by other SUNY campuses (more than 300 in all). Details are available from the office of International Academic Programs.

Early investigation, preferably in the first year, for a second or third year abroad is essential. Through careful consultation with their academic department and the office of International Academic Programs, students can determine the applicability of courses and credits earned abroad toward their major and degree requirements, including the fulfillment of general education and upper-division credit requirements. Studying abroad need not delay a student's graduation and in fact, may accelerate the process.

Application deadlines vary, but are generally in early March for fall, full year, and summer programs and early October for intersession and spring semester programs.

#### Course Load, Credits, and Grading

Students typically earn between 12 and 18 credits during each semester of overseas study and 4 to 9 credits during summer/intersession programs. Prior to participation students should determine in consultation with their major department and the office of International Academic programs the applicability of courses and credits to Stony Brook degree and major requirements. However, final determination of the credit level is made only after return to Stony Brook. Credits awarded through Exchange programs are usually recorded on the Stony Brook transcript as S or U and are subject to Stony Brook policies governing S/U grades. A transcript supplement will be attached to the official transcript listing actual courses and grades received overseas. In a few instances, this information will be recorded directly on the Stony Brook transcript.

D.E.C. requirements may be fulfilled through overseas study. For example, SUNY Study Abroad programs of six credits or more (except in English-speaking Canada) and with no more than three credits in elementary foreign language, satisfy the D.E.C. category I or J requirement, depending on geographical location.

#### Stony Brook Exchange Programs

Listed below is a sampling of overseas programs offered by Stony Brook. Programs are continually being added and updated; please check with the International Academic Programs for a definitive list.

##### **Stony Brook in England: Manchester, North Umbria, Sussex**

Offering courses in the sciences (including a pre-med program) as well as social studies, humanities, and business, these programs allow students to enroll directly at these universities. Students will be integrated into the British university system. Students may enroll for a semester or a full academic year.

Prerequisites: U2, U3, or U4 standing; good academic standing

##### **Stony Brook in England: Pharmacology Program, Manchester**

Fall semester program focusing on pharmacology which will equate to courses at Stony Brook.

Prerequisites: Pharmacology major; good academic standing

##### **Stony Brook in France: Paris**

Students are enrolled directly in the University of Paris IV (Sorbonne), Paris VII (Denis Diderot), or Paris X (Nanterre), depending on their level of French. Language proficiency is determined based on a test administered by the Mission for the Coordination of Franco-American Exchanges. No prior knowledge of French is required. Students can participate for the full academic year, spring or fall semester.

Prerequisites: U2, U3, or U4 standing; good academic standing

##### **Stony Brook in Germany: Konstanz, Bonn, Bremen, Freiberg, Mainz, Tübingen**

Students with a background in German are eligible to enroll directly in regular University courses. Students may participate for the academic year or for a semester. Please note that the fall semester in Germany will not end in time for students to return for spring courses at Stony Brook.

Prerequisites: U2, U3, or U4 standing; good academic standing; sufficient background in the German language (except for Konstanz or Bonn)

**Stony Brook in Italy: Rome, Messina, Pavia, Venice**

Direct enrollment at the University of Rome, The Libera Universita Maria Ss. Assunta, La Sapienza, University of Messina, University of Venice, or University of Pavia, which begins with a six-week intensive Italian language and culture course in October-November. During the Italian academic year, which begins in November, students attend regular university courses. Students are assisted in course selection by the Resident Director (in Rome only) and tutorial assistance is available. Academic evaluation is conducted by an oral examination system administered by the host university at the end of the academic year (June). Students may participate for the full academic year or for the Spring semester.

Prerequisites: Good academic standing; four semesters of college-level Italian or the equivalent.

**Stony Brook in Italy: Florence University of the Arts**

Florence University of the Arts offers students a unique opportunity to enroll in courses instructed in English in one of Italy's most culturally significant cities. Modeled on the liberal arts curricular tradition, FUA offers a wide variety of courses in the humanities, fine arts, social sciences and natural sciences. FUA's academic calendar follows a semester system of 15 weeks (Fall and Spring). Students may participate for the full academic year or for the Fall or Spring semester.

Prerequisites: Good academic standing

**Stony Brook in Japan: Chiba, Okayama, Kyoto, Nihon, Waseda**

Stony Brook has a number of exchange agreements with universities in Japan. These programs offer students a wide range of courses, including Japanese language, arts, philosophy, computer science, business, and history. Students with sufficient Japanese language proficiency may enroll directly in regular university courses.

It is recommended that students apply for the full academic year though they may participate in the programs for one semester. A limited number of scholarships are available for students who meet GPA and application requirements.

Prerequisites: U2, U3, or U4 standing; good academic standing

**Stony Brook in Korea: Dongguk, Soowon**

Some programs specialize in business and management, others in Asian philosophy and religions. These opportunities offer a wide array of courses taught in English with intensive Korean language study available. Students with sufficient language proficiency may enroll directly in regular university courses.

Prerequisites: U2, U3, or U4 standing; good academic standing

**Stony Brook in Spain: Leon**

This is a total immersion program designed for independent-minded undergraduate students interested in full integration into Spanish language and culture. This program offers a chance to enhance the language abilities of students who already have a strong background in Spanish. Participants may spend a semester or a full year in Leon. Courses are taken through the Pro-grama para Estudiantes Extranjeros; students with advanced linguistic ability may also enroll directly in regular University of Leon courses.

Prerequisites: U2, U3, U4 standing; good academic standing; a minimum of four semesters of college-level Spanish or its equivalent, although additional background in Spanish is recommended.

**Stony Brook Study Abroad Programs**

All current Study Abroad programs except for Madagascar (fall semester) are scheduled for the summer or winter intersession. Other international opportunities are added on a regular basis. Students are encouraged to visit the International Academic Programs Office for up-to-date information.

**Stony Brook in Argentina: Buenos Aires**

Students have the opportunity to earn four credits while exploring sites of artistic, cultural, and historical interest. Classes are held at the University of Buenos Aires.

**Stony Brook in Ghana**

Stony Brook students have the opportunity to experience African culture and beauty while earning four credits during this winter session program.

**Stony Brook in Italy: Rome**

Courses are offered in English and in Italian. Intensive study of Italian language at various levels as well as courses on Italian culture, civilization, and art are provided during this summer or winter program, which includes weekend excursions to Venice, Florence, and Capri.

Prerequisite: Good academic standing

**Stony Brook in Jamaica**

Discover Jamaica during winter intersession while exploring the tropical marine life at Discovery Bay Marine Lab. Students complete a four-credit Marine Sciences course.

**Stony Brook in Madagascar: Ranomafana National Park**

This fall or summer semester program allows students to add an experiential learning component to their studies. The program focuses on biodiversity, conservation, ecology, anthropology, wildlife studies, environmental sciences, and primatology. After an orientation on the Stony Brook campus, participants travel to Madagascar where they live in the rain forest of the Ranomafana National Park and Research Station, continuing their studies and working with international researchers. Students' independent study projects contribute to the biodiversity survey and ecological monitoring of the park.

Prerequisites: Good academic standing; major in a program-related field

**Stony Brook in Japan: Mishima**

This four-week total immersion program is hosted by the Mishima campus of Nihon University during the summer. Students have the opportunity to live and attend classes under the shadow of Mount Fuji.

**Stony Brook in England: Oxford**

Students take 9 credits in International Studies, British Literature, and Anthropology, with an independent study option during this six-week summer program. The courses are integrated with weekend excursions to historic, artistic, civic, political, and social institutions. Additionally, students visit the Oxford City Council, and other civic, commercial, and industrial institutions. Classes are held in the lecture hall of St. Anthony's College.

**Stony Brook in Russia: St. Petersburg**

Students have the opportunity to earn six to nine credits. Seminars are taught in English and focus on a range of topics in the humanities, social sciences, linguistics, and Russian language. This is a summer session program.

**Stony Brook in Spain: Alcalá**

This four week total immersion summer program is hosted by one of the oldest and most prestigious universities in Europe, the University of Alcalá (UAH), founded in 1499 by Cardinal Cisneros. The Spanish Studies classrooms and offices are located in the former Trinitarios convent built in the 17th century carrying on the legacy of cultural heritage in Alcalá. The university offers a college town atmosphere conveniently located near exciting Madrid.

**Stony Brook in Tanzania: An Academic Safari**

After a one-week orientation on campus, students travel to and live at locations in northern Tanzania to highlight their course instruction provided by Stony Brook faculty. Visits are made to Maasai communities and there is a safari to Olduvai Gorge, Kilimanjaro National Park, the Serengeti Plains, and the Ngorongoro Crater. This unique program provides a rare and exciting opportunity to integrate classroom instruction with first-hand experience in a part of the world renowned for its natural beauty, diversity of cultures, wildlife, and conservation efforts. Coursework emphasizes the history and cultures of the area. Basic instruction is also provided in Swahili. Students earn 6 to 9 upper-division Anthropology credits. Application deadline is in February.

Prerequisites: U2, U3, or U4 standing; good academic standing

**Stony Brook in India: Bangalore**

After a one-week orientation on campus, participants travel to Bangalore, India during the summer that includes intensive class work in a variety of social sciences and humanities courses at a modern local university facility. Classroom experience is supplemented by lectures by visiting scholars, films, cultural performances, and excursions to important cultural sites in the region.

Prerequisite: Good academic standing

**Stony Brook in France: Montpellier**

A four-week summer program in July for 6 to 9 credits that includes intensive French and selected courses in the humanities and social sciences. In addition to daily extracurricular activities, there are excursions to other parts of France.

Prerequisite: Good academic standing

**ZebraNet**

ZebraNet is the Career Center's comprehensive online database for ALL types of experiential learning opportunities - part time & full time jobs, paid internships, credit internships, volunteer internships, volunteer service positions, service projects and \*new\* campus job opportunities as well. Students can use their ZebraNet accounts to post resumes, access hundreds of companies in our employer database, sign up to attend our career events and workshops, meet hundreds of Stony Brook alumni in ZebraCAN - our career advising network, research employers attending our Job & Internship Fairs and On Campus Recruitment program, and obtain sample resumes & cover letters through the document library.

Students MUST register themselves with ZebraNet - there is no charge!

### **Internship Program for Students in the College of Arts and Sciences, College of Business, College of Engineering and Applied Sciences, School of Marine and Atmospheric Sciences, School of Journalism, Sustainability Programs**

Internship Manager: Alfreda S. James  
Office: W-0550 Melville Library  
Phone: (631) 632-9783  
E-mail address: [Alfreda.James@stonybrook.edu](mailto:Alfreda.James@stonybrook.edu)  
Web site: <http://www.sunysb.edu/career>

Internships allow students to test career intentions; to improve intellectual skills in writing, quantitative analysis, research, and administration; to increase understanding of social, political, and economic forces; and to acquire work experience and industry knowledge useful for seeking employment or entrance into professional schools. While not required for most academic programs, internships can be a valuable addition to a student's college experience and are strongly encouraged.

Students may participate in internships with or without academic credit. Under the University's Internship Program a student may spend a semester or summer working for academic credit under the supervision of both University faculty and professional staff at cooperating agency or organization. Up to 6 credits may be earned for semester internships during the academic year; up to six credits for each summer term. Students may receive no more than a total of 12 internship credits from any course or courses. Grading is Satisfactory/Unsatisfactory. Students may register for only one internship course per semester.

Credit-bearing internships require the approval of an academic department and the internship manager in the Career Center when appropriate. General guidelines for participation in internships are:

- Completion of at least one previous semester of coursework at Stony Brook;
- Minimum grade point average of 2.50;
- Submission of Stony Brook internship agreement form to faculty sponsor and Career Center;
- Identification of faculty sponsor who will determine credit value of the internship

Other prerequisites: completion of 57 credits for U3 and U4 students; completion of DEC A for U2 and U1 students. Transfer students should have a degree audit with an academic advisor before pursuing internship credit. Joint degree applicants must discuss the opportunity with faculty in both departments to determine how credit would apply.

Academic requirements for individual internship experiences may differ slightly but typically include submission of learning goals, regular journaling, reading assignments selected by faculty, mid-term and final self evaluations, written feedback from site supervisors, and other career-related assignments.

Any Stony Brook faculty member may sponsor an intern. However, students should confer with the undergraduate director of his/her major before starting an internship. The Career Center maintains a list of faculty sponsors for each major and/or school.

### **Supplementary Internship Program for Students in the College of Engineering and Applied Sciences**

The College of Engineering and Applied Sciences (CEAS) is actively involved with many engineering and high-technology companies, both large and small, in the Long Island region. The many collaborative academic and industrial efforts include teaching, research, consultation, and cooperative problem solving to promote the physical and fiscal well-being of the region. Undergraduate students have a place in this working relationship between the college and industry as participants in the CEAS Internships Program, which provides them with realworld paid experience in which they observe engineers, scientists, and managers at work, work for and with professionals in their area of interest, apply theory learned in class, learn new applications, and learn about the corporate culture and environment. The internship experience is an important element of a student's education and enhances his or her qualifications for permanent job placement following graduation.

Students may participate in internships with or without academic credit. In order to earn credit, the nature of the work undertaken in the industry setting must be reviewed by the student's academic advisor. With the approval and agreement of the employer and the academic advisor, the student may register for the department's internship course and receive 3 credits (or up to 9 credits in the full-time semester-long internship in mechanical engineering) toward baccalaureate degree requirements. A student may choose to participate in an internship for the experience and remuneration only, and in this case, no course registration or academic approval is required.

The program is administered by the college's Undergraduate Student Office, which receives participating companies' internship requirements, posts internship position announcements, reviews student resumes, verifies academic qualifications, and may assist both corporations and students in the process of interviewing and internship placement.

### **Living Learning Centers**

Office: N-3071 Melville Library

Phone: (631) 632-4378  
E-mail: [llc@stonybrook.edu](mailto:llc@stonybrook.edu)  
Web site: <http://www.sunysb.edu/llc>

Living Learning Centers integrate the student's residence hall experience with academic concerns and enrich both aspects of the college education. Stony Brook offers several Living Learning Centers: Environmental Studies in Hendrix College, Health and Wellness in Schick College, International Studies in Stimson College, Community Service Learning in James College, and Media Arts in Douglass College. Many classes are held within the residential buildings and building activities are centered around the living learning center topic. All Living Learning Centers add an academic component to each student's residential experience, and all offer academic minors.

Resident students not living in Living Learning Center buildings, as well as commuting students, may also participate in Living Learning Center programs and take the minors. For minor requirements, see the specific listings in the Approved Majors, Minors, and Programs chapter.

#### Community Service Learning

The Community Service Learning Living Learning Center, housed in James College, is designed to use the special educational opportunities available at Stony Brook to create citizens with the depth of commitment to community service that the 21st century will demand. Acquisition of skills and knowledge is combined with a fostering of an appreciation by students of their role as citizens both in the University and in the surrounding communities.

#### Environmental Studies

The Environmental Studies Living Learning Center, housed in Hendrix College, offers an environmental studies minor as well as activities that emphasize both scientific and social issues encompassed by the broad field of environmental studies. Through this program, motivated natural science and social science students are able to apply their coursework specifically to the study of the environment.

The minor in environmental studies is designed to give students enhanced exposure to one subfield of environmental studies—the natural science of the environment.

#### Health and Wellness

The Health and Wellness Living Learning Center, housed in Schick College, is designed to give students a foundation in the concepts of healthy living and to help students select future studies and careers in the health professions.

#### International Studies

The International Studies Living Learning Center, housed in Stimson College, provides an integrated view of institutions, ideas, historical traditions, and aspirations of peoples of other countries or regions. The minor is open to all undergraduates who wish to add an academic dimension to their residential experience.

#### Media Arts

The Media Arts Living Learning Center, housed in Douglass College, offers a minor in media arts with courses examining media technology, theory, and practice. The program builds on strong relationships with student media organizations, and encourages research, independent study projects, and internship opportunities. Projects can include assignments in radio, television, and print journalism.

### National Student Exchange

Web site: <http://www.stonybrook.edu/nse>

The National Student Exchange (NSE) offers undergraduate students an opportunity to study for up to one year at one of more than 160 state colleges and universities in the United States and its territories. Students return from exchange with new perspectives on their education and a better appreciation of their home regions, families, and campuses, as well as an increased awareness of the differences in ideas and values that exist across the United States.

To qualify for the program students must be studying full time when they apply and have completed a full-time course of study in the semester prior to the exchange semester with a cumulative g.p.a. of 2.50 or higher. The application includes recommendations and a personal statement of intent, as well as academic advising and an interview with the program coordinator.

Students are encouraged to select schools in geographic and cultural settings that provide academic enrichment opportunities not available on the home campus.

NSE brochures, information about tuition and fees, application forms, and interviews are available from the coordinator of the National Student Exchange Program. More information is available on the Stony Brook University Web site (<http://www.stonybrook.edu/nse>) and on the national Web site (<http://www.nse.org>).

### Post-Baccalaureate Pre-Health Program

The Post-Baccalaureate Pre-Health Program is intended for students who have received a bachelors but still need to take the necessary coursework to prepare for careers in medicine, dentistry, or other health-related fields. Students enroll in the appropriate undergraduate courses with non-matriculating Graduate Student (GSP) status. The undergraduate coursework, coupled with the advisement resources of the Academic



and Transfer Advising Services Center, will help to prepare students for the application process to graduate health programs. Accepted students will participate in a special orientation and may partake in post-baccalaureate focused events and programs. This select student group will be academically advised and tracked throughout their time at Stony Brook by the pre-professional advising staff. Stony Brook may nominate up to five eligible post-baccalaureate students per year for linkage (a special fast track admission) to Stony Brook's School of Medicine. All students admitted to the program are expected to maintain a 3.0 cumulative grade point average. More information can be found by visiting <http://www.stonybrook.edu/spd/graduate/prehealth.html>

## Scholars for Medicine

Scholars for Medicine earn a Bachelor's/M.D. degree with four years of undergraduate coursework and four years of medical school. All Scholars for Medicine are individually counselled on their careers throughout their participation in the program. Benefits include scholarship opportunities, help in finding laboratory placements for undergraduate research, regular advising from the Directors of the Honors College, WISE Program, Engineering Program, and the pre-medical advisor, opportunities to meet faculty in the School of Medicine, and support and encouragement in the exploration of undergraduate and career opportunities.

Scholars for Medicine positions are available to select entering freshmen who have been accepted to the Honors College, WISE Program, or Engineering Program. Eligibility criteria are: nomination of high school seniors by the Honors College; 1350 or above on the SATs; maturity; evidence of social commitment; evidence of interest in science; high moral character; breadth of interests; and strong communication skills. See the Scholars for Medicine entry in the Health Sciences Schools Programs chapter of this Bulletin for complete information.

## Undergraduate Research and Creative Activities Program (URECA)

Director: Karen Kernan  
Office: N-3071 Melville Library  
Phone: (631) 632-4378  
E-mail: [Karen.Kernan@stonybrook.edu](mailto:Karen.Kernan@stonybrook.edu)  
Web site: <http://www.stonybrook.edu/ureca>

Undergraduate Research and Creative Activities (URECA) awards summer research stipends, small grants, and travel grants, and is a point of contact for students and faculty engaged in research and creative endeavors—helping to bring together students and research mentors. URECA hosts annual events to showcase student work, informs students about research opportunities, and publishes an annual collection of undergraduate abstracts. Most on-campus summer research program applications are due in March. URECA is a program within the Office of Undergraduate Academic Affairs and is funded in part by the Simons Foundation. All Stony Brook undergraduates, including incoming freshmen and transfer students, are eligible to participate in supervised research and creative activities: students doing research are reminded to register for credit (0 to 6 credits, generally in 487, 488, and/or 499 courses) with the department in which they are doing research.

## Undergraduate Teaching Assistantships

Recognizing that teaching is a valuable component of learning, faculty members offer undergraduate teaching practica to permit qualified undergraduates to participate under faculty supervision in teaching courses. These teaching practica are intended to enhance the liberal education of the participating students by introducing them, under the guidance of faculty, to some of the aspects of successful teaching. Students receive academic credit for the learning and experience they acquire in undergraduate teaching practica.

Undergraduate teaching assistants must be juniors or seniors (U3 or U4 status). They must have demonstrated mastery of the subject matter by having completed and excelled in the course in which they will be assisting or in a similar but more advanced version of that course.

Undergraduate teaching assistants must not grade any work that contributes to the final course grade, although they may be assigned to read and criticize drafts of work that have already been graded. All evaluations of student performance that contribute to the final course grade are the exclusive responsibility of faculty and cannot be delegated to undergraduate teaching assistants. Undergraduate teaching assistants must not see any version of any quiz, test, or examination nor must they proctor an examination in the course in which they are assisting. Exceptions to this rule may be made only by special permission of the Office of the Dean and College Curriculum Committee.

To receive credit for working as undergraduate teaching assistants, students enroll in a department's teaching practicum, numbered 475 or 476. These practica are designed to broaden the students' knowledge of the subject matter of the course and to instruct them in techniques of teaching and evaluation. Students may not be given credit for independent reading or research for teaching assistance nor may they register in the course in which they are assisting. (Upon discovery of the awarding of such credit—at any time—it will be removed from the student's record.) Only Satisfactory/Unsatisfactory grades are recorded in 475 and 476 courses.

Faculty members with either graduate or undergraduate teaching assistants must inform the students in their classes of the status of each teaching assistant.

Students may earn three credits in a department's course for undergraduate teaching assistants numbered 475. They may later enroll in a 476 course in the same department, if available, or in a second 475 course in a different department. No more than six credits earned through teaching practica may apply toward the bachelor's degree.

### University Scholars Program

Web site: <http://www.stonybrook.edu/uaa>

University Scholars is a program for high-achieving freshmen that focuses on creating a community of learners dedicated to scholarship, leadership, and service. Incoming freshmen with an exceptional record of academic performance in high school are invited to the University Scholars program upon admission to Stony Brook. All high-achieving freshman applicants are considered for admission as a University Scholar and no additional application procedures are required. University Scholars are a select group of students within the Undergraduate Colleges who receive special privileges and academic opportunities. The University Scholars Program provides both commuting and resident freshmen with a small community and encouragement to explore the university and get involved in activities outside class.

University Scholars receive numerous advantages as part of their first year experience at Stony Brook:

1. Enrollment in selected honors sections of first-year courses including the first-year seminars and other academic courses.
2. Priority registration privileges within their class throughout their Stony Brook undergraduate careers as long as they retain a 3.0 cumulative GPA and are not found guilty of academic dishonesty.
3. Specialized academic advising and mentoring including help in choosing the best courses to reach their goals.
4. Opportunities to meet faculty and participate in special academic and social events, trips, and other co-curricular activities.
5. Participation in a wide range of student leadership opportunities on campus.

### Women in Science and Engineering (WISE)

Office: 120 Physics

Phone: (631) 632-6947

E-mail: [projectwise@stonybrook.edu](mailto:projectwise@stonybrook.edu)

Web site: <http://www.wise.sunysb.edu>

WISE is a multifaceted program designed to engage women who have ability and interest in mathematics, science, or engineering in the excitement and challenge of research. Identified as a national model program by the National Science Foundation, WISE offers a combination of curricular and extracurricular activities, such as hands-on research experience from the first year on, membership in small study groups led by advanced undergraduate women "junior mentors," individual academic advising, frequent interaction with faculty, and numerous social activities that range from guest lectures to field trips. Through participation in WISE, students become part of a community of women scientists that also includes women graduate students, faculty, and scientists from Brookhaven National Laboratory, Cold Spring Harbor Laboratory, and industry.

#### Acceptance

To qualify for WISE, applicants must be women who are moving directly from high school to college and have a demonstrated aptitude and interest in science, mathematics, or engineering as evidenced by such factors as four years of mathematics and/or science courses in high school, above-average grades, research or other relevant experience, or above-average scores on the quantitative parts of the SAT or ACT examination or an SAT science or mathematics achievement test. See also the Scholar-ships and Awards chapter.

#### Academic Requirements

WISE participants must fulfill Stony Brook's general education requirements, known as the Diversified Education Curriculum (D.E.C.), in addition to the requirements of their major department. Where appropriate, the WISE academic requirements may be applied toward the DEC or the student's major. WISE students are eligible for and encouraged to take honors courses, where appropriate. WISE students may pursue the one-year program alone, or elect to participate in a full four-year curriculum. All WISE women are expected to maintain a minimum grade point average of 3.00 and remain in good academic standing.

All WISE students must satisfy the following first-year requirements:

1. The one-credit course *Becoming a Scientist*, offered as a special section of the University freshman seminars and taught by a faculty member in the sciences
2. WSE 187 *Introduction to Research*
3. Two semesters of mathematics and science courses for prospective science and engineering majors, such as MAT 131, 132 or 141, 142; or CHE 131, 132 or 141, 142; or PHY 131, 132 or 141, 142
4. Attendance at all mentoring sessions, entailing approximately six hours per week (see Extracurricular Programs below)

5. Attendance at all special evening programs and meetings (see Extracurricular Programs below)

WISE students pursuing the four-year program must fulfill the following additional requirements during the remaining undergraduate years:

1. WSE 242 Social Dimensions of Science
2. One computer science course or 200-level mathematics course
3. MAT 160 Mathematical Problems and Game or PHY 311 Connections in Science
4. Mentoring Seminar offered under WST 488 Internship (1 credit)
5. Professional Development Seminar offered under WST 488 Internship (1 credit)
6. Senior honors thesis/design project (see Note)
7. Attendance at a minimum of three special evening programs or meetings per year (see Extracurricular Programs below)

Note: The honors thesis/design project is satisfied through successful completion of a six-credit, year-long independent research project culminating in the submission of a substantial research paper, written to the professional standards of the relevant academic discipline. Research should be modeled after those in peer-reviewed journals. The project must be reviewed by the student's research mentor, WISE faculty advisor, and one other member of the WISE committee and be judged acceptable for successful completion of this requirement. In addition, at the end of the first semester, students must submit to their WISE academic advisor, a progress report on their activities. The senior honors thesis/design project requirement may be satisfied within the student's major. In addition, students are encouraged to apply for their major's departmental honors program. The thesis may apply toward both departmental honors and WISE requirements.

#### Extracurricular Programs and Activities

WISE academic requirements are supplemented by other activities designed to provide additional academic and social support and foster connections among the science, mathematics, engineering, and social environments.

#### Peer Study Groups

Based on their mathematics and science courses, first-year WISE women are placed in five- or six-member peer study groups, led by a WISE junior mentor, using collaborative learning methods. In years two and three, peer study groups will be organized around science, engineering, and mathematics courses, depending on student needs. After the first year, participation in peer study groups is optional but recommended.

#### Special Evening Programs and Meetings

WISE sponsors regular evening programs and meetings attended by WISE undergraduates; faculty in the sciences, mathematics, and engineering; graduate students; and others. The programs include talks from faculty, students, and visiting scientists and engineers from Brookhaven National Laboratory, Cold Spring Harbor Laboratory, and private sector research firms; panel discussions in subjects such as educational and cultural factors that influence and shape women's choices; workshops on résumé writing; and social events.

First-year women are required to attend all evening programs. Women completing the four-year WISE program must attend a minimum of three evening programs per year and are expected to play an increasing role in planning sessions and leading discussion groups.

WISE students are encouraged to live in the Whitman or Cardozo Residence Halls. Whitman is the site of the WISE Computer Room and many WISE activities.

#### Scholarships, Honors and Awards

- Scholarships
- Valedictory Awards
- Academic Awards
- Service Awards
- Scholastic Achievement Incentives for Non-Traditional Students
- Undergraduate Excellence Recognition Certificates
- Academic Honors
- Dean's List
- Degrees with Distinction
- Departmental Honors Programs

#### Scholarships

The University awards scholarships to selected students based on merit and/or need. For further information on any of the merit scholarship programs listed below, see the Scholarships Web site at <http://www.stonybrook.edu/scholarships> or contact the Office of Student Financial Aid Services at (631) 632-6840.

## Honors College

Honors College scholarships are awarded to students of proven academic ability who desire intellectual challenge and the opportunity for creative interaction in a highly personalized teaching environment. All students admitted to the Honors College will receive scholarship support from one to four years. The minimum Honors College scholarship is \$2,000 for one year.

For detailed information and application forms, contact the director of the Honors College, at (631) 632-4378 or visit their Web site at <http://www.stonybrook.edu/honors>. Applications can be downloaded from the Web site.

## Freshmen Scholarship Programs

Several merit-based scholarship programs are designed to recognize the academic and leadership accomplishments of high-achieving freshmen who enroll in the fall semester immediately following graduation from high school. Qualitative and quantitative criteria are considered in awarding these scholarships. The award amounts of freshmen scholarships vary and range from partial scholarships to the equivalent of full tuition and fees for up to four years.

All National Merit Scholarship Corporation Finalists and Semifinalists and Intel Finalists and Semifinalists are offered a Presidential Recognition Scholarship ranging from \$2,000 to full tuition, fees, room, and board.

Valedictorians and Salutatorians will receive scholarship support ranging from \$1,000 to the equivalent of tuition and fees.

All other eligible high-achieving admitted students not in any of the above categories will be offered a Presidential Scholarship (for New York State residents) or a Provost Out-of-State Scholarship ranging from \$1,000 to the equivalent of tuition and fees.

Students will be offered the most beneficial scholarship; very rarely is a student offered more than one scholarship.

## WISE-Women in Science and Engineering

Women interested in participating in the WISE program must apply for admission and are selected on the basis of their potential and interest in science (including social science), mathematics, or engineering. All students admitted to WISE receive scholarship support from one to four years. The minimum WISE scholarship is \$2,000 for one year. For further information, students may contact the WISE office by phone at (631) 632-6947 or by e-mail at [projectwise@stonybrook.edu](mailto:projectwise@stonybrook.edu); also see the WISE Web site at <http://www.wise.sunysb.edu>

## College of Engineering and Applied Sciences Scholarships

The College of Engineering and Applied Sciences (CEAS) administers a number of scholarships ranging from \$500 to full tuition awards for incoming freshmen and continuing students enrolled in one or more of the college's eleven majors (biomedical engineering, chemical and molecular engineering, civil engineering, computer engineering, electrical engineering, engineering science, mechanical engineering, computer science, information systems, applied mathematics and statistics, and technological systems management).

The scholarships are funded by a variety of private and corporate donors; there are different eligibility requirements for the different scholarships although, in general, entering freshmen should have a high school average not less than 90 and continuing students should have a cumulative g.p.a. not less than 3.00.

Scholarship opportunities for continuing CEAS students are announced at the end of the fall semester, with an application deadline in late January and selection of recipients in April for scholarship support in the subsequent academic year. For the most recent information, students may contact the CEAS Undergraduate Student Office at (631) 632-8381, or visit the Web site at <http://www.ceas.sunysb.edu>

Following is a list of scholarships administered by CEAS. Depending on the funding source, some of the scholarships are available every year and others on a less regular basis. The availability of scholarships varies from year to year and is contingent upon donor resources and interests, as well as variable economic trends. There are different eligibility requirements for each of these scholarships:

Applied Mathematics and Statistics Memorial Scholarship; Arkwin Industries, Inc. Scholarship; Carol Cooke/Siemens Corporation Telecommunications Scholarship; Curtiss-Wright Centennial of Flight Scholarship; Data Device Corporation Scholarship; Dayton T. Brown Scholarship; Edo Marine and Aircraft Systems Scholarship; Frances and Velio Marsocci Award; Grumman Endowment Scholarship; GT Equipment Technologies Scholarship; Industrial Partnership Program Scholarships; Joan M. Kenny Memorial Scholarship; Metropolitan Club/Association of Old Crows Scholarship; Omnicon Group Inc. Scholarship; Omnicon/WISE Scholarship; Rahsaan T. Jackson Scholarship Award for Extraordinary Achievement; Robert J. and Katherine B. Frey Scholarship; Society of Flight Test Engineers Scholarship; Society of Automotive Engineers Scholarship; Military Engineers Scholarship/Ehasz Giacalone Architects, P.C.; Stewart Harris Scholarship; Srivastav, Tucker and Weitzman Scholarship; Svam International Inc. Scholarship; St. Paul Traveler's Insurance Co., Scholarship; Tau Beta Pi Scholarship; Thomas Irvine Scholarship in Mechanical Engineering; Weinig Foundation Scholarship

The Louis Stokes Alliance for Minority Participation (LSAMP) program is sponsored by the National Science Foundation. The program provides both academic support and stipends to minority students planning to major in science, math, engineering, or technology and who maintain a cumulative g.p.a. of 3.00. For this program, a minority student is defined as being of African American, Latino/Hispanic, Native American, Alaskan Native, Hawaiian Native, or American Pacific Islander heritage. Interested students should contact Paul Siegel at (631) 632-8716 or at [Paul.Siegel@stonybrook.edu](mailto:Paul.Siegel@stonybrook.edu).

The Computer Science, Engineering, and Mathematics Scholarship Program (CSEMS), funded by the National Science Foundation, is a four-year program that provides comprehensive academic and scholarship support for bachelor's degree students in applied mathematics, biomedical engineering, computer science, information systems, electrical and computer engineering, mechanical engineering, materials science, and

mathematics. Continued scholarship support is predicated upon maintaining a cumulative g.p.a. of 3.00. Students must be low-income as determined by a FAFSA form filed with the Office of Student Financial Aid Services. Women, minorities, students with disabilities, and transfer students are strongly encouraged to apply. Students interested in this program should contact Paul Siegel at (631) 632-8716 or at Paul.Siegel@stonybrook.edu.

### **Howard Hughes Medical Institute Undergraduate Research Fellow Scholarships**

This program provides fellowship support to selected students engaged in research in the biological sciences at Stony Brook. Women and students from underrepresented groups are strongly encouraged to apply. Scholarships are available for both the academic year and the summer. Students interested in this scholarship should contact Judy Nimmo in the Department of Biochemistry and Cell Biology at (631) 632-9750.

### **Music Scholarships**

The Department of Music offers a limited number of competitive scholarships to incoming freshmen and transfer students. Students may compete for scholarships in performance, composition, history, or theory. Applications are due in late January, and scholarship auditions take place in early February.

For more information, call the Director of Undergraduate Studies, Department of Music, at (631) 632-7330.

### **State, National, and International Scholarships and Fellowships**

The University nominates candidates for awards including: the Beinecke Scholarship; the Churchill Scholarship; the Jack Kent Cooke Scholarship; Fulbright Grants for Graduate Study Abroad; the Gates Cambridge Scholarship; the Barry M. Goldwater Scholarship; the James Madison Memorial Fellowship; the Marshall Scholarship; the George J. Mitchell Scholarship; the Rhodes Scholarship; the Rotary Foundation Scholarship; the Benjamin and David Scharps Prize; the Paul and Daisy Soros Fellowship for New Americans; the Harry S. Truman Scholarship; the UNCF-MERCK Science Research Scholarship; the Morris K. Udall Foundation Scholarship; and the Woodrow Wilson National Foundation Fellowships.

The Office of Undergraduate Academic Affairs oversees the application process for the majority of prestigious scholarships and fellowships listed above. Most awards require a campus endorsement before the applications can be forwarded to the final levels of competition. To help students prepare competitive applications, the office offers workshops and individual advising on selecting recommenders, preparing compelling personal statements, interviewing, and developing project proposals or proposed programs of study. Advance preparation for these awards is essential.

Before beginning the application process, students who are interested in applying for these prestigious scholarships/awards are encouraged to contact the campus representative in Undergraduate Academic Affairs at (631) 632-7080, Melville Library N-3071, to discuss scholarship options and future preparation requirements. Stop by and pick up a copy of the previous year's application to use as a working guide until the current year's application becomes available. See also <http://www.stonybrook.edu/uaa/scholarshipfellowships/index.shtml>

### **Athletic Grants-in-Aid**

Stony Brook's athletic program offers aid based on merit in all 20 varsity sports. For more information, students may call the Athletic Office at (631) 632-7205.

### **Other Scholarships**

The scholarships listed here are merely examples of the several available at Stony Brook. Undergraduate students interested in other scholarships should contact their academic department and the scholarship Web site for the fullest and most up-to-date information about Stony Brook University scholarships, as well as suggestions for non-University scholarship support.

### **Dr. Connie and Dr. Lee Koppelman Scholarships**

This program provides four \$1,000 one-year scholarships for high-achieving upper-division students (juniors and seniors) who are majoring in either Women's Studies and/or Political Science and have demonstrated financial need.

### **Linda and Richard Gelfond Scholarship**

This program provides a one-year scholarship to an incoming freshman, a sophomore, a junior, and a senior with an outstanding academic record and excellent demonstrated leadership skills.

### **Shiming Hu Memorial Awards**

The Shiming Hu Memorial Leadership Award is given to a graduating senior who has played a significant role in an Asian interest club or organization on campus.

The Shiming Hu Chinese Studies Scholarship is given to an upper-division student who has displayed excellence in the study of Chinese language or culture.

### **Valedictory Awards**

#### **William J. Sullivan Award**

This award is presented annually by the University in honor of Justice William J. Sullivan, late chairperson of the Stony Brook Council. It is the most prestigious service award the University presents to a graduating senior. The award represents the University's recognition of particularly outstanding service contributions to the development of academic and student life on the campus.

#### **Ward Melville Valedictorian Award**

In honor of the first chairperson of the Stony Brook Council, the University presents its most distinguished undergraduate honor, the Ward Melville Valedictorian Award, to the graduating senior who has attained the highest academic average during four years at Stony Brook. This award is given once a year, at the May graduation ceremony.

#### **H. Lee Dennison Award**

The H. Lee Dennison Award, named in honor of Suffolk County's first chief executive, is presented by the University to the graduating senior who entered Stony Brook as a transfer student, completed at least 60 credits of letter grade work at Stony Brook, and attained the highest academic average in that work. This award is given once a year, at the May graduation ceremony.

#### **Distinguished Community Service Award**

The Distinguished Community Service Award is presented annually by the Stony Brook Foundation to a graduating senior in recognition of outstanding contributions to public service in the Long Island region.

### **Academic Awards**

#### **Alumni Association Legacy Award**

Awarded to a student who demonstrates academic success and leadership in the campus community and is the child of a Stony Brook alum.

#### **Daniel Cohen Research Award**

This award is presented to an undergraduate to support a research project in hematology. The award is in memory of Daniel Cohen.

#### **Departmental Awards**

Listed below are awards offered through specific academic departments in the College of Arts and Sciences. Students should consult the particular department for award criteria.

**Africana Studies** - Bliss Verdon Scholarship, to a student who demonstrates an academic focus on and commitment to African issues; Richard B. Moore Scholarship, to a student of African heritage who has demonstrated outstanding academic achievement.

**Art** - Elizabeth and Philip F. Palmedo Scholarship, to two undergraduate students who demonstrate financial need and exceptional talent and promise.

**Asian and Asian American Studies** - Shiming Hu Memorial Leadership Award, to a graduating senior who plays a significant leadership role in an Asian club or organization on campus; Shiming Hu Freshman Scholarship, to an academically high-achieving entering freshman who has financial need and is preferably Asian American; also see China Studies and India Studies.

**Biochemistry** - Irwin Oster Prize, to a senior majoring in biology or biochemistry who has submitted the best research project in genetics.

**Biology** - Raymond Jones Award, to the outstanding undergraduate student of biology.

**Chemistry** - Lap Chan Scholarship, to an undergraduate student majoring in Chemistry; Emerson Award to Outstanding Junior, American Institute of Chemists' Senior Award; Sei Sujishi Prize; Outstanding Chemistry Senior Award; Outstanding Engineering Chemistry Senior Award.

**China Studies** - Shiming Hu Memorial Leadership Award, to a graduating senior who plays a significant leadership role in an Asian club or organization on campus; Shiming Hu Freshman Scholarship, to an academically high-achieving entering freshman who has financial need and is preferably Asian American; Shiming Hu/Eli Seifman Chinese Studies Scholarship, to an upper-division student who has displayed excellence in the study of Chinese language or culture.

**English** - Lillian DeWaal Memorial Scholarship, to a returning student; Homer Goldberg Scholarship, to an outstanding undergraduate junior or senior from outside New York State; Lillian E. Kahn Award, to an outstanding graduating senior; Thomas Rogers Award, for an outstanding essay written by an undergraduate in an English course; Aaron Lipton Memorial Award, to a student in the English Teacher Education Program; Naomi Stampfer Scholarship, to a worthy student in financial need; English Department Award.

**French** - French Embassy Cultural Services Awards, to outstanding graduating majors.

**Geosciences** - Myron Fuller Award, to the outstanding graduating senior in Geology or Earth and Space Sciences; Oliver A. Schaeffer Award, to the graduating senior in Geology or Earth and Space Sciences, who best combines academic performance, research, and involvement with departmental activities; Banner Bearer Award, to the graduating senior with the highest g.p.a.

**Hispanic Languages and Literature** - - Stony Brook Foundation Award, to a student in recognition of academic excellence; Stony Brook Service Award, to a student in recognition of outstanding service to the University; Undergraduate Award for Academic Achievement, to a student in recognition of an outstanding research paper; Undergraduate Award for Creative Writing.

**History** - Philip J. Stadenraus Award, to a student for outstanding contributions to the life of the History department; Roger Wunderlich Memorial Scholarship, to a deserving undergraduate student with an academic focus on Long Island history; Alexander and Zachary Traum Research Awards, one to the senior with the best Honors Thesis in American history, and the other to a junior for excellent and promising work in American history; Gardiner Scholarships, to two students for promising work in Early American History and/or History of the New York Region; W. K. Ferguson Award, to a student who has done outstanding work in European, Latin American, Asian, or Global history; URECA Awards, for the two best papers presented at the URECA conference; Stony Brook Foundation Award, to a student for outstanding academic achievement in History.

**India Studies** - Seema Sharma Memorial Scholarships, to students in India Studies.

**Italian** - Italian Cultural Institute prizes to the best student of Italian at each level; De Luca Scholarship Award, to the outstanding graduating senior in Italian Studies.

**Latin American and Caribbean Studies** - A. Sanchez Construction Corporation Scholarship, to an undergraduate student for outstanding academic achievement.

**Mathematics** - Departmental Award for Excellence in Mathematics, to a student in recognition of outstanding excellence in the department; Stony Brook Foundation Award for Excellence in Mathematics, to a student in recognition of outstanding academic achievement and excellence in mathematics; Freshman, Sophomore, Junior, and Senior Awards in Mathematics, to the outstanding students in mathematics of each year; Chair's Award for Excellence in Teaching by an Undergraduate, to undergraduate students who exemplify excellence in teaching; Departmental Undergraduate Fellowship, awarded to talented undergraduate mathematics majors with financial need.

**Music** - Arthur S. Lambert Memorial Scholarship, to a student of music; Billy Jim Layton Prize; Edith Salvo Award, to the outstanding student in Music; Elizabeth Ball Kurz Award, to students planning a career in music; Elizabeth and Philip F. Palmedo Scholarship, to two undergraduate students who demonstrate financial need and exceptional talent and promise; Mitchell Stern Scholarship, to a deserving student of violin performance; Natale and Josephine Maresca Award for Distinction in Piano Performance; Samuel Baron Prize in Music, to a promising Stony Brook graduate poised to contribute to the profession; Shaw Music Award, to an undergraduate in music for voice or choral student; Sidney Gelber Scholarship Fund, to students in music.

**Physical Education** - Athletic awards, to intercollegiate athletes.

**Physics and Astronomy** - John S. Toll Prize, to the outstanding graduating physics major; Peter B. Kahn Award, to outstanding students in elementary AST courses 101, 105, and 248.

**Political Science** - Davidson Family Scholarship, to a junior or senior in political science, who is a veteran of the armed forces or Coast Guard of the United States; Irene Kondorousis Manoussos Pikoulas Scholarship, to a student in political science, completion of whose studies might not be possible without this award; Martin B. Travis Award, to a student in Political Science who plans to attend law school; Patricia E. Herman Award, to a junior or senior in Political Science with an interest in urban planning and/or environmental issues; Michael Gramer Honors Thesis Award, to a student in the departmental Honors program.

**Psychology** - Awards presented to graduating majors outstanding in research, community service, and academic performance; PSI CHI Awards for Best Oral and for Best Poster Presentations at the PSI CHI scientific conference.

**Slavic Languages** - Zoltan and Cele Paldy Memorial Award for Excellence in Slavic Studies.

**Sociology** - Outstanding Scholarship Awards.

**Theatre Arts** - Peter J. Rajkowski Award, in recognition of leadership, initiative, and organizational skills in theatre projects; Richard Hartzell Prize, to a senior in theatre arts; Thomas G. Neumiller Scholarship, to an undergraduate junior or senior theatre major.

**Women's Studies** - Award presented to a graduating major or minor for academic excellence and community service.

**Writing and Rhetoric** - WRT 101 Essay Contest Award, for the best essay written by a WRT 101 student that year; WRT 102 Essay Contest Award, for the best essay written by a WRT 102 student that year.

In addition, the Stony Brook Foundation presents awards at commencement to undergraduate students demonstrating high academic achievement as determined by their departments.

#### **Edward Countey Award**

This award is presented each year by a committee consisting of the faculty in biological and medical illustration to the outstanding undergraduate student in that field.

#### **Edward Lambe Science Teaching Award**

This award is presented annually to a student preparing for a career in science teaching.

#### **Elisabeth Luce Moore Award**

The Elisabeth Luce Moore Award in International and Religious Studies is given annually to a deserving student, graduate or undergraduate, who has demonstrated outstanding academic achievement and gives promise of contributions of unusual stature to the fostering of international understanding and the appreciation of religious values.

**Irene Kondorousis Manoussos Pikoulas Scholarship**

Endowed by her son Michael Manoussos to assist a promising student in political science, completion of whose studies might not be possible without this award.

**Martin B. Travis Award**

This award is made annually to a student completing a major in political science who plans to attend law school. The award honors Professor Emeritus Martin B. Travis.

**Martin Buskin Memorial Award**

This award is presented annually to the student who most exemplifies the qualities of journalistic integrity, scholarship, and deep concern for education.

**Michael Flynn Award**

Established by the Flynn family in memory of their son, Michael, this \$500 award is presented to a senior student with a disability who has been at Stony Brook for at least two semesters and has a g.p.a. of 3.00 or higher.

**Minorities in Medicine Award**

This award is presented annually by the Minorities in Medicine Organization to an outstanding African-American, Latino, or Native American upper-division student who has demonstrated a commitment to pursuing a career in the health professions.

**Norma Mahoney Black and Hispanic Alumni Association Award**

This award is presented to an African-American, Latino, or Native American graduating senior who has excelled in his or her academics and who has demonstrated a concern for the Black and Latino communities.

**Outstanding Student Achievement Awards**

The Office of Special Programs presents this award to Educational Opportunity Program (EOP) students who maintain cumulative g.p.a.'s of 3.00 or higher.

**Patricia E. Herman Award**

This award is presented annually in memory of Patricia E. Herman to a junior or senior majoring in political science who has an interest in urban planning and/or environmental issues.

**Patrick W. Warner Award in Economics and Applied Mathematics**

This award is presented annually to a junior majoring in economics or applied mathematics and statistics to recognize outstanding academic achievement. The award honors Patrick W. Warner, Class of '74.

**Phi Beta Kappa Undergraduate Research and Creative Activities Awards**

These awards, one in research and one in creative activities, are presented annually to recognize superior performance by undergraduate students at any level in the liberal arts and sciences.

**President's, Provost's, and Dean of Arts and Sciences Art Purchase Awards**

These awards are given annually to senior art majors whose works, in the judgment of the studio art faculty, demonstrate originality, imagination, and mastery of craft. The art works become part of the University's permanent collection and are displayed in University offices.

**Raymond F. Jones Award**

This award is presented annually in memory of Raymond F. Jones, professor of biology and director of international programs. It is presented in alternating years to an exchange student who has made an outstanding contribution in scholarly achievement, creative endeavor, or teaching excellence, and to a student in biological sciences in recognition of outstanding academic accomplishments.

**Returning Student Award**

This award is presented by the University Association to an undergraduate who has successfully returned to college after years or decades away from higher education. The award recognizes academic excellence and service to the community beyond the campus.

**Richard B. Moore Scholarship**



This award, established by the Stony Brook Foundation and Joyce Moore Turner to honor the memory of the distinguished civil rights activist and historian, provides annual recognition to a Stony Brook student of African heritage who has demonstrated outstanding academic achievement.

### **Single Parent Awards**

These awards are presented to full-time students in their junior year who are single parents in need of financial assistance.

### **Sylvia Awards**

The Sylvia Fund sponsors two \$500 awards in memory of Sylvia Geoghegan. Sylvia was a Stony Brook alumna, a talented artist, and someone who utilized all her abilities to enrich her life and the lives of others. To qualify for a Sylvia Award a student with a disability must be in good academic standing with a minimum g.p.a. of 2.00, and must have completed at least two semesters at Stony Brook. At least one of the two awards will be given to a student with specific artistic interest or promise.

### **William and Teresa Meyer Award**

This award is presented to an upper- division or graduate student in the humanities or social sciences who shows promise in Middle Eastern or Asian studies.

## **Service Awards**

### **Babak Movahedi Senior Leadership Award**

Established by Babak Movahedi '82, this award is presented to a graduating senior who has made a significant change in the University environment by bringing together various constituencies through the development of community life.

### **Delta Sigma Theta Sorority Merit of Excellence Award**

This award is presented annually by the Pi Delta chapter of the Delta Sigma Theta sorority to an African American, Latina, or Native American woman completing the freshman year who has shown a high level of commitment to community service and scholastic achievement.

### **Elizabeth Couey Award**

The Stony Brook Union Advisory Board and the Department of Student Union and Activities present this award to a graduating senior who has exhibited outstanding contributions toward the improvement and growth of student services and programs and exemplifies Elizabeth Couey's unique qualities, which include the ability to listen with understanding, guide without boundaries, give and take with love, and grow with each passing day.

### **Emile Adams Award for Community Service**

This award is presented annually by the Latin American Student Organization to a graduating Latino student who has done excellent community service.

### **Joseph N. Campolo Award for Legal Studies**

Awarded to a student preparing to enter the practice of law.

### **Larry Roher Entrepreneurial Achievement Award**

Established by Larry Roher '79, this award is presented to an undergraduate who has served in a managerial and leadership role either on or off campus, or has pursued entrepreneurial and innovative programs or activities.

### **Mortimer Kreuter Award**

This award is presented annually to selected teacher certification candidates in recognition of excellent performance in student teaching and outstanding service to the school community where they were placed for this experience. The award was established by the friends and family of Dr. Kreuter in memory of his years at the University as professor of education, director of teacher certification, and acting dean of continuing education.

### **Outstanding Future Alumni Award**

Awarded to a high-achieving student who has demonstrated excellence in academic performance and community service and has made valuable contributions to the University community.

### **Senior Leadership and Service Awards**

These awards are presented annually by the Department of Student Union and Activities to graduating students who have exhibited outstanding leadership and service to the campus community.

## **Scholastic Achievement Incentives for Non-Traditional Students (S.A.I.N.T.S. Awards)**

### **African Student Union Akuwasi Owusu-Baah Award**

This award is presented annually to a student who is a member of an underrepresented group and has shown a commitment to promoting an awareness of African culture within the University setting.

### **Founders Award**

The Founders Award is presented annually to the outstanding African American, Latino, or Native American student in the natural sciences, mathematics, or engineering, in recognition of the founders of S.A.I.N.T.S.

### **Graduate Fellowship Awards**

These awards are presented annually to two exceptional graduating African American, Latino, or Native American students who are about to enter graduate school, one in the natural sciences, mathematics, or engineering, the other in the social sciences or humanities. Consideration is given to both academic achievement and community service.

### **Outstanding Achievement Awards**

These awards are presented annually to two freshmen, two sophomores, and two juniors to recognize outstanding African American, Latino, and Native American students.

### **Yacub E.L. Shabazz Award**

This award is presented annually to an outstanding upper-division African American, Latino, or Native American student who has demonstrated a high level of commitment to community service.

## **Undergraduate Excellence Recognition Certificates**

These certificates, presented annually by the offices of the President, Student Affairs, and Undergraduate Academic Affairs, recognize the special achievements of undergraduates who have demonstrated excellence in a wide range of categories including, but not limited to, academic achievement, research, the performing and creative arts, leadership, and service to the campus community.

## **Academic Honors**

Selection of students for honors is based primarily on University records and recommendation (not on application). Some of the disciplinary national honor societies require application and have established criteria for eligibility. Interested students should approach the relevant department or program.

### **Honor Societies**

Besides the annual awards listed in the Scholarships and Awards chapter, induction into an honor society acknowledges the student's outstanding academic performance.

Phi Beta Kappa, the nation's oldest academic honor society, is devoted to fostering the liberal ideal in education and encouraging the spirit of critical inquiry. Admission is by election, based on the breadth and balance of a student's career academic program as well as superior performance. The number of initiates is limited by the national body; members of the junior class may constitute only a small fraction of the annual total. The minimum cumulative g.p.a. in recent years has averaged 3.60 for seniors and 3.80 for juniors.

Sigma Beta, Stony Brook's own honor society, is devoted to academic excellence and University service. Membership is open to students with no more than 80 credits who have, at the conclusion of the most recent fall semester, a 3.50 grade point average as a full-time student using the same criteria as for the Dean's List.

Sigma Xi is a national honor society for achievement in pure or applied scientific research. Any student associated with the University who has, through research achievements, shown a marked aptitude that is expected to lead to the fulfillment of the requirements for full membership may be nominated by a faculty member or department and elected as an associate member of Sigma Xi.

Tau Beta Pi is the national engineering honor society devoted to honoring students for academic excellence and for service to the engineering profession. Engineering juniors and seniors who have demonstrated these qualities are invited to join Stony Brook's Omicron chapter of Tau Beta Pi.

The Golden Key International Honor Society recognizes junior and senior students who have achieved at least a 3.30 g.p.a. at Stony Brook. The campus chapter adds to the vitality of the University's intellectual and social life through sponsorship of community service activities. More information is available at <http://www.goldenkey.org>

Various disciplines have their own honor societies. Those with chapters at Stony Brook include Upsilon Pi Epsilon (Computer Science), Sigma Gamma Epsilon (Earth Science), Omicron Delta Epsilon (Economics), Sigma Tau Delta (English), Eta Kappa Nu (Electrical Engineering), Phi

Sigma Iota (Foreign Languages), Delta Phi Alpha (German), Alpha Eta (Health Technology and Management), Phi Alpha Theta (History), Pi Tau Sigma (Mechanical Engineering); Phi Sigma Tau (Philosophy), Sigma Pi Sigma (Physics), Pi Sigma Alpha (Political Science), Alpha Epsilon Delta (pre-medical curriculum), Psi Chi (Psychology), Dobro Slovo (Slavic Languages), and Alpha Kappa Delta (Sociology).

### **Dean's List**

After each fall and spring semester the dean of each college compiles a Dean's List of undergraduate students who constitute approximately the top 20 percent of their class. Each full-time student must have completed in that semester at least 12 credits for a letter grade (including S) and have no I's, U's, NR's, NC's, F's, R's or Q's. P grades are not considered to be letter grades. Part-time students must have earned at least six credits in a semester of letter-graded work (not including S or P grades). The grade point average cutoffs are as follows: seniors, 3.40; juniors, 3.30; sophomores, 3.20; and freshmen, 3.10.

### **Degrees with Distinction**

Degrees with distinction are conferred on candidates for the Bachelor of Arts, Bachelor of Science, or Bachelor of Engineering degree who have completed at least 55 credits at Stony Brook (excluding Challenge credit), have letter grades assigned to at least 80 percent of their coursework, and attain the requisite g.p.a. in the class. The levels of distinction are summa cum laude, magna cum laude, and cum laude, and constitute approximately the 98th percentile, the 93rd percentile, and the 85th percentile, respectively, of all students. Attainment of a degree with distinction is indicated on the student's diploma and permanent academic record. The grade point average cutoffs for the three levels of distinction are: summa cum laude, 3.85; magna cum laude, 3.70; cum laude, 3.50.

### **Departmental Honors Programs**

Students must declare their intention to seek departmental honors and must carry out required academic activities to earn this distinction. Honors requirements are described in the Approved Majors, Minors, and Programs chapter in the listing of each department that offers honors. For students who qualify, this honor is indicated on their diploma and on their permanent academic record.

**Accounting (ACC)****Minor in Accounting****College of Business**

Dean: Manuel London  
Associate Dean: Thomas R. Sexton  
Director of Undergraduate Studies: Carl J. Allocca  
Office of Student Services: 109 Harriman Hall  
Phone: (631) 632-7171  
E-mail: [oss@stonybrook.edu](mailto:oss@stonybrook.edu)  
Fax: (631) 632-8181  
Web address: <http://www.stonybrook.edu/business>

**Accounting (ACC)**

The Accounting minor provides students with a strong academic foundation in the field of accounting which will serve as a basis for further advanced study in accounting at the graduate level. It is anticipated that students who declare the accounting minor will continue their accounting education by enrolling in the MBA program in order to prepare themselves for the Uniform Certified Public Accountancy exam and a career in public accounting.

**Requirements for the minor in Accounting**

Students may apply to the accounting minor at any time during their academic career provided that their cumulative grade point average is 3.20 or higher. Business and non-business majors may complete the accounting minor. However, the accounting minor will not fulfill the minor requirement for those students who major in business. In order to meet this requirement, a second minor in addition to the accounting minor must be completed.

For business majors, successful completion of the accounting minor will satisfy the accounting specialization requirement. However, only the accounting minor will be reflected on the student's academic transcript.

Completion of the minor requires 24 credits.

The following courses comprise the accounting minor:

BUS 210 Financial Accounting  
BUS 214 Managerial Cost Analysis and Applications  
BUS 310 Intermediate Accounting I  
BUS 311 Federal Income Taxation I  
BUS 312 Financial Statement Reporting and Analysis  
BUS 313 Intermediate Accounting II  
BUS 314 Federal Income Taxation II  
BUS 325 Legal Environment of Business or POL 319 Business Law  
All courses must be taken for a letter grade and passed with a grade of C or higher.

Transfer Credit Policy for Students in the Accounting Minor

Students may apply a maximum of nine transfer credits toward the Accounting Minor.

**ACC Faculty**

Faculty information for this program can be found at [http://www.stonybrookcob.com/index.php?option=com\\_sobi2&catid=5&Itemid=27](http://www.stonybrookcob.com/index.php?option=com_sobi2&catid=5&Itemid=27)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Adapted Aquatics (HSQ)****Minor in Adapted Aquatics****School of Health Technology and Management**

Program Director: Peter Angelo

Administrative Assistant: Carol Slikowski

Office: Sports Complex, Room 110

Phone: (631) 632-7047; 632-9225

E-mail: Peter.Angelo@stonybrook.edu

**Department Information: Adapted Aquatics**

The field of adapted aquatics uses water as a medium for the rehabilitation of a great variety of muscular, neuromuscular, and neurological problems. Lectures in the adaptive aquatics program are presented by Health Sciences Center professionals who are experts in their fields, such as pediatrics, geriatrics, cardiology, internal medicine, occupational therapy, orthopedics, orthotics, pharmacology, physical therapy, respiratory care, and hydrotherapy.

The minor in adapted aquatics offers coursework that promotes career options in the health sciences. The specialized academic background and applied instructor training provide students with skills needed for careers in rehabilitation, and offers experiences relevant for admission to graduate programs in the health professions. The adapted aquatics minor allows students to receive a variety of credentials, licenses, and certifications that are mandated for individuals working in this complex and specialized field. Credentials include Adapted Aquatics Aide Training; Adapted Aquatics Instructor Training; American Red Cross Water Safety Instructor; American Red Cross Lifeguard Training; Basic Life Support for the Health Care Provider; CPR for the Professional Rescuer; Automated External Defibrillation Certification; American Red Cross and American Heart Association CPR Instructor Certification; and American Red Cross Responding to Emergencies Instructor Certification. The minor is designed to include the variety of interrelated courses necessary for a person to be fully certified to work at any aquatic facility in the country.

**Requirements for the Minor in Adapted Aquatics****Requirements for Admission**

Admission to the minor is by permission of the program director. It is preferred that students declare their intent to minor in adapted aquatics no later than the beginning of the sophomore year.

**Requirements for the Minor in Adapted Aquatics (HSQ)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 23 credits.

**Required Courses:**

HSQ 121 Intermediate Swimming

HSQ 221 Lifeguard Training I

HSQ 222 Lifeguard Training II

HSQ 223 Water Safety Instructor

HSQ 270 Emergency Response, CPR, and Personal Safety

HSQ 271 Instructor of CPR

HSQ 272 Instructor of First Aid

HSQ 325 Instructor of Adapted Aquatics I

HSQ 326 Instructor of Adapted Aquatics II

HSQ 329 Fieldwork in Adapted Aquatics Instruction (may be repeated for a maximum of 3 credits)

HSQ 475 Adapted Aquatics Teaching Practicum I

HSQ 476 Adapted Aquatics Teaching Practicum II

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Africana Studies (AFS)****Major and Minor in Africana Studies****Department of Africana Studies, College of Arts and Sciences**

Chairperson: Anthony Hurley

Director of Undergraduate Studies: Tracey Walters

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Minors of particular interest to students majoring in Africana Studies: Anthropology (ANT), Economics (ECO), English (EGL), History (HIS), Philosophy (PHI), Political Science (POL), Sociology (SOC)

**Department Information - Africana Studies**

Interdisciplinary in nature, the Department of Africana Studies considers the experiences of persons of African descent throughout the world. The major in Africana Studies is designed to explore African civilizations and their influences on other parts of the Black Diaspora. Issues within the black international communities in Africa, the United States, and elsewhere are examined from both historical and contemporary perspectives. Particular attention is focused on political concepts, cultural development, legal relations, and social theories.

The major in Africana Studies provides students with a thorough background in the historical, political, social, and economic conditions of people of African descent. Because of this field's interdisciplinary approach, students are exposed to the critical contributions of scholars representing a variety of theoretical approaches and intellectual perspectives, enhancing the student's knowledge and understanding, while encouraging higher-level thinking and the ability to critically evaluate ideas and information.

Many Africana Studies majors and minors have gone on to graduate and professional schools better prepared in various disciplines and professions including law, medicine, business, engineering, nursing, social work, and education. Africana Studies courses also benefit students who go on to do graduate work in history, politics, anthropology, sociology, literature, and other fields.

**Requirements for the Major in Africana Studies (AFS)**

The major in Africana Studies leads to the Bachelor of Arts degree. All courses for the major, except those graded S/U, must be passed with a letter grade of C or higher.

Completion of the major requires 39 credits, including at least 21 upper-division credits (from courses numbered 300 or higher). Courses taken pass/fail with an AFS or AFH designator (283, 475, 476, and 488) are considered enhancements to the major experience but do not count towards major requirements. They may fulfill university requirements.

## 1. Foundation Courses

AFS 101, 102 Themes in the Black Experience I, II

2. Two courses from each of the following areas (at least two courses selected from 200-level courses, and at least five upper-division courses at the 300 or 400-level):

## a. Africana Studies in the Humanities

- AFH 206 Great Books of the Black Experience
- AFH 249/EGL 249 African-American Literature and Music in the 19th and 20th Centuries
- AFH 329/HUF 318 Pan-African Literature I
- AFH 330 Pan-African Literature II
- AFH 368/EGL 368 Caribbean and American Connections in Literature
- AFH 385/HUF 385 French Caribbean Literature

## b. Africana Studies in the Social Sciences

- AFS 221/HIS 221 Introduction to Modern African History
- AFS 239 Introduction to the Caribbean Experience

- AFS 240 Issues in Caribbean Society
- AFS 277/HIS 277 The Modern Color Line
- AFS 365/SOC 365 Introduction to African Society
- AFS 372 African American Political Thought
- AFS 395/ANT 395 Religions of the Caribbean

c. The African American Experience

- AFS 300 Blacks in the City
- AFS 310 American Attitudes Toward Race
- AFS 319 The Politics of Race
- AFS 325/HIS 325 The Civil Rights Movement
- AFS 339/HIS 339 Recent African American History
- AFS 350/WST 350 African American Women and Social Change
- AFS 360 African American Social Commentary
- AFS 363 The Media and Black America
- AFS 370 The African American Family
- AFS 375 Slavery
- AFS 392 The Black Power Movement
- AFS 394 Black Nationalism in America

d. The Global African Experience

- AFH 379/PHI 379 Philosophy of Race
- AFS 345 Culture and Gender: Women in Africa and the Caribbean
- AFS 337/POL 337 The Politics of Africa
- AFH 339/ARH 329 Arts of the African Diaspora
- AFS 346/HIS 346 Political and Social History of Africa
- AFS 380/ANT 380 Race and Ethnicity in Latin America and the Caribbean
- AFS 381/WST 381 AIDS, Race, and Gender in the Black Community
- AFS 388/HIS 388 Slavery in Latin America and the Caribbean
- AFS 393 Caribbean Immigrants in U.S.
- AFS 400 Ancient Egypt (KMT): Historical and Contemporary Views

3. Three credits in AFH 447 or AFS 447 Readings in Africana Studies or AFH 487 or AFS 487 Research in Africana Studies taken in the junior or senior year. Seniors are required to present their research orally to the AFS faculty.

4. Two additional AFS or AFH courses at the 300 or 400 level, or two upper-division courses outside of the department (approval of the undergraduate studies director is necessary when taking courses outside of the department for major credit).

5. Upper-Division Writing Requirement Africana Studies Majors are required to submit a writing sample completed for an upper-division course in the Africana Studies Department and must submit evaluation forms signed by a professor with grades of B or higher. Students must inform the instructor of the courses in advance of their plan to use the paper(s) in fulfillment of the writing requirement for the major. A minimum of 15 pages of material must be submitted.

**Notes:**

1. Students are recommended, but not required, to take AFS 491 Interdisciplinary Seminar.
2. Students must take at least two 200-level courses in Africana Studies prior to beginning their junior year.
3. Only six credits of directed readings or independent study courses (courses numbered 447 and 487) may be used toward the major.
4. The following courses may not be used to fulfill major requirements: AFS 283, AFS 475, AFS 476, AFS 488; AFH 475, AFH 476.
5. Transfer students must take at least 12 credits of upper-division Africana Studies courses in residence at Stony Brook to complete the AFS major.

**Departmental Honors Program**

Departmental majors with a minimum G.P.A. of 3.33 in Africana Studies courses as specified in the major requirements and an overall G.P.A. of 3.0 are eligible to enroll in the Africana Studies Honors program at the beginning of their senior year.

The student must submit a proposal to the Department indicating the merit of the proposed research after asking a faculty member to be a sponsor for the project. This should be done in the semester prior to beginning the project. The faculty sponsor must submit a statement of support for the proposal.

The resulting project is read and evaluated by a committee consisting of the faculty sponsor and two faculty members (one may be a member of a department outside of Africana Studies). If the honors project is completed successfully, honors are conferred.

**Requirements for the Minor in Africana Studies (AFS)**

The minor in Africana Studies is intended for students interested in exploring aspects of the Black experience in ways that relate to their own major field of study. The sequence of lower- and upper-division courses gives the student a well-balanced analysis of the varied aspects of the African and African American experience. All courses offered for the minor, except those graded S/U, must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits, including 12 upper-division credits.

1. AFS 101, AFS 102 Themes in the Black Experience I, II
2. One course from each of the following areas (see above):
  - a. Africana Studies in the Humanities
  - b. Africana Studies in the Social Sciences
  - c. The African-American Experience
  - d. The Global African Experience
3. One additional upper-division course selected from one of the areas listed in requirement 2.
4. Three credits in AFH 447 or AFS 447 Readings in Africana Studies or AFH 487 or AFS 487 Research in Africana Studies taken in the junior or senior year.

**Sample Course Sequence for the Major in Africana Studies**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
AFS 101	3	AFS 102	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>16</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Course from area a	3	Course from area a	3
Elective	3	Elective	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C. or elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AFH 447 or AFS 447 or AFH 487 or AFS 487	3	Course from area b	3
Course from area b	3	Course in related discipline*	3
Course in related discipline*	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
Course from area c	3	Course from area c	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>



<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Course from area d	3	Course from area d	3
Course in related discipline*	3	Course in related discipline*	3
D.E.C.	3	Elective (any area)	3
Elective	3	Elective	3
Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

\*Course may not be crosslisted with AFH or AFS.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**American Studies (AMR)****Interdisciplinary Major and Minor in American Studies****College of Arts and Sciences**

Director of Undergraduate Studies: Georges Fouron

Administrative Assistant: Victoria Judd

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Minors or second majors of particular interest to students majoring in American Studies: Art (ARH/ARS), Biology (BIO), English (EGL), History (HIS), Linguistics (LIN), Media Arts (MDA), Political Science (POL), Psychology (PSY), Sociology (SOC), South Asian Studies (SOA), Spanish (SPN)

**Department Information - American Studies**

With the increase in migration and economic globalization and their impact on the culture of the United States and the Americas as a whole, scholars in many disciplines are examining, from interdisciplinary perspectives, the impact of the making of the Americas on world culture. The program in American Studies redefines traditional disciplinary approaches, integrating and connecting new approaches to American studies that include a multicultural as well as a transnational understanding of the Americas. New methods of cultural analysis are introduced that challenge the power of comparative transnational histories to diversify political narratives of citizenship, homeland, and popular sovereignty. They also challenge how we understand others.

The interdisciplinary major in American Studies introduces students to the rich variety of cultures, languages, and societies of the Americas. Students develop an in-depth knowledge of American culture beginning with core courses introducing interdisciplinary methods, through elective courses in a particular concentration, and synthesized by a capstone seminar.

Graduates with a major in American Studies can expect to work in education, business, journalism, government, and politics. Combined with a science major, the major provides a good background for the health professions. Majors will also be prepared to move on to graduate study in business, education, the humanities, law, and social sciences.

**Requirements for the Major and Minor in American Studies****Requirements for the Major in American Studies (AMR)**

The major in American Studies leads to the Bachelor of Arts degree. Except where noted, all courses offered for the major must be passed with a letter grade of C or higher. Eighteen credits for the major must be earned in courses numbered 300 or higher.

Completion of the major requires 39 credits.

**A. Core Courses**

1. AMR 101 Local and Global: National Boundaries and World-Systems
2. AMR 102 Making American Identities
3. AMR 301 Ethnicity and Race in American History
4. AMR 401 Senior Seminar in American Studies

**B. Study of Another Language**

Six credits (or the equivalent of two semesters) of an intermediate-level language other than English appropriate to the student's intended concentration, to be chosen in consultation with the undergraduate director. All coursework taken to satisfy this requirement must be passed with a letter grade of C- or higher.

**C. Concentration Requirement**

Students must take five courses from one of the following groups, and two additional courses from any other of the groups. At least 12 credits must be at the 300 or 400 level.

**Arts in Societies**

AFH 206 Great Books of the Black Experience  
 AFH 385/HUF 385 French Caribbean Literature  
 AFH 386/HUF 386 Caribbean and American Connection in Literature  
 AFH 249/EGL 249 African American Literature and Music in the 19th and 20th Centuries  
 AFH 329, AFH 300 Pan-African Literature I, II  
 AFH 339/ARH 329 Arts of the African Diaspora

AFS 463, AFS 464 The Media and Black America I, II  
 CLT 235 American Pluralism in Film and Literature  
 CLT 320 Multicultural Experience in American Literature  
 EGL 217, EGL 218 American Literature I, II  
 EGL 226 Contemporary American Literature: 1945 to the Present  
 EGL 320 Literature of the 20th Century  
 EGL 367 Contemporary African American Literature  
 EGL 369 Topics in Ethnic Studies in Literature  
 EGL 378 Contemporary Native American Fiction  
 EGL 379 Native American Texts and Contexts  
 HIS 361 American History/American Film  
 HUI 333/EGL 333 The Italian American Experience in Literature  
 HUI 338 Images of Italian Americans in Film  
 HUS 371 United States Latino Literature  
 HUS 390 Latin American Cinema  
 MUS 320 U.S. Popular Music  
 MUS 304 Contemporary Traditions in American Music: 1900 to the Present  
 MUS 308 History of Jazz  
 MUS 310 Music and Culture of the 1960s

### **American Peoples**

AFS 239 Introduction to the Caribbean Experience  
 AFS 240 Issues in Caribbean Society  
 AFS 395/ANT 395 Religions of the Caribbean  
 ANT 201 Peoples of South America  
 ANT 353 Archaeological Analysis and Interpretation  
 ANT 362 Long Island Archaeology  
 ANT 385 Prehistoric Peoples of the Americas  
 HIS 389 Modern Mexico  
 HIS 421, HIS 422 Colloquia in Latin American History  
 HUS 254 Latin America Today  
 HUS 361 Latin American Literature  
 LAC 200 Introduction to Latin American and Caribbean Studies  
 LIN 200 Language in the United States  
 LIN 307 Sociolinguistics  
 POL 214 Modern Latin America  
 POL 382 Politics and Political Change in Latin America  
 SOC 364 Sociology of Latin America  
 SPN 392 The Culture and Civilization of Spanish America  
 SPN 395, SPN 396 Introduction to Spanish American Literature I, II  
 SPN 405 Issues in Hispanic Cultural Studies  
 SPN 415 Hispanic Cultures in Contact  
 SPN 420 Topics in Spanish and Latin American Cinema  
 SPN 435 Topics in Latin American Literature from the Colonial Period to the Present

### **History and Politics**

AFS 325/HIS 325 The Civil Rights Movement  
 AFS 372 African-American Political Thought  
 AFS 375 Slavery  
 HIS 103 American History to 1877  
 HIS 104 United States Since 1877  
 HIS 213 Colonial Latin America  
 HIS 214/POL 214 Modern Latin America  
 HIS 216/POL 216 History of U.S.-Latin American Relations  
 HIS 250 The Second World War, 1939-1945  
 HIS 262 American Colonial Society  
 HIS 326 History of Popular Culture  
 HIS 362 Making Peace with the Sixties  
 HIS 365 Environmental History of North America  
 HIS 369 American Social History to 1860  
 HIS 370 U.S. Social History, 1860-1930  
 HIS 396 Topics in U.S. History  
 HIS 411 to HIS 414 Colloquia in American History  
 POL 102 Introduction to American Government  
 POL 320 Constitutional Law and Politics: United States  
 POL 324 American Politics Parties and Pressure Groups

POL 325 Civil Liberties and Civil Rights  
 POL 326 Politics of New York State  
 POL 327 Urban Politics  
 POL 328 Criminal Law  
 POL 344 American Political Ideology and Public Opinion  
 POL 367 Mass Media in American Politics

### **Ethnicity, Race, Gender, and Philosophy**

AFH 379/PHI 379 Philosophy of Race  
 AFS 350/WST 350 Black Women and Social Change: A Cross-Cultural Perspective  
 AFS 101, AFS 102 Themes in the Black Experience I, II  
 AFS 277/HIS 277 The Modern Color Line  
 AFS 300 Blacks in the City  
 AFS 310 American Attitudes Toward Race  
 AFS 319 The Politics of Race  
 AFS 360 African American Social Commentary  
 AFS 370 The African American Family  
 ANT 356 Urban Anthropology  
 AFS 380/ANT 380 Race and Ethnicity in Latin America and the Caribbean  
 HIS 333/WST 333 Women in U.S. History  
 HIS 374/WST 374 Historical Perspectives on Gender Orientation  
 HIS 387/WST 387 Women, Development, and Revolution in Latin America  
 HIS 397 Topics in History of U.S. Immigration and Ethnicity  
 HUI 237/WST 237 Images of Italian American Women  
 HUI 236 The Italian American Scene  
 HUI 336 Italian Americans and Ethnic Relations  
 JDS 226/HIS 226 The Shaping of Modern Judaism  
 PHI 310 American Philosophy  
 PHI 378 Philosophical Topics in Asian-American History  
 PHI 383/WST 383 Philosophical Issues of Race and Gender  
 POL 330/WST 330 Gender Issues in the Law  
 POL 347/WST 347 Women and Politics  
 SOC 247/WST 247 Sociology of Gender  
 SOC 302 American Society  
 SOC 310 Ethnic and Race Relations

### **D. Upper-Division Writing Requirement**

All students are required to write a term paper for AMR 301, which is evaluated by the instructor for its evidence of upper-division writing ability. Students whose writing is judged satisfactory will have fulfilled the upper-division writing requirement. Students who do not fulfill the requirement in AMR 301 must submit to the major advisor, no later than the first semester of the senior year, a portfolio of papers written for subsequent upper-division courses taken for the major and must achieve an evaluation of satisfactory on the portfolio.

#### **Notes:**

1. Only three credits of AMR 447 Directed Readings, AMR 487 Independent Research, or AMR 488 Internship may be used to satisfy major requirements.
2. Students should consider the prerequisites to upper-division courses for the major when choosing elective and D.E.C. courses.
3. Other relevant courses, including special topics courses offered by other departments, may be substituted for major requirements with permission of the undergraduate director.

### **The Minor in American Studies**

Interdisciplinary in nature, the minor in American Studies is designed especially for students who wish to add a variety of American perspectives and an overview of American culture to the development of their majors. Students are encouraged to approach American Studies from the perspective of their major. Beyond the four required courses, the minor is organized around the student's interest in a particular area of American Studies. At least 12 of the 21 credits required for the minor must be taken at Stony Brook. The specific distribution of credits should be determined in consultation with the undergraduate director.

### **Requirements for the Minor in American Studies (AMR)**

All courses offered for the minor must be passed with a letter grade of C or higher. Students should consider the prerequisites to upper-division courses for the minor when choosing elective and D.E.C. courses.

Completion of the minor in American Studies requires 21 credits.

1. AMR 101 Local and Global: National Boundaries and World-Systems

2. AMR 102 Making American Identities

3. AMR 301 Ethnicity and Race in American History

4. AMR 401 Senior Seminar in American Studies

5. Three additional courses selected from the approved list of courses (available from the undergraduate director) at the 300 or 400 level, chosen in consultation with the program advisor.

#### Declaration of the Minor

Students must declare the American Studies minor no later than the middle of their junior year, at which time they must consult with the program advisor and plan their course of study for fulfillment of the requirements.

#### Sample Course Sequence - Major in American Studies

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
AMR 101	3	AMR 102	3
Elementary foreign language	3-4	Elementary foreign language	3-4
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16-17	Total	16-17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Intermediate foreign language	3	Intermediate foreign language	3
D.E.C.	3	Concentration requirement	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMR 301	3	Upper-Division concentration	3
Upper-Division Concentration	3	Upper-Division elective	3
Upper-Division D.E.C.	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMR 401	3	Upper Div. elective or AMR 401*	3
Upper-Division concentration	3	Upper-Division concentration	3
Upper-Division D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15

\*If not taken in Fall senior year

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Anthropology (ANT)****Major and Minor in Anthropology****Department of Anthropology, College of Arts and Sciences**

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Minors of particular interest to students majoring in Anthropology: Biology (BIO), China Studies (CNS), History (HIS), Japanese Studies (JNS), Judaic Studies (JDS), Korean Studies (KRS), Middle Eastern Studies (MES), Psychology (PSY)

**Department Information - Anthropology**

Anthropology is a social science that seeks to understand and explain human cultural, behavioral, and biological variation through time and space. This gives anthropology a wide reach and has resulted in the formation of three subdisciplines: cultural anthropology, archaeology, and biological anthropology. Cultural anthropology concentrates on modern human culture and behavior. Archaeology examines cultural and behavioral variation over time through the material culture of past people. Biological anthropology studies the biological evidence for human evolution, encompassing everything from the study of modern non-human primates to the earliest stages of mammalian fossil evolution. The objective of the Anthropology major is to train the student in all three subdisciplines while allowing the student to concentrate in a specific subdiscipline.

Students with a degree in anthropology take several postgraduate paths. Some continue their anthropology training in graduate schools, many at the finest graduate schools in the country. Others pursue, for example, medical school or conservation studies.

The undergraduate program introduces the student to the general field of anthropology, its branches, its theories and methods, and its relation to the other social sciences, the humanities, and the natural sciences. The curriculum emphasizes the fields of cultural anthropology, archaeology, and biological anthropology. Students often have the opportunity to pursue coursework in any of the three fields in different cultural settings. Interested students should contact the director of under-graduate studies for details.

**Requirements for the Major and Minor in Anthropology****Requirements for the Major in Anthropology (ANT)**

The major in Anthropology leads to the Bachelor of Arts degree. Completion of the major requires 36 credits. At least 15 credits must be in upper-division courses (300 level or higher). All major courses (including transfer credits) must be passed with a letter grade of C or higher. ANP/ANT 475, 476, 488, 495, and 496 DO NOT count toward the major requirements.

**A. Study within the Area of the Major****I. Introductory courses:**

Students must take an introductory course in all three subfields offered in the major.

- ANT 102 Introduction to Cultural Anthropology
- ANT 104 Introduction to Archaeology
- ANP 120 Introduction to Biological Anthropology

**II. Subfield courses:**

1. One course in biological anthropology at the 200 level or higher
2. One course in archaeology at the 200 level or higher
3. One course in cultural anthropology at the 200 level or higher

**III. Elective courses:**

- Five additional anthropology courses (200 level or higher)
- One course with anthropologically-relevant content from another department may be substituted with approval of the Anthropology Director of Undergraduate Studies Note: ANP/ANT 447 and 487 can only be counted once (each up to a maximum of 3 credits)

IV. One 400-level seminar chosen from ANP 403, ANP 404, ANP 405, ANT 401, ANT 402, ANT 405, ANT 415, ANT 417, ANT 418, ANT 419 or ANT 420

### B. Upper-Division Writing Requirement

Anthropology majors must submit a paper written for a 300-level or higher ANP/ANT course with an evaluation of S (Satisfactory). This paper must be at least 10 pages (in addition to the cover page and works cited), double-spaced, 1-inch margins, 12 pt font (or less). This paper must be submitted to the Director of Undergraduate Studies after it is graded by the instructor of the course for which it was written. Submit the original paper and attach the cover sheet (available in the Anthropology Main Office).

#### Subfields of Study

##### *Archaeology*

ANT 104, ANT 260, ANT 270, ANT 290, ANT 304, ANT 307, ANT 353, ANT 355, ANT 357, ANT 358, ANT 359, ANT 360, ANT 362, ANT 363, ANT 368, ANT 371, ANT 373, ANT 385, ANT 393, ANT 394, ANT 402, ANT 415, ANT 417, ANT 418, ANT 419, ANT 420.

##### *Biological Anthropology*

ANP 120, ANP 201, ANP 220, ANP 300, ANP 305, ANP 306, ANP 307, ANP 321, ANP 325, ANP 326, ANP 350, ANP 360, ANP 391, ANP 403, ANP 404, ANP 405, ANP 406.

##### *Cultural Anthropology*

ANT 102, ANT 200, ANT 201, ANT 203, ANT 205, ANT 230, ANT 250, ANT 252, ANT 296, ANT 305, ANT 310, ANT 311, ANT 350, ANT 351, ANT 354, ANT 361, ANT 367, ANT 372, ANT 379, ANT 380, ANT 381, ANT 382, ANT 390, ANT 391, ANT 395, ANT 396, ANT 401, ANT 405.

#### Honors Program in Anthropology

The honors program is designed for students preparing to enter a graduate program in anthropology. It is open to Anthropology majors in their junior or beginning senior year who have an excellent academic record (3.00 g.p.a. overall) and a g.p.a. of 3.50 or higher in anthropology courses. The program entails writing a thesis of 20 pages or more. Qualified students are eligible to enroll in the Anthropology honors program at, but preferably before, the beginning of their senior year.

The student, after asking a faculty member to be a sponsor, must submit a proposal indicating the topic and procedure of the planned research to the Departmental honors committee through the director of undergraduate studies. The supervising faculty member must also submit a statement supporting the student's proposal and indicating the merit of the planned research. This must ordinarily be done in the semester prior to the beginning of the student's senior year.

Students register for ANT 495 or ANP 495 in the first semester of their senior year and conduct research for the project. They register for ANT 496 or ANP 496 during the second semester of their senior year. These two courses must be taken in addition to the total credits required for the major. Students must submit a draft of their thesis to their faculty sponsor by April 1 for May graduation or November 1 for December graduation. They must submit an honors thesis of 20 pages or more of fully referenced material to the director of undergraduate studies no later than Monday of the final week of classes (excluding final examination week). Each thesis is read by three faculty members, two of whom must be members of the Department of Anthropology. If the paper is judged to be of sufficient merit and the student's record warrants such a determination, the department recommends honors. The program consists of:

1. Completion of all requirements for the major in Anthropology with a g.p.a. of 3.50 or higher in anthropology courses
2. ANT 495 and ANT 496, or ANP 495 and ANP 496
3. The honors thesis

#### Requirements for the Minor in Anthropology (ANT)

The minor in Anthropology is designed for students majoring in other fields who wish to take anthropology courses relevant to their interests. The student must choose two introductory and five subfield/ elective courses.

At least nine credits must be in upper-division courses. All courses offered for the minor must be passed with a letter grade of C or higher. No transfer credits with a grade lower than C may be applied to the minor requirements. ANP/ANT 475, 476, and 488 DO NOT count toward the minor requirements. No more than one directed readings (ANP/ANT 447) or research course (ANP/ANT 487) may be used (maximum of 3 credits).

Completion of the minor requires 21 credits.

1. Two introductory courses chosen from:

- ANT 102 Introduction to Cultural Anthropology
- ANT 104 Introduction to Archaeology
- ANP 120 Introduction to Biological Anthropology



## 2. Subfield and elective courses

1. Two additional courses chosen from two different subfields (see list of courses/subfields as indicated in the Major requirements above)
2. Three anthropology elective courses

**Sample Course Sequence for Major in Anthropology**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
ANT 102 or ANT 104 or ANP 120	3-4	ANT 102 or ANT 104 or ANP 120	3-4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16-17	Total	16-17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Elective	3	ANT 102 or ANT 104 or ANP 120	3-4
D.E.C.	3	ANP 362	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15-16
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ANT 417	3	ANT 357	3
ANP 201	4	ANP 300	3
ANT 368	3	ANT 381	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	16	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division elective	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Applied Mathematics and Statistics (AMS)**

Major and Minor in Applied Mathematics and Statistics

Department of Applied Mathematics and Statistics, College of Engineering and Applied Sciences

Chairperson: Brent Lindquist

Undergraduate Program Director: Esther Arkin

E-mail: [Esther.Arkin@stonybrook.edu](mailto:Esther.Arkin@stonybrook.edu)

Assistant to the Chair: Janice Hackney

Office: P-139B Math Tower

Phone: (631) 632-8370

Web address: <http://www.ams.stonybrook.edu>

Students majoring in Applied Mathematics and Statistics often double major in one of the following: Computer Science (CSE), Economics (ECO), Information Systems (ISE)

**Applied Math and Statistics (AMS)**

The undergraduate program in Applied Mathematics and Statistics aims to give mathematically oriented students a liberal education in quantitative problem solving. The courses in this program survey a wide variety of mathematical theories and techniques that are currently used by analysts and researchers in government, industry, and science. Many of the applied mathematics courses give students the opportunity to develop problem-solving techniques using campus computing facilities.

About half of the Applied Mathematics majors enter graduate or professional programs, primarily in statistics, operations research, computer science, and business management. Others go directly into professional careers as actuaries, programmer analysts, management trainees, and secondary school teachers.

While some career-oriented course sequences are listed below, students are strongly encouraged to seek faculty advice in coordinating their career plans with their academic programs. In the spring of their junior year, all students contemplating graduate studies, upon graduation or at a later date, should consult with the Department's graduate placement advisor, who assists them in choice of schools and provides information about Graduate Record Examinations, etc. Students considering secondary school mathematics teaching can major in Applied Mathematics and Statistics or in Mathematics.

**Requirements for the Major and Minor in Applied Math and Statistics (AMS)**

Acceptance into the Applied Mathematics and Statistics Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications are accepted directly into the major upon admission to the University. Students who did not apply for the major and those who were not accepted into the major when they entered the University may apply directly to the Department only after completion of AMS 161 or MAT 132 or MAT 142 or MAT 127; AMS 210 or MAT 211; and CSE 110 or CSE 114 or CSE 130 or ESG 111.

Requirements for the Major

The major in Applied Mathematics and Statistics leads to the Bachelor of Science degree. Completion of the major requires approximately 60 credits.

**A. Study Within the Area of the Major**

1. AMS 151, AMS 161 Applied Calculus I, II  
AMS 210 or MAT 211 Applied Linear Algebra  
AMS 261 or MAT 203 or MAT 205 Applied Calculus III

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites:

MAT 125, MAT 126, MAT 127  
or MAT 131, MAT 132  
or MAT 141, MAT 142

2. CSE 110 Introduction to Computer Science  
or CSE 114 Computer Science I  
or CSE 130 Introduction to Programming in C  
or ESG 111 C Programming for Engineering

3. 24 credits of AMS courses numbered 301 and above, or approved non-AMS upper-division mathematically oriented courses, subject to the following constraints:

(a) AMS 301 must be taken

(b) Either AMS 310 (Survey of Probability and Statistics) or AMS 311 (Probability Theory) must be taken  
 (c) At most 6 of the remaining 18 credits can be counted from the following courses: AMS 475, AMS 476, AMS 487, non-AMS upper division mathematically oriented courses. Typical non-AMS upper division mathematically oriented courses are ECO 321, ECO 348, CSE designated courses numbered 301 and above, and MAT designated courses numbered 310 and above.

#### 4. Upper-Division Writing Requirement: AMS 300 Writing in Applied Mathematics

All degree candidates must demonstrate skill in written English at a level acceptable for Applied Mathematics and Statistics majors. AMS students must register for the writing course AMS 300, or submit a technical paper(s) written for other courses. The requirement may also be met by earning a grade of C or higher in a writing course approved by the Department or, if the student has a double major, by satisfying the requirement for the other major.

### B. Study in Related Areas

To gain a background in fields that generate mathematical applications, a minimum of 14 additional credits are chosen from among the course offerings in appropriate social sciences, the natural sciences, and engineering. Courses taken to satisfy item 3 above may not be used to satisfy this requirement. No more than eight of these credits may come from any one department.

#### Grading

All courses taken to satisfy requirements A 1, 2, and 3 above must be taken for a letter grade and passed with a grade of C or higher.

#### Double Majors

The Department urges students in other majors who are considering a double major with AMS first to select individual AMS courses on the basis of their academic interests or career plans. Only after a student has taken several AMS courses should he or she decide on this as a second major.

On the other hand, AMS students are strongly encouraged to double major (or to minor) in another discipline. The most frequent choices of AMS double majors are computer science and economics.

#### Actuarial Science

The AMS major covers the mathematical sciences topics tested in the first actuarial examination and part of the second actuarial examination. For more information about actuarial science as well as study materials to help prepare for actuarial examinations, students should see the Department's actuarial advisor. Also see the Web site <http://www.soa.org> for details.

#### Recommendations for Students Majoring in Applied Mathematics and Statistics

The Department encourages students to have a broad exposure to many types of mathematical reasoning and to its diverse roles in the social and natural sciences. During their first two years, students considering an AMS major are encouraged to take, in addition to the required calculus sequence, two semesters of physics numbered PHY 121 or higher; CSE 110 or CSE 113, CSE 114 or CSE 130 or ESG 111; one other computer course (competence in computer programming is essential for many professional careers); and some economics. At the end of the sophomore year or the beginning of the junior year, students begin taking upper-division AMS courses, usually starting with AMS 301 and AMS 310. At the same time, they are strongly encouraged to continue taking MAT and CSE courses and mathematically oriented courses in other departments, such as ECO 303. The following list of course sequences for certain professions is given as a preliminary guide to students with interests in these professions. Students should speak with faculty members specializing in these areas as early as possible for more information.

Statistics: AMS 301, AMS 310, AMS 311, AMS 312, AMS 315, AMS 316, another CSE course beyond CSE 110 or CSE 114 or CSE 130 or MEC 111; students considering graduate statistics programs should take MAT 310 and MAT 320.

Operations Research or Management Science: AMS 301, AMS 310, AMS 311, AMS 341, and AMS 342; students considering graduate operations research programs should take MAT 310 and MAT 320.

Programmer-Analyst: AMS 301, AMS 310, AMS 311, AMS 321, AMS 326, AMS 341, and CSE 214, CSE 220, and CSE 301.

Secondary Teaching: Students preparing for a career as a teacher of mathematics in the secondary schools enroll in the Mathematics Secondary Teacher Education Program. See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Course Sequence in the Applied Mathematics and Statistics Major

Many students enter the University intending another major and change to the Applied Mathematics and Statistics major, or add it as a second major, toward the end of the sophomore year or in the junior year. Required courses for the major in the first two years are the calculus sequence and linear algebra-virtually the same mathematical requirements as found in the intended majors of students who subsequently switch to Applied Mathematics and Statistics.

The particular set of 300-level AMS courses taken in the junior and senior years by Applied Mathematics and Statistics majors, and the order in which they are taken, is very flexible. Normally, majors take AMS 301 and AMS 310 (the two required 300-level AMS courses) first. For assistance in 300-level AMS course sequences, majors are encouraged to speak with the undergraduate program director.

The Accelerated B.S./M.S. Program in Applied Mathematics and Statistics

The accelerated B.S./M.S. program in applied mathematics and statistics allows students with superior academic records to use up to six graduate credits toward both the B.S. and M.S. degree requirements, thus reducing the normal time required to complete both programs to five years (ten semesters). For detailed program requirements, please refer to the Graduate Bulletin.

The advantage of the accelerated program is that the M.S. degree can be earned in less time than that required by the traditional course of study. The M.S. degree in Applied Mathematics and Statistics normally requires three to four semesters of study after completion of a bachelor's degree. The in-depth training of a master's degree is required by many employers for professional positions in applied mathematics and statistics (beyond beginning programmer analyst jobs).

For more details about the B.S./M.S. program, see the undergraduate program director or graduate studies director in the Department of Applied Mathematics and Statistics.

#### The Combined B.S./M.P.H. Program in Applied Mathematics and Statistics

The combined B.S./M.P.H. program allows students with superior academic records to use up to 12 graduate credits toward both the B.S. in Applied Mathematics and Statistics and the M.A. in Public Health degree requirements, thus reducing the normal time required to complete both programs to five years (ten semesters). For detailed program requirements, please refer to the Graduate Bulletin or contact the undergraduate program director in Department of Applied Mathematics and Statistics or graduate studies director in the Department of Public Health.

#### Requirements for the Minor

The minor in Applied Mathematics and Statistics is designed for students who take a limited amount of mathematics in their major. The AMS minor must include at least 18 credits in courses that are not used to satisfy the requirements of the student's primary major; therefore, students in majors requiring a substantial amount of mathematics may find that a double major with AMS requires fewer credits.

- A. Calculus: AMS 151, AMS 161 (See Note)
- B. Linear algebra: AMS 210 or MAT 211 (Students who took AMS 201 prior to declaring the AMS minor may substitute AMS 201)
- C. Core AMS courses: AMS 301 and AMS 310
- D. AMS electives: three additional 300-level AMS courses

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in requirements for the minor or prerequisites:

MAT 125, MAT 126, MAT 127

or MAT 131, MAT 132

or MAT 141, MAT 142

#### Sample Course Sequence for the Major in Applied Mathematics and Statistics

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	AMS 161*	3
AMS 151*	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	CSE 110*	3
		D.E.C.	3
Total	13	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMS 210	3	AMS 301	3
AMS 261	4	AMS 310	3
D.E.C.	3	Elective	3
D.E.C.	3	AMS Upper-Division elective	3
D.E.C.	3	AMS Upper-Division elective	3
Total	16	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>

AMS Upper-Division elective		3	Upper-Division elective		3
Upper-Division elective		3	Upper-Division elective		3
AMS Upper-Division elective		3	Related Area course**		3
AMS Upper-Division elective or ECO 321	3-4		D.E.C.		3
AMS Upper-Division elective		3	Elective		3
Total	15-16		Total		15
<b>Senior Fall</b>	<b>Credits</b>		<b>Spring</b>		<b>Credits</b>
AMS 300		1	Related Area course**		3
Upper-Division elective		3	Related Area course**		3
Upper-Division elective		3	Elective		3
Related Area course**		3	Elective		3
Related Area course**		3	Elective		3
Elective		3			
Total	16		Total		15

\*See A. 1. for alternate course selections.

\*\*#Consult the department for appropriate courses.

### AMS Faculty

Faculty information for this program can be found at <http://www.ams.sunysb.edu/people/faculty.shtml>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Art History and Criticism (ARH)****Department of Art, College of Arts and Sciences**

Chairperson: Anita Moskowitz

Director of Undergraduate Studies: Barbara Frank

Assistant to the Chair: Laura Sisti

Office: 2224 Staller Center for the Arts Phone: (631) 632-7250

Web address: <http://www.art.sunysb.edu>

Minors of particular interest to students majoring in Art History: French (FRN), German (GER), Cinema and Cultural Studies (CCS), Studio Art (ARS)

Minors of particular interest to students majoring in Studio Art: Digital Arts (DIA), Art History (ARH), Interdisciplinary Arts (LIA), Media Arts (MDA)

**Department of Art**

The Department of Art offers two majors and three minors. They offer a major and minor in art history and criticism, a major and minor in studio art, and a minor in digital arts (see separate listing for DIA minor in this Bulletin).

The undergraduate programs in Art are designed to provide the student with a thorough background in the history and criticism of art, as well as sound training in studio techniques and theory. The courses of study, while allowing students a considerable degree of choice, will also usually fulfill requirements for admission to graduate study or preparation for professional work in the field.

Art History and Criticism majors acquire a thorough foundation in the history of Western art and architecture, from ancient to modern, with tracks also in non-Western art, and such practical aspects of the discipline as gallery management.

Studio Art majors concentrate on the creative, technical, and practical aspects of the discipline, acquiring a broad-based background in drawing, design, painting, and sculpture, plus specialized tracks in ceramics, printmaking, photography, electronic media, and computer imaging. In addition, majors are expected to acquire a sound foundation in art history and criticism with the emphasis on modernism.

Department of Art graduates who go on to work in the discipline usually acquire some postgraduate training, which may include anything from a few additional courses to such advanced graduate degrees as the M.A., M.F.A., or Ph.D. Studio Art graduates hold teaching positions up to and including the college, university, and professional school level; others work as commercial artists, printers, photographers, and designers. Art History and Criticism graduates hold teaching positions in colleges and universities; others work as gallery or museum administrators, or as art critics.

**Degree Requirements - Art History and Criticism****Requirements for the Major in Art History and Criticism (ARH)**

The major in Art History and Criticism (ARH) leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher. Completion of the major requires 39 credits, at least 18 of which must be upper division.

1. Two introductory art history courses:

ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, ca. 1400 A.D.

ARH 102 Art in Culture from the Early Renaissance, ca. 1400, to Postmodernism

2. One or two 400-level seminar courses (ARH 420 or ARH 490)

3. Courses in Art History and Criticism (21-24 credits) distributed to include at least one course in four of the following areas:

a. Ancient and medieval art and architecture: ARH 300, ARH 301, ARH 302, ARH 305, ARH 325

b. Renaissance (14th to 16th century) and Early Modern (17th to 18th century): ARH 306, ARH 307, ARH 310, ARH 314, ARH 315, ARH 316, ARH 320, ARH 337, ARH 390

c. Modern (19th to 20th century) art and architecture: ARH 205, ARH 322, ARH 324, ARH 330, ARH 331, ARH 332, ARH 333, ARH 342

d. Asian, Middle Eastern, African, Oceanic, Native American, and Mesoamerican art and architecture: ARH 201, ARH 203, ARH 317, ARH 318, ARH 319, ARH 326, ARH 328, ARH 329

e. Contemporary Art and Photography, Performance, and Visual Culture: CCS 101, ARH 334, ARH 335, ARH 336, ARH 344, ARH 345, ARH 365, ARH 404

f. Advanced Independent study: ARH 487, ARH 495

4. One of the following (6 credits):

ARS 154, plus one additional ARS course, or Foreign language (especially for students planning graduate work in art history), a year of French or German at the Intermediate level or higher, or another language, after consultation with the Undergraduate Director.

5. Upper-Division Writing Requirement: Students must demonstrate acceptable writing skills before they graduate. Before the end of the second semester of his or her junior year, each student majoring in Art History and Criticism must submit to the director of undergraduate studies three term papers (minimum 5 pages) for art history courses together with each instructor's satisfactory evaluation, confirming that the paper demonstrates advanced writing proficiency suitable for art history majors.

At least two of the papers must have been written for upper-division courses and for different instructors. The student must notify the instructor before each paper is turned in that it is intended to satisfy this requirement in addition to the course requirements. A student anticipating or experiencing difficulty in satisfying this requirement should seek the advice of the director of undergraduate studies as soon as possible.

#### Art Department Residency Requirement

Art History transfer students must take at least 12 upper division ARH credits for the major at Stony Brook.

#### Requirements for the Minor in Art History (ARH)

With the minor in Art History, the student acquires both a broad background in art history and a more thorough knowledge of art history in one or more of the following areas: ancient, medieval, Asian/ African/Oceanic/Native American/Mesoamerican, Renaissance, Baroque, or Modern. All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits in art history, of which at least nine credits must be in upper-division courses.

1. Two introductory Art History courses: ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, ca. 1400 A.D.; ARH 102 Art in Culture from the Early Renaissance, ca. 1400, to Postmodernism
2. An ancient, Middle Eastern, medieval, Asian, African, Oceanic, Native American, or Mesoamerican art course
3. A Renaissance, Baroque, or Modern art course
4. Nine additional credits in art history

#### Sample Course Sequence for the Major in Art History/Criticism

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
ARH 101		3 ARH 102	3
GER 111 or FRN 111, or ARS 154	3-4	GER 112 or FRN 112	4
D.E.C.		3 D.E.C.	3
D.E.C.		3 D.E.C.	3
Total	16-17	Total	17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
One course from list 2.a.		3 One course list 2.c.	3
One course from list 2.b.		3 One course from list 2.d.	3
GER 211 or FRN 211, or ARS elective		3 GER 212 or FRN 212, or ARS elective	3
D.E.C.		3 D.E.C.	3
D.E.C.		3 D.E.C.	3
Total		15 Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
One course from list 2.e.		3 One course from list 2.g.	3
One course from list 2.f.		3 Upper-Division electives in ARH, ARS, HIS, PHI, or languages	6
D.E.C.		3 D.E.C.	3
Elective (PHI or HIS)		3 Elective	3
Upper-Division elective in ARH, ARS, PHI, HIS or language		3 Elective	3
Total		15 Total	15

Senior Fall	Credits	Spring	Credits
Upper-Division ARH courses	12	Upper-Division ARH and other fine arts and humanities courses or social studies courses in areas of special interest or advanced independent studies or special topics or internship	
or Upper-Division independent studies or special topics or internship	3		
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Studio Art (ARS)****Department of Art, College of Arts and Sciences**

Chairperson: John Lutterbie

Director of Undergraduate Studies: Barbara Frank

Assistant to the Chair: Laura Sisti

Office: 2224 Staller Center for the Arts Phone: (631) 632-7250

Web address: <http://www.art.sunysb.edu>

Minors of particular interest to students majoring in Art History: French (FRN), German (GER), Cinema and Cultural Studies (CCS), Studio Art (ARS)

Minors of particular interest to students majoring in Studio Art: Digital Arts (DIA), Art History (ARH), Interdisciplinary Arts (LIA), Media Arts (MDA)

**Department of Art**

The Department of Art offers two majors and three minors. They offer a major and minor in art history and criticism, a major and minor in studio art, and a minor in digital arts (see separate listing for DIA minor in this Bulletin).

The undergraduate programs in Art are designed to provide the student with a thorough background in the history and criticism of art, as well as sound training in studio techniques and theory. The courses of study, while allowing students a considerable degree of choice, will also usually fulfill requirements for admission to graduate study or preparation for professional work in the field.

Art History and Criticism majors acquire a thorough foundation in the history of Western art and architecture, from ancient to modern, with tracks also in non-Western art, and such practical aspects of the discipline as gallery management.

Studio Art majors concentrate on the creative, technical, and practical aspects of the discipline, acquiring a broad-based background in drawing, design, painting, and sculpture, plus specialized tracks in ceramics, printmaking, photography, electronic media, and computer imaging. In addition, majors are expected to acquire a sound foundation in art history and criticism with the emphasis on modernism.

Department of Art graduates who go on to work in the discipline usually acquire some postgraduate training, which may include anything from a few additional courses to such advanced graduate degrees as the M.A., M.F.A., or Ph.D. Studio Art graduates hold teaching positions up to and including the college, university, and professional school level; others work as commercial artists, printers, photographers, and designers. Art History and Criticism graduates hold teaching positions in colleges and universities; others work as gallery or museum administrators, or as art critics.

**Degree Requirements - Art History and Criticism; Art Studio**

Requirements for the Major in Studio Art (ARS)

The major in Studio Art leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher. Completion of the major requires 57 credits.

1. Two introductory art history courses:

ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, ca. 1400 A.D.

ARH 102 Art in Culture from the Early Renaissance, ca. 1400, to Postmodernism

2. ARS 154 Foundations of Drawing

3. ARS 208 Technology in the Arts or ARS 225 Introductory Electronic Media

4. At least six additional credits in art history/criticism, of which at least three must be in modern (i.e., one course from ARH 322, 324, 330, 331, 332, 333, 334, 335, 336, 342, 344, 345)

5. Thirty-nine additional credits in studio art. Fifteen of the required studio credits must be in upper-division courses and twelve must be in one of the following areas of concentration:

a. Painting, Drawing, and Printmaking: ARS 255, 274, 350, 351, 352, 359, 374, 375, 452, 471, 472

b. Digital Arts and Photography: ARS 208, 225, 281, 317, 318, 325, 326, 327, 328, 341, 381, 425, 481, 482

c. Sculpture and Ceramic Sculpture: ARS 256, 264, 364, 365, 366, 465, 466

d. Additional Advanced Study: ARS 475, 476, 487, 488, 491, 492, 495

6. Upper-Division Writing Requirement:

Students must demonstrate acceptable writing skills before they graduate. Before the end of the second semester of his or her junior year, each student majoring in Studio Art must submit to the director of undergraduate studies three term papers (minimum of 5 pages) together with each instructor's satisfactory evaluation, confirming that the paper demonstrates advanced writing proficiency suitable for studio art majors. At least two papers must be from ARH upper-division courses and from different instructors. The third paper can be from ARS or a lower division course. The student must notify the instructor before each paper is turned in that it is intended to satisfy this requirement in addition to the course requirements. A student anticipating or experiencing difficulty in satisfying this requirement should seek the advice of the director of undergraduate studies as soon as possible.

**Art Department Residency Requirement**

Studio Art transfer students must take at least 18 upper division ARS credits for the major at Stony Brook.

### Honors Program in Art

The honors program is open to seniors majoring in Art History and Criticism or Studio Art who have maintained a grade point average of at least 3.00 overall and 3.50 in the major. The student should apply for the honors program before the beginning of the senior year. The student must find a faculty member of the Department to act as sponsor. The student, with the approval of the sponsor, must submit a proposal of a project, in writing, to the Department. Acceptance into the honors program depends on the approval of the proposal by the Department. Selected students for the program must enroll in ARH 495 or ARS 495 for the semester in which they pursue their project.

In the art history/criticism field, the student's research project is supervised by the honors advisor. In the studio art field, the student is expected to prepare a small one-person show or similar project (i.e., one large, more ambitious work) in lieu of a thesis, under the supervision of the honors advisor. The student's project is judged by a jury composed of at least two members of the Department of Art and a faculty member from another department. This pertains to students in both the Art History and Criticism and Studio Art majors. If the honors program is completed with distinction, and the student achieves a 3.50 grade point average in all art courses taken in the senior year, honors are conferred.

### Requirements for the Minor in Studio Art (ARS)

All courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor in Studio Art requires 21 credits.

1. ARS 154 Foundations of Drawing
2. Eighteen additional studio credits, of which at least nine must be upper division

### Sample Course Sequence for the Major in Studio Art

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
ARS 154	3	ARS 200-level elective	3
ARH 101	3	ARH 102	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ARS 208 or 225	3	ARS 300-level elective	3
ARS 200-level elective	3	ARS 300-level elective	3
ARH 342	3	Upper-Division ARH (modern)	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ARS 300-level elective	3	ARS 300-level elective	3
ARS 300-level elective	3	ARS 300-level elective	3
Upper Division ARH	3	ARS elective	3
D.E.C.	3	D.E.C.	3
Upper-Division D.E.C.	3	Upper-Division elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division ARS	6	Upper-Division ARS and ARH courses in area of special interest or advanced directed studio project	6

		or special topics in studio theory and practice	
D.E.C.	3	Electives in other department or internship	6
D.E.C.	3	D.E.C.	3
Upper-Division elective	3		
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Asian and Asian American Studies (AAS)****Major and Minor in Asian and Asian American Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Chairperson: Harsh Bhasin

Director of Undergraduate Studies: Hongkyung Kim

Assistant to the Chair: Darlene Prowse

E-mail: [Darlene.Prowse@stonybrook.edu](mailto:Darlene.Prowse@stonybrook.edu)

Office: 1046 Humanities

Phone: (631) 632-7690

Web address: <http://www.stonybrook.edu/commcms/asian/>

Minors of particular interest to students majoring in Asian and Asian American Studies: Anthropology (ANT), Business (BUS), China Studies (CNS), International Studies (INT), Japanese Studies (JNS), Korean Studies (KOR), Linguistics (LIN), Religious Studies (RLS), Sociology (SOC), South Asian Studies (SOA)

**Department Information - Asian and Asian American Studies**

The interdisciplinary major in Asian and Asian American Studies combines analytical perspectives and research methods of the social sciences and humanities in an integrated curriculum that is based on area studies and ethnic studies scholarship. Students acquire in-depth knowledge of particular regions of Asia, enhanced appreciation of Asian cultures and societies, greater awareness of contemporary issues of global concern facing both Asia and the United States, and a better understanding of the histories, struggles, and contributions of Asian Americans.

The major includes training in a relevant Asian language, a concentration in a specific region of Asia, and courses in various disciplines that converge on an identified theme of study. It complements minors in China Studies, Japanese Studies, Korean Studies, and South Asian Studies, as well as the major and minor in Religious Studies.

Students are encouraged to gain a first-hand experience of living in and studying Asian cultures by participating in Study Abroad programs. Stony Brook offers a summer program in China, Japan and India and academic year programs in China, Japan, and Korea. Similar programs are being planned in other countries.

The academic offerings of the department are complemented by the rich array of resources and programming at the program in China Studies, Center for India Studies, Center for Japan Studies, the Center for Korean Studies, the Asian American Center Bridge, and the Charles B. Wang Center, which collaborate with various academic departments, student groups, community organizations, and individuals to promote a better understanding of Asia and Asian Americans today.

The Department of Asian and Asian American Studies has strong ties with selected academic and cultural organizations in Asia, and Asian and Asian American institutions on Long Island and in the greater New York area. Stony Brook's proximity to the New York City metropolitan area, with its Asian ethnic communities, offers rich opportunities for cultural and intellectual enrichment.

A major in Asian and Asian American Studies will open attractive opportunities for students who plan to pursue a wide range of careers, including the arts, business, education, economics, government, journalism, law, literature, and media. Many students increase their employment opportunities by pursuing a double major. In addition, Asian and Asian American Studies offers challenging opportunities at the graduate and professional school level as well.

**Requirements for the Major and Minor in Asian and Asian American Studies**

The major in Asian and Asian American Studies leads to the Bachelor of Arts degree. All courses taken for the major must be taken for a letter grade and passed with a grade of C or higher. Completion of the major requires 39 credits, including at least 21 upper-division credits.

**A. Language Proficiency**

Majors are required to take six credits (or the equivalent of one year) of college study of an Asian language at the intermediate level or above. Students who already have a pre-established language proficiency in an Asian language can be exempt from this requirement with approval of the Director of Undergraduate Studies, and in that case, they should take two additional AAS courses at 200-level or above.

**B. Core Courses to Asian and Asian American Studies**

Majors are required to take three of the core courses to AAS major, including one course in Asian American Studies:

- AAS 102 Eastern Religions
- AAS 201 Introduction to the Civilization of the Indian Subcontinent
- AAS 216 Introduction to Japanese Studies
- AAS 220 China: Language and Culture
- AAS 232 Introduction to Asian American Fiction and Film

- AAS 217 Introduction to Korean Culture

The choice of core courses may be changed with the approval of the Director of Undergraduate Studies as long as the choice ensures the diversity within AAS and appropriate core knowledge needed for completing the major in AAS.

### C. Areas of Concentration

Majors are required to take fifteen credits from one area of concentration, including at least nine credits from upper-division courses. Students choose their area out of the four areas of concentration for the AAS major.

#### 1) Asian Philosophy and Religions

Courses in this concentration include but are not limited to:

- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 240 Confucianism and Taoism
- AAS 256 Hinduism
- AAS 260 Buddhism
- AAS 271 Religion in Ancient Mesopotamia
- AAS 280 Islam
- AAS 300 Intellectual History of East Asia
- AAS 326 Indian Mythology
- AAS 366 Feminine Spirituality
- AAS 367 Meditation and Enlightenment
- AAS 368 Yoga: Theory and Praxis
- AAS 380 Islamic Classics
- AAS 382 Japanese Buddhism
- AAS 386 Topics in Asian Philosophy
- AAS 387 Islam and Confucianism
- AAS 391 Humanities Topics in Asian and Asian American Studies

#### 2) Literature, Arts, and Culture of Asia

Courses in this concentration include but are not limited to:

- AAS 110 Appreciating Indian Music
- AAS 209 Indian Classical Dance: Bharatanatyam
- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 215 Classical Performing Arts of India
- AAS 232 Introduction to Asian American Fiction and Film
- AAS 319 Arts of China
- AAS 320 Literature of India
- AAS 321 Korean Literature
- AAS 322 Literature of Japan
- AAS 327 Great Epics of India: Ramayana and Mahabharata
- AAS 391 Humanities Topics in Asian and Asian American Studies
- AAS 394 Topics in Asian Art

#### 3) Society and Contemporary Issues

Courses in this concentration include but are not limited to:

- AAS 211 Asian and Asian American Studies Topics in the Social Sciences
- AAS 221 China: Science and Civilization
- AAS 232 Introduction to Asian American Fiction and Film
- AAS 328 Race, Comedy and Asian America
- AAS 338 Contemporary India: History, Politics, and Diplomacy
- AAS 339 Contemporary China: History, Politics, and Diplomacy OR AAS 351 Revolutionary China: Politics, Culture, and Power
- AAS 340 Topics in Asian History
- AAS 347 South Asia Before Colonialism
- AAS 348 Colonial South Asia
- AAS 352 Environmental History of China
- AAS 357 India's Foreign Policy
- AAS 370 Intercultural Communication
- AAS 372 Family, Marriage, and Kinship in China
- AAS 379 Ethnicity and Ecology in China
- AAS 392 Social Science Topics in Asian and Asian American Studies

## 4) Region and Language

Courses in this concentration include but are not limited to:

- AAS 211 Asian and Asian American Studies Topics in the Social Sciences
- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 320 Literature of India
- AAS 321 Korean Literature
- AAS 322 Literature of Japan
- AAS 326 Indian Mythology
- AAS 327 Great Epics of India: Ramayana and Mahabharata
- AAS 330 Language and Society in South Asia
- AAS 338 Contemporary India: History, Politics, and Diplomacy
- AAS 339 Contemporary China: History, Politics, and Diplomacy
- AAS 391 Humanities Topics in Asian and Asian American Studies
- AAS 392 Social Science Topics in Asian and Asian American Studies
- AAS 347 South Asia Before Colonialism
- AAS 348 Colonial South Asia
- AAS 351 Revolutionary China: Politics, Culture, and Power
- AAS 352 Environmental History of China
- AAS 357 India's Foreign Policy
- AAS 370 Intercultural Communication
- AAS 371 Ancient China
- AAS 372 Family, Marriage, and Kinship in China
- AAS 379 Ethnicity and Ecology in China
- AAS 400 Seminar in Korean Studies
- AAS 404 Senior Seminar in China Studies
- CHI 426 Structure of Chinese
- JPN 426 Structure of Japanese

## D. Asian and Asian American Studies Electives

Majors are required to take two electives in AAS to meet the total credit and upper-division credit requirements.

## E. Senior Seminar

Majors are required to take the following course as a capstone requirement:

- AAS 401 Senior Seminar in Asian and Asian American Studies

## F. Upper-Division Writing Requirement

By the end of their junior year, students must complete one upper-division course from requirements C that includes a minimum of ten pages of written English work. Written assignments for the course must be submitted to the Director of Undergraduate Studies for assessment of advanced writing skills appropriate to the major. This review is separate from the evaluation made by the course instructor and has no effect on the course grade.

Notes:

1. A course is used to satisfy only one requirement category.
2. At least 12 of the upper-division credits must be taken at Stony Brook University.
3. Acceptable courses may include, but are not limited to courses with the following designators: ANT, ARH, CCS, CHI, CLT, ENG, HIN, HIS, JPN, KOR, LIN, PHI, POL, RLS, SKT, SOC, THR.

## The Honors Program in Asian &amp; Asian American Studies (AAS)

To be eligible to participate in the honors program, majors must have an overall g.p.a. of 3.00 and an average g.p.a. of 3.50 in AAS through their junior year. An eligible student wishing to write a senior thesis must find a faculty member to act as thesis advisor. The student, with the approval of this advisor, must submit a proposal of a project in writing to the Director of Undergraduate Studies. The deadline for submission of the proposal is April 30 for the spring semester, and November 30 for the fall semester. Selection of candidates and topics is made by a committee within the Department. Students in the honors program must enroll in AAS 495 for the semester in which the thesis is written. The thesis is evaluated by the thesis advisor, and approved by two additional faculty. For further information consult the Director of Undergraduate Studies.

## Chinese and Japanese Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

## Requirements for the Minor in Asian and Asian American Studies (AAS)

The Minor in Asian and Asian American Studies encourages students of any academic major to enhance their knowledge and understanding of Asian cultures, societies, and histories. Students with a minor in Asian and Asian American Studies consult with the Undergraduate Director of Asian and Asian American Studies to select a curriculum of interdisciplinary comparative study that speaks to their particular interests and career goals. All courses for the minor must be taken for a letter grade and passed with a grade of C or higher.

Completion of the minor requires 18 credits, including at least 9 upper-division credits.

A. AAS minors are required to take six credits from the core courses.

- AAS 102 Eastern Religions
- AAS 201 Introduction to the Civilization of the Indian Subcontinent
- AAS 216 Introduction to Japanese Studies
- AAS 220 China: Language and Culture
- AAS 232 Introduction to Asian American Fiction and Film
- AAS 217 Introduction to Korean Culture

The choice of core courses may be changed with the approval of the Director of Undergraduate Studies as long as the choice ensures the diversity within AAS and appropriate core knowledge needed for completing the minor in AAS.

B. AAS minors are required to take nine credits from one area of concentration, including at least six credits from upper-division courses. For available courses, refer to the AAS major requirement C.

1. Asian Philosophy and Religions
2. Literature, Arts, and Culture of Asia
3. Society and Contemporary Issues
4. Region and Language

C. Asian and Asian American Studies Elective

Minors are required to take one elective in AAS to meet the total credit and upper-division credit requirements.

### Sample Course Sequence for the Major in Asian and Asian American Studies

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
Elementary Asian language I	4	Elementary Asian language II	4
Core courses: 1st course	3	Core courses: 2nd course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	17	Total	17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Intermediate Asian language I	3	Intermediate Asian language II	3
Core courses: 3rd course	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Concentration: 1st course	3	Concentration: 3rd course	3

Concentration: 2nd course	3	Concentration: 4th course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AAS 401	3	One upper division in AAS	3
Concentration: 5th course	3	Elective	3
One upper division in AAS	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Astronomy/Planetary Sciences (AST)****Major and Minor in Astronomy/Planetary Sciences****Department of Physics and Astronomy, College of Arts and Sciences**

Chairperson: Laszlo Mihaly

Director of Undergraduate Studies: Abhay Deshpande

Assistant to the Chair: Nathan Leoce-Schappin

Assistant to the Director: Diane Diaferia

Astronomy Coordinator: James Lattimer

E-mail: James.Lattimer@stonybrook.edu

Office: P-110 Graduate Physics

Phone: (631) 632-8100

Web address: <http://www.astro.sunysb.edu>

Minors of particular interest to students majoring in Astronomy: Electrical Engineering (ESE), Electronic, Optical, and Magnetic Materials (EOM), Mathematics (MAT), Optics (OPT), Science and Engineering (LSE)

**Department Information - Astronomy/Planetary Sciences (AST)**

Astronomy is the scientific discipline dedicated to the study of everything in the universe outside the Earth's atmosphere. The undergraduate major leading to the Bachelor of Science degree in astronomy/planetary sciences prepares a student for graduate and professional work. Graduates with a degree in astronomy teach in secondary schools, work in academic, government, and industrial laboratories, and teach and conduct research at colleges and universities.

Course requirements for the B.S. program are listed below and are summarized in the accompanying chart. When the student declares the Astronomy major, the director of undergraduate studies assigns a faculty advisor to the student. This advisor assists the student in the selection of courses. Students should consult frequently with their faculty advisors regarding their progress and regarding appropriate science courses. Because the position of the scientist in society is responsible and complex, the student is cautioned to pay careful attention to general education in the arts, humanities, and social sciences.

**Requirements for the Major in Astronomy/Planetary Sciences**

The major in Astronomy leads to the Bachelor of Science degree. Up to three astronomy or physics courses passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 63 to 66 credits.

**A. Required Astronomy Courses:**

1. AST 203 Astronomy, AST 341 Stars and Radiation, AST 346 Galaxies, AST 347 Cosmology
2. At least six credits from additional AST courses numbered 203 or higher (except AST 248, PHY 277, AST 301, AST 304, AST 389, and AST 475). Up to three credits of AST 287, AST 447, and AST 487 may be used toward this requirement.

**B. Required Physics Courses:**

1. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs (See Note 1)
2. PHY 251/PHY 252 Modern Physics with Laboratory
3. PHY 277 Computation for Physics and Astronomy
4. PHY 300 Waves and Optics
5. PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
6. At least 8 credits from a list of advanced physics-related courses (the current list can be found in the Physics and Astronomy Office).

**C. Mathematics Requirements:**

1. MAT 131, MAT 132 Calculus I, II (See Note 2 below)
2. One of the following: MAT 203 Calculus III with Applications MAT 205 Calculus III AMS 261 Applied Calculus III
3. One of the following: MAT 303 Calculus IV with Applications MAT 305 Calculus IV AMS 361 Applied Calculus IV: Differential Equations

**D. Upper-Division Writing Requirement:**

All students majoring in Astronomy/ Planetary Sciences must submit two papers (term papers or independent research papers) to the Astronomy coordinator for Department evaluation by the end of the junior year. If this evaluation is satisfactory, the student will have fulfilled the upper-division writing requirement.

Notes:

1. The following physics courses are alternatives to PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127 or PHY 141, PHY 142.
2. The following alternate beginning calculus sequences may be substituted for MAT 131, MAT 132 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171. Equivalency for MAT courses achieved by earning the appropriate score on the Mathematics Placement Examination will be accepted as fulfillment of the requirement without the necessity of substituting other credits. For detailed information about the various calculus sequences, see the alphabetical listing for Mathematics, especially "Beginning Mathematics Courses," and the course descriptions.

### Honors Program in Astronomy/Planetary Sciences

Students in the Astronomy/Planetary Sciences major who have maintained a cumulative grade point average of 3.30 through the junior year in courses required for the major may apply to the Department to become candidates for Departmental honors in astronomy/planetary sciences. Candidates for honors in astronomy/planetary sciences must include a sequence of mathematics, physics, or engineering courses approved by the student's advisor following petition by the student.

In addition to the academic program, the student must complete an honors thesis while enrolled in AST 447 or AST 487. The thesis is evaluated by a committee composed of the student's advisor and two other science faculty members including one from outside of the Department. If the honors program is completed with distinction and the student has maintained a minimum 3.30 grade point average in all coursework in natural sciences and mathematics, honors are conferred.

### Requirements for the Minor in Astronomy (AST)

All courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 23 to 24 credits.

1. AST 203 Astronomy
2. AST 205 Introduction to Planetary Sciences
3. Three additional AST courses at the 300 level or higher. No more than one of these may come from AST 301, AST 304, or AST 389.
4. PHY 125 Classical Physics A or PHY 131/PHY 133 Classical Physics I or PHY 141 Classical Physics I: Honors
5. MAT 125 Calculus A or MAT 131 Calculus I or MAT 141 Honors Calculus I or MAT 171 Accelerated Single Variable Calculus or AMS 151 Applied Calculus I

### Sample Course Sequence for the Major in Astronomy/Planetary Sciences

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
AST 100		1 PHY 132/PHY 134 or PHY 142	4
PHY 131/PHY 133 or PHY 141		4 MAT 132 or MAT 142	4
MAT 131 or MAT 141		4 Elective	3
D.E.C.		3 D.E.C.	3
Total		16 Total	18
Sophomore Fall	Credits	Spring	Credits
PHY 251/PHY 252		4 PHY 306	3
MAT 205 or AMS 261		3 MAT 305 or AMS 361	3
AST 205 or D.E.C.		3 AST 200	1
PHY 277		3 AST 203	4
D.E.C.		3 D.E.C.	3
Total		16 Total	14
Junior Fall	Credits	Spring	Credits

AST 341 or AST 443*	3-4	AST 347 or AST 346*	3
MAT elective		PHY 308	3
PHY 301		PHY 300	3
PHY 303		D.E.C.	3
D.E.C. or AST 205		Upper-Division elective	3
Total	15-16	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AST 443 or AST 341*	3-4	AST 346 or AST 347*	3
D.E.C.		D.E.C.	3
D.E.C.		D.E.C.	3
Elective		Upper-Division elective	3
Upper-Division elective		Elective	3
Total	15-16	Total	15

\*AST 341 and AST 443 are offered in alternate fall semesters. AST 346 and 347 are offered in alternate spring semesters.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Major in Athletic Training (HAL)****School of Health Technology and Management**

Program Director: Kathryn Koshansky

Assistant to the Program Director: Carol Sliwkoski

Office: G-33 Indoor Sports Complex

Phone: (631) 632-2837

Email: Carol.Sliwkoski@stonybrook.edu

Web Address: <http://www.hsc.stonybrook.edu/shtm>

**Athletic Training**

The program is designed for students interested in becoming a Certified Athletic Trainer (ATC). The ATC works with physicians and other medical personnel, employers, patients, parents, guardians, and athletic personnel in the development and coordination of efficient and responsive health care delivery systems. Athletic trainers are integral members of the health care team in secondary schools, colleges and universities, professional sports programs, sports medicine clinics, corporate/industrial, and other health care settings.

The athletic trainer's professional preparation is based on the development of specified educational competencies and clinical proficiencies. Through a combination of formal classroom and clinical instruction and clinical experience, the athletic trainer is prepared to provide health care within each of the following content areas: risk management and injury prevention; pathology of injuries and illnesses; clinical examination and diagnosis; acute care of injury and illness; pharmacology; therapeutic modalities; therapeutic and rehabilitative exercise; general medical conditions and disabilities; nutritional aspects of injury and illness; psychosocial intervention and referral; health care administration; and professional development and responsibilities. In addition, all students are required to fulfill their clinical education requirements under the direct supervision of an approved clinical instructor. Major emphasis is placed on the development of psychomotor skills in addition to cognitive knowledge. Required courses include practicum, laboratory, and clinical rotations. The curriculum prepares students for the Board of Certification, Inc. (BOC) examination. Upon passing this examination, an individual may apply for certification by the New York State Education Department Office of Professions.

**Pre-Application Requirements for the major in Athletic Training**

1. 3 credits of English composition: WRT 102
2. 6 credits in the arts and/or humanities, excluding studio, skills, and techniques courses
3. 6 credits of psychology: PSY 103, PSY 201
4. 8 credits of chemistry with labs
5. 8 credits of biology with labs (to include one course in human physiology) Note: Students completing the courses at Stony Brook should take BIO 202, BIO 203, BIO 204)
6. 8 credits of physics with labs
7. 3 credits of math: MAT 125
8. CPR at the professional level
9. 50 observational hours with a certified athletic trainer
10. 2.50 cumulative g.p.a

The program also requires candidates to successfully complete each of the following courses with a grade of B or higher:

HAL 205 Introduction to Athletic Training

HAL 210 Emergency Care of Athletic Injuries

HAL 300 Kinesiology

ANP 300 Human Anatomy

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Atmospheric and Oceanic Sciences (ATM)****Major in Atmospheric and Oceanic Sciences****School of Marine and Atmospheric Sciences (SoMAS)**

Interim Dean and Director: Minghua Zhang

Director of Undergraduate Studies: Mary I. Scranton

Assistant to the Director: Carol Dovi

Coordinator of Atmospheric Studies Program: Brian A. Colle

Education Office: 105 Endeavour Hall

Phone: (631) 632-8681

E-mail: somasugrad@stonybrook.edu

Web address: <http://www.somas.stonybrook.edu>

**Department Information - Atmospheric and Oceanic Sciences**

SoMAS is one of the nation's leading coastal oceanographic and atmospheric institutions, and the expertise of SoMAS' faculty places Stony Brook in the forefront in addressing and answering questions about regional environmental problems, as well as problems relating to the global ocean and atmosphere. The primary focus of the SoMAS faculty is on fundamental research designed to increase understanding of the processes that characterize the coastal ocean and the atmosphere. SoMAS faculty are also committed to applying the results of research to solve problems arising from society's uses and misuses of the environment. SoMAS includes mission-oriented institutes in several major areas: the Institute for Terrestrial and Planetary Atmospheres, the Living Marine Resources Institute, the Institute for Ocean Conservation Science, the Long Island Groundwater Resource Institute, and the Waste Reduction and Management Institute. These institutes add a wealth of varied resources to education and research.

The SoMAS offers undergraduate majors in atmospheric and oceanic sciences, environmental studies, marine sciences, and marine vertebrate biology; and minors in environmental studies and marine sciences. See the separate entries for environmental studies (ENS), marine sciences (MAR), and marine vertebrate biology (MVB) in the alphabetical listings of Approved Majors, Minors, and Programs. The SoMAS also offers several cooperative programs with departments in the College of Arts and Sciences (Chemistry, Biology, and Geosciences) and the College of Engineering and Applied Sciences (Chemical and Molecular Engineering). See the entries for those programs in the alphabetical listings of Approved Majors, Minors, and Programs for more information. Research opportunities in marine sciences, atmospheric sciences, environmental studies, and waste management are available to undergraduates. Information on research opportunities may be found by contacting faculty directly or on the SoMAS Web site at <http://www.somas.stonybrook.edu/>.

**Requirements for the Major in Atmospheric and Oceanic Sciences (ATM)**

The major in Atmospheric and Oceanic Sciences leads to the Bachelor of Science degree. Two tracks of study are available in the major. One is intended for students wishing to learn about the physical behavior of the atmosphere and its application to weather forecasting and the other track is for students who wish to learn about physical phenomena in the atmosphere and the oceans and their interactions.

Completion of the major requires approximately 65 credits. Of the 65 credits required for the major, at least 61 credits must be passed with a letter grade of C or higher.

The core courses for both tracks are as follows:

**A. Required Courses in Mathematics, Chemistry, Physics, and Computer Science**

1. MAT 131 and MAT 132 Calculus I and II (See note below)
2. MAT 203 Calculus III with Applications or MAT 205 Calculus III or AMS 261 Applied Calculus III
3. CHE 131 General Chemistry I or CHE 141 Honors Chemistry I
4. PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 Classical Physics A, B, and C or PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I and II with labs or PHY 141, PHY 142 Classical Physics I and II: Honors
5. PHY 277 Computation for Physics and Astronomy or ESG 111 C Programming for Engineers or CSE 130 Introduction to Programming in C

**B. Required Departmental Courses:**

1. ATM 205 Introduction to Atmospheric Sciences
2. ATM 247 Atmospheric Structure and Analysis
3. ATM 345 Atmospheric Thermodynamics and Dynamics
4. ATM 348 Atmospheric Physics
5. ATM 397 Air Pollution and Its Control
6. MAR 334 Remote Sensing
7. MAR 350 Ocean Physics

**Additional Requirements for the Meteorology Track:**

CHE 132 General Chemistry II or CHE 142 Honors Chemistry II  
 MAT 303 or MAT 305 Calculus IV with applications or AMS 361 Applied Calculus  
 ATM 346 Advanced Atmospheric Dynamics  
 ATM 347 Advanced Synoptic Meteorology  
 PHY 251 Modern Physics or ATM 320 Spatial Data Analysis Using Matlab

In this track, students learn both the mathematics and physics governing atmospheric behavior and apply this knowledge to forecasting the weather using real-time data received at our weather laboratory. Opportunities are available for students to gain additional practical experience by working under cooperative agreements at two nearby NOAA weather forecasting installations as well as local TV stations. Students graduating in this track will have satisfied all of the coursework recommended by the American Meteorological Society for undergraduate training in meteorology and also the course work required by NOAA for certification as an entry-level government meteorologist. Students graduating in this track will have taken the coursework necessary for graduate study leading to degrees that prepare them for research and teaching positions in the atmospheric sciences. Students are also prepared for positions in other technically related fields.

**Additional Requirements for the Atmosphere/Ocean Track:**

AMS 102 Elements of Statistics  
 AMS 394 Statistical Lab or AMS 210 Linear Algebra  
 ATM 320 Spatial Data Analysis Using Matlab  
 MAR 333 Coastal Oceanography  
 MAR 340 Environmental Problems and Solutions or ENS 301 Contemporary Environmental Issues

This track is not intended for students who are interested in the NOAA/ National Weather Service or graduate school in atmospheric science. Rather, students graduating in this track receive a solid background in statistics, atmospheric science, and oceanography and are therefore well qualified for jobs in the private sector (instrument companies, weather and climatology consultants, weather support for major industry such as airlines and utilities, as well as forecast and climate modeling companies). The ocean-related courses also help those students who are interested in the M.S. graduate program in physical oceanography. Students are also prepared for positions in other technically related fields.

Note: The following alternate beginning calculus sequences may be substituted for major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 for MAT 131, MAT 132. Equivalency for MAT courses achieved by earning the appropriate score on a placement test is accepted as fulfillment of the requirement without the necessity of substituting other credits. For more detailed information about the various calculus sequences, see "Beginning Mathematics Courses" under the Mathematics Department in this Bulletin.

**C. Upper-Division Writing Requirement:**

All students majoring in Atmospheric Sciences/Meteorology must submit two papers from required departmental courses (term papers, laboratory reports, or independent research papers) to the director of undergraduate studies for evaluation by the end of the junior year. If this evaluation is satisfactory, the student has fulfilled the upper-division writing requirement. If it is not, the student must fulfill the requirement before graduation.

**Honors Program in Atmospheric Sciences**

Graduation with departmental honors in Atmospheric Sciences requires the following:

1. Students are eligible to participate in the Honors Program if they have a 3.50 GPA in all courses for the major by the end of the junior year. Students should apply to the SoMAS undergraduate director for permission to participate.
2. Students must prepare an honors thesis based on a research project written in the form of a paper for a scientific journal. A student interested in becoming a candidate for honors should submit an outline of the proposed thesis research project to the SoMAS undergraduate director as early as possible, but no later than the second week of classes in the last semester. The student will be given an oral examination in May on his or her research by his or her research supervisor and the undergraduate research committee. The awarding of honors requires the recommendation of this committee and recognizes superior performance in research and scholarly endeavors. The written thesis must be submitted before the end of the semester in which the student is graduating.
3. If the student maintains a GPA of 3.5 in all courses in their major through senior year and receives a recommendation by the undergraduate research committee, he or she will receive departmental honors.

**Sample Course Sequence for the Major in Atmospheric and Oceanic Sciences (Meteorology Track)**

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 131	4	MAT 132	4
CHE 131 or 141	4	CHE 132 or 142	4

PHY 131/133 or PHY 141	4	PHY 132/134 or PHY 142	4
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ATM 205	3	ATM 247	3
MAT 203 or 205 or AMS 261 or PHY 251	4	MAT 203 or 205 or AMS 261 or PHY 251 or ATM 320	4
PHY 277 or ESG 111 or CSE 130	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ATM 345	3	ATM 346	3
MAT 303 or 305 or AMS 361	3	ATM 348 or 397	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ATM 347	3	ATM 348 or 397	3
MAR 334	3	MAR 350	2
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	14

### Sample Course Sequence for the Major in Atmospheric and Oceanic Sciences (Oceanography Track)

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 131	4	MAT 132	4
CHE 131 or 141	4	AMS 102	3
PHY 131/133 or PHY 141	4	PHY 132/134 or PHY 142	4
Total	16	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ATM 205	3	ATM 247	3
MAT 203 or 205 or AMS 261	4	MAT 203 or 205 or AMS 261	4
PHYS 277 or ESG 111 or CSE130	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16

<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ATM 345	3	ATM 320 or 348	3
AMS 394 or AMS 210	3	MAR 333	3
D.E.C.	3	MAR 340 or ENS 301	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAR 334	3	ATM 397	3
Upper-Division elective	3	MAR 350	2
Elective	3	ATM 320 or 348	3
Elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	14

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Biochemistry (BCH)****Major in Biochemistry****Department of Biochemistry and Cell Biology; College of Arts and Sciences**

Undergraduate Biology web address: <http://www.bio.sunysb.edu>

Minors of particular interest to students majoring in Biochemistry: Biomaterials (BES), Bioengineering (BNG), Chemistry (CHE), Health and Wellness (LHW), Science and Engineering (LSE)

**Department of Biochemistry and Cell Biology**

Interim Chairperson: Robert Haltiwanger

Assistant to the Chair: Carol Juliano

Director of Undergraduate Studies: Harvard Lyman

Email: [Harvard.Lyman@stonybrook.edu](mailto:Harvard.Lyman@stonybrook.edu)

Office: 450 Life Sciences Building

Phone: (631) 632-8550

Web address: <http://www.stonybrook.edu/biochem/undergraduate/index.html>

**Departments of Biochemistry and Cell Biology**

The Biochemistry Program

The Biochemistry Undergraduate Major Program provides a challenging and exciting introduction to the chemical basis of biological phenomena.

The major is designed to prepare students who intend to pursue graduate study, attend health-related professional schools, pursue secondary school teaching careers, and fill entry-level positions in private, state, and federal laboratories or in pharmaceutical and biotechnical industries.

The undergraduate curriculum provides a fundamental background in biology, chemistry, genetics, cell biology, and biochemistry, with courses in mathematics and physics necessary for advanced understanding of this broad field. Students may not declare a double major among biochemistry, biology, and pharmacology majors.

**Requirements for the Major in Biochemistry (BCH)**

All courses offered for the major must be taken for a letter grade. A minimum grade of C must be obtained in all courses in requirements A, B, and C below. Completion of the major requires approximately 70 to 74 credits.

Transfer students who wish to complete the requirements for the Biochemistry major must take Biochemistry I and II (BIO 361 and 362) and must complete at least a minimum of nine additional credits at Stony Brook in required upper-division Biology courses (BIO 310, 320, 311, or 365) and/or approved upper-division Biology elective courses.

**A. Courses in Related Fields**

1. CHE 131, CHE 132 General Chemistry or CHE 141, CHE 142 Honors Chemistry
2. CHE 133, CHE 134 General Chemistry Laboratory or CHE 143, CHE 144 Honors Chemistry Laboratory
3. CHE 321, CHE 326 Organic Chemistry I, IIB (See Note)
4. CHE 327 Organic Chemistry Laboratory A or CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques
5. CHE 301 or CHE 312 Physical Chemistry
6. MAT 125, MAT 126, MAT 127 Calculus A, B, C or MAT 131, MAT 132 Calculus I, II or MAT 141, MAT 142 or MAT 171 or level 9 on mathematics placement examination.
7. PHY 121/PHY 123, PHY 122/PHY 124 Physics for the Life Sciences and Labs or PHY 125, PHY 126, PHY 127 Classical Physics A, B, C or PHY 141, PHY 142 Classical Physics I, II: Honors

Note: The Chemistry Department offers two Organic Chemistry II Courses, CHE 322 (IIA) and CHE 326 (IIB). Biochemistry majors must take CHE 326 Organic Chemistry IIB. B. Core Courses in Biology

1. BIO 201 Fundamentals of Biology: Organisms to Ecosystems
2. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
3. BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
4. BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I
5. BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences II

Note: Beginning in fall 2007 BIO 201, BIO 202, and BIO 203 will be only lecture courses. Two new laboratory classes, BIO 204 and BIO 205, will be required of all biochemistry majors. Students having completed one or fewer of BIO 201, BIO 202, BIO 203 prior to Fall 2007 must complete BIO 204 and BIO 205; Students having completed two or more of BIO 201, BIO 202, BIO 203 prior to Fall 2007 are exempt from completing BIO 204 or BIO 205. C. Advanced Courses in Biology

1. BIO 320 General Genetics (See Note 1)

2. BIO 310 Cell Biology
3. BIO 361, BIO 362 Biochemistry I,II (See Note 2)
4. One of the following laboratories: BIO 365 Biochemistry Laboratory (fall only, See Note 3) BIO 311 Techniques in Molecular and Cellular Biology
5. Two additional courses, totaling at least five credits, chosen after consultation with an advisor from the following list. It is highly recommended that students take more than the suggested minimum number of electives. (See Note 2)
  - BCP 401 Principles of Pharmacology
  - BCP 402 Advanced Pharmacology
  - BIO 311 Techniques in Molecular and Cellular Biology or
  - BIO 365 Biochemistry Laboratory (See Note 3)
  - BIO 314 Cancer Biology BIO
  - 315 Microbiology BIO
  - 316 Molecular Immunology BIO
  - 317 Principles of Cellular Signaling
  - BIO 325 Animal Development BIO
  - 328 Mammalian Physiology BIO
  - 334 Principles of Neurobiology BIO
  - 339 Molecular Development of the Nervous System
  - BIO 358-H Biology of Human Social and Sexual Behavior
  - BME 304 Genetic Engineering
  - CHE 346 Bio-molecular Structure and Activity
  - HBP 390 Basic Mechanisms in Pathology

## Notes:

1. BIO 361 and BIO 362 must be taken in order. Students who wish to take BIO 362 before BIO 361 must get permission from the course instructor. A grade of C or higher in BIO 202 and CHE 321 & CHE 326 or CHE 322 is required to enroll in BIO 361 and BIO 362.
2. A grade of C or higher in BIO 202 is required to enroll in BIO 320.
3. BIO 365 cannot count for both laboratory and elective credit.

## D. Upper-Division Writing Requirement

To fulfill the upper-division writing requirement in Biochemistry, a sample of writing from an upper-division course in the biological sciences must be submitted to the Department of Biochemistry and Cell Biology for evaluation by the Biochemistry Writing Evaluation Committee. This writing sample can be a graded laboratory report, a graded term paper, or a report for a readings or research course, and it must contain at least 750 words of text. It is to be accompanied by a form (available in the Biochemistry and Cell Biology office) signed by the student and by the instructor of the course for which the material was written. The deadline for submission of the writing sample is February 1 for students graduating the following May or August, and October 1 for students graduating the following December. If the writing in this sample is judged satisfactory by the Writing Evaluation Committee, the requirement is fulfilled. If the writing is judged unsatisfactory, the student is advised to seek help from the Writing Center before resubmitting the writing sample.

**Honors Program in Biochemistry**

Graduation with Honors in Biochemistry requires the following:

1. A cumulative g.p.a. of at least 3.50 in all courses required for the major.
2. Presentation of an acceptable thesis based on laboratory research project. Students interested in graduation with Honors must contact the Biochemistry Honors Coordinator for more detailed information no later than the second week of classes during their last semester.

**Bachelor of Science Degree in Biochemistry/Master of Science Degree in Chemistry Program**

A student interested in this research intensive graduate program, intended to prepare students for professional employment in the chemical or pharmaceutical industries, may apply for admission at the end of the junior year. The program leads to a Bachelor of Science Degree in Biochemistry at the end of the fourth year, followed by a Master of Science in Chemistry at the end of the fifth year. During the senior year the student is expected to take two 500-level CHE courses and begin research. In the fifth year, the student works full-time on research, earning 24 credits in CHE 599. The two 500-level CHE courses taken during the senior year may be counted toward the two electives required by the Biochemistry major.

**Sample Course Sequence for the Major in Biochemistry**

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
CHE 131		4 BIO 201, 202, or 203	3
CHE 133		1 CHE 132	4
MAT 125 or 131	3-4	CHE 134	1
D.E.C.		3 MAT 126 or 132	3-4
		D.E.C.	3

Total	15-16	Total	18-19
Sophomore Fall	Credits	Spring	Credits
BIO 201 or 202	3	BIO 201 or 202 or 203	3
CHE 321	4	CHE 326	4
MAT 127 (if MAT 125, 126, 127 sequence taken)	3	CHE 327	2
BIO 204	2	BIO 205	2
D.E.C.	3	D.E.C.	3
Total	15	Total	14
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BIO 361*	3	BIO 362*	3
BIO elective**** or BIO 365 or 311****	2-3	BIO 310 or 320	3
PHY 121/123	4	PHY 122/124	4
D.E.C.	3	D.E.C.	3
D.E.C.	3	BIO elective****	3
Total	15-16	Total	16
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 301**	3	BIO 310 or 320	3
BIO 365 or 311***	2-3	CHE 312**	3
D.E.C.	3	BIO elective****	3
D.E.C.	3	D.E.C.	3
D.E.C. or BIO elective****	3	D.E.C. or Elective	3
Total	14-15	Total	15

\*BIO 361 and 362 should be taken in sequence.

\*\*CHE 301 is offered only in the fall; CHE 312 is offered only in the spring

\*\*\*BIO 365 is 2 credits; BIO 311 is 3 credits

\*\*\*\*BIO electives for the major must be chosen from the approved list. Electives not on the list must be approved by a Biochemistry advisor

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Bioengineering (BNG)****Minor in Bioengineering****Department of Biomedical Engineering, College of Engineering and Applied Sciences**

Chairperson: Clinton Rubin

Undergraduate Program Director: Molly Frame

Undergraduate Program Assistant: Wendy Scharf

Office: HSC T18-030

Phone: (631) 444-3821

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Web address: <http://www.bme.sunysb.edu/bme>

**Bioengineering (BNG)**

The Bioengineering minor with track specialization is designed for College of Arts and Sciences students who wish to obtain a more thorough understanding of how physical forces in the natural world influence biological systems. Coursework introduces these concepts and shows how an engineering approach can be useful in dealing with questions in biology and medicine. The program serves as an excellent background for students who wish to prepare for graduate study in bioengineering or a related field, or for a career in which an understanding of engineering concepts would provide an advantage.

**Requirements for the Minor in Bioengineering (BNG)**

All courses for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 19 credits.

**A. Required Courses for each Track**

1. BME 100 Introduction to Biomedical Engineering
2. ESG 111-C Programming for Engineers (or equivalent)

**B. Specialization Tracks**

1. Biomaterials/Biomechanics
  1. MEC 260 Engineering Statics
  2. BME 303 Biomechanics
  3. AMS 261 Applied Calculus III (or equivalent)
  4. Either BME 304-H Genetic Engineering or BME 381 Nanofabrication in Biomedical Applications
2. Bioelectricity
  1. ESE 271 Electrical Circuit Analysis I
  2. BME 301 Bioelectricity
  3. AMS 210 Applied Linear Algebra (or equivalent)
  4. BME 313 Bioinstrumentation
3. Molecular/Cellular
  1. BME 304-H Genetic Engineering
  2. BME 381 Nanofabrication in Biomedical Applications
  3. ESG 332 Materials Science I: Structure and Properties of Materials
  4. Either BME 353 (ESM 353) Biomaterials: Manufacture, Properties, and Applications or BME 404 Essentials of Tissue Engineering or BME 430 Engineering Approaches to Drug and Gene Delivery

**C. Upper Division Courses**

1. One advanced biology lecture course
2. One advanced biology laboratory course

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Biology (BIO)

### Major and Minor in Biology

#### Departments of Biochemistry and Cell Biology, Ecology and Evolution, Neurobiology and Behavior, and Undergraduate Biology Program; College of Arts and Sciences

Minors of particular interest to students majoring in Biology: Biomaterials (BES), Bioengineering (BNG), Chemistry (CHE), Environmental Studies (ENS), Health and Wellness (LHW), Science and Engineering (LSE)

#### The Undergraduate Biology Program

Director: John Peter Gergen

Assistant Director: Paula Di Pasquale-Alvarez

Advisors: Ellen Lopez ([ellen.lopez@stonybrook.edu](mailto:ellen.lopez@stonybrook.edu)) and Corey Fortcher ([corey.fortcher@stonybrook.edu](mailto:corey.fortcher@stonybrook.edu))

Office: Biology Learning Laboratories, Undergraduate Biology Office Suite, Rooms 107-112

Phone: (631) 632-8530

Web address: <http://www.stonybrook.edu/biology>

#### Department of Biochemistry and Cell Biology

Chairperson: Robert Haltiwanger

Assistant to the Chair: Carol Juliano

Web address: <http://www.stonybrook.edu/biochem>

#### Department of Ecology and Evolution

Chairperson: Walter Eanes

Assistant to the Chair: Donna DiGiovanni

Web address: <http://life.bio.sunysb.edu/ee>

#### Department of Neurobiology and Behavior

Chairperson: Lorna W. Role

Assistant to the Chair: Catherine Costanzo

Web address: <http://neurobiology.informatics.sunysb.edu>

### The Undergraduate Biology Program

Biology is the study of organisms, including the molecular and cellular basis of life, development of the individual and its genetic basis, maintenance of the individual, and interaction of organisms with their biotic and physical environment.

The Biology (BIO) major builds on a strong foundation in chemistry, mathematics and physics to introduce students to the concepts and methodologies associated with multiple levels of biological complexity. Students explore the Fundamentals of Biology through three foundational courses that provide a thorough introduction to organisms, ecosystems, cellular and molecular biology, and physiology. These courses are complemented by an innovative two semester, inquiry-based biology laboratory curriculum designed to develop skills in the collection and analysis of data from biological experiments, including explorations into the primary scientific literature and capstone student-designed experiments on human physiology. This core foundation is followed by advanced course and laboratory work with an opportunity to specialize in any of several areas, including: Developmental Genetics, Ecology and Evolution, Environmental Biology, Neuroscience, Interdisciplinary Biological Sciences, Quantitative Biology and Bioinformatics, and Bioengineering. Biology majors are encouraged to explore research opportunities in biology, typically beginning in their second or third year.

Information related to the BIO major and minor is available from the Undergraduate Biology Office and website: <http://www.stonybrook.edu/biology>. The office processes completed forms and petitions concerning the Biology major and minor and all requests for evaluations of transferred biology courses. The Undergraduate Biology office also coordinates advising, BIO course administration and registration and processes graduation clearances for BIO major and minor requirements.

Most students majoring in biology prepare for professional study in the biological or health sciences. Some prepare for secondary school teaching, and others for technical positions in industry, including biotechnology, government agencies, and research institutes. Students may not declare a double major among Biology, Biochemistry, Pharmacology, Marine Sciences and Marine Vertebrate Biology.

#### Requirements for the Major in Biology (BIO)

Completion of the major requires approximately 70 credits, including foundational courses in chemistry, mathematics and physics. At least one semester of the two-semester sequences of required courses in calculus, general chemistry lecture, organic chemistry lecture, and physics lecture/lab must be passed with a letter grade of C or higher. Completion of the BIO major requires a minimum of 33 credits of core and advanced courses in biology. A list of advanced courses in biology from other Departments that are accepted for BIO major credit is provided below. All core and advanced courses in biology must be taken for a letter grade and passed with a grade of C or higher with the exception of 400 level Reading, Research and Teaching Practica courses that are graded on an S/U basis. Biology majors must meet the major requirements as published in the official undergraduate Bulletin for the semester in which the student declares the major or minor. Requests for a waiver of major or minor requirements may be granted at the discretion of faculty.

#### A. Foundational Courses in Related Fields

1. CHE 129/CHE 130, CHE 132 General Chemistry IA, II or CHE 131, CHE 132 General Chemistry IB, II or CHE 141, CHE 142 Honors Chemistry I, II
2. CHE 133, CHE 134 General Chemistry Laboratory I, II, or CHE 143, CHE 144 Honors Chemistry Laboratory I, II
3. CHE 321, CHE 322 Organic Chemistry I, IIA or CHE 321, CHE 326 Organic Chemistry I, IIB

4. CHE 327 Organic Chemistry Laboratory or CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques
5. MAT 125, MAT 126 Calculus A, B or MAT 131, MAT 132 Calculus I, II or MAT 141, MAT 142 Honors Calculus I, II or MAT 171 Accelerated Single Variable Calculus or level 8 or 9 on the Mathematics Placement Examination.
6. PHY 121/PHY 123, PHY 122/PHY 124 Physics for Life Sciences I, II and labs or PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and labs or PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141, PHY 142 Classical Physics I, II: Honors
7. BIO 211 Statistics and Data Analysis or AMS 110 Probability and Statistics in Life Sciences or AMS 310 Survey of Probability and Statistics

### B. Core Courses in Biology

1. BIO 201 Fundamental of Biology; Organisms to Ecosystems
2. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
3. BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
4. BIO 204 and BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences I and IIA or BIO 204 and BIO 207 Fundamentals of Scientific Inquiry in the Biological Sciences IIB

### C. Advanced Courses in Biology

The Biology Program offers a large number of advanced courses on a diverse range of topics including both lecture and laboratory courses, as well as a number of 4 credit courses that combine a 3 credit lecture with a 3 hour lab. The advanced BIO courses are listed below in groupings that correspond to four broad areas of biology. Programs of study in the BIO major are organized into 7 Specializations that promote in-depth explorations of different areas while also insuring a breadth of exposure to other areas in the biological sciences. The standard program of study includes 5 advanced BIO lecture courses and 2 advanced BIO laboratory courses. The specific program of advanced courses is dependent on the area of Specialization, and may also include the option to use advanced elective courses from other Departments to count towards the BIO major. The 7 Specializations are: Developmental Genetics; Ecology and Evolution; Environmental Biology; Neuroscience; Interdisciplinary Biology; Quantitative Biology and Bioinformatics, and Bioengineering. The requirements for each Specialization are provided after the list of Advanced BIO courses. A complete list of courses from other Departments that are accepted as advanced electives for the BIO Major is provided after the requirements for the different Specializations.

Advanced BIO Courses:

Area I: Biochemistry, Molecular and Cellular Biology:

- BIO 310 Cell Biology (Lecture)
- BIO 311 Techniques in Molecular and Cellular Biology (Laboratory)
- BIO 312 Bioinformatics and Computational Biology (Laboratory)
- BIO 314 Cancer Biology (Lecture)
- BIO 315 Microbiology (Lecture)
- BIO 316 Molecular Immunology (Lecture)
- BIO 320 General Genetics (Lecture)
- BIO 361 Biochemistry I (Lecture)
- BIO 362 Biochemistry II (Lecture)
- BIO 364 Laboratory Techniques in Cancer Biology (Laboratory)
- BIO 365 Biochemistry Laboratory (Laboratory)

Area II: Neurobiology and Physiology

- BIO 317 Principles of Cellular Signaling (Lecture)
- BIO 328 Mammalian Physiology (Lecture)
- BIO 332 Computational Modeling of Physiological Systems (Lecture)
- BIO 334 Principles of Neurobiology (Lecture)
- BIO 335 Neurobiology Laboratory (Laboratory)
- BIO 337 Neurotransmission and Neuromodulation: Implications for Brain Function (Lecture)
- BIO 338 From Synapse to Circuit: Selforganization of the Brain (Lecture)
- BIO 339 Molecular Development of the Nervous System (Lecture)

Area III: Organisms

- BIO 325 Animal Development (Lecture)
- BIO 327 Developmental Genetics Laboratory (Laboratory)
- BIO 340 Zoology (Lecture with Laboratory)
- BIO 341 Plant Diversity (Lecture with Laboratory)
- BIO 343 Invertebrate Zoology (Lecture with Laboratory)
- BIO 344 Chordate Zoology (Lecture with Laboratory)
- BIO 348 Diversity and Evolution of Reptiles and Amphibians (Lecture)
- BIO 380 Entomology (Lecture with Laboratory)

## Area IV: Ecology and Evolution

- BIO 301 Sustainability of the Long Island Pine Barrens (Lecture)
- BIO 319 Landscape Ecology Laboratory (Laboratory)
- BIO 321 Introduction to Ecological Genetics and Genomics (Lecture)
- BIO 336 Conservation Biology (Lecture)
- BIO 350 Darwinian Medicine (Lecture)
- BIO 351 Ecology (Lecture)
- BIO 352 Ecology Laboratory (Laboratory)
- BIO 353 Marine Ecology (Lecture)
- BIO 354 Evolution (Lecture)
- BIO 356 Applied Ecology and Conservation Biology Laboratory (Laboratory)
- BIO 358 Biology and Human Social and Sexual Behavior (Lecture)
- BIO 359 Behavioral Ecology (Lecture)
- BIO 367 Molecular Diversity Laboratory (Laboratory)
- BIO 371 Restoration of Aquatic Systems (Lecture with Laboratory)
- BIO 385 Plant Ecology (Lecture)
- BIO 386 Ecosystem Ecology and the Global Environment (Lecture)

**Advanced Course Requirements for the Specialization in Developmental Genetics**

1. BIO 325 Animal Development
2. BIO 320 General Genetics, or BIO 321 Introduction to Ecological Genetics and Genomics
3. BIO 327 Developmental Genetics Laboratory
4. At least one of the following four courses:
  - BIO 310 Cell Biology
  - BIO 314 Cancer Biology
  - BIO 339 Molecular Development of the Nervous System
  - BIO 354 Evolution
5. Two additional advanced BIO lecture courses from either Area I (Biochemistry, Molecular and Cellular Biology), or Area II (Neurobiology and Physiology), or Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments and accepted for BIO Major credit in these areas.
6. One additional advanced BIO laboratory course from any of the four areas of BIO courses or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these four areas. Note, the elective advanced laboratory course can be replaced by two semesters of independent research for a total of at least 4 credits in a BIO research course.
7. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework.

**Advanced Course Requirements for the Specialization in Ecology and Evolution**

1. BIO 351 Ecology
2. BIO 354 Evolution
3. One additional advanced BIO lecture course and one advanced BIO laboratory course from either Area III (Organisms), or Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments that are accepted for BIO major credit in these two areas. Note: 4 credit courses identified as a Lecture with Laboratory may be used to satisfy both requirements.
4. Two additional advanced BIO lecture courses including at least one from either Area I (Biochemistry, Molecular and Cellular Biology), or Area II (Neurobiology and Physiology) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these two areas.
5. One advanced BIO laboratory course from either Area I (Biochemistry, Molecular and Cellular Biology), or Area II (Neurobiology and Physiology) or from the list of advanced laboratory courses offered by other Departments and accepted for BIO major credit in these two areas. Note, the elective advanced laboratory course can be replaced by two semesters of independent research for a total of at least 4 credits in a BIO research course.
6. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework.

**Advanced Course Requirements for the Specialization in Environmental Biology**

1. BIO 351 Ecology
2. One advanced BIO laboratory course from either Area III (Organisms) or Area IV (Ecology and Evolution) or from the list of advanced laboratory courses offered by other Departments and accepted for BIO major credit in these two areas.
3. Two additional advanced BIO courses from Area IV (Ecology and Evolution) that may include at most one of the advanced courses in Environmental Biology offered by other Departments and accepted for BIO major credit.
4. Two additional advanced BIO lecture courses from either Area I (Biochemistry, Molecular and Cellular Biology), or Area II (Neurobiology and Physiology) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these two areas.

5. One advanced BIO laboratory course from either Area I (Biochemistry, Molecular and Cellular Biology), or Area II (Neurobiology and Physiology) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these two areas. Note, the elective advanced laboratory course can be replaced by two semesters of independent research for a total of at least 4 credits in a BIO research course.
6. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework.

#### **Advanced Course Requirements for the Specialization in Neuroscience**

1. BIO 334 Principles of Neurobiology
2. BIO 335 Neurobiology Laboratory
3. Two courses from the following list:
  - BIO 317 Principles of Cellular Signaling
  - BIO 328 Mammalian Physiology
  - BIO 337 Neurotransmission and Neuromodulation: Implications for Brain Function
  - BIO 338 From Synapse to Circuit: Selforganization of the Brain
  - BIO 339 Molecular Development of the Nervous System
  - BCP 401 Principles of Pharmacology
4. Two advanced BIO lecture courses from either Area I (Biochemistry, Molecular and Cellular Biology), or Area III (Organisms), or Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these three areas.
5. One advanced BIO laboratory course from either Area I (Biochemistry, Molecular and Cellular Biology), or Area III (Organisms), or Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these three areas. Note, the elective advanced laboratory course can be replaced by two semesters of independent research for a total of at least 4 credits in a BIO research course.
6. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework.

#### **Advanced Course Requirements for the Specialization in Interdisciplinary Biology**

1. At least one advanced BIO lecture Course in Area I (Biochemistry, Molecular and Cellular Biology), and Area II (Neurobiology and Physiology), and Area III (Organisms), and Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments and accepted for BIO major credit in these four areas.
2. Two advanced BIO laboratory courses chosen from two of the four different areas of advanced courses or advanced courses from other Departments and accepted for BIO major credit in these four areas. Note, one advanced laboratory course can be replaced by two semesters of independent research for a total of at least 4 credits in a BIO research course.
3. A second advanced BIO lecture course in one of the four areas of advanced biology courses or from the list of advanced courses offered by other Departments and accepted for BIO major credit.
4. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework.

#### **Advanced Course Requirements for the Specialization in Quantitative Biology and Bioinformatics**

Unlike other specializations, the Quantitative Biology and Bioinformatics Specialization requires completion of foundational courses in mathematics that cover differential equations.

1. MAT 127 Calculus C, or MAT 132 Calculus II, or MAT 142 Honors Calculus II, or AMS 161 Applied Calculus II
2. AMS 333 Mathematical Biology
3. BIO 332 Computational Modeling of Physiological Systems
4. BIO 312 Bioinformatics and Computational Biology
5. At least one of the following four courses:
  - BIO 317 Principles of Cellular Signaling
  - BIO 320 General Genetics
  - BIO 321 Introduction to Ecological Genetics and Genomics
  - CHE 346 Biomolecular Structure and Reactivity
6. Two additional advanced BIO lecture courses from the four areas of BIO courses, including at least one course from either Area III (Organisms), or Area IV (Ecology and Evolution) or from the list of advanced courses offered by other Departments and accepted for BIO Major credit in these four areas.
7. One additional advanced BIO laboratory course from any of the four areas of BIO courses or from the list of advanced courses offered by other Departments and accepted for BIO Major credit in these four areas.
8. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 33 credits of core and advanced biology coursework

#### **Advanced Course Requirements for the Specialization in Bioengineering**



Unlike other specializations, the Bioengineering Specialization requires completion of foundational courses in mathematics that cover differential equations and foundational courses in physics that cover electromagnetism, but does not require a foundational course in statistics (e.g. AMS 110). Students who complete this specialization will qualify to receive a Bioengineering minor (BNG). Students in this specialization must choose from one of three Sub-Specializations as described below.

Common requirements for the Biomedical Engineering Specialization:

1. MAT 127 Calculus C, or MAT 132 Calculus II, or MAT 142 Honors Calculus II
2. PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and labs or PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141, PHY 142 Classical Physics I, II: Honors
3. BME 100 Introduction to Biomedical Engineering
4. One of the following three courses:
  - CSE 130 Introduction to Programming in C
  - ESE 124 Computer Techniques for Electronic Design I
  - ESG 111 Programming for Engineers
5. Two advanced courses chosen from any of the four areas of BIO courses including at least one course with a lecture component and at least one course with a laboratory component. Advanced courses from other Departments and accepted for BIO major credit in the four areas may be used.

*Additional requirement for the Sub-Specialization in Biomechanics and Biomaterials*

6. MEC 260 Engineering Statics
7. BME 303 Biomechanics
8. AMS 261 Applied Calculus III (or equivalent)
9. One of the following two courses:
  - BME 304 Genetic Engineering
  - BME 381 Nanofabrication in Biomedical Applications

*Additional requirement for the Sub-Specialization in Bioelectricity*

6. ESE 271 Electrical Circuit Analysis I
7. BME 301 Bioelectricity
8. AMS 210 Applied Linear Algebra (or equivalent)
9. BME 313 Bioinstrumentation

*Additional requirement for the Sub-Specialization in Molecules and Cells*

6. BME 304 Genetic Engineering
7. BME 381 Nanofabrication in Biomedical Applications
8. Two of the following three courses:
  - BME 371 Biological Microfluidics
  - BME 402 Contemporary Biotechnology
  - BME 404 Essentials of Tissue Engineering

#### **Advanced Courses from other Departments accepted for BIO major credit**

The following is a list of courses offered by other Departments that can be used to satisfy advanced course requirements in the BIO Major. These are arranged into the same broad areas of biology as the BIO courses listed above but also including courses in the area of Environmental Biology that can be used for the Specialization in Environmental Biology.

##### Area I Biochemistry, Molecular and Cellular Biology

- AMS 333 Mathematical Biology (Lecture)
- BIO 511 Topics in Biotechnology (Laboratory)
- BIO 515 Current Topics in Microbiology (Laboratory)
- BME 304 Genetic Engineering (Lecture)
- BME 404 Essentials of Tissue Engineering (Lecture)
- CHE 346 Biomolecular Structure and Reactivity (Lecture)
- HBM 320 General Microbiology (Lecture, not for credit in addition to BIO 315)

##### Area II Neurobiology and Physiology

- BCP 401 Principles of Pharmacology (Lecture)
- BME 301 Bioelectricity (Lecture)
- BME 303 Biomechanics (Lecture)

##### Area III Organisms

- MAR 370 Marine Mammals (Lecture)
- MAR 371 The Biology and Conservation of Marine Birds and Sea Turtles (Lecture)
- MAR 375 Marine Mammal and Sea Turtle Rehabilitation (Lecture)
- MAR 380 Ichthyology (Lecture with Laboratory)

#### Area IV Ecology and Evolution

- ENS 311 Ecosystem Ecology and the Global Environment (Lecture, not for credit in addition to BIO 386)
- MAR 301 Environmental Microbiology (Lecture with Laboratory)
- MAR 302 Marine Microbiology and Microbial Ecology (Lecture, not for credit in addition to MAR 301)
- MAR 303 Long Island Marine Habitats (Lecture with Laboratory)
- MAR 305 Experimental Marine Biology (Laboratory)
- MAR 315 Marine Conservation (Lecture)
- MAR 320 Limnology (Lecture with Laboratory)
- MAR 366 Plankton Ecology (Lecture)
- MAR 373 Marine Apex Predators: Ecology and Conservation (Lecture)
- MAR 384 Diseases of Aquatic Organisms (Lecture)
- MAR 388 Tropical Marine Ecology (Lecture with Laboratory)
- ANP 305 Vertebrate Paleontology of the Turkana Basin (Laboratory, Turkana Basin Institute)
- ANP 306 Paleoanthropological Discoveries of the Turkana Basin (Lecture with Laboratory, Turkana Basin Institute)
- ANP 325 Primate Behavior (Lecture, only for major credit if taken in Madagascar)
- ANP 350 Methods of Studying Primates (Lecture, only for major credit if taken in Madagascar)
- ANP 391 Topics in Physical Anthropology (Lecture, only for major credit if taken Madagascar)
- ANT 304 Modern and Ancient Environments of Eastern Africa (Lecture with Laboratory, Turkana Basin Institute)

#### Environmental Biology (May only be used for the Environmental Biology Specialization)

- ATM 305 Global Atmospheric Change (Lecture)
- ATM 397 Air Pollution and its Control (Lecture)
- MAR 318 Engineering Geology and Coastal Processes (Lecture)
- MAR 333 Coastal Oceanography (Lecture)

#### D. Upper-Division Writing Requirement

The advanced writing component of the major in Biology requires approval of either a term paper or a laboratory report written for an advanced course in biological sciences at Stony Brook (including Readings and Research courses).

Students who wish to use material from a participating course should obtain the necessary form and present it to the course director prior to submission of the material. The course director will sign the form and the graded material. The completed form as well as the graded material must be submitted to the Undergraduate Biology Office. The Writing Center will evaluate the submission and contact the student directly if remedial efforts are needed. Students are urged to submit appropriate materials in their junior year, or by the end of their next-to-last term, in order to allow for evaluation and possible revision. Later submissions are considered, but may delay graduation. If material is rejected, the student will be instructed by the Writing Center before resubmitting the paper or material from another biology course.

#### Honors Programs in Biology and in Biology and Society

Graduation with Honors in Biology or in Biology and Society requires the following:

1. A cumulative grade point average of 3.50 or higher in all courses required for the major.
2. Presentation of an acceptable thesis based on a project involving independent research for credit in an approved Research or Internship Course for at least two semesters written in the form of a paper for a scientific journal. A student interested in becoming a candidate for honors should submit a completed Honors Application to the Undergraduate Biology office as early as possible but no later than the second week of classes in the last semester. (form available at: <http://www.stonybrook.edu/biology/current/forms.html>). On the application the student identifies the research project and provides an endorsement from their faculty research sponsor along with recommended names of at least two additional faculty members who have agreed to evaluate the written thesis, including at least one faculty member from a department different from that of the research sponsor. Applications approved by the Biology Program are returned to the student for inclusion with the completed thesis research project. The student must present a copy of the finished thesis along with a completed application form indicating written approval by their research sponsor and the two readers at least one week prior to the date of graduation.

#### Approved Research and Internship Courses:

- BIO 484 Research in Biology and Society
- BIO 486 Research in Neurobiology and Physiology
- BIO 487 Research in Molecular, Cellular and Developmental Biology
- BIO 488 Internship in Biological Sciences
- BIO 489 Research in Ecology and Evolution
- MAR 487 Research in Marine Sciences (Environmental Biology Specialization only)

- MAR 488 Internship in Marine Sciences (Environmental Biology Specialization only)
- ATM 487 Research in Atmospheric Sciences (Environmental Biology Specialization only)
- BME 499 Research in Bioengineering (Biomedical Engineering Specialization only)

### Requirements for the Minor in Biology (BIO)

Only students with majors other than Biology, Biochemistry, Pharmacology, Marine Sciences or Marine Vertebrate Biology may elect the Biology minor. Completion of the minor requires at least 20 credits in BIO courses designed for the Biology major. All courses for the minor must be taken for a letter grade and must be passed with a grade of C or higher, including at least 9 credits at the 300 level. All advanced courses for the minor must be in BIO major courses taken at Stony Brook. The specific course requirements for the BIO minor are:

1. At least two of the following courses:

- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- BIO 202 Fundamentals of Biology: Cell and Molecular Biology
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology

2. Both BIO 204 and BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences I and IIA or BIO 204 and BIO 207 Fundamentals of Scientific Inquiry in the Biological Sciences I and IIB

3. Advanced lecture, laboratory or lecture/laboratory courses in at least two of the four areas of inquiry (I-IV) listed under the biology major. The list of advanced courses from other Departments that are accepted as substitute electives for the BIO major does not apply to the minor.

4. At least nine credits of 300 level BIO courses. Note, a grade of Satisfactory in at most two credits of biology independent research (BIO 484, BIO 486, BIO 487, BIO 489) and at most one credit of tutorial readings (BIO 444, BIO 446, BIO 447, BIO 449) may be applied toward the minor.

### Biology Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

### Application of Transfer Credits to Biology Requirements

Biology courses taken elsewhere apply to major requirements only if authorized by the biology transfer evaluator or if listed as equivalent to a Stony Brook course in official Stony Brook Transfer Guides. Transfer students must take at least 15 of the 33 credits of required core and advanced biology at Stony Brook in courses for majors at the 200 level or higher. At least 12 of the 15 credits must be in BIO-designator courses. Both of the two advanced laboratory experiences must be taken at Stony Brook. Transfer students may satisfy the requirements for courses in related fields with transferred courses, if the courses are approved as being equivalent (even if the number of credits is different).

### Sample Course Sequence for the Major in Biology

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
CHE 131		4 CHE 132	4
CHE 133		1 BIO 201, BIO 202, or BIO 203	3
MAT 125		3 CHE 134	1
D.E.C.		3 MAT 126	3
Total		15 Total	15
Sophomore Fall	Credits	Spring	Credits
CHE 321		4 CHE 322 or CHE 326	4
AMS 110 or BIO 211		3-4 BIO 201, BIO 202, or BIO 203	3
BIO 201 or BIO 202		3 BIO 205 or BIO 207	2
BIO 204		2 D.E.C.	3
D.E.C.		3 D.E.C.	3
Total		15-16 Total	15

<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 327	2	PHY 122/PHY 124	4
PHY 121/PHY 123	4	Advanced BIO Lecture	3
Advanced BIO Lecture	3	Advanced BIO Lab	2-3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	15	Total	15-16
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Advanced BIO Lecture	3	Advanced BIO Lecture	3
Advanced BIO Lab	2-3	Advanced BIO Lecture	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Electives	6
Electives	3-6		
Total	14-17	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Biomaterials (BES)****Minor in Biomaterials****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Chairperson: Michael Dudley

Undergraduate Program Director: Gary P. Halada

Administrative Assistant: Lynn Allopenna

E-mail: Lynn.Allopenna@stonybrook.edu

Office: 314 Engineering

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**Biomaterials (BES)**

The minor in Biomaterials is designed for students enrolled in programs leading to the Bachelor of Engineering (B.E.) degree who wish to obtain an understanding of how materials interact with the human body and how engineering materials can be designed to serve physiological functions. The minor includes a comprehensive selection of courses in materials science, biomechanics, and biology, as well as study of fluids and electricity as they relate to human physiology. The program serves as an excellent background for engineering students who wish to prepare for graduate education in medicine, bioengineering, and the biosciences or a related field, or for a career in which an understanding of biological concepts is essential.

**Requirements for the Minor in Biomaterials (BES)**

Electrical Engineering (ESE), Engineering Science (ESG), and Mechanical Engineering (MEC) majors may choose to complete the sequence of courses for the minor as they relate to their major program. An example of the minor course list for each is listed below, but students should contact the Department of Materials Science and Engineering as early as possible for detailed requirements.

Completion of the minor requires 21-23 credits in addition to courses counting towards the requirements for the majors.

**Students Majoring in Electrical or Computer Engineering:**

1. ESE 304 Applications of Operational Amplifiers
2. ESE 218 Digital Systems Design
3. ESE 380 Embedded Microprocessor Systems Design I
4. ESM 353 Biomaterials: Manufacture, Properties, and Applications
5. Three courses chosen from:
  - BME 301 Bioelectricity
  - BME 303 Engineering Methods in Biomechanics
  - BME 305 Biofluids
  - BME 381 Nanofabrication in Biomedical Applications
6. Two courses chosen from:
  - BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
  - BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
  - BIO 328 Mammalian Physiology
  - BIO 361 Biochemistry I
  - CHE 321 Organic Chemistry I
  - ESG 332 Materials Science I: Structure and Properties of Materials
7. ESG 201 Engineering Responses to Society or BME 201 Biomedical Engineering and Society

**Students Majoring in Engineering Science:**

1. ESM 334 Materials Engineering
2. ESM 335 Strength of Materials
3. ESM 353 Biomaterials: Manufacture, Properties, and Applications
4. ESG 332 Materials Science I: Structure and Properties of Materials
5. Three courses chosen from:
  - BME 301 Bioelectricity
  - BME 303 Engineering Methods in Biomechanics

- BME 305 Biofluids
- BME 381 Nanofabrication in Biomedical Applications

6. One course chosen from:

- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
- BIO 328 Mammalian Physiology
- BIO 361 Biochemistry I
- CHE 321 Organic Chemistry I

7. ESG 201 Engineering Responses to Society or BME 201 Biomedical Engineering and Society

**Students Majoring in Mechanical Engineering:**

1. MEC 310 Introduction to Machine Design
2. MEC 410 Design of Machine Elements
3. ESG 332 Materials Science I: Structure and Properties of Materials
4. ESM 353 Biomaterials: Manufacture, Properties, and Applications
5. Three courses chosen from:

- BME 301 Bioelectricity
- BME 303 Engineering Methods in Biomechanics
- BME 305 Biofluids
- BME 420 Computational Biomechanics

6. Two courses chosen from:

- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
- BIO 328 Mammalian Physiology
- BIO 361 Biochemistry I
- CHE 321 Organic Chemistry I

7. ESG 201 Engineering Responses to Society or BME 201 Biomedical Engineering and Society

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Biomedical Engineering (BME)****Major in Biomedical Engineering****Department of Biomedical Engineering, College of Engineering and Applied Sciences**

Chairperson: Clinton Rubin

Undergraduate Program Director: Mary Frame McMahon

Undergraduate Program Coordinator: Jessica Kuhn

E-mail: [jakuhn@stonybrook.edu](mailto:jakuhn@stonybrook.edu)

Phone: (631) 632-8371

Web address: <http://www.bme.sunysb.edu/bme>

Minors of particular interest to students majoring in Biomedical Engineering: Applied Math and Statistics (AMS), Biochemistry (BCH), Nanotechnology (NTS)

**Department Information - Biomedical Engineering (BME)**

The Department of Biomedical Engineering offers the major in Biomedical Engineering, leading to the Bachelor of Engineering (B.E.) degree. The Department also offers a minor in Bioengineering designed for non-engineering students. (See the entry in the alphabetical listings of Approved Majors, Minors, and Programs for the requirements for the minor in Bioengineering.) In a rigorous, cross-disciplinary training and research environment, the major program provides an engineering education along with a strong background in the biological and physical sciences. It is designed to enhance the development of creativity and collaboration through study of a specialization within the field of biomedical engineering. Teamwork, communication skills, and hands-on laboratory and research experience are emphasized. The curriculum provides students with the underlying engineering principles required to understand how biological organisms are formed and how they respond to their environment. The Biomedical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Core courses provide depth within the broad field of biomedical engineering. These are integrated with, and rely upon, course offerings from both the College of Engineering and Applied Sciences and the College of Arts and Sciences. To achieve the breadth of engineering experience expected of Biomedical Engineering graduates, additional elective courses from the College of Engineering and Applied Sciences are required of all Biomedical Engineering students.

The Department also offers a five-year accelerated B.E./M.S. degree, which can be completed within one additional year of studies beyond the Bachelor's degree.

The accelerated B.E./M.S. is intended to prepare high-achieving and highly-motivated undergraduate BME students for either doctoral studies or a variety of advanced professional positions. The program is highly selective with admission based on academic performance as well as undergraduate research. Juniors can be admitted into the accelerated degree program if they satisfy the requirements outlined in the Graduate Bulletin. The requirements for the accelerated program are the same as the requirements for the B.E. and M.S. degree, except that two graduate 500-level courses replace two 300-level electives, so that six graduate credits are counted toward the undergraduate degree.

Graduates are prepared for entry into professions in biomedical engineering, biotechnology, pharmaceuticals, and medical technology, as well as careers in academia and government. Potential employers include colleges and universities, hospitals, government, research institutes and laboratories, and private industry.

**Program Educational Objectives**

The undergraduate program in biomedical engineering has the following five specific program educational objectives:

1. **Career Preparation:** Our graduates will be prepared to excel in bioengineering, bioscience, or medical disciplines in basic and applied research, design, or technology development, representing the fields of academics, government, medicine, law, or industry.
2. **Professional Development:** Our graduates will emerge as recognized experts in the field of biomedical engineering, and serve in positions of leadership in academics, government, medicine, or industry. Further, our alumni will function successfully as principal members of integrative and interdisciplinary teams.
3. **Professional Conduct:** Our graduates will hold paramount the health, safety, and welfare of the public, and conduct themselves in a professional and ethical manner at all times. Further, our alumni will communicate effectively to a variety of target audiences through both written and oral media.
4. **Societal Contribution:** Our graduates will respond and adapt to the scientific and engineering needs of society both nationally and internationally, seek out new opportunities, and contribute to the development of a healthy and globally competitive economy.
5. **Life-long Learning:** Our graduates will continually build on their undergraduate foundation of science, engineering, and societal understanding, and continue to develop their knowledge, skills, and contributions throughout their professional careers and private lives. This will include active participation in professional societies, attending and making presentations at conferences, and participating in outreach activities within their areas of expertise.

**Program Outcomes**

To prepare students to meet the above program educational objectives, a set of program outcomes that describes what students should know and be able to do when they graduate, have been adopted. We expect students to gain:

- a. the ability to apply knowledge of advanced mathematics, science, biology, physiology, biotechnology, and engineering;
- b. the ability to design and conduct experiments from living and non-living systems, as well as to analyze and interpret data;
- c. the ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- d. the ability to function on multidisciplinary teams;
- e. the ability to identify, formulate, and solve problems at the interface of engineering and biology;
- f. the understanding of professional and ethical responsibility;
- g. the ability to communicate effectively;
- h. the broad education necessary to understand the impact of biomedical engineering solutions in a global, economic, environmental, and societal context;
- i. the recognition of the need for, and an ability to engage in, life-long learning;
- j. a knowledge of contemporary issues; and
- k. the ability to use the techniques, skills, and modern engineering tools necessary for addressing the problems associated with the interaction between living and/or non-living materials and systems.

More details about program educational objectives and outcomes can be found at <http://bme.sunysb.edu/bme/ugrad/index.html#abet>

### Requirements for the Major in Biomedical Engineering

#### Acceptance into the Major

Freshman applicants who have specified their interest in the major in Biomedical Engineering may be accepted directly into the major upon admission to the University. Freshman and transfer applicants admitted to the University but not immediately accepted into the Biomedical Engineering major may apply for acceptance to the major at any time during the academic year by contacting the director of the undergraduate program. Students in good academic standing may apply in any semester, but priority for admission to the Biomedical Engineering major is given to those students who have:

1. Completed MAT 132 and PHY 132/PHY 134 or their equivalents;
2. Earned a g.p.a. of 3.20 in all mathematics and physics courses with no more than one grade in the C range; and
3. Received completed course evaluations for all transferred courses that are to be used to meet requirements of the major.

#### Requirements for the Major

The curriculum begins with a focus on basic mathematics and the natural sciences followed by courses that emphasize engineering science and bridging courses that combine engineering science and design. The sequence of courses culminates with a one-year design experience that integrates the science, engineering, and communication knowledge acquired. The technical electives and additional courses are chosen in consultation with a faculty advisor, taking into consideration the particular interest of the student.

Completion of the major requires approximately 130 credits.

#### 1. Mathematics

- a. AMS 151, AMS 161 Calculus I, II
- b. AMS 261 or MAT 203 or MAT 205 Calculus III
- c. AMS 361 or MAT 303 or MAT 305 Calculus IV
- d. AMS 210 Matrix Methods and Models
- e. AMS 310 Survey of Probability and Statistics

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161: MAT 125, MAT 126, MAT 127 or MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171

#### 2. Natural Sciences

- a. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology and BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I
- b. CHE 131, CHE 132 General Chemistry I, II
- c. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II with labs

Note: The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142 Classical Physics I, II: Honors CHE 141, CHE 142, in lieu of CHE 131, CHE 132



### 3. Computers and Programming

- a. BME 120 Programming Fundamentals in Biomedical Engineering

### 4. Engineering

- a. MEC 203 Engineering Drawing and CAD II
- b. MEC 260 Engineering Statics
- c. MEC 262 Engineering Dynamics
- d. ESE 271 Electrical Circuit Analysis I

### 5. Biomedical Engineering

- a. BME 100 Introduction to Biomedical Engineering
- b. BME 212 Laboratory Methods in Biomedical Engineering
- c. BME 301 Bioelectricity
- d. BME 304 Genetic Engineering
- e. BME 305 Biofluids
- f. BME 440 Biomedical Engineering Design
- g. BME 441 Senior Design Project in Bioengineering

### 6. Biomedical Engineering Specializations and Technical Electives

Biomedical engineering students must complete a specialization, composed of at least 30 credits in one of four areas, including at least two 3- to 4-credit design technical elective courses. Three technical elective courses must be 300- or 400-level BME courses (not BME 499). BME 499 may be taken as an additional technical elective for a total of 6 credits. (See below for the four specializations with course options.) The specialization must be declared in writing by the end of the sophomore year and is selected in consultation with the faculty advisor to ensure a cohesive curriculum with depth at the upper level.

### 7. Upper-Division Writing Requirement: BME 300 Writing in Biomedical Engineering

All degree candidates must demonstrate skill in written English at a level acceptable for engineering majors. All Biomedical Engineering students must complete the writing course BME 300 concurrently with a selected BME 300- or 400-level course. The quality of writing in technical reports submitted for the course is evaluated, and students whose writing does not meet the required standard are referred for remedial help. Satisfactory writing warrants an S grade for BME 300, thereby satisfying the requirement.

### Additional Requirements for Pre-Medical or Pre-Dental Students

Seven additional credits are required for the pre-professional students beyond the B.E. in BME degree. These are CHE 133, CHE 134, BIO 203, and BIO 205. It is recommended that CHE 133 is taken during the Freshman Spring, CHE 134 taken during Sophomore Spring, and BIO 203/ BIO 205 taken during Junior Spring.

### Grading

All courses taken to satisfy 1 through 6 above must be taken for a letter grade. A grade of C or higher is required in the following courses: AMS 151, AMS 161 or equivalent; BIO 202 or BIO 203; CHE 131, CHE 132 or equivalent; PHY 131/PHY 133, PHY 132/PHY 134 or equivalent; ESE 271; all BME courses.

### Specializations

To complete the specialization, students choose from the technical elective course list for one of the three specializations. Other courses may be used towards this requirement with the permission of the undergraduate program director. A total of 30 credits in technical electives are required. Fifteen credits or more must be engineering designations. Nine must be BME (not BME 499), however six additional credits may be BME 499.

#### a. Biomechanics and Biomaterials

Courses that focus on developing an understanding of mechanical structures and dynamics of biological systems, and material properties of those structures. This specialization is appropriate for students interested in the areas of biofluid mechanics, hard and soft tissue biomechanics, biomaterials, biocompatibility, medical prosthetics, or bioinstrumentation.

#### **Recommended courses:**

- BME 303 Biomechanics
- BME 311 Fundamentals of Macro to Molecular Bioimaging
- BME 313 Bioinstrumentation
- BME 381 Nanofabrication in Biomedical Applications
- BME 404 Essentials of Tissue Engineering
- BME 420 Computational Biomechanics
- BME 430 Engineering Approaches to Drug and Gene Delivery
- BME 461 Biosystems Analysis
- BME 481 Biosensors

ESG 302 Thermodynamics of Materials  
 ESG 332 Materials Science I  
 ESM 335 Strength of Materials  
 ESM 353 Biomaterials  
 ESM 369 Polymers  
 MEC 363 Mechanics of Solids

**Alternative courses:**

AMS 315 Data Analysis  
 AMS 331 Mathematical Modeling  
 AMS 333 Mathematical Biology  
 CHE 321 Organic Chemistry I  
 CHE 322 Organic Chemistry II  
 CHE 327 Organic Chemistry Laboratory  
 CSE 326 Digital Image Processing  
 CSE 332 Introduction to Scientific Visualization  
 ESE 315 Control System Design  
 ESG 281 Engineering Intro to Solid State  
 ESG 316 Engineering Science Design II  
 ESM 221 Introduction to the Chemistry of Solids  
 ESM 309 Thermodynamics of Solids  
 ESM 325 Diffraction Techniques and Structure of Solids  
 ESM 334 Materials Engineering  
 ESM 335 Strength of Materials  
 ESM 355 Materials and Processes in Manufacturing Design  
 ESM 369 Polymer Engineering  
 ESM 450 Phase Changes and Mechanical Properties of Materials  
 MEC 310 Introduction to Machine Design  
 MEC 320 Engineering Design Methodology and Optimization  
 MEC 402 Mechanical Vibrations  
 MEC 410 Design of Machine Elements  
 MEC 411 Control System Analysis and Design  
 MEC 455 Applied Stress Analysis

b. Bioelectricity and Bioimaging

Courses focusing on the description of biological cells, tissues, and organisms as complex systems. This specialization is appropriate for students interested in the areas of bioinstrumentation, medical imaging, electrical prosthetics, electromagnetic compatibility, tissue engineering, or bioinformatics.

**Recommended courses:**

BME 311 Fundamentals of Macro to Molecular Bioimaging  
 BME 313 Bioinstrumentation  
 BME 461 Biosystems Analysis  
 BME 481 Biosensors  
 CSE 377 Introduction to Medical Imaging  
 ESE 211 Electronics Laboratory A  
 ESE 218 Digital System Design  
 ESE 306 Random Signals and Systems  
 ESE 314 Electronics Laboratory B  
 ESE 315 Control System Design  
 ESE 372 Electronics

**Alternative courses:**

AMS 311 Probability Theory  
 CHE 321 Organic Chemistry I  
 CHE 322 Organic Chemistry II  
 CHE 327 Organic Chemistry Laboratory  
 ESE 305 Deterministic Signals and Systems  
 ESE 324 Electronics Laboratory  
 EST 421 Starting the High-Technology Venture

c. Molecular and Cellular Biomedical Engineering

Courses focus on the application of biochemistry, cell biology, and molecular biology (i.e., recombinant DNA methodology) to the broad fields of genetic engineering, biotechnology, bionano-technology, and biosensors. Includes the specific engineering principles that are applied to problems

involving structure and function of molecules and cells in areas such as tissue engineering, gene therapy, microarray, drug design and delivery, structural biology computational methods, and bioinformatics.

**Recommended courses:**

BIO 317 Principles of Cellular Signaling  
 BME 313 Bioinstrumentation  
 BME 381 Nanofabrication in Biomedical Applications  
 BME 404 Essentials of Tissue Engineering  
 BME 461 Biosystems Analysis  
 BME 481 Biosensors  
 CHE 321 Organic Chemistry I  
 CHE 322 Organic Chemistry II  
 CHE 327 Organic Chemistry Laboratory

**Alternative courses:**

BIO 302 Human Genetics  
 BIO 310 Cell Biology  
 BIO 311 Techniques in Molecular and Cellular Biology  
 BIO 320 General Genetics  
 BIO 325 Animal Development  
 BIO 328 Mammalian Physiology  
 BIO 361 Biochemistry I  
 BIO 362 Biochemistry II  
 BIO 365 Biochemistry Laboratory  
 BME 303 Biomechanics  
 BME 430 Engineering Approaches to Drug and Gene Delivery  
 CHE 312 Physical Chemistry  
 CHE 346 Biomolecular Structure and Reactivity  
 CHE 353 Chemical Thermodynamics  
 ESG 332 Materials Science I  
 BME 353 /ESM 353 Biomaterials: Manufacture, Properties and Applications  
 ESM 369 Polymer Engineering

BE/MS Degree

BME undergraduate students may be eligible to enroll in the BE/MS degree starting in their senior year and pursue a Bachelor's Degree along with a MS in Biomedical Engineering. Important features of this accelerated degree program are that students must apply to the program through the BME Graduate Program Director during their junior year, and once accepted, they are considered to be a graduate student in all regards.

**Sample Course Sequence for the Major in Biomedical Engineering**

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	BME 120	3
AMS 151	3	AMS 161	3
CHE 131	4	CHE 132	4
PHY 131/PHY 133	4	PHY 132/PHY 134	4
BME 100	3	MEC 203	2
Total	18	Total	17
Sophomore Fall	Credits	Spring	Credits
AMS 261	4	AMS 361	4
MEC 260	3	MEC 262	3
BIO 202	3	BME 304	3
BIO 204	2	D.E.C. or BME 212	3
D.E.C. or BME 212	3	D.E.C.	3
ESE 271	4		

Total	19	Total	16
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BME 300	0	BME 301	3
AMS 210	3	BME 305	3
Technical elective	3	AMS 310	3-4
Technical elective	3	Technical elective	3-4
Technical elective	3	D.E.C.	3
D.E.C.	3		
Total	15	Total	15-17
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BME 440	3	BME 441	3
Technical elective	3	Technical elective	3
Technical elective	3	Technical elective	3
Technical elective	3	Technical elective	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Business Management (BUS)****Major and Minor in Business Management****College of Business**

Dean: Manuel London  
 Associate Dean: Thomas R. Sexton  
 Director of Undergraduate Studies: Carl J. Allocca  
 Office of Student Services: 109 Harriman Hall  
 Phone: (631) 632-7171  
 E-mail: [oss@stonybrook.edu](mailto:oss@stonybrook.edu)  
 Fax: (631) 632-8181  
 Web address: <http://www.stonybrook.edu/business>

Minors or other majors of particular interest to students majoring in Business Management: Applied Mathematics and Statistics (AMS), Computer Science (CSE), Economics (ECO), Information Systems (ISE), Political Science (POL), Psychology (PSY), Technological Systems Management (TSM)

**Business Management (BUS)**

The College of Business offers undergraduate students a major and a minor in Business Management.

The major program offers students a solid foundation of essential business concepts and applications. In addition to courses in statistics, decision sciences, and general management, students study the fundamentals of five business functions: accounting, finance, marketing, management and operations, and sustainable business. Majors have an opportunity to concentrate in one of these five business functions. The knowledge gained in the specialization assists students in finding employment in that area of a business.

Business majors are also required to minor in a discipline outside of business. In addition to providing the student with a broader education, the minor can also provide students with complementary knowledge in their business concentration. Business does not operate in isolation from other disciplines but looks to the arts and sciences for insight into such important business topics as leadership, ethics, consumer behavior, information systems, mathematical models, and international relations.

**Requirements for the Major and Minor in Business Management (BUS)**

Acceptance to the Major in Business Management

Qualified freshman and transfer students who have indicated their interest in the major on their applications are accepted directly into the major upon admission into the University. Students who did not apply for the major and those who were not accepted into the major when they entered the University may apply to the major provided that their cumulative grade point average (including, for transfer students, course-work complete at other institutions) is 3.10 or higher and they have completed both MAT 122 (or MAT 125 or higher) and ECO 108 with a grade of C or higher. Applications must be submitted to the College of Business Office of Student Services no later than March 15 for admission in the following Fall semester, and no later than October 15 for admission in the following Spring semester. Application forms are available at the College of Business Office of Student Services.

Requirements for the Major

The major in Business Management leads to the Bachelor of Science degree. Completion of the major requires approximately 67 credits (including 21 credits for the minor requirement).

Transfer Credit Policy for students in the Business Major

Students may apply a maximum of 21 transfer credits toward the Business Major. Of the total 21 credits, only 6 credits may be used to fulfill an area of specialization.

**A. Core Courses**

BUS 115 Introduction to Business for Business Majors  
 BUS 210 Financial Accounting  
 BUS 215 Introduction to Business Statistics (see Note)  
 BUS 220 Introduction to Decision Sciences (see Note)  
 BUS 330 Principles of Finance or ECO 389 Corporate Finance  
 BUS 346 Management and Operations  
 BUS 348 Principles of Marketing  
 BUS 353 Entrepreneurship or BUS 383 Social Entrepreneurship or BUS 441 Business Strategy  
 BUS 447 Business Ethics (formerly BUS 347)  
 ECO 108 Introduction to Economics (see Note)

Note: MAT 122 Overview of Calculus with Applications satisfies DEC C and must be completed as a prerequisite for ECO 108, BUS 215 and BUS 220.

**B. Business Electives**

One from the following (a fifth specialization course may be used to satisfy this requirement):

BUS 294 Principles of Management  
 BUS 301 Corporate Communications

BUS 325 Legal Environment of Business OR POL 319 Business Law  
 BUS 333 Introduction to the Business of Real Estate  
 BUS 340 Information Systems in Management  
 BUS 351 Human Resource Management  
 BUS 352 Electronic Commerce  
 BUS 354 Understanding Business Agreements  
 BUS 390 Special Topics in Management  
 BUS 391 Management of Sports Organizations  
 BUS 393 Principles of Project Management  
 BUS 401 Negotiations Workshop  
 BUS 440 International Management  
 BUS 488 Business Internship

### **C. Area of Specialization**

One of the following specializations must be chosen at the start of the junior year. The details are available in the College of Business Office of Student Services.

Choose one specialization from the following areas:

#### **1. Accounting**

a. Required courses

BUS 214 Managerial Cost Analysis and Applications  
 BUS 310 Intermediate Accounting I  
 BUS 311 Federal Income Taxation I

b. Select one from the following:

BUS 312 Financial Statement Reporting and Analysis  
 BUS 313 Intermediate Accounting II  
 BUS 314 Federal Income Taxation II  
 BUS 315 Accounting for the Small Business Entrepreneur  
 BUS 400 External Auditing

#### **2. Finance**

a. Select four from the following:

BUS 331 International Finance  
 BUS 332 Entrepreneurial Finance  
 BUS 355 Investment Analysis  
 BUS 356 Financial Engineering  
 BUS 365 Financial Management  
 BUS 366 Money and Financial Institutions or ECO 360 Money and Banking  
 ECO 383 Public Finance  
 BUS 468 Risk Arbitrage

#### **3. Marketing**

a. Required courses

BUS 358 Marketing Research  
 BUS 448 Marketing Strategy

b. Select two from the following:

BUS 334 Consumer Advertising and Promotion  
 BUS 335 Business Advertising and Promotion  
 BUS 357 Principles of Sales  
 BUS 359 Consumer Behavior  
 BUS 360 Business Marketing  
 BUS 361 Retail Management  
 BUS 362 Principles of International Marketing  
 BUS 363 Brand Management  
 BUS 369 Marketing of New Products

#### **4. Management and Operations**

a. Required courses

BUS 340 Information Systems in Management

b. Select three from the following:

BUS 370 Lean Practices in Operations  
 BUS 371 Supply Chain Management  
 BUS 372 Quality Management  
 BUS 393 Principles of Project Management

#### **5. Sustainable Business**

a. Select four from the following:

BUS 358 Marketing Research

BUS 368 Marketing New Sustainable Products  
 BUS 370 Lean Practices in Operations  
 BUS 373 Supply Chain and Environmental Management  
 BUS 374 Environmental Impact of Business  
 BUS 448 Marketing Strategy

Note: BUS 475, BUS 476 Undergraduate Teaching Practicum I, II, and BUS 487 Independent Research will count toward the total University credit requirement, but not toward the business major.

#### **D. Upper-Division Writing Requirement**

BUS 447 Business Ethics, contains the necessary writing components which satisfy the Upper Division Writing Requirement for the business major. This requirement is effective for those students who are accepted to the business major in the fall 2007 semester and subsequent.

#### **E. Minor Requirement**

A minor (typically 18 to 21 credits) in any area other than Business or Accounting must be completed as part of the requirement for the business management major. Students who have a second major can be waived from the minor requirement.

#### Graduation Clearance

Students must be cleared by their respective second major or minor before they can be cleared for the business major requirements.

#### Grading

All courses taken to satisfy the business management major requirements must be taken for a letter grade. All students accepted to the business management major in the fall 2005 semester and subsequent must complete all BUS courses, ECO 108, and MAT 122 with a grade of C or higher in order to satisfy the requirements for the major. Students accepted to the business management major prior to fall 2005 must complete the following courses with a grade of C or higher in order to satisfy the requirements for the major: BUS 110, BUS 210, BUS 220 (formerly BUS 249), BUS 340, BUS 346, BUS 347, BUS 348, BUS 440, and BUS 441; AMS 102, ECO 108, MAT 122 or MAT 123, PSY 103 or SOC 105.

#### The Honors Program in Business Management

Incoming first-year Business Management majors who show exceptional talent will be invited to enroll in a special section of BUS 115 and a special section of WRT 102 that is taught collaboratively. Students who excel in these two courses with an A – or better and who earn a cumulative GPA of 3.5 or better will be interviewed to determine their motivation for research. Those who pass successfully through this process will be invited to join the BHP. In addition to the standard requirements of the Business Management major, the BHP student must take 3 1-credit courses, one WRT course (3 credits), and 2 additional BUS courses (3 credits each). The BHP student will count the WRT course and the 2 additional BUS courses as upper-division elective courses. Student progress and performance will be monitored throughout the program. Students who perform poorly (below a cumulative 3.3 GPA) in their academic studies will be counseled and warned that they are in jeopardy of being dropped from the BHP. Following at least one warning, such students will not be permitted to continue in the BHP. Students entering as a business major, either as an existing Stony Brook student or transfer student, will be evaluated under the same criteria for curriculum and admittance to the BHP.

Year 1, Fall: BUS 115 Introduction to Business with WRT Collaboration (3 credits each)

Year 1, Spring: BUS 195 Business Honors Seminar I (1 credit)

Year 2, Fall: BUS 295 Business Honors Seminar II (1 credit)

Year 2, Spring: BUS 296 Business Honors Seminar III (1 credit)

Year 3, Fall: BUS 447 Business Ethics/WRT 301 (3 credits each)

Year 3, Spring: BUS 380 Research Methods (3 credits)

Year 4, Fall: BUS 487 Independent Research (3 credits)

Year 4, Fall and Spring: BUS 495 and BUS 496 (3 credits each)

#### The Business Leadership Program

Incoming first-year Business Management majors who show exceptional talent will be invited to enroll in a special reserved section of BUS 115 and a special reserved section of WRT 102. Students who excel in these two courses with an A– or better and who earn a cumulative GPA of 3.3 or better will be interviewed to determine their motivation for leadership. Those who pass successfully through this process will be invited to join the Business Leadership Program. Relative to the Business Management major who is not in the Business Leadership Program, the Business Leadership Program student will take 3 1-credit courses and one WRT course (3 credits). The Business Leadership Program student will count the WRT course as an upper-division elective course. Student progress and performance will be monitored throughout the program. Students who perform poorly (below a cumulative 3.3 GPA) in their academic studies will be counseled and warned that they are in jeopardy of being dropped from the Business Leadership Program. Following at least one warning, such students will not be permitted to continue in the Business Leadership Program. Students entering as a business major, either as an existing Stony Brook student or transfer student, will be evaluated under the same criteria for curriculum and admittance to the Business Leadership Program. The Business Leadership Program is a combination of the minor in leadership development requirements and the following course requirements.

Year 1, Fall: BUS 115 Introduction to Business/WRT 102 (3 credits each)

Year 1, Spring: BUS 195 Business Honors Seminar I (1 credit)

Year 2, Fall: BUS 295 Business Honors Seminar II (1 credit)

Year 2, Spring: BUS 296 Business Honors Seminar III (1 credit)

Year 3, Fall: BUS 447 Business Ethics/WRT 301 (3 credits each)

#### Requirements for the Minor

The Business Management minor is intended for students pursuing other majors who seek a foundation in business studies. The minor complements their chosen major by introducing them to principles and techniques used in business and management. Students may apply to the BUS minor any time during their academic career provided that their cumulative grade point average is a 3.10 or higher. Applications must be submitted to the College of Business Office of Student Services no later than March 15 for admission in the following Fall semester, and no later than October 15 for admission in the following Spring semester. Application forms are available at the College of Business Office of Student Services.

The minor can be completed with 21 to 22 credits, assuming the appropriate prerequisite courses have been taken. All courses must be taken for a letter grade and passed with a grade of C or higher.

#### Transfer Credit Policy for Students in the Minor

Students may apply a maximum of nine transfer credits toward the Business Minor.

#### Requirements for the Minor

1. BUS 111 or BUS 112

2. Six courses from the following (four courses must be 300 level or higher): BUS 210; BUS 215; BUS 220; BUS 294; BUS 301; BUS 330; BUS 325 OR POL 319; BUS 332; BUS 333; BUS 340; BUS 346; BUS 348; BUS 351; BUS 353 or BUS 383; BUS 354; BUS 390; BUS 391; BUS 393; BUS 440; ECO 108

#### Sample Course Sequence for the Major in Business Management

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
WRT 101 or WRT 102		3 WRT 102 or D.E.C.	3
MAT 122		3 BUS 115	3
D.E.C.		3 BUS 215	3
D.E.C.		3 ECO 108	4
D.E.C.		3 D.E.C.	3
Total		16 Total	17
Sophomore Fall	Credits	Spring	Credits
BUS 210		3 BUS 330	3
BUS 220		3 BUS 346	3
D.E.C.		3 BUS 348	3
D.E.C.		3 D.E.C.	3
D.E.C.		3 D.E.C.	3
Total		15 Total	15
Junior Fall	Credits	Spring	Credits
Specialization course		3 Specialization course	3
Minor course		3 BUS Mgmt. elective	3
Minor course		3 Minor course	3
Minor course		3 Minor course	3
Upper-Division D.E.C.		3 Upper-Division elective	3
Total		15 Total	15
Senior Fall	Credits	Spring	Credits
Specialization course		3 BUS 441 or BUS 353 or BUS 383	3
Minor course		3 BUS 447	3



Minor course	3	Specialization course	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Total	15	Total	15

**BUS Faculty**

Faculty information for this program can be found at [http://www.stonybrookcob.com/index.php?option=com\\_sobi2&catid=5&Itemid=27](http://www.stonybrookcob.com/index.php?option=com_sobi2&catid=5&Itemid=27)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Chemical and Molecular Engineering (CME)****Major in Chemical and Molecular Engineering****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

CHAIRPERSON: Michael Dudley

Undergraduate Program Directors: Miriam Rafailovich and Devinder Mahajan

ADMINISTRATIVE ASSISTANT: Joann Toye

OFFICE: Engineering 208

PHONE: (631) 632-6269

E-MAIL: Devinder.Mahajan@stonybrook.edu or Miriam.Rafailovich@stonybrook.edu

PROGRAM WEBSITE: <http://www.stonybrook.edu/cme/index.html>

Minors of particular interest to students majoring in Chemical and Molecular Engineering: Pharmacology (BCP), Business (BUS), Chemistry (CHE)

**Chemical and Molecular Engineering**

The Department of Materials Science and Engineering offers two majors leading to the Bachelor of Engineering (B.E.) degree, Engineering Science (see entry in the alphabetical listings of Approved Majors, Minors, and Programs) and Chemical and Molecular Engineering. The program in Chemical and Molecular Engineering is designed to meet the expanding demand for chemical engineers in the nanotechnology, nutraceutical, pharmaceutical, environmental, and energy industries. It emphasizes engineering at the molecular level rather than traditional large-scale process engineering. In a rigorous cross-disciplinary environment, the program provides students with knowledge in the basic physical sciences, mathematical techniques, and computational modeling tools that form the foundation of modern chemical and molecular engineering. A broad spectrum of courses prepares students to assimilate and apply their knowledge creatively to solve complex problems involving not only scientific but also ethical and moral considerations, and utilizing effective communication skills for working in an interdisciplinary team. Employment opportunities for graduates of the program include high-technology industries and institutions that are engaged in research and advanced manufacturing related to nanotechnology, pharmaceuticals, biotechnology, future fuels, waste management, and the synthesis of new materials. The Chemical and Molecular Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The program's mission is to serve the community by becoming a resource for regional economic development and to serve the nation by training students who can assume leadership in technological innovation, public service, and ethical standards. Its goal is to achieve international recognition as a center of excellence in molecularly based chemical engineering education and research.

**Program Educational Objectives**

The undergraduate program in chemical and molecular engineering has the following four specific program educational objectives:

1. The students will be prepared to assume positions in industry or research institutions that require knowledge of chemical engineering principles.
2. The students will be prepared to demonstrate leadership, teamwork, and communication skills.
3. The students will be committed to lifelong learning, ethical conduct, and be able to meet the constantly emerging needs of the chemical engineering profession.
4. The students will be educated in chemical engineering fundamentals and modern computational tools that enable them to succeed in graduate programs and research in chemical engineering.

**Program Outcomes**

To prepare students to meet the above program educational objectives, a set of program outcomes that describes what students should know and be able to do when they graduate, have been adopted. We expect students to gain:

- a. The ability to apply knowledge of mathematics, science, and engineering to chemical engineering problems;
- b. The ability to design and conduct experiments, as well as to analyze and interpret data;
- c. The ability to design a system, component, or process to meet desired needs;
- d. The ability to function on multidisciplinary teams;
- e. The ability to identify, formulate, and solve engineering problems;
- f. The understanding of professional and ethical responsibility;
- g. The ability to communicate effectively;

- h. The broad education necessary to understand the impact of engineering solutions in a global and societal context;
- i. The recognition of the need for and an ability to engage in life-long learning;
- j. A knowledge of contemporary issues;
- k. The ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

### Requirements for the Major in Chemical and Molecular Engineering

#### Acceptance into the Major

Freshman and transfer applicants who have specified their interest in the major in Chemical and Molecular Engineering may be accepted directly into the major upon admission to the University. Applicants admitted to the University but not immediately accepted into the Chemical and Molecular Engineering major may apply for acceptance at any time during the academic year by contacting the director of the undergraduate program. Final decisions on admission will be made by the undergraduate program director. Minimum requirements for acceptance are as follows:

1. Students must have a grade of B or higher in all math, physics and chemistry courses required by the major that have been completed.
2. Students must have an overall g.p.a. of 3.0 with not more than one grade of C or lower in any course, unless permission to waive is granted by the undergraduate program director.
3. Department must receive completed course evaluations for all transferred courses that are to be used to meet requirements of the major.

#### Requirements for the Major

The curriculum begins with a focus on mathematics, physics, and chemistry, followed by courses covering specific chemical engineering topics as well as an intensive laboratory sequence. In addition, each student chooses a four-course sequence as an area of specialization which may also qualify the students for a minor in the respective department. The program culminates in the submission and acceptance of a senior thesis or original research project completed by the student which is defended at the end of the senior year. The students are encouraged to select original research projects which can be published in peer reviewed journals.

Completion of the major requires approximately 101 credits.

#### 1. Mathematics

- a. AMS 151, AMS 161 Applied Calculus I, II
- b. AMS 261 or MAT 203 or MAT 205 Calculus III
- c. AMS 361 or MAT 303 or MAT 305 Calculus IV

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161: MAT 131, MAT 132 or MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142

#### 2. Natural Sciences

##### a. Chemistry

CHE 131, CHE 132 General Chemistry I, II or CHE 141, CHE 142  
 CHE 133, CHE 134 General Chemistry Laboratory I, II or CHE 143, CHE 144  
 CHE 321 Organic Chemistry I and CHE 326 Organic Chemistry IIB  
 CHE 383, CHE 384 Introductory and Intermediate Synthetic and Spectroscopic Laboratory Techniques

##### b. Physics

PHY 131, PHY 132 Classical Physics I, II  
 PHY 133, PHY 134 Classical Physics Laboratory I, II  
 PHY 251 Modern Physics and PHY 252 Modern Physics Laboratory or ESG 281 Engineering Introduction to the Solid State  
 Note: The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142 Classical Physics I, II: Honors

#### 3. Computer Programming

one of the following:

CSE 130 Introduction to Programming in C  
 ESG 111 C Programming for Engineers  
 ESE 124 Computer Techniques for Electronic Design

#### 4. Chemical Engineering

CME 101 Introduction to Chemical and Molecular Engineering  
 CME 233 Ethics and Business Practices for Engineers  
 CME 304, CME 314 Chemical Engineering Thermodynamics I, II  
 CME 312 Material and Energy Balance  
 CME 315 Numerical Methods for Chemical Engineering Analysis  
 CME 318 Chemical Engineering Fluid Mechanics  
 CME 322 Chemical Engineering Heat and Mass Transfer  
 CME 323 Reaction Engineering and Chemical Kinetics  
 CME 330 Principles of Engineering for Chemical Engineers  
 CME 401 Separation Technologies  
 CME 310, CME 320, CME 410, CME 420 Chemical Engineering Laboratory I, II, III, IV  
 CME 427 Molecular Modeling for Chemical Engineers or 300-level BUS course

## CME 440, CME 441 Process Engineering and Design I, II

## 5. Specializations in Chemical and Molecular Engineering

Chemical and Molecular Engineering students must choose from one of the eight specializations offered. Each specialization requires the completion of three technical elective courses at the 300 level or higher.

## 6. Upper-Division Writing Requirement: CME 300 Writing in Chemical and Molecular Engineering

All degree candidates must demonstrate skill in written English at a level acceptable for engineering majors. All Chemical and Molecular Engineering students must complete the writing course CME 300 concurrently with CME 310. The quality of writing in technical reports submitted for CME 310 is evaluated, and students whose writing does not meet the required standard are referred for remedial help. Satisfactory writing warrants an S grade for CME 300, thereby satisfying the requirement.

## Grading

All courses taken to satisfy requirements 1-6 above must be taken for a letter grade of C or higher, except in CME 304 which must be taken for a letter grade of B- or higher.

## Specializations

Students must complete three courses in a chosen specialization. (In some cases, there is also a pre or co-requisite course attached to one of the courses.) In consultation with a program director, students select their area of specialization by the Spring semester of their sophomore year in the Chemical and Molecular Engineering program. Students are urged to meet regularly with their advisors regarding completion of the course requirements for the chosen specialization. Other courses may be used towards this requirement with the prior permission of the undergraduate program director.

## A. Pharmacology

Ensures a sound background in pharmacology coupled with a foundation in chemical process control, distillation, and molecular modeling for students interested in pursuing a career in the food, cosmetics, or pharmaceutical industries or in medical instrumentation.

BIO 203 Fundamentals of Biology: Cellular and Organ Physiology

BIO 328 Mammalian Physiology

BCP 401 Principles of Pharmacology

BCP 402 Advanced Pharmacology

## B. Materials Science

Provides a foundation in properties of materials, engineering mechanics, and electronic materials for students interested in computer-related industries, nanotechnology, and electronics.

ESG 333 Materials Science II: Electronic Properties

ESM 334 Materials Engineering

ESM 335 Strength of Materials

ESM 336 Electronic Materials

## C. Polymer Science

Provides a foundation in the properties of polymers, spectroscopy of organic compounds, polymer synthesis, and polymer processing for students interested in pursuing research in major laboratories or in academia.

CME 369 Polymer Engineering

CME 371 Biomedical Polymers

CME 470 Polymer Synthesis

CME 480 Cellular Biology for Chemical Engineers

CME 481 Advanced Cell Biology for Chemical Engineers

## D. Tissue Engineering

Recommended for students who are interested in the biochemical foundations of cellular function and the design of materials scaffolds for tissue engineering. It is also recommended for students interested in drug delivery systems and premedical or pharmacological professions.

The following courses can be used to satisfy the CME Tissue Engineering Specialization:

BME 404 Essentials of Tissue Engineering

Any TWO of the following courses:

CHE 346 Biomolecular Structure and Reactivity

CME 371 Biomedical Polymers

BIO 310 Cell Biology

BIO 311 Techniques in Molecular and Cellular Biology

BIO 328 Mammalian Physiology

BIO 335 Animal Physiology Laboratory

BIO 317 Principles of Cellular Signaling

CME 481 Advanced Cell Biology for Chemical Engineers

## E. Business

The Business specialization is recommended for students interested in the economic implications of chemical engineering and in financial management of intellectual property.

The Business specialization consists of 12 credits of any upper division (300 level or above) Business courses not required for the CME major.

## F. Chemistry

The Chemistry specialization consists of 12 credits of upper level CHE 300 courses not already required for the CME Major.

## G. Physics

The Physics specialization consists of 12 credits of any upper division (300 level or above) Physics courses not required for the CME major.

## H. Custom Specialization

This category is created to allow students to choose their own specialization. Students will select four upper level courses related to the chosen specialty within the courses offered at the university and approved by the CME undergraduate program director. The goal is to provide a basic foundation for students and prepare them for the job market in the chosen specialty.

### Sample Course Sequence for the Major in Chemical and Molecular Engineering

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 CME 233	3
CME 101		3 AMS 161	3
AMS 151		3 CHE 132, CHE 134	5
CHE 131, CHE 133	5	PHY 132, PHY 134	4
PHY 131, PHY 133		4	
Total		19 Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMS 261		4 AMS 361	4
CHE 321		4 CHE 326	4
CHE 383		2 CHE 384	3
CME 304		3 CME 312	3
ESG 111		3 CME 314	3
D.E.C. A or D.E.C.		3	
Total		19 Total	17
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ESG 281		4 CME 323	3
CME 310, CME 300	2, 0	CME 320	2
CME 318		3 CME 330	2
CME 322		3 D.E.C.	3
CME 315		3 D.E.C.	3
D.E.C.		3 Specialization course	3
Total		18 Total	16
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CME 401		3 CME 420	2
CME 410		2 CME 441	3
CME 440		3 CME 427	3
CME 480		3 D.E.C.	3
D.E.C.		3 D.E.C.	3

Specialization course	3	Specialization course	3
Total	17	Total	17

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Chemistry (CHE)****Majors and Minor in Chemistry****Department of Chemistry, College of Arts and Sciences**

Chairperson: Nicole Sampson

Assistant to the Chair: Norma Reyes

Director of Undergraduate Studies: Trevor Sears

Student Affairs Coordinator: Katherine M. Hughes

Office: 104 Chemistry Phone: (631) 632-7886 E-mail: Trevor.Sears@stonybrook.edu

Web Address: <http://stonybrook.edu/chemistry>

Minors of particular interest to students majoring in Chemistry: Biology (BIO), Environmental Studies (ENS), Marine Sciences (MAR), Science and Engineering (LSE)

**Department Information - Chemistry (CHE)**

The Bachelor of Science program in Chemistry is designed to prepare the student for graduate study in chemistry or for industrial or other employment. It includes options in biological chemistry, chemical physics, and environmental chemistry, in addition to the traditional chemical science option. The B.S. program of the Department of Chemistry is approved by the Committee on Professional Training of the American Chemical Society.

The Bachelor of Arts program allows more flexibility in the choice of electives, accommodating the needs of pre-medical students and others whose career objectives may call for a substantial introduction to chemistry. It can also accommodate students who wish to obtain a strong undergraduate background in another science or mathematics while earning a degree in chemistry.

Students interested in combining the study of chemistry with the study of materials science should see also the Interdisciplinary Program in Engineering Chemistry.

**Requirements for the Majors and Minor in Chemistry (CHE)**

Requirements for the Major (Bachelor of Science Degree)

All of the courses used to fulfill the requirements of the major (CHE, MAT, PHY, BIO, etc.) must be passed with a grade of C or higher, with the exception of three courses, for which the grade may be C-. No transferred course with a grade lower than C may be used to fulfill any major requirement.

Completion of the major requires approximately 66 to 69 credits.

**A. Core Requirements**

1. CHE 131 (or CHE 129 and CHE 130), CHE 132 General Chemistry I, II or CHE 141, CHE 142 Honors Chemistry I, II
2. CHE 133, CHE 134 General Chemistry Lab I, II or CHE 143, CHE 144 Honors Chemistry Laboratory I, II
3. CHE 301, CHE 302 Physical Chemistry I, II
4. CHE 303 Solution Chemistry Laboratory
5. CHE 321, CHE 326 Organic Chemistry I, IIB
6. CHE 375 Inorganic Chemistry I
7. CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques
8. CHE 385 Tools of Chemistry
9. MAT 131, MAT 132 Calculus I, II (See note 1 for possible substitutions)
10. AMS 210 Applied Linear Algebra or MAT 211 Linear Algebra (See note 1 for possible substitutions)
11. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II (See note 2 for possible substitutions)

**B. Area Requirements**

One of the following options:

**1. Chemical Science Option**

CHE 304 Chemical Instrumentation Laboratory

CHE 357 Molecular Structure and Spectroscopy Laboratory

CHE 384 Intermediate Synthetic and Spectroscopic Laboratory Techniques

CHE 487 Research in Chemistry (3 credits) or CHE 496 Senior Research

Two electives chosen from: CHE 345, CHE 346, CHE 348, CHE 351, CHE 353, CHE 376, CHE 378, PHY 251, or ESG 281

**2. Biological Chemistry Option (See note 3)**

CHE 384 Intermediate Synthetic and Spectroscopic Laboratory Techniques

One organic or inorganic chemistry elective chosen from: CHE 345, CHE 346 (See note 4), CHE 348, CHE 376, CHE 378, or CHE 496  
BIO 202 Fundamentals of Biology: Molecular and Cellular Biology  
CHE 346 (recommended) or BIO 361 Biochemistry I  
BIO 310 Cell Biology or BIO 362 Biochemistry II

### 3. Chemical Physics Option

CHE 304 Chemical Instrumentation Laboratory  
CHE 351 Quantum Chemistry or CHE 353 Chemical Thermodynamics  
CHE 357 Molecular Structure and Spectroscopy Laboratory  
MAT 203 Calculus III with Applications or MAT 303 Calculus IV (See note 1 for possible substitutions)  
PHY 251/PHY 252 Modern Physics and Laboratory  
One elective chosen from: PHY 277 Computation for Physics and Astronomy, PHY 300 Waves and Optics, PHY 307 Physical and Mathematical Foundations of Quantum Mechanics, PHY 301 Electromagnetic Theory I, PHY 303 Mechanics, or PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics (the last three courses require other physics prerequisites or permission of the instructor).

### 4. Environmental Chemistry Option

CHE 304 Chemical Instrumentation Laboratory  
CHE 310 Chemistry in Technology and the Environment  
CHE 357 Molecular Structure and Spectroscopy Laboratory  
CHE 384 Intermediate Synthetic and Spectroscopic Laboratory Techniques  
BIO 201 Fundamentals of Biology: Organisms to Ecosystems or BIO 113 Applied Ecology  
ATM 397 Air Pollution and Its Control (See note 5 for possible substitutions)

### 5. Marine and Atmospheric Chemistry Option

ATM 205 Introduction to Atmospheric Sciences  
MAR 308 Principles of Instrumental Analysis  
MAR 333 Coastal Oceanography  
MAR 351 Introduction to Ocean Chemistry  
Two electives chosen from: MAR 301 Environmental Microbiology, MAR 302 Marine Microbiology and Microbial Ecology, MAR 334 Remote Sensing of the Environment, MAR 336 Marine Pollution, MAR 394 Environmental Toxicology and Public Health, ATM 305 Global Atmospheric Change, ATM 345 Atmospheric Thermodynamics and Dynamics, ATM 397 Air Pollution and Its Control  
C. Upper-Division Writing Requirement

Each student majoring in chemistry must take CHE 385, Tools of Chemistry, until a satisfactory grade is achieved. The course requires several papers which are evaluated for cogency, clarity, and mechanics.

#### Notes:

#### 1. Alternate Mathematics Sequences

The following alternate sequences may be substituted for major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 for MAT 131, MAT 132; MAT 203 for AMS 210 or MAT 211. MAT 203 may be replaced by AMS 261 and MAT 303 may be replaced by AMS 261. The Chemical Physics option requires two math courses in addition to Calculus I and II. Equivalency for MAT courses as indicated by earning the appropriate score on a placement examination will be accepted as fulfillment of the requirement without the necessity of substituting other credits.

#### 2. Alternate Physics Sequences

The following alternate sequences may be substituted for physics requirements or prerequisites: PHY 141, PHY 142 or PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 for PHY 131/PHY 133, PHY 132/PHY 134.

3. It is recommended that students selecting the biological option take a minimum of one BIO lab (e.g., BIO 204).

4. CHE 346 may not be used as both an elective and as a substitute for BIO 361.

5. The following substitutions for ATM 397 need additional prerequisites: ENV 315/GEO 315 Groundwater Hydrology, MAR 336 Marine Pollution, MAR 351 Introduction to Ocean Chemistry

#### 6. Transfer Credit

At least 12 credits of upper-division work in chemistry must be taken at Stony Brook; these must be taken in at least two of the major subdisciplines (inorganic, physical, and organic chemistry).

7. The American Chemical Society's Committee on Professional Training has set nationally recognized standards for professional preparation in chemistry. The Chemistry faculty recommends that students intending to pursue careers in the chemical sciences secure ACS certification along with their Bachelor of Science degree.

To obtain ACS certification, students who elect the chemical science option must complete CHE 346 or BIO 361. Students who elect the biological chemistry option must complete one additional elective in chemistry or a related field and the laboratories CHE 304, CHE 357, and CHE 496. Students who elect the chemical physics or the marine and atmospheric chemistry option must complete CHE 346 and the laboratories CHE 384 and CHE 496. Students who elect the environmental chemistry option must complete CHE 346 and CHE 496.

#### 8. Additional Areas of Study

Because knowledge of computer programming is of great value to all chemists, a course in computer programming is recommended.



### Requirements for the Major (Bachelor of Arts Degree)

All of the courses used to fulfill the requirements of the major (CHE, MAT, ESG, PHY, etc.) must be passed with a grade of C or higher, with the exception of three courses, for which the grade may be C-. No transferred course with a grade lower than C may be used to fulfill any major requirement.

Completion of the major requires approximately 55 to 56 credits.

#### A. Study Within the Area of Chemistry

1. CHE 131, CHE 132 General Chemistry I, II or CHE 141, CHE 142 Honors Chemistry I, II
2. CHE 133, CHE 134 General Chemistry Lab I, II or CHE 143, CHE 144 Honors Chemistry Laboratory I, II
3. CHE 301, CHE 302 Physical Chemistry I, II
4. CHE 303 Solution Chemistry Laboratory and one additional laboratory course (CHE 304 or CHE 384)
5. CHE 321, CHE 326 Organic Chemistry I, IIB
6. CHE 327 Organic Chemistry Laboratory or CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques
7. CHE 375 Inorganic Chemistry I
8. CHE 385 Tools of Chemistry

#### B. Courses in Related Fields

1. MAT 131, MAT 132 Calculus I, II and AMS 210 Applied Linear Algebra or MAT 211 Linear Algebra (See note 1)
2. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs (See note 2)

#### C. Upper-Division Writing Requirement

Each student majoring in chemistry must take CHE 385, Tools of Chemistry, until a satisfactory grade is achieved. The course requires several papers which are evaluated for cogency, clarity, and mechanics.

#### Notes:

##### 1. Alternate Mathematics Sequences

The following alternate sequences may be substituted for major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 for MAT 131, MAT 132; MAT 203 for AMS 210 or MAT 211. Equivalency for MAT courses as indicated by earning the appropriate score on a placement examination will be accepted as fulfillment of the requirement without the necessity of substituting other credits.

##### 2. Alternate Physics Sequences

The following alternate sequences may be substituted for physics requirements or prerequisites: PHY 121/PHY 123, PHY 122/PHY 124 or PHY 125, PHY 126/PHY 133, PHY 127/PHY 134, or PHY 141, PHY 142 for PHY 131/PHY 133, PHY 132/PHY 134.

##### 3. Transfer Credit

At least 12 credits of upper-division work in chemistry must be taken at Stony Brook; these must be taken in at least two of the major subdisciplines (inorganic, physical, and organic chemistry).

#### Honors Program

Students who have maintained a minimum cumulative grade point average of 3.00 in science and mathematics through the junior year are eligible for departmental honors in chemistry. An additional requirement for honors is the submission of a senior thesis based on research performed during the senior year. The student will be given an oral examination in May by his or her research supervisor and the undergraduate research committee. The awarding of honors requires the recommendation of this committee and constitutes recognition of superior performance in research and scholarly endeavors. If the student has also achieved a 3.40 cumulative grade point average in chemistry courses taken in the senior year, honors will be conferred.

#### Chemistry Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Requirements for the Minor

The Chemistry minor requires 22 credits, which include a General Chemistry Lecture sequence, a General Chemistry Laboratory sequence, plus 12 credits of CHE 300-level courses or research. A minimum of 9 upper division CHE credits must be earned in courses not used towards the student's major. All courses for the minor must be completed for a letter grade of C or better or S. All students must complete a minimum of 8 upper division credits in 300-level or chemistry research courses in residency at Stony Brook in order to qualify for the minor. All courses for the minor must be completed for a letter grade of C or better or S. All students must complete a minimum of 8 upper division credits in 300-level chemistry or chemistry research courses in residency at Stony Brook.

Completion of the minor requires the following courses:

##### A. General Chemistry lecture sequence

CHE 129-132 or CHE 131-132 or CHE 141-142

B. General Chemistry laboratory sequence  
CHE 133-134 or CHE 143-144

C. 12 credits of CHE 300-level courses or CHE research (CHE 487, CHE 495, or CHE 496)

Special restriction: A minimum of 9 upper division CHE credits must be earned in courses not required for the student's major.

Bachelor of Science Degree/Master of Science Degree Program

A student interested in this research-intensive graduate program, intended to prepare students for professional employment in the chemical or pharmaceutical industries, may apply for admission at the end of the junior year. The program leads to a Bachelor of Science degree in Chemistry at the end of the fourth year and a Master of Science in Chemistry at the end of the fifth year. During the senior year, the student is expected to take two 500-level CHE courses and begin research in the senior research sequence. In the fifth year, the student works full-time on research, earning 24 credits in CHE 599.

### Sample Course Sequence for the Major in Chemistry (Chemical Science Option, B.S. Degree)

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 131	4	CHE 142 or CHE 132	4
CHE 141 or CHE 131	4	CHE 144 or CHE 134	1
CHE 143 or CHE 133	1	MAT 132	4
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 321	4	CHE 326	4
CHE 383	2	CHE 384	3
AMS 210 or MAT 211	3	CHE 385	1
PHY 131	4	PHY 132	4
D.E.C.	3	D.E.C.	3
Total	16	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 301	4	CHE 302	4
CHE 303	2	CHE 304	2
CHE 375	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 357	2	CHE 496	3
Upper-Division elective	3	D.E.C.	3
CHE 495	3	Upper-Division CHE elective	3
D.E.C.	3	Upper-Division elective	3
Electives	6	Elective	3
Total	17	Total	14-15

**Sample Course Sequence for the Major in Chemistry (B.A. Degree)**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 131	4	CHE 132	4
CHE 131 or CHE 141	4	CHE 134 or CHE 144	1
CHE 133 or CHE 143	1	MAT 132	4
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 321	4	CHE 326	4
CHE 383	2	CHE 384*	3
AMS 210 or MAT 211	3	CHE 385	1
PHY 131	4	PHY 132	4
D.E.C.	3	D.E.C.	3
		Elective	3
Total	16	Total	18
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 301	4	CHE 302	4
CHE 303	2	CHE 304*	2
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 375	3	Upper-Division electives	6
D.E.C.	3	Electives	9
Upper-Division electives	6		
Elective	3		
Total	15	Total	15

\*Only one of these two laboratory courses is required.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Chinese Studies (CNS)****Minor in China Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Director of the Minor: Dongmei Zeng

Administrative Assistant: Darlene Prowse

E-MAIL: Darlene.Prowse@stonybrook.edu

Office: 1046 Humanities

Phone: (631) 632-7690

FAX: (631) 632-4098

WEB SITE: <http://www.sunysb.edu/chinastudies>

**China Studies (CNS)**

The China Studies program enables students majoring in other fields to pursue China-related courses relevant to their own interests, while developing knowledge and skills that will advance their educational and career goals. Drawing on the perspectives of complementary disciplines, the program offers an 18-credit minor in China Studies that covers both contemporary and historical issues. Students may also earn academic credit through study abroad opportunities.

**Requirements for the Minor in China Studies (CNS)**

At least 9 credits must be taken in courses numbered 300 or higher. All courses must be completed with a letter grade of C or higher.

Completion of the minor requires 18 credits.

1. One of the following foundation courses (3 credits):

AAS 220 China: Language and Culture

AAS 221 China: Science and Civilization

AAS 240/RLS 240 Confucianism and Taoism

HIS 219 Introduction to Chinese History and Civilization

2. A minimum of six credits chosen from the following Chinese language courses:

CHI 101 Intensive Elementary Chinese

CHI 111 Elementary Chinese I

CHI 112 Elementary Chinese II

CHI 201 Intensive Intermediate Chinese

CHI 210 Elementary Chinese for Chinese Speakers

CHI 211 Intermediate Chinese I

CHI 212 Intermediate Chinese II

CHI 301 Advanced Chinese I

CHI 302 Advanced Chinese II

CHI 410 Business Chinese

CHI 411 Readings: Journalistic Chinese

CHI 412 Readings: Classical Chinese

CHI 421 Chinese Poetry and Short Stories

CHI 422 Chinese Lyric Prose and Plays

CHI 426 Structure of Mandarin Chinese

CHI 447 Directed Readings in Chinese

CHI 487 Independent Research in Chinese

Students may fulfill the language requirement by either taking Chinese classes on campus or department-approved study abroad courses.

3. Three of the following elective courses: (9 credits)

AAS 300 Intellectual History of East Asia

AAS 319 Arts of China

AAS 339 Contemporary China: History, Politics, Diplomacy since 1949 OR AAS 351/HIS 351 Revolutionary China

AAS 352/HIS 352 Environmental History of China

AAS 370/LIN 370 Intercultural Communication

AAS 371/ANT 371 Ancient China

AAS 372/ANT 372 Family, Marriage, and Kinship in China

AAS 379/ANT 379 Ethnicity and Ecology in China

AAS 391 Humanities Topics in AAS (when topic is appropriate)

AAS 392 Social Science Topics in AAS (when topic is appropriate)

AAS 401 Seminar in AAS (when topic is appropriate)

AAS 447 Directed Readings (when topic is appropriate)  
CLT 361 Literature and Society  
HIS 340 Topics in Asian History (when topic is appropriate)  
HIS 341 20th Century China  
HIS 345 Women and Gender in Chinese History  
HIS 431 Colloquium in Asian History (when topic is appropriate)  
HIS 432 Colloquium in Asian History (when topic is appropriate)  
PHI 342 History of Chinese Philosophy  
PHI 378 Philosophical Topics in Asian-American History (appropriate topic)  
POL 413 Asian Security and Technical Issues  
RLS 390, RLS 391 Special Topics (when topic is appropriate)  
THR 313 Asian Theatre and Drama

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Cinema and Cultural Studies (CCS)****Interdisciplinary Major and Minor in Cinema and Cultural Studies****Department of Cultural Analysis and Theory, College of Arts and Sciences**

Chair: Robert Harvey

Undergraduate Program Director for CAT: Raiford Guins

Undergraduate Advisor for CCS: Raiford Guins

Assistant to the Chair: Mary Moran-Luba

Office: Humanities 2048

Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cat/>

**Cinema and Cultural Studies (CCS)**

Administered by the Department of Comparative Literary and Cultural Studies, the major in Cinema and Cultural Studies considers film as a form of representation in and of itself and in relation to other disciplines such as literature, art, and theatre. By emphasizing the emerging discipline of cultural studies, the major is designed to show how cultural forms such as cinema and the other arts develop and interact with each other and with social, historical, and economic forces. The major's core courses place strong emphasis on writing skills and critical thinking about film and other cultural forms. Students are also taught "media literacy"-the ability to read the many images we encounter every day in an age when images are being used for manipulation as never before. Students are encouraged to apply knowledge in the classroom to practical situations through internships in film and advertising industries or through independent research.

Students majoring in Cinema and Cultural Studies are prepared to undertake graduate study in many humanistic disciplines and to enter into careers in the film industry, communications, advertising, marketing, and public relations.

**Requirements for the Major in Cinema and Cultural Studies**

The major in Cinema and Cultural Studies leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher. Twenty-one credits for the major must be earned in courses numbered 300 or higher.

Completion of the major requires 39 credits.

**A. Core Courses**

CCS 101 Introduction to Cinema and Cultural Studies

CCS 201 Writing about Culture

CCS 301 Theorizing Cinema and Culture

CCS 401 Senior Seminar in Cinema and Cultural Studies

**B. Courses in Cinema****1. Required:**

HUM 201 Film Genres and

HUM 202 Film History

**2. One other lower-division course from the following:**

CLT 235 American Pluralism in Film and Literature

HUF 211 French Cinema

HUG 221 German Cinema Since 1945

HUI 231 Sex and Politics in Italian Cinema

HUR 241 Russian Cinema

THR 117 Media Analysis and Culture

**3. Three upper-division courses from the following:**

CCS 311 Gender and Genre in Film

CCS 312 Cinema and the Ancient World

CCS 324 Jazz and American Culture

CCS 390 Latin American Cinema

CCS 391 Contemporary African Cinema and Cultural Studies

CCS 392 American Cinema and Cultural Studies

CCS 393 European Cinema and Cultural Studies

CCS 394 Asian Cinema and Cultural Studies

CCS 487 Independent Research

CCS 488 Internship

CLT 335 Interdisciplinary Study of Film

SPN 420 Topics in Spanish and Latin American Cinema

THR 403 Media Theory and Criticism

**C. Courses in Cultural Studies**

1. Texts and Contexts. One course from the following:

CCS 325 Culture in Context  
 CCS 326 Social and Cultural Theory  
 CLL 315 Gender and Sexuality in Ancient Greek Literature  
 CLT 330 Literary Genres  
 CLT 361 Literature and Society  
 CLT 362 Literature and Ideas  
 CLT 363 Literature and the Arts  
 CLT 391 African Comparative Literature  
 CLT 392 Multicultural Comparative Literature  
 CLT 393 European Comparative Literature  
 CLT 394 Asian Comparative Literature

2. Visual Culture. One course from the following:

ARH 322 American Art Since 1947  
 ARH 329/AFH 339 Arts of the African Diaspora  
 ARH 331 American Art to 1890  
 ARH 333 Arts for the Public  
 ARH 335 History of Photography  
 ARH 342 Art of the 20th Century

3. Digital Culture. One course from the following:

ARS 317/MUS 317/THR 317 Interactive Media, Performance, and Installation  
 ARS 318/MUS 318/THR 318 Movies: Shoot, Edit, Score  
 ARS 325 Theory and Practice of Digital Art: Print  
 ARS 326 Theory and Practice of Digital Art: Video  
 ARS 327 Web Art, Design, and Culture  
 ARS 425 Advanced Digital Arts  
 CCS 313 Television Studies  
 CCS 395 Digital Cultural Studies  
 CCS 396 Video and Computer Game History  
 CCS 397 Video and Computer Game Culture  
 MUS 300 Music, Technology, and Digital Culture  
 MUS 340 Introduction to Music Technology  
 MUS 437 Electronic Music

#### D. Upper-Division Writing Requirement

All students are required to write a term paper for CCS 301, which is evaluated by the instructor for its evidence of upper-division writing ability. Students whose writing is judged satisfactory will have fulfilled the upper-division writing requirement. Students who do not fulfill the requirement in CCS 301 must submit to the major advisor, no later than the first semester of the senior year, a portfolio of papers written for subsequent upper-division courses taken for the major and must achieve an evaluation of satisfactory on the portfolio.

Notes:

1. Only three credits of CCS 487, Independent Study, or CCS 488, Internship, may be used to satisfy major requirements.
2. Students should consider the prerequisites to upper-division courses for the major when choosing elective and D.E.C. courses.
3. Other relevant courses may be substituted for major requirements with permission of the undergraduate program director.

Minor

The minor in Cinema and Cultural Studies is designed to provide a broad overview of film and culture and to complement most majors in the arts and sciences.

#### Requirements for the Minor in Cinema and Cultural Studies (CCS)

All courses for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits.

- A. CCS 101 Introduction to Cinema and Cultural Studies or CCS 201 Writing about Culture
- B. HUM 201 Film Genres or HUM 202 Film History
- C. CCS 301 Theorizing Cinema and Culture
- D. Two courses from the following: ARH 322, ARH 329, ARH 331, ARH 333, ARH 335, ARH 342, ARS 317/MUS 317/THR 317, ARS 318/MUS 318/THR 318, ARS 325, ARS 326, ARS 327, ARS 425, MUS 300, MUS 340, MUS 347, CCS 313, CCS 324, CCS 395, CCS 396, CCS 397, CLL 315, CLT 361, CLT 362, CLT 363, CLT 391, CLT 392, CLT 393, CLT 394, MUS 300, MUS 340
- E. Six credits from the following: CCS 311, CCS 312, CCS 325, CCS 326, CCS 390, CCS 391, CCS 392, CCS 393, CCS 394, CCS 401, CCS 487, CCS 488, CLT 330, CLT 335, HUS 390, SPN 420

## Notes:

1. Only one course from CCS 487 or CCS 488 may be used to satisfy Requirement E.
2. Students should consider the prerequisites to upper-division courses for the minor when choosing elective and D.E.C. courses.
3. Other relevant courses may be substituted for minor requirements in consultation with the minor director.

## Honors Program

Students who have maintained a grade point average of 3.50 in the major and 3.00 overall may attempt the degree in Cinema and Cultural Studies with honors. Students should apply for the honors program at the end of their junior year. The student must find a faculty member affiliated with the program to act as sponsor and, with written approval of the sponsor, submit a written proposal for an honors thesis or honors project to the Undergraduate Program Director. If the honors thesis or project is judged to be completed with distinction and the student has achieved a 3.50 g.p.a. in all courses for the Cinema and Cultural Studies major taken during the senior year, honors are conferred. Course credit for the honors thesis or project is given under CCS 495.

**Sample Course Sequence for Major in Cinema and Cultural Studies**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Freshman Year Seminar 101	1	Freshman Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CCS 101	3	Requirement B-1 course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Requirement B-1 course	3	CCS 201	3
D.E.C.	3	Requirement B-2 course	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CCS 301	3	Requirement B-3 course	3
Requirement B-3 course	3	Requirement C-1 course	3
D.E.C.	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Requirement B-3 course	3	CCS 401	3
Requirement C-2 course	3	Requirement C-3 course	3
D.E.C.	3	D.E.C.	3
CCS 488 (recommended)	3	Upper-Division elective	3
Elective	3	CCS 488 (recommended)	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Civil Engineering (CIV)****Major in Civil Engineering****Department of Mechanical Engineering, College of Engineering and Applied Sciences**

Chairperson: Fu-Pen Chiang

Undergraduate Program Director: Harold Walker

Undergraduate Secretary: Augusta Kuhn

Office: Heavy Engineering 250C

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**Civil Engineering (CIV)**

The Bachelor of Engineering in Civil Engineering is designed to give students a solid foundation in civil engineering and sciences. It will provide students with a breadth and depth of technical knowledge in the field, preparing them to work immediately in most areas of the profession, including geotechnical engineering, environmental engineering, hydraulics, structural engineering, construction management, and transportation/traffic engineering. Students take courses in chemistry, physics, and math, in addition to a core set of engineering courses common to most engineering disciplines. Students are also introduced to computer software which expedites the design process, and they are taught how to balance engineering designs with economic constraints.

**Program Educational Objectives**

The educational objectives of the civil engineering program are to prepare our graduates to:

1. Establish a successful career in civil engineering.
2. Possess a strong fundamental, scientific and technical knowledge- base, and critical thinking skills, to serve as the foundation for lifelong learning related to the civil engineering profession, and in preparation for graduate studies.
3. Have a broad and well-integrated background in the concepts, theories, and methodologies needed to plan, design, analyze, develop, organize, and manage civil engineering projects.
4. Have expertise in the major areas of civil engineering: structural analysis, design and reliability, transportation systems engineering, and water resources and environmental engineering.

**Program Outcomes**

To prepare students for the above educational objectives, we have adopted the following set of program outcomes that describe what they are expected to attain when they graduate:

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- (c) an ability to design a system, component, or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (d) an ability to function on multidisciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Civil Engineering (CIV)****Requirements for Acceptance to the Major in Civil Engineering**

Freshman applicants who have specified their interest in Civil Engineering on their applications may be accepted directly into the major upon admission to the University.

**Requirements for the major in Civil Engineering (CIV)**

The major in Civil Engineering leads to the Bachelor of Engineering degree.

Completion of the major requires approximately 112 credits.

**1. Mathematics**

- a. AMS 151, AMS 161 Applied Calculus I, II
- b. AMS 261 Applied Calculus III or MAT 203 Calculus III with Applications
- c. AMS 361 Applied Calculus IV: Differential Equations or MAT 303 Calculus IV with Applications

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171.

## 2. Natural Sciences

a. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and Laboratories

b. CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry I, II and Laboratories or CHE 141/143, CHE 142/144 Honors Chemistry I, II and Laboratories

Note: The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142 Classical Physics I, II: Honors

## 3. Laboratories

MEC 316 Mechanical Engineering Laboratory I

CIV 340 Civil Engineering Laboratory

## 4. Civil Engineering

CIV 210 Land Surveying

CIV 305 Transportation Systems Analysis I

CIV 310 Structural Engineering

CIV 320 Water Supply & Waste Management

CIV 330 Soil Mechanics

CIV 410 Principles of Foundation Engineering

CIV 420 Hydraulics

## 5. Mechanical Engineering

MEC 101 Engineering Computing and Problem Solving I

MEC 102 Engineering Computing and Problem Solving II

MEC 202 Engineering Drawing and CAD I

MEC 203 Engineering Drawing and CAD II

MEC 214 Probability and Statistics for Mechanical Engineers

MEC 220 Practical Electronics Mechanical Engineers

MEC 260 Engineering Statics

MEC 262 Engineering Dynamics

MEC 280-H Pollution and Human Health

MEC 363 Mechanics of Solids

MEC 364 Introduction to Fluid Mechanics

## 6. Thermodynamics

CME 304 Chemical Engineering Thermodynamics I

## 7. Material Science

ESG 332 Materials Science I: Structure and Properties of Materials

## 8. Engineering Design

CIV 312 Design of Civil Engineering Structures

CIV 440 Senior Design I

CIV 441 Senior Design II

## 9. Writing and Oral Communication Requirement

CIV 300 Technical Communication

## 10. Engineering Economics

EST 392 Engineering and Manufacturing Economics or ECO 108 Introduction to Economics

## 11. Engineering Specializations

The area of specialization, composed of four electives, must be declared in writing by the end of the junior year. Two out of the four electives must be taken at the upper-division level. The area of specialization is selected in consultation with a faculty advisor.

The four areas of specialization are transportation engineering, geotechnical engineering, environmental engineering and structural engineering.

### Areas of Specialization

Each area of specialization requires a minimum of four electives from these lists.

#### **Transportation Engineering**

- CIV 306 Transportation Systems Analysis II
- EST 304 Communications for Engineers and Scientists
- EST 331 Professional Ethics and Intellectual Property
- EST 391-H Technology Assessment
- EST 393 Project Management
- GEO 102-E Earth
- GEO 318 Engineering Geology and Coastal Processes
- MEC 442 Experimental Stress Analysis
- MEC 455 Applied Stress Analysis

#### **Geotechnical Engineering**

- EST 304 Communications for Engineers and Scientists
- EST 331 Professional Ethics and Intellectual Property
- EST 391-H Technology Assessment

- EST 393 Project Management
- GEO 102-E Earth
- GEO 318 Engineering Geology and Coastal Processes
- GEO 420 Environmental Analysis Using Remote Sensing and Geographic Information Systems
- GEO 440 Geological Applications of Remote Sensing
- MEC 310 Introduction to Machine Design
- MEC 442 Experimental Stress Analysis
- MEC 455 Applied Stress Analysis

#### Environmental Engineering

- BIO 201-E Fundamentals of Biology: Organisms to Ecosystems
- ESM 212 Introduction to Environmental Materials Engineering
- EST 102-E Weather and Climate
- EST 304 Communications for Engineers and Scientists
- EST 331 Professional Ethics and Intellectual Property
- EST 341 Waste Treatment Technologies
- EST 391-H Technology Assessment
- EST 393 Project Management
- GEO 102-E Earth
- GEO 315 Groundwater Hydrology or CIV 422 Hydrology
- GEO 318 Engineering Geology & Coastal Processes
- GEO 353 Marine Ecology
- GEO 420 Environmental Analysis Using Remote Sensing and Geographic Information Systems
- MAR 104 Oceanography
- MAR 304-E Waves, Tides, and Beaches
- MAR 336 Marine Pollution
- MEC 393 Engineering Fluid Mechanics

#### Structural Engineering

- EST 304 Communications for Engineers and Scientists
- EST 331 Professional Ethics and Intellectual Property
- EST 391-H Technology Assessment
- EST 393 Project Management
- MEC 310 Introduction to Machine Design
- MEC 402 Mechanical Vibrations
- MEC 442 Experimental Stress Analysis
- MEC 455 Applied Stress Analysis

#### Grading

All courses taken to satisfy requirements 1 through 11 above must be taken for a letter grade. The grade point average for the courses MEC 260, 262, 280, 316, 363, 364, CME 304, CIV 305, 310, 320, 330, 410, 420, 440, 441, and all specialization and technical electives must be at least 2.00. A minimum grade of "C" in PHY 131 or PHY 125, MAT 125 or MAT 131, MEC 260, and MEC 262 is required for the BE degree. When a course is repeated, the higher grade will be used in calculating this average.

#### Sample Course Sequence for the Major in Civil Engineering

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
AMS 151	3	AMS 161	3
PHY 131/PHY 133	4	PHY 132/PHY 134	4
MEC 101	2	MEC 102	2
CHE 131	4	CHE 132	4
D.E.C. A	3	D.E.C.	3
Total	17	Total	17

<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMS 261	4	AMS 361	4
MEC 260	3	MEC 214	1
EST 392 (D.E.C. F)	3	MEC 262	3
MEC 220	2	MEC 363	3
CHE 133	1	MEC 203	2
MEC 202	1	CHE 134	1
D.E.C.	3		
Total	17	Total	14
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CME 304	3	MEC 280 (D.E.C. H)	3
ESG 332	4	CIV 300	1
MEC 316	2	CIV 305	3
MEC 364	3	CIV 312	3
CIV 210	1	CIV 320	3
CIV 310	3	CIV 330	3
		CIV 340	1
Total	16	Total	17
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CIV 440	3	CIV 441	3
CIV 410	3	D.E.C.	3
CIV 420	3	D.E.C.	3
Specialization Course	3	Specialization Course	3
Specialization Course	3	Specialization Course	3
Total	15	Total	15

**CIV Faculty**

Faculty information for this program can be found at [http://me.eng.sunysb.edu/index.php?option=com\\_content&view=article&id=83&Itemid=169](http://me.eng.sunysb.edu/index.php?option=com_content&view=article&id=83&Itemid=169)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Classical Civilization (CLS)****Minor in Classical Civilization****Department of European Languages, Literatures, and Cultures; College of Arts and Sciences**

Chairperson: Nicholas Rzhnevsky

Director of Undergraduate Studies: Irene Marchegiani

CLS Program Coordinator: Aaron Godfrey

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-6546

E-mail: Aaron.Godfrey@stonybrook.edu

Web address: <http://www.sunysb.edu/eurolangs>

**Classical Civilization (CLS)**

The minor in Classical Civilization provides students with a broad knowledge of the cultures of ancient Greece and Rome. After elementary literary surveys, the student completes at least two semesters of Latin and selects a mixture of courses with classical content from offerings in classics, classical languages, and related courses from other departments.

**Requirements for the Minor in Classical Civilization (CLS)**

The student must select at least two courses from group I, and one course each from groups II through V, including nine credits numbered 300 or above, for a total of 21 credits. Substitutions may be permitted for other courses with classical content with permission of the CLS Program Coordinator. No more than one of the courses required for the minor may be taken under the Pass/No Credit option.

Completion of the minor requires 21 credits.

**Group I:**

LAT 111, LAT 112 Elementary Latin I, II  
LAT 251, LAT 252 Readings in Latin Literature I, II  
LAT 353 Literature of the Roman Republic  
LAT 354 Literature of the Roman Empire  
LAT 355 Early Medieval Latin  
LAT 356 Late Medieval Latin  
LAT 447 Directed Readings in Latin

**Group II:**

CLS 113 Greek and Latin Literature in Translation

**Group III:**

CLS 215 Classical Mythology  
CLS 447 Independent Study  
EGL 260 Mythology in Literature

**Group IV:**

CLS 320 Topics in Classical Civilization  
ARH 300 Greek Art and Architecture  
ARH 301 Roman Art and Architecture

**Group V:**

PHI 200 Introduction to Ancient Philosophy  
PHI 300 Ancient Philosophy

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Major in Clinical Laboratory Sciences**  
**School of Health Technology and Management**

Chairperson: Kathleen Finnegan

Secretary: Christine LaValle

Office: Health Sciences Center Level 2 Room 400

Phone: (631) 444-3925

Email: [clavalle@stonybrook.edu](mailto:clavalle@stonybrook.edu)

Web Address: <http://healthtechnology.stonybrookmedicine.edu/>

**Clinical Laboratory Sciences**

Clinical laboratory scientists utilize a wide variety of sophisticated equipment and skills to perform tests that analyze specimens to produce data for the diagnosis, prevention and treatment of disease. Many of the same tests are used for organ transplants, therapeutic drug monitoring, crime investigation, genetic studies and research. The program now offers three specializations (Forensic Medical Diagnostics, Laboratory Information Systems and Clinical Cytogenetics) within its traditional clinical laboratory curriculum. A double major in clinical laboratory sciences and biology is available.

**Pre-Application Requirements for the Major in Clinical Laboratory Sciences**

1. 3 credits of English composition
2. 6 credits in the arts and/or humanities, excluding performance, studio, skills, and techniques courses
3. 6 credits in the social and behavioral sciences
4. 12 credits of chemistry with labs (including one course in organic chemistry)
5. 8 credits of biology with labs (See Note 1)
6. 3 credits of microbiology
7. 3 credits of statistics
8. 2.50 cumulative g.p.a.

Notes:

1. Students completing the courses at Stony Brook should take BIO 202, BIO 203, and BIO 204 Fundamentals of Biology.
2. Courses in anatomy, computer literacy, genetics, molecular biology, and physiology are recommended.
3. Stony Brook freshmen are eligible to declare clinical laboratory sciences as a major. In addition to the requirements listed above, students in this four-year program must successfully complete HAD 210 Introduction to Clinical Laboratory Sciences with a grade of B+ or higher.

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Coastal Environmental Studies (COS)****Major and minor in Coastal Environmental Studies**

Director: Dr. Michael Sperazza  
Office: W0511 Melville Library  
Phone: (631)632-1687  
Email: michael.sperazza@stonybrook.edu  
Website: <http://www.stonybrook.edu/commcms/sustainability/>

**Coastal Environmental Studies**

The Coastal Environmental Studies major, leading to a Bachelor of Science degree, provides the skills, knowledge, and preparation for students to assess and address coastal environmental problems. The curriculum integrates principles and methodologies from physical sciences, natural sciences, and physical geography, combined with an understanding of environmental ethics, environmental policy, and environmental law.

The major prepares students for entry-level employment in the public, private, or non-profit sectors concerned with assessment, abatement, or regulation of a wide range of coastal environmental problems. The major prepares students for graduate study in environmental science, marine science, geoscience, environmental planning and related fields.

Coastal zones have always concentrated people and economic activities because of their natural resources and trading opportunities. Many of the world's largest cities are on seacoasts and at the mouths of the great rivers. The development of coastal zones around the world has created an array of environmental problems and water and land resource issues, further complicated by sea level rise.

Students will enroll in major-specific courses in their junior and senior year. As part of the degree requirements, students will work in teams with students enrolled in related majors to solve problems collaboratively. Students are encouraged to take advantage of independent research opportunities, internships, and field camps to gain real-world experience.

**Requirements for the Major and Minor Coastal Environmental Studies (COS)****Requirements for the Major in Coastal Environmental Studies (COS)****A. Required Foundation Courses for Major (34-35 credits)**

- MAT 131 or MAT 125/MAT 126
- CHE 131/CHE 133 and CHE 132
- SBC 111 Introduction to Sustainability
- SBC 113/SBC 114 Physical Geography
- SBC 201 Systems and Models
- AMS 102 Elements of Statistics
- SBC 205 Introduction to Geospatial Analysis
- BIO 201 Fundamentals of Biology
- BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences
- ENS 119 Physics for Environmental Studies

**B. Career and Leadership Skills**

- CSK 102 Career Leadership Skills: Working in Teams
- CSK 302 Technical Writing and Communication
- Two courses selected from CSK 101, 103-109 (1 credit each)

**C. Core Courses**

- MAR 333 Coastal Oceanography
- ENV 315 Coastal Groundwater Hydrology
- ENV 316 Coastal Zone Management
- GSS 313 GIS Design and Applications I
- GSS 314 GIS Laboratory (for students enrolling in GSS 313 Spring 2013 or later)
- ENV 320/ENV 321 Chemistry for Environmental Scientists

**Students are required to select 9 credits from group A and 3 credits from group B.**

Group A: Environmental Science Electives (choose 9 credits)

- BIO 351 Ecology



- BIO 352 Ecology Laboratory
- EDP 305 Risk Assessment and Sustainable Development
- ENV 304 Global Environmental Change
- ENV 340 Contemporary Topics in Environmental Science
- ENV 317 Coastal Pond Algal Ecology
- ENV 487 Research in Environmental Science
- ENV 405 Field Camp
- MAR 303 Long Island Marine Habitats
- MAR 304 Waves, Tides, and Beaches
- MAR 315 Conservation Biology and Marine Biodiversity
- MAR 336 Marine Pollution
- MAR 388 Tropical Marine Ecology
- EHI 310 Restoration Ecology

Group B: Environment, Society, and Policy (choose 3 credits)

- SUS 341 Environmental Treatises and Protocols
- SBC 307 Environmental History of North America
- SBC 309 Global Environmental Politics
- SUS 342 Energy and Mineral Resources
- EHI 340 Ecological and Social Dimensions of Disease

One of the following courses may also be used to substitute for any of the courses in Group B, however, each of the courses below has a prerequisite outside the major.

- EDP 301 The Built Environment I
- EDP 309 Planning: Policies and Regulations
- SBC 330 Extreme Events
- SBC 308 American Environmental Politics
- SBC 312 Environment, Society, and Health
- SUS 301 Environmental Ethics
- SUS 303 Demographic Change and Sustainability
- SBC 311 Disasters and Society: A Global Perspective

D. Systems Course (3 credits)

One Integrative, Collaborative Systems Project course:

- GEO 301 Sustainability of the Long Island Pine Barrens
- SBC 401 Integrative, Collaborative Systems Project
- With permission of the Program Director, a student may take SBC 488 Internship in lieu of a systems course.

E. Upper-Division Writing Requirement

Proficiency in writing, oral communication, and computer literacy will be encouraged in all students. In addition to CSK 302, these skills will be developed within the context of other formal coursework and no additional credits are required. To meet the upper-division writing requirement, students must submit two papers from any 300-level or 400-level course in the major to the Director of the COS Undergraduate Program.

Note:

One course passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher. Course taken with the Pass/NC option may not be applied to the major.

Requirements for the Minor in Coastal Environmental Studies (COS)

The Coastal Environmental Studies minor is intended to provide a coherent foundation of scientific study on the physical processes and interactions of the coastal zone environment.

**Requirements for the Minor in Coastal Environmental Studies (COS):**

- No more than two courses that are used to satisfy major requirements may be applied to this minor.
- No more than one three-credit course in the minor may be taken under the Pass/No Credit option.
- All upper-division courses offered for the minor must be passed with a letter grade of C or higher.
- Completion of the minor requires 22 to 23 credits.

Required two introductory courses (6-7 credits):

- MAT 125 *or* MAT 131 Calculus and
- SBC 113 Physical Geography *or* GEO 102 The Earth

Required advanced courses (10 credits):

- ENV 316 Coastal Zone Management
- GSS 313 GIS Design and Applications I
- GSS 314 GIS Laboratory (for students enrolling in GSS 313 Spring 2013 or later)
- MAR 333 Coastal Oceanography

Required two advanced elective courses chosen from the following, for a minimum of 6 credits:

- BIO 351 Ecology
- EHI 310 Restoration Ecology
- ENV 304 Global Environmental Change
- ENV 340 Contemporary Topics in Environmental Science
- ENV 317 Coastal Pond Algal Ecology
- ENV 487 Research in Environmental Science
- GSS 325 GIS Design and Applications II
- MAR 303 Long Island Marine Habitats
- MAR 304 Waves, Tides, and Beaches
- MAR 336 Marine Pollution
- SBC 309 Global Environmental Politics *or* SBC 307 Environmental History of North America

#### Declaration of the Minor

To progress efficiently through the minor, students should declare the minor, students should declare the minor in Coastal Environmental Studies no later than the middle of their sophomore year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

#### Sample Course Sequence - Major in Coastal Environmental Studies

<b>Freshman</b>			
Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
SBC 111	3	CSK 102	1
WRT 101 (DEC A1)	3	WRT 102 (DEC A2)	3
MAT 125 or MAT 132 (DEC C)	3-4	CHE 131/CHE 133 (DEC E)	5
SBC 113/SBC 114 (DEC E)	4	MAT 126 or MAT 132	3-4
		SBC 205	1
<b>Total:</b>	14-15	<b>Total:</b>	14-15
<b>Sophomore</b>			
Fall	Credits	Spring	Credits
SBC 201	1	BIO 201 (DEC E)	3
CSK 100-level selection #2	1	BIO 204	2
AMS 102	3	CHE 132	4
DEC	3	Foreign Language or elective	4
Foreign Language or elective	4	CSK 302	3
ENS 119	4		
<b>Total:</b>	16	<b>Total:</b>	16
<b>Junior</b>			
Fall	Credits	Spring	Credits
GSS 313	4	MAR 333 (DEC H)	3
DEC	3	Group A course selection #1	3
DEC	3	ENV 315	3
ENV 320/ENV 321	4	ENV 316	3

CSK 100-level selection #3	1	DEC	3
<b>Total:</b>	15	<b>Total:</b>	15
<b>Senior</b>			
Fall	Credits	Spring	Credits
Group A selection #2	3	GEO 301 or SBC 401	3
Group A selection #3	3	Group B course selection	3
DEC	3	DEC	3
Research/Elective/Internship	3	DEC	3
DEC	3	Elective	3
<b>Total:</b>	15	<b>Total:</b>	15

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*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Community Service Learning (LCR)****Living Learning Center Interdisciplinary Minor in Community Service Learning**

Office: Faculty Director's Office, James College  
Phone: (631) 444-3164

**Community Service Learning (LCR)**

The interdisciplinary minor in Community Service Learning is open to all undergraduates who wish to add a service learning dimension to their academic experience. The program, housed in James College, is designed to use the special educational and research opportunities available at Stony Brook to create citizens with the depth of commitment to community service that the 21st century demands. Acquisition of skills and knowledge is combined with a fostering of appreciation by students of their role as citizens both in the University and in the surrounding communities. The learning arena is extended into the community by addressing local social issues. After completion of academic course work, student interns are partnered and assigned to work in specific communities to address community concerns.

**Requirements for the Minor in Community Service Learning (LCR)**

Before declaring the minor in community service learning, each student should plan his or her program in consultation with the faculty director. All courses must be passed with a letter grade of C or higher.

Completion of the minor requires 23 credits.

1. LCR 200 The Nature of Community
2. LCR 201 Methods for Social Action Research
3. Elective Course Sequence:

Three lower-division credits and three upper-division credits in courses to be chosen in consultation with the faculty director

4. LCR 487 Directed Research in Community Service Learning, for a total of 3 credits
5. LCR 488 Community Service Learning Internship Students are required to register for LCR 488 Community Service Learning Internship for two semesters, for a total of 6 credits
6. LCR 490 Senior Seminar in Community Service Learning

Declaration of the Minor

Students must declare the Community Service Learning minor no later than the middle of their third year, at which time they consult with the director of the minor and plan their course of study for fulfillment of the requirements.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Comparative Literature (CLT)****Major and Minor in Comparative Literature****Department of Cultural Analysis and Theory, College of Arts and Sciences**

Chair: Robert Harvey

Undergraduate Program Director for CAT: Raiford Guins

Undergraduate Advisor for CLT: EK Tan

Administrative Assistant: Mary Moran-Luba

Office: Humanities 2048

Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cat/>

Minors of particular interest to students majoring in Comparative Literature: Africana Studies (AFS), Art History (ARH), Cinema and Cultural Studies (CCS), Classics (CLS), English (EGL), French (FRN), German (GER), History (HIS), Italian (ITL), Interdisciplinary Arts (LIA), Japanese Studies (JNH), Judaic Studies (JDS), Korean Studies (KOR), Music (MUS), Spanish (SPN), Theatre Arts (THR), Women's Studies (WST)

**Department Information - Comparative Literary and Cultural Studies**

The Department of Comparative Literary and Cultural Studies integrates the efforts of a number of humanities programs centering on comparative literature, language, and culture. In addition to the major in Comparative Literature, described below, the Department offers major programs in Cinema and Cultural Studies as well as Humanities. Requirements for these programs appear under each program title elsewhere in the alphabetical listings of Approved Majors, Minors, and Programs. Further information is available in the Comparative Literary and Cultural Studies Office.

**The Major in Comparative Literature**

The Comparative Literature major brings the historical and intercultural resources of the Department together in a broadly based program for the student interested in comparative and general literature. It stresses the comparative study of world literatures from all historical periods, including the ability to read at least one literature in a language other than English, and emphasizes the relationship between literature and other disciplines. Individual programs can be adjusted to the special interests of the student through consultation with the director of undergraduate studies.

**Requirements for the Major in Comparative Literature**

The interdisciplinary major in Comparative Literature leads to the Bachelor of Arts degree. All courses offered for the major must be taken for a letter grade. All upper-division courses offered for the major must be passed with a grade of C or higher.

Completion of the major requires 36 credits.

**A. Introduction**

Two courses that survey a literary theme historically and cross-culturally, selected from the following:

HUM 109 Philosophy and Literature in Social Context

HUM 121 Death and Afterlife in Literature

HUM 122 Images of Women in Literature

HUM 123 Sin and Sexuality in Literature

**B. Background**

Three courses beyond the introductory level, chosen from the following:

CLL 215, CLT 211, CLT 212, CLT 220, CLT 266

-or one course per designator from the following: EGL 200-level, FRN 395, FRN 396, ITL 395, ITL 396, GER 344, HUR 341, JDH 261

-or one of the following classical language courses: LAT 112 or SKT 112

**C. Literature in the Original Language**

At least one course in literature in its original language (other than English)

**D. Theory**

CLT 301 Theory of Literature

or CCS 301 Theorizing Cinema and Culture

**E. Advanced Study**

Four upper-division courses, at least one from each of groups 1 and 2:

**Group 1:**

CLL 315 Gender and Sexuality in Ancient Greek Literature

CLT 330 Literary Genres

CLT 334 Other Literary Genres

CLT 391 African Comparative Literature

CLT 392 Multicultural Comparative Literature

CLT 393 European Comparative Literature

CLT 394 Asian Comparative Literature

## Group 2:

CLT 335 Interdisciplinary Study of Films  
 CLT 361 Literature and Society  
 CLT 362 Literature and Ideas  
 CLT 363 Literature and the Arts  
 CCS 311 Gender and Genre in Film  
 CCS 312 Cinema and the Ancient World  
 CCS 313 Television Studies  
 CCS 390 Latin American Cinema  
 CCS 391 Contemporary African Cinema and Cultural Studies  
 CCS 392 American Cinema and Cultural Studies  
 CCS 393 European Cinema and Cultural Studies  
 CCS 394 Asian Cinema and Cultural Studies  
 CCS 395 Digital Cultural Studies

## F. Senior Project

A directed study project (CLT 487 or for students in the honors program, CLT 495) for graduating majors, to be arranged with the major advisor and an instructor of the student's choice no later than the end of the first semester of senior standing.

## G. Upper-Division Writing Requirement

For all majors, the term paper for required course CLT 301 or CCS 301 is evaluated by the instructor for its quality of writing. Students whose writing is satisfactory fulfill this requirement with that paper. Students who do not fulfill the requirement in CLT 301 must submit to the major advisor a portfolio of papers written for subsequent upper-division courses taken for the major, no later than the first semester of senior standing, and must achieve an evaluation of S (Satisfactory) on the portfolio. For further details consult the director of undergraduate studies or the major advisor.

## Honors Program

Students who have maintained a grade point average of 3.50 in the major and 3.00 overall may attempt the degree in Comparative Literature with honors.

The honors program requires one of the following options in addition to the requirements of the major:

- A. A second course in literature in the original language used for Requirement C.
- B. Study of a language other than that used for Requirement C through the intermediate level.
- C. Fulfillment of the requirements for the minor in a cognate discipline (to be approved by the major advisor; minors in language or literature recommended).

In addition, students seeking the honors major must use CLT 495 to fulfill major Requirement F.

## Requirements for the Minor

The minor in Comparative Literature is designed especially to interest students majoring in a foreign language, English, and other humanities fields. It provides a broad overview of the theory and techniques of comparative study, and an opportunity for the student to bring comparative breadth to his or her major field of study.

Completion of the minor requires 21 credits.

## A. Introduction

One course that surveys a literary theme historically and cross-culturally, selected from the following:

HUM 109 Philosophy and Literature in Social Context  
 HUM 121 Death and Afterlife in Literature  
 HUM 122 Images of Women in Literature  
 HUM 123 Sin and Sexuality in Literature

## B. Background

Two courses beyond the introductory level, chosen from the following:

CLL 215, CLT 211, CLT 212, CLT 220, CLT 266

or one course per designator from the following: EGL 200-level, FRN 395, FRN 396, ITL 395, ITL 396, GER 344, HUR 341, JDH 261

or one of the following classical language courses: LAT 112 or SKT 112

## C. Literature in the Original Language

At least one course in literature in its original language (other than English)

## D. Theory

CLT 301 Theory of Literature  
 or CCS 301 Theorizing Cinema and Culture

## E. Advanced Study

Two upper-division courses, one from group 1, and one from group 2:

## Group 1:

CLL 315 Gender and Sexuality in Ancient Greek Literature  
 CLT 330 Literary Genres  
 CLT 334 Other Literary Genres  
 CLT 391 African Comparative Literature  
 CLT 392 Multicultural Comparative Literature  
 CLT 393 European Comparative Literature  
 CLT 394 Asian Comparative Literature

## Group 2:

CLT 335 Interdisciplinary Study of Film  
 CLT 361 Literature and Society  
 CLT 362 Literature and Ideas  
 CLT 363 Literature and the Arts  
 CCS 311 Gender and Genre in Film  
 CCS 312 Cinema and the Ancient World  
 CCS 313 Television Studies  
 CCS 390 Latin American Cinema  
 CCS 391 Contemporary African Cinema and Cultural Studies  
 CCS 392 American Cinema and Cultural Studies  
 CCS 393 European Cinema and Cultural Studies  
 CCS 394 Asian Cinema and Cultural Studies  
 CCS 395 Digital Cultural Studies

**Sample Course Sequence for the Major in Comparative Literature**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
One course from among: HUM 100-level, RLS 101 or RLS 102	3	One other course from among: HUM 100-level, RLS 101 or RLS 102	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Group 1 course	3	Group 1 course	3
D.E.C.	3	Group 1 or Group 2 course	3
D.E.C.	3	Foreign Language Literature course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CLT 301	3	Upper-Division Advanced Study Group 1 or Group 2 course	3
Upper-Div. Adv. Study Group 1 course	3	D.E.C.	3
Upper-Div. Adv. Study Group 2 course	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3



D.E.C.	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division Advanced Study Group 1 or Group 2 course	3	Upper-Division elective	3
CLT 487	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Computer Engineering (ECE)****Major in Computer Engineering****Department of Electrical and Computer Engineering, College of Engineering and Applied Sciences**

Chairperson: Serge Luryi

Undergraduate Program Director: Ridha Kamoua

Senior Staff Assistant: Carolyn Huggins

Office: 267 Light Engineering

Phone: (631) 632-8415

E-mail: [postmaster@ece.sunysb.edu](mailto:postmaster@ece.sunysb.edu)

Web address: <http://www.ece.sunysb.edu>

Minors of particular interest to students majoring in Electrical or Computer Engineering: Applied Mathematics and Statistics (AMS), Computer Science (CSE), Science and Engineering (LSE), Engineering and Technology Entrepreneurship (ETE)

**Computer Engineering (ECE)**

Computer Engineering is one of the College of Engineering and Applied Sciences (CEAS) programs leading to the Bachelor of Engineering degree. The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. As technology continually advances, the solutions to design problems in computer and data processing equipment more frequently encompass both hardware and software solutions. It is important for students who wish to specialize in computer engineering to be fluent in both the newest software techniques as well as digital electronics and the application of large-scale integrated devices. The curriculum of the Computer Engineering program prepares students to meet these objectives.

Students gain a solid foundation to enable them to adapt successfully throughout their professional careers. The first two years of study provide a strong foundation in fundamental courses in mathematics, sciences, writing, and core electrical engineering. In the junior and senior years, students take computer engineering courses as well as other upper-level computer science courses and technical electives such as computer communications, digital signal processing, digital image processing, computer vision, and embedded microprocessor system design. They also carry out hands-on laboratories and internships to apply the theoretical training, and meet with faculty advisors to consult on course selection, academic progress, and career preparation. In the final year of study, students work in teams and complete an original design project under the supervision of a faculty member.

Computer engineers design digital systems, a majority of which are microprocessor-based systems. The systems include a wide variety of consumer products, industrial machinery, and specialized systems such as those used in flight control or automotive anti-lock brakes.

Students may work as interns in engineering and high-technology industries in Long Island corporate offices such as BAE Systems, Omnicon Group, and Motorola and as graduates they are employed in these corporations, in New York City, and across the country. These include Ford Motor, Boeing, GE Energy, and Texas Instruments. A large number of major and international financial institutions including Citigroup and Goldman Sachs also employ Stony Brook computer engineering graduates. Many baccalaureate graduates choose to go on to graduate school in engineering, business, law, and medicine.

**Program Educational Objectives**

The computer engineering program has five program educational objectives (PEOs):

**PEO 1:** Our graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices.

**PEO 2:** Our graduates should excel in the best graduate schools, reaching advanced degrees in engineering and related disciplines.

**PEO 3:** Within several years from graduation, our alumni should have established a successful career in an engineering-related multidisciplinary field, leading or participating effectively in interdisciplinary engineering projects, as well as continuously adapting to changing technologies.

**PEO 4:** Our graduates are expected to continue personal development through professional study and self-learning.

**PEO 5:** Our graduates are expected to be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.

**Student Outcomes**

To prepare students to meet the above program educational objectives, a set of program outcomes that describes what students should know and be able to do when they graduate, have been adopted. We expect our graduates to attain:

- a. an ability to apply knowledge of mathematics, science, and engineering;
- b. an ability to design and conduct experiments, as well as to analyze and interpret data;
- c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;

- d. an ability to function on multidisciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional and ethical responsibility;
- g. an ability to communicate effectively;
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i. a recognition of the need for ability to engage in life-long learning;
- j. a knowledge of contemporary issues; and
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

More details about program educational objectives and outcomes can be found at <http://www.ece.sunysb.edu/peos>

## Requirements for the Major in Computer Engineering (ECE)

### Acceptance into the Computer Engineering Major

Freshman and transfer applicants who have specified their interest in the major in Computer Engineering may be accepted into the major upon admission to the University. Applicants admitted to the University but not immediately accepted into the Computer Engineering major may apply for acceptance at any time during the academic year. The Department's undergraduate committee will consider an application only if the following conditions have been met:

1. the student has completed at least 11 credits of mathematics, physics, electrical and computer engineering, or computer science courses required for the major;
2. the student has earned a grade point average of 3.00 or higher in these courses with no grade in any of them lower than C;
3. no courses required for the major have been repeated;
4. all transfer courses have been evaluated.

### Requirements for the Major in Computer Engineering (ECE)

Completion of the major requires approximately 110 credits.

#### 1. Mathematics

AMS 151, AMS 161 Applied Calculus I, II  
 AMS 210 or MAT 211 Applied Linear Algebra  
 AMS 361 or MAT 303 Applied Calculus IV  
 AMS 301 Finite Mathematical Structures

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: (MAT 131 and MAT 132) or (MAT 131 and MAT 171) or (MAT 125, MAT 126 and MAT 127) or (MAT 141 and MAT 142), or (MAT 141 and MAT 171).

#### 2. Natural Sciences & Mathematics

-One 4-credit course or two 3-credit courses from CHE 131, CHE 141, ESG 198, BIO 202 & BIO 204, BIO 203 & BIO 205, PHY 251 & PHY 252, AMS 261

-PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and laboratories

Note: The physics course sequence PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 or PHY 141, PHY 142 is accepted in lieu of PHY 131/PHY 133, PHY 132/PHY 134 (Students are advised to take PHY 127 before PHY 126).

-One 4-credit course or two 3-credit courses from CHE 131, CHE 141, ESG 198, BIO 202 & BIO 204, BIO 203 & BIO 205, PHY 251 & PHY 252, AMS 261

#### 3. Freshman Introduction to Computer Engineering

ESE 123 Introduction to Electrical and Computer Engineering

ESE 124 Computer Techniques for Electronic Design I

#### 4. Engineering Topics

Engineering topics include engineering science and engineering design. Content of the former category is determined by the creative application of basic science skills, while the content of the latter category focuses on the procedure of devising systems, components, or processes.

##### a. Engineering Sciences

ESE 211 Electronics Laboratory A

ESE 218 Digital Systems Design

ESE 271 Electrical Circuit Analysis

ESE 305 Deterministic Signals and Systems

ESE 345 Computer Architecture  
ESE 372 Electronics

#### b. Engineering Design

ESE 380 Embedded Microprocessor Systems Design I  
ESE 382 Digital Design Using VHDL and PLDs  
ESE 440 Engineering Design I  
ESE 441 Engineering Design II

Note: ESE 440 and ESE 441 are engineering design projects that must be carried out at Stony Brook under the supervision of an Electrical and Computer Engineering faculty member.

#### 5. Probability and Statistics

ESE 306 Random Signals and Systems

#### 6. Computer Science

CSE 114 Computer Science I  
CSE 214 Computer Science II  
CSE 230 Intermediate Programming in C and C++ or ESE 224 Computer Techniques for Electronic Design II  
ESE 333 Real-time Operating Systems or CSE 306 Operating Systems

#### 7. Engineering Technical Electives

One course from: ESE 330 or ESE 356 or ESE 366

One course from: ESE 304 or ESE 347 or CSE 219

Two courses from: CSE 376, ESE 344, ESE 346, ESE 347, ESE 355, ESE 356, ESE 357, ESE 358, ESE 360, ESE 366, ESE 381

Two courses from: ESE 304, ESE 307, ESE 311, ESE 314, ESE 315, ESE 319, ESE 322, ESE 323, ESE 324, ESE 330, ESE 337, ESE 340, ESE 342, ESE 344, ESE 346, ESE 347, ESE 355, ESE 356, ESE 357, ESE 358, ESE 360, ESE 366, ESE 373, ESE 381, ESE 476, CSE 219, CSE 376

#### 8. Engineering Ethics

ESE 301 Engineering Ethics and Societal Impact (DEC H)

#### 9. Upper-Division Writing Requirement: ESE 300 Writing in Electrical/Computer Engineering

All degree candidates must demonstrate skill in written English at a level acceptable for computer engineering majors. Students must register for the writing course ESE 300 concurrently with or after completion of ESE 314, ESE 324, ESE 380, or ESE 382. Students whose writing does not meet the required standard are referred for remedial help. Detailed guidelines are provided by the Department.

#### Grading

All courses taken to satisfy requirements 1 through 9 must be taken for a letter grade. A letter grade of C or higher is required in the following courses:

AMS 151 and AMS 161 (or MAT 125, MAT 126, and MAT 127 or MAT 131 and MAT 132)

PHY 131/PHY 133 and PHY 132/PHY 134 (or PHY 125, PHY 126, and PHY 127)

ESE 211, ESE 218, ESE 271, ESE 300, ESE 345, ESE 372, ESE 380, and ESE 382

CSE 114, CSE 214, and CSE 230

Six ESE technical electives

#### Honors Program in Computer Engineering

The purpose of the honors program in Computer Engineering is to give high achieving students an opportunity to receive validation for a meaningful research experience and for a distinguished academic career. A student interested in becoming a candidate for the honors program in Computer Engineering may apply to the program at the end of the sophomore year. To be admitted to the honors program, students need a minimum cumulative grade point average of 3.50 and a B or better in all major required courses (including math and physics). Transfer students who enter Stony Brook University in the junior year need a minimum cumulative grade point average of 3.50 and a B or better in all required major courses (including math and physics) in their first semester at Stony Brook University.

Graduation with departmental honors in Computer Engineering requires the following:

1. A cumulative grade point average of 3.50 or higher and a B or better in all major required courses (including math and physics) upon graduation.
2. Completion of ESE 494, a 1 credit seminar on research techniques, with a B or better during the junior year.
3. Completion of ESE 495, a 3-credit honors research project, with a B or better.
4. Presentation of an honors thesis (written in the format of an engineering technical paper) under the supervision of an ECE faculty member. The thesis must be presented to and approved by a committee of two faculty members including the student's advisor.

For students who qualify, this honor is indicated on their diploma and on their permanent academic record.

Requirements for the Accelerated B.E. Computer Engineering/M.S. Computer Engineering or Electrical Engineering Degrees

The intent of the accelerated five-year Bachelor of Engineering in Computer Engineering and Master of Science in Electrical Engineering program is to prepare high-achieving and highly motivated undergraduate computer engineering students for either doctoral studies or a variety of advanced professional positions. Computer engineering students interested in the accelerated program should apply through the undergraduate office of the Department of Electrical and Computer Engineering. The program is highly selective and is offered to the top 10 to 20 percent of the junior undergraduate class. Admission is based on academic performance (a major g.p.a. of at least 3.30) as well as undergraduate research and professional activities. The accelerated program is as rigorous as the current B.E. and M.S. programs taken separately. The requirements for the accelerated program are the same as the requirements for the B.E. and M.S. programs except that two 300-level electives in the B.E. program are substituted by two 500-level graduate courses. Therefore six graduate credits will be counted towards the undergraduate degree. Detailed guidelines and sample course sequences are provided by the Department.

### Sample Course Sequence for the Major in Computer Engineering

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
AMS 151 (or MAT 131)	3-4	AMS 161 (or MAT 132)	3-4
PHY 131/PHY 133	4	PHY 132/PHY 134	4
ESE 123	4	ESE 124	3
D.E.C. A	3	ESE 218	4
<b>Total</b>	<b>15-16</b>	<b>Total</b>	<b>15-16</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
AMS 361 (or MAT 303)	4	AMS 210 (or MAT 211)	3
ESE 271	4	ESE 211	2
ESE 380	4	ESE 372	4
CSE 230 or ESE 224	3	CSE 114	4
D.E.C.	3	ESE 382	3
<b>Total</b>	<b>18</b>	<b>Total</b>	<b>16</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ESE 305	3	ESE 300	3
ESE 345	3	ESE Elective <sup>2</sup>	3
ESE Elective <sup>1</sup>	3	ESE 306	4
AMS 301	3	ESE 301 (D.E.C. H)	3
CSE 214	3	ESE 333 (or CSE 306)	3
D.E.C.	3		
<b>Total</b>	<b>18</b>	<b>Total</b>	<b>16</b>
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ESE 440	3	ESE 441	3
ESE Elective <sup>3</sup>	3	ESE Elective <sup>3</sup>	3
Math or Science Elective	4	ESE Elective <sup>4</sup>	3
ESE Elective <sup>4</sup>	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>15</b>

All courses in boldface must be passed with a minimum grade of C

Elective list 1: One course from: ESE 330 or ESE 356 or ESE 366

Elective list 2: One course from: ESE 304 or ESE 347 or CSE 219

Elective list 3: Two courses from: CSE 376, ESE 344, ESE 346, ESE 347, ESE 355, ESE 356, ESE 357, ESE 358, ESE 360, ESE 366, ESE 381

Elective list 4: Two courses from: ESE 304, ESE 307, ESE 311, ESE 314, ESE 315, ESE 319, ESE 322, ESE 323, ESE 324, ESE 330, ESE 337, ESE 340, ESE 342, ESE 344, ESE 346, ESE 347, ESE 355, ESE 356, ESE 357, ESE 358, ESE 360, ESE 366, ESE 373, ESE 381, ESE 476, CSE 219, CSE 376

Math or Science elective: one 4-credit course or two 3-credit courses from CHE 131, CHE 141, ESG 198, BIO 202 & BIO 204, BIO 203 & BIO 205, PHY 251 & PHY 252, AMS 261

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Computer Science (CSE)****Major and Minor in Computer Science****Department of Computer Science, College of Engineering and Applied Sciences**

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Minors of particular interest to students majoring in Computer Science: Business Management (BUS)

**Department Information - Computer Science (CSE)**

Computer science is the study of computer systems, including the architecture of computers, development of computer software, information processing, computer applications, algorithmic problem-solving, and the mathematical foundations of the discipline.

The Computer Science major provides professional education in computer science to prepare the student for graduate study or for a career in the computing field. Students learn concepts and skills needed for designing, programming, and applying computer systems while also learning the theoretical and mathematical foundations of computer science. They have sufficient freedom in the program to pursue other academic interests in the liberal arts, sciences, and engineering to complement their study of computer science. The Computer Science program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Many students prepare for their professional careers through internships at local companies. Computer science graduates are recruited heavily, and career opportunities include developing software systems for a diverse range of applications such as: user interfaces; networks; databases; forecasting; web technologies; and medical, communications, satellite, and embedded systems. Many are employed in the telecommunication and financial industries, and some are self-employed as heads of software consulting companies.

The Department of Computer Science offers two undergraduate majors: Computer Science and Information Systems. Requirements and courses for the latter appear under the program title in the alphabetical listings of Approved Majors, Minors, and Programs. The two programs of study share a number of courses, particularly in the first two years, so that it is possible to follow a program that permits a student to select either major by the start of the junior year. The Department also offers a minor in computer science, a joint B.S./M.S. program, and an honors program.

**Program Educational Objectives**

The graduates of the computer science program will, within 3-5 years after graduation:

1. Establish themselves as practicing professionals or engage in advanced study in computer science, information technology, or related areas.
2. Advance professionally through organized training or self-learning in areas related to computer science and information technology.

**Program Outcomes**

The computer science program enables the students to achieve, by the time of graduation:

1. An ability to apply knowledge of computing and mathematics appropriate to the discipline;
2. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
3. An ability to design, implement, and evaluate, a computer-based system, process, component or program to meet desired needs;
4. An ability to function effectively on teams to accomplish a common goal;
5. An understanding of professional, ethical, legal, security and social issues and responsibilities.
6. An ability to communicate effectively with a range of audiences;
7. An ability to analyze the local and global impact of computing on individuals, organizations, and society;
8. Recognition of the need for and an ability to engage in continuing professional development;
9. An ability to use current techniques, skills, and tools necessary for computing practice;
10. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;
11. An ability to apply design and development principles in the construction of software systems of varying complexity.

**Computing Facilities**

Computing facilities for undergraduates are maintained by both the University Computing Center and the Department of Computer Science. For a description of the computing services provided by the University Computing Center, see the Student Services section of this Bulletin.

The Department of Computer Science provides additional laboratories to support undergraduate instruction and research. The laboratory facilities are regularly upgraded to keep pace with advances in technology. Current computing facilities include the Computer Science Undergraduate

Computing Laboratory; the Programming Techniques Teaching Laboratory with facilities for classroom instruction; the Computer Associates Transactions Laboratory, used primarily for upper-level courses on databases, transaction processes, and Web applications; the Computer Science Advanced Programming Laboratory, also donated by Computer Associates, Inc., which provides computing support for upper-level courses on such topics as operating systems and user interfaces; and the Computer Science Multimedia Laboratory, used for courses on multimedia design. Most of the laboratories are connected to the Internet via the campus network and are easily accessible by students from campus residences or from off-campus via modem.

The Departmental research laboratories are available to undergraduate students working on supervised projects with computer science faculty.

#### Transfer Credits

Students who wish to transfer credits for courses equivalent to CSE 114, 214, or CSE 215 in order to use them as prerequisites for other CSE courses or toward the requirements for acceptance into the major must demonstrate proficiency in the course material by passing a proficiency examination, given during the first week of each semester.

### Requirements for the Major and Minor in Computer Science (CSE)

#### Enrolling in CSE Courses

To enroll in CSE courses, students must:

Have completed all prerequisites with a grade of C or higher. (Pass/No Credit grades are not acceptable to meet prerequisites.) For transfer students, official transfer credit evaluations must have been completed and approved and the relevant proficiency examination for lower division courses, given during the first week of each semester, must have been taken and passed.

Failure to satisfy the prerequisites or to attend the first class may result in deregistration. The Pass/No Credit option is not available for CSE courses.

#### Acceptance into the Computer Science Major

Qualified freshman and transfer applicants may be accepted directly into the Computer Science major upon admission to the University. Currently enrolled students may apply for acceptance to the major after completing the following two courses with grades of C or higher and a grade point average of 3.0 or higher.

1. CSE 114 Computer Science I
2. CSE 215 Foundations of Computer Science

#### Requirements for the Major

The major in Computer Science leads to the Bachelor of Science degree. At least five upper-division courses from items 2 and 3 below must be completed at Stony Brook.

Completion of the major requires approximately 80 credits.

#### 1. Required Introductory Courses

CSE 114 Computer Science I

CSE 214 Computer Science II

CSE 215 Foundations of Computer Science or CSE 150 Foundations of Computer Science: Honors

CSE 219 Computer Science III

CSE 220 Computer Organization and Systems

Note: Students in the CSE Honors Program may substitute CSE 160 and 260 Computer Science A, B: Honors for CSE 114, 214 and 219

#### 2. Required Advanced Courses

-CSE 303 Introduction to the Theory of Computation or CSE 350 Theory of Computation: Honors

-CSE 373 Analysis of Algorithms

-CSE 308 Software Engineering

-CSE 320 Computer Organization and Architecture

-Three courses chosen from: CSE 304, CSE 305, CSE 306, CSE 307, CSE 310/346, CSE 328. The three courses must include CSE 305 or CSE 306.

#### 3. Computer Science Electives

Three upper-division CSE electives. Technical electives do not include teaching practica (CSE 475), the senior honors project (CSE 495, 496), and courses designated as non-technical in the course description (such as CSE 301).

#### 4. AMS 151, AMS 161 Applied Calculus I, II

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127, or MAT 131, MAT 132, or MAT 141, MAT 142 or MAT 171. Equivalency for MAT courses achieved through the Mathematics Placement Examination is accepted to meet MAT course requirements.

#### 5. One of the following:

MAT 211 Introduction to Linear Algebra

AMS 210 Applied Linear Algebra



## AMS 326 Numerical Analysis

## 6. Both of the following:

AMS 301 Finite Mathematical Structures

AMS 310 Survey of Probability and Statistics or AMS 311 Probability Theory or AMS 312 Mathematical Statistics

## 7. One of the following natural science sequences [Effective fall 2005]:

BIO 201, BIO 202, BIO 204 or BIO 201, BIO 203, BIO 204 or BIO 202, BIO 203, BIO 204 Fundamentals of Biology or CHE 131, CHE 132, CHE 133 or CHE 141, CHE 142, CHE 143 General Chemistry or PHY 131/PHY 133, PHY 132/PHY 134 or PHY 141, PHY 142 or PHY 125, PHY 126, PHY 127 Classical Physics and PHY 133/PHY 134

## 8. Four additional credits from the above natural science courses

[Effective fall 2005]

These courses can be in biology, chemistry, or physics. Advanced natural science courses may be substituted with the prior approval of the Department of Computer Science.

## 9. Professional Ethics

CSE 312 Legal, Social, and Ethical Issues in Information Systems

## 10. Upper-Division Writing Requirement: CSE 300 Technical Communications

All degree candidates must demonstrate technical writing skills at a level that would be acceptable in an industrial setting. To satisfy the requirement, students must pass CSE 300, a course that requires the completion of various writing assignments, including at least one significant technical paper.

Note: All students are encouraged to discuss their program with an undergraduate advisor. In Requirement 2 above, CSE/ESE double majors may substitute ESE 440, ESE 441 Electrical Engineering Design I, II for CSE 308 Software Engineering provided that the design project contains a significant software component. Approval of the Department of Computer Science is required.

## Grading

All courses taken to satisfy Requirements 1 through 10 must be taken for a letter grade. The courses in Requirements 1-6, 9, and 10 must be passed with a letter grade of C or higher. The grade point average for the courses in Requirements 7 and 8 must be at least 2.00. A grade of C or higher is also required in prerequisite courses listed for all CSE courses.

## Specialization in Human-Computer Interaction

The specialization in human-computer interaction emphasizes both the psychology aspects of effective human-computer interactions and the technical design and implementation of systems for those interactions. It requires four core course, two electives, and a project. Students may declare their participation in the specialization after completing the courses in 1a and 1b. All courses must be completed with a grade of C or higher.

## 1. Core Courses

a. CSE 323 Human-Computer Interaction

b. PSY 260 Survey of Cognition and Perception

c. CSE 328 Fundamentals of computer Graphics or CSE 332 Introduction to Scientific Visualization

d. CSE 333 User Interface Development or PSY 384 Research Lab: Human Factors

## 2. Two electives from the following, including at least one CSE course:

CSE 327 Fundamentals of Computer Vision

CSE 328 Fundamentals of Computer Graphics

CSE 332 Introduction to Scientific Visualization

CSE 333 User Interface Development

CSE 334 Introduction to Multimedia Systems

CSE 336 Internet Programming

CSE 352 Artificial Intelligence

CSE 364 Advanced Multimedia Techniques

CSE 366 Introduction to Virtual Reality

CSE 378 Introduction to Robotics

CSE 390-394 Special Topics in Computer Science\*

PSY 366 Human Problem Solving

PSY 368 Sensation and Perception

PSY 369 Special Topics in Cognition and Perception

PSY 384 Research Lab: Human Factors

\*Special topic must be in human-computer interaction.

## 3. Project

Completion of CSE 487 Research in Computer Science or CSE 488 Internship in Computer Science or CSE 495/CSE 496 Senior Honors Research Project I, II, on a topic in human-computer interaction.

### Specialization in Game Programming

The specialization in game programming prepares students for a career as either a professional game developer or researcher. Game graphics and multiplayer network programming techniques are stressed. The specialization also emphasizes original game development, game design methodology, and team projects and presentations. It requires four core courses, two electives, and a project. Students may declare their participation in the specialization after completing the courses in 1a and 1b. All courses must be completed with a grade of C or higher.

#### 1. Core Courses

- a. CSE 306 Operating Systems
  - b. CSE 310 Data Communication and Networks or CSE 346 Computer Communications
  - c. CSE 328 Fundamentals of Computer Graphics
  - d. CSE 380 Computer Game Programming
  - e. CSE 381 Advanced Game Programming
2. Two electives from the following:

CSE 304 Compiler Design  
 CSE 320 Computer Architecture  
 CSE 334 Introduction to Multimedia Systems  
 CSE 352 Artificial Intelligence  
 CSE 355 Computational Geometry  
 CSE 364 Advanced Multimedia Techniques  
 CSE 375 Concurrency  
 CSE 408 Network Security

#### 3. Project

Completion of CSE 487 Research in Computer Science or CSE 488 Internship in Computer Science or CSE 495/CSE 496 Senior Honors Research Project I, II, on a topic in game programming.

Note: Students specializing in Game Programming are encouraged to complete the natural science sequence in physics, see part seven (7) of the Requirements for the Major in Computer Science.

### Specialization in Information Assurance

The specialization in information assurance (IA) has been developed as part of the University's establishment of a Center for Cybersecurity and designation by the National Security Agency as a Center of Academic Excellence in Information Assurance Education. This is included in a multifaceted effort to expand and increase information assurance education and research. The specialization deals with the principles, design, development, and management of networks and software systems that provide high levels of assurance in the confidentiality, availability, and integrity of electronic information. It requires four core courses, two electives, and a project. Students may declare their participation in the specialization after completing the courses in 1a and 1b. All courses must be completed with a grade of C or higher.

#### 1. Core Courses

- a. CSE 310 Data Communication and Networks or CSE 346 Computer Communications
  - b. CSE 306 Operating Systems or CSE 376 Advanced Systems Programming in UNIX/C
  - c. CSE 408 Network Security
  - d. CSE 409 Computer System Security
2. Two electives from the following:

CSE 305 Principles of Database Systems  
 CSE 306 Operating Systems  
 CSE 315 Database Transaction Processing Systems  
 CSE 336 Internet Programming  
 CSE 375 Concurrency  
 CSE 376 Advanced Systems Programming in UNIX/C  
 AMS 310 Survey of Probability and Statistics  
 AMS 311 Probability Theory  
 AMS 312 Mathematical Statistics  
 AMS 315 Data Analysis  
 AMS 335 Game Theory  
 AMS 341 Operations Research I: Deterministic Models  
 AMS 342 Operations Research II: Stochastic Models  
 EST 412 Intelligence Organizations, Technology, and Democracy

#### 3. Project

Completion of either CSE 487 Research in Computer Science or CSE 495, CSE 496 Senior Honors Research Projects I, II, on a topic in information assurance.

### The Honors Program

The Honors Program in Computer Science, a highly selective academic program within the major in Computer Science, offers a specially designed curriculum to a limited number of exceptional students. The program is open to freshmen and to continuing students. To be admitted as a freshman, students must demonstrate overall academic excellence by achieving a combined SAT score of 1350 on the critical reading and math components of the SAT (with a score of 700 or higher in math), an unweighted high school average of 93 or higher (on a 100 point scale), and high grade averages in mathematics and the natural sciences. Continuing Computer Science majors who have completed at least three CSE courses and have maintained a cumulative grade point average of 3.50 and an average of 3.50 in CSE courses may apply for admission to the honors program in the sophomore or junior year. Continued participation in the program requires that students maintain a grade point average of 3.50, both cumulative and for all CSE courses.

Honors course offerings include introductory course sequences in programming and in the foundations of computing, advanced courses on selected topics that reflect active research areas within the Department, and a two-semester senior honors project. Students will be able to take at least one honors course each semester throughout a four-year program of study. Honors program students must complete the regular requirements of the Computer Science major. Final conferral of honors is contingent upon successful completion of all required courses in the Computer Science major including a minimum of three honors courses, plus the two-semester honors project, with a cumulative grade point average of 3.50 and an average of 3.50 for all CSE courses. (For this purpose, suitable advanced undergraduate courses and graduate courses may be counted as honors courses with prior approval of the department.)

Honors students in good standing at the end of the junior year will, on application, be recommended for admission to the five-year joint B.S./M.S. program in Computer Science. B.S./M.S. applicants who successfully complete the honors program may be considered for a tuition waiver in the fifth year as well as for a graduate student assistantship. (It is recommended that these students complete an undergraduate teaching practicum in the junior or senior year.)

### Requirements for the Minor

The minor in Computer Science is open to all students not majoring in either Computer Science or Information Systems or minoring in Information Systems. To declare the minor in Computer Science, students must complete CSE 114 and either CSE 214 or CSE 215 with grades of C or higher. The minor requires seven CSE courses totaling 22 to 24 credits as outlined below.

1. CSE 114 Computer Science I
2. CSE 214 Computer Science II
3. CSE 219 Computer Science III or CSE 220 Computer Organization and Systems Programming
4. Four additional courses that are part of the CSE major, including three upper division CSE courses totaling at least nine credits (but excluding CSE 300, CSE 475, CSE 487, CSE 488)

Note: Each of these courses must be passed with a letter grade of C or higher.

### Joint B.S./M.S. Program

Computer Science majors may apply for admission to a special program that leads to a Bachelor of Science degree at the end of the fourth year and a Master of Science degree at the end of the fifth year. Students usually apply to the program in their junior year.

Students must satisfy the respective requirements of both the B.S. degree and the M.S. degree, but the main advantage of the program is that six credits may be simultaneously applied to both the undergraduate and graduate requirements. The M.S. degree can therefore be earned in less time than that required by the traditional course of study.

For more details about the B.S./M.S. program, see the undergraduate or graduate program director in the Department of Computer Science.

### Sample Course Sequence for the Major in Computer Science

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
CSE 110		3 CSE 114	4
AMS 151		3 AMS 161	3
Natural Science Course		4 Natural Science Course	4
D.E.C. A		3 D.E.C.	3
Total	14	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CSE 214		3 CSE 219	3
CSE 215		3 CSE 220	3
AMS 210		3 AMS 301	3
Natural Science Course		4-5 D.E.C.	3

D.E.C.	3	D.E.C.	3
Total	16-17	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CSE 300	3	CSE 312	3
CSE Advanced Course	3	CSE 320	3
CSE 303	3	CSE 373	3
AMS 310	3	CSE Elective	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CSE 308	3	CSE Advanced Course	3
CSE Advanced Course	3	CSE Elective	3
CSE Elective	3	D.E.C.	3
D.E.C.	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Creative Writing and Literature (CWL)

### Minor in Creative Writing and Literature Stony Brook Southampton

Program Director: Julie Sheehan

E-mail: Julie.Sheehan@stonybrook.edu

#### Creative Writing

A minor in creative writing at Stony Brook's Southampton campus offers a new way for students to engage subjects in their major field of study, and because the rigors of literary expression necessitate a shift in perspective from that of conservationist, marine biologist, activist or curator, their engagement is likely to be productive. It's no surprise that the literary tradition is rife with poets who, like John Keats or William Carlos Williams, were trained as doctors. It's likewise no surprise that the field of medicine is rife with doctors who, like Atul Gawande or Oliver Sacks, have distinguished themselves as writers. Undergraduates may not yet know where their talents best lie, as, for example, a science writer or a scientist who writes, but they are ready to explore the connections between these disciplines.

The program's interdisciplinary aspects and project-driven structure promote creative thinking in several ways. Since the minor is not housed in a traditional English Department, but rather finds its home in the student's own interests and burgeoning competences, students learn to write compellingly about the issues at the "deep heart's core" of their – and our – time and place. Through workshops in the practice of craft, minors develop their capacity for creative thinking, a capacity they can apply to their other endeavors. Through required literature courses, students learn to read rigorously and creatively, with the insight of a fellow practitioner. Through the capstone project, students learn to apply their skills and carry a creative endeavor through to completion.

## Requirements for the Minor in Creative Writing and Literature

### Declaration of the minor

Students should declare the Creative Writing and Literature minor no later than the middle of their sophomore year, at which time they should consult with the directors of both their major and minor to plan their course of study. The objective is to fulfill both sets of requirements in a coherent and complementary way.

To earn the creative writing minor, students are required to take one Semester by the Sea Creative Arts residency at the Southampton campus, where they enroll in a package of five courses, clustered around capstone projects, in an intensive, 10-week program. This is the only way to complete the capstone project. For more information about which courses are being offered during Semester by the Sea, go to [http://www.stonybrook.edu/sb/southampton/sea\\_arts.shtml](http://www.stonybrook.edu/sb/southampton/sea_arts.shtml). Students should take the prerequisite CWL 202-D, "Introduction to Creative Writing," as a stand-alone course, prior to enrolling in the Semester by the Sea. The remaining requirement, a writing workshop, may also be taken as a stand-alone course.

### Requirements for the minor

Students must earn a grade of C or better in all courses toward the minor. Completion of the minor in creative writing and literature requires 21 credits, distributed as follows.

#### A. Introductory Courses required of all minors (6 credits)

- CWL 190 Introduction to Contemporary Literature
- CWL 202 Introduction to Creative Writing: Writing Everything

#### B. Three writing workshops chosen from the following (9 credits)

- CWL 300 Forms of Creative Non-Fiction
- CWL 305 Forms of Fiction
- CWL 310 Forms of Poetry
- CWL 315 Forms of Scriptwriting
- CWL 320 Forms of Interdisciplinary Arts
- CWL 325 Forms of Science Writing
- CWL 510, 520, 530, 540, 559 (Graduate-level workshop) Forms of Fiction, Poetry, Scriptwriting, Creative Nonfiction, Professional and Scientific Writing (MFA faculty). By special permission of the MFA department only, from time to time, exceptional undergraduates may earn entry into the graduate writing program's workshops.

C. One literature course for writers chosen from the following (3 credits)

- CWL 330 Topics in European Literature for Writers
- CWL 335 Topics in American Literature for Writers
- CWL 340 Topics in World Literature for Writers

D. Senior Project (3 credits)

- CWL 450 Senior Project

**CWL Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/sb/southampton/>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Dance (DAN)****Minor in Dance****The Center for Dance, Movement and Somatic Learning****College of Arts and Sciences**

Director: Amy Yopp Sullivan

Office: 114/104 Nassau Hall

Phone: 631-632-3005

E-mail: Alice.Sullivan@stonybrook.edu

Website: <http://www.stonybrook.edu/commcms/dance/undergraduate/minor.shtml>

**Dance (DAN)**

The minor in dance provides an approach to the educational experience of dance that integrates movement, thought, sensation, and feeling. Through the use of a global lens, students build upon traditions from numerous dance cultures and use them as a catalyst for performance, experimentation, research and learning.

Stony Brook University's Dance Program enables and encourages students to move toward their human potential through studies in movement and dance. Through active experiences in theory, technique, creative process, performance, and craft, students are given opportunities to work, play, explore, and delight in the action and discipline of embodied thinking and dance performance.

The curriculum offers courses that encourage students to embrace a life-long journey through intellectual, creative, and performance challenges. The dance minor examines the practice and study of movement and dance, with the detail of technique, form, content, structure, shape, energy, creativity, craft, design, rhythm, and dynamic quality. But the goal of the study is to enable students to become more fully human, with all of the intelligence, discipline, playfulness, and purpose necessary to inspire work in a number of disciplines and career paths.

Past dance minors have embarked on careers in performance, company management, research, business, teaching, and numerous other contributions to society.

**Requirements for the Minor in Dance (DAN)**

All courses offered for the minor must be passed with a letter grade of C or higher. At least 12 of the 24 credits must be taken at Stony Brook.

Completion of the minor requires 24 credits.

1. DAN 102 Introduction to World Dance Cultures
2. DAN 264 Movement Awareness and Analysis
3. One of the following:
  - DAN 164 Tap Technique and History
  - DAN 165 Contemporary Dance I
  - DAN 166 Ballet Technique I
  - DAN 167 Jazz Dance Technique I
  - DAN 168 World Dance I
4. One of the following:
  - DAN 365 Contemporary Dance II
  - DAN 366 Ballet Technique II
  - DAN 367 Jazz Dance Technique II
  - DAN 369 World Dance II
5. One of the following:
  - DAN 465 Contemporary Dance III
  - DAN 467 Jazz Dance Technique III
6. DAN 368 Dance Improvisation
7. DAN 353 Special Topics in Dance Performance\*
8. DAN 400 Performance Dance Ensemble

\*Note: Only the 3-credit version of DAN 353 will fulfill the requirement for the minor.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Digital Arts (DIA)****Minor in Digital Arts****Department of Art, College of Arts and Sciences**

Program Advisors: Christa Erickson and Stephanie Dinkins  
 E-MAIL: [christa.erickson@stonybrook.edu](mailto:christa.erickson@stonybrook.edu) and [stephanie.dinkins@stonybrook.edu](mailto:stephanie.dinkins@stonybrook.edu)

Office: 2225 Staller Center for the Arts  
 Phone: (631) 632-7250

WEB ADDRESS: <http://www.art.sunysb.edu/digitalarts>

**Digital Arts (DIA)**

Digital technologies are reshaping all aspects of our culture; the arts and its related commercial and entertainment industries are no exception. The Digital Arts Minor enables students to explore digital production tools in print, Web, video, animation, game, CD, DVD, performance, installation, interactive experience, information visualization, and public space. In addition to production skills, the Digital Arts Minor builds critical literacy in reading and understanding images, sound, and information as well as in interacting in mediated social networks. It encourages creative thinking and problem solving, often cited as necessary skills for the 21st century and the pace of change in technology. The minor provides the education and fosters skills now crucial to being a citizen, consumer, cultural producer, and innovator in today's global visual and information culture.

This minor is particularly well suited for, but not limited to, students in Studio Art (ARS), Cinema and Cultural Studies (CCS), Computer Science (CSE), Multidisciplinary Studies (MTD), Music (MUS), Theatre (THR), Journalism (JRN), and Business (BUS).

**Requirements for the Minor in Digital Arts**

All letter-graded courses for the minor in Digital Arts must be passed with a letter grade of C or higher. Completion of the minor requires 21 credits.

To earn a Digital Arts Minor students must take one Core course (category A), one Foundations course (category B), and one Intermediate Production course (category C). Students must also take one additional production course chosen from categories C or D, one Theory and Culture course chosen from category E, and six additional elective credits chosen from categories C, D, or E. Nine or more credits for the minor must be upper division.

**A. Core Courses:**

ARS 208/MUS 208/THR 208 Introduction to Digital Media Technology  
 ARS 225 Introductory Digital Art

**B. Foundations:**

DIA 207/ARH 207/CCS 207 Introduction to Digital Media: History and Theory  
 ARS 205-D Foundations in Visual Arts: Idea and Form  
 CCS 101-B Images and Texts: Understanding Culture

**C. Intermediate Production Courses:**

ARS 317/MUS 317/THR 317 Interactive Media, Performance, and Installation  
 ARS 318/MUS 318/THR 318 Movies: Shoot, Score, Edit  
 ARS 324 Intermediate Digital Art: Design  
 ARS 325 Theory and Practice of Digital Art: Print  
 ARS 326 Theory and Practice of Digital Art: Video  
 ARS 327-H Web Art, Design, and Culture  
 ARS 328 Theory and Practice of Digital Art: Animation  
 ARS 341/MUS 341/THR 341 Sound Design  
 ARS 425 Advanced Digital Arts  
 MUS 340 Introduction to Music Technologies

**D. Other Production Courses:**

ARS 381 Photography 2  
 ARS 481 Photography 3  
 ARS 482 Photography 4  
 ARS 390-G/ARS 491/ARS 492 Topics (only approved topics)  
 ARS 487 Advanced Directed Projects in Studio  
 ARS 488/MUS 488/THR 488/CCS 488/CSE 488/ISE 488 Internship  
 CSE 102 Introduction to Web Design and Programming  
 ISE 108 Introduction to Programming  
 ISE 208 Programming II  
 CSE 325 Computers and Sculpture  
 CSE 334 Introduction to Multimedia Systems (also ISE 334)

CSE 364 Advanced Multimedia (also ISE 364)  
CSE 380 Computer Game Programming  
CSE 381 Advanced Game Programming  
MUS 344 Introduction to Audio Engineering  
MUS 437 Electronic Music

E. Theory and Culture Courses:

DIA 396/CCS 396-H Video and Computer Game History  
DIA 397/CCS 397-H Video and Computer Game Culture  
ARH 322-G American Art Since 1947  
ARH 333-K Arts for the Public  
ARH 335-G History of Photography  
ARH 336-G Digital Visual Culture  
ARH 342-G Art of the 20th Century  
ARH 344-G Performance Art II: World War II to the Present  
ARH 345-G The Moving Image in 20th century Art  
ARH 400 Topics in Art History (only approved topics)  
CCS 301-G Theorizing Cinema and Culture  
CCS 313-H Television Studies  
CCS 391-J Contemporary African Cinema and Cultural Studies  
CCS 395-H Digital Cultural Studies  
CCS 401 Senior Seminar in Cinema and Cultural Studies  
CSE 301-H History of Computing  
EST 310 Game Design  
MUS 300-H Music, Technology, and Digital Culture  
THR 277 The Media Industry  
THR 403 Media: Theory and Criticism

Notes:

1. No more than six credits from any 488 internship may be applied to the minor.
  2. No more than three credits from 487 may be applied to the minor.
  3. Pre-approval for appropriate 487 projects and 488 internships is required.
  4. ARS majors should be aware that many ARS courses require ARS 154 as a prerequisite, although ARS 154 is not required for DIA courses.
- NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Earth and Space Sciences (ESS)****Interdisciplinary Major in Earth and Space Sciences****Department of Geosciences, College of Arts and Sciences**

Chairperson: Richard J. Reeder

Director of Undergraduate Studies: Hanna Nekvasil

MAJOR ADVISOR: Hanna Nekvasil

Office: 255 Earth and Space Sciences  
Phone: (631) 632-8201

E-MAIL: [Hanna.Nekvasil@stonybrook.edu](mailto:Hanna.Nekvasil@stonybrook.edu)

WEB Address: <http://www.geosciences.stonybrook.edu/>

Minors of particular interest to students majoring in Geology and Earth and Space Sciences: Environmental Studies (ENS), Marine Sciences (MAR), Engineering minors

**Earth and Space Sciences (ESS)**

Earth and Space Sciences is a broadly based multidisciplinary field combining geology, astronomy, atmospheric science, and marine science administered by the Department of Geosciences (see Geology major for departmental information). The major in Earth and Space Sciences is a diversified program in the natural sciences and mathematics aimed at fostering a basic understanding of the earth and space sciences; it also includes concentrated study in any one of the natural sciences or mathematics or interdisciplinary studies in environmental geoscience. Intended for those seeking a science-related career, the program is flexible in that it is designed to meet the needs of students who desire a more diverse liberal arts and sciences background. The various programs prepare students to choose careers in teaching, law, environmental science, secondary education, or research in private industry and government.

**Requirements for the Major in Earth and Space Sciences (ESS)**

The major in Earth and Space Sciences leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires approximately 61-73 credits.

**Requirements for the Earth and Space Sciences Track****A. Introductory earth and space sciences courses**

- GEO 103 The Earth Through Time and GEO 113 Historical Geology Laboratory
- GEO 122 Physical Geology or GEO 102 The Earth and GEO 112 Physical Geology Laboratory
- AST 101 Introduction to Astronomy
- AST 112 Astronomy Laboratory
- ATM 205 Introduction to Atmospheric Sciences

**B. Upper-division earth and space sciences courses**

At least four upper-division GEO, AST, ATM courses; at least one must include a laboratory

**C. Introductory related science courses**

1. MAT 131, MAT 132 Calculus I, II (See Notes 1 to 3 below)
2. PHY 121/PHY 123 Physics for Life Sciences or PHY 125 Classical Physics A or PHY 131/PHY 133 Classical Physics I and lab or PHY 141 Classical Physics I: Honors
3. Any two of the following groups: a. PHY 122/PHY 124 Physics for Life Sciences (see Note 3) or PHY 132/PHY 134 Classical Physics II and labor PHY 142 Classical Physics II: Honors or PHY 126, PHY 127 Classical Physics B and C b. CHE 131 (129), CHE 132 General Chemistry I, II or CHE 141, CHE 142 Honors Chemistry I, II (See Note 3) c. BIO 201 Fundamentals of Biology: Organisms to Ecosystems and BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I (see Note)

Note: Students who choose to take BIO 201/BIO 204 as an option are required to take CHE 131 or CHE 141 instead of a second semester of Physics.

**D. Specific science concentration**

At least 12 credits in courses acceptable for one of the following concentrations: astronomy, atmospheric sciences, biology, chemistry, geology, marine sciences, mathematics, or physics. Students must obtain departmental approval of courses chosen to satisfy the specific science concentration.

**E. Upper-division writing requirement**

All students in the Earth and Space Sciences track must submit two papers (term papers, laboratory reports, or independent research papers) to the director of undergraduate studies for departmental evaluation by the end of the junior year. If this evaluation is satisfactory, the student will have fulfilled the upper-division writing requirement. If it is not, the student must fulfill the requirement before graduation.

#### Notes:

1. The following alternate beginning calculus sequences may be substituted for MAT 131, MAT 132 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142, or MAT 171, or AMS 151, AMS 161. Equivalency for MAT courses achieved by earning the appropriate score on a University mathematics placement examination will be accepted as fulfillment of the requirement without the necessity of substituting other credits.
2. For astronomy, atmospheric sciences, mathematics, and physics concentrations, PHY 121/PHY 123 and PHY 122/PHY 124 are not acceptable under Requirements C2 and C3.
3. For the concentration in physics, one of MAT 205, MAT 203, or AMS 261 and one of MAT 305, MAT 303, or AMS 361 are required.

#### Requirements for the Earth Science Education Track

##### A. Introductory science courses

- GEO 102 The Earth and GEO 112 Physical Geology
- GEO 103 The Earth Through Time and GEO 113 Historical Geology Laboratory
- AST 101 Introduction to Astronomy and AST 112 Astronomy Laboratory
- ATM 205 Introduction to Atmospheric Sciences
- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
- BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I
- CHE 131, CHE 132 General Chemistry I and II (see note below)
- CHE 133, CHE 134 General Chemistry Laboratory I and II
- AMS 102 Elements of Statistics
- MAT 125 Calculus A
- PHY 119 Physics for Environmental Studies or PHY 125 Classical Physics A
- ATM 102 Weather and Climate

##### B. Elective Courses

At least 24 credits from the approved course list, chosen in consultation with the program director. At least two of the courses must include a laboratory.

##### C. Specific Science Concentration

At least 12 credits of the 24 elective credits must be chosen from one of the earth and space science disciplines: astronomy, atmospheric sciences or geosciences.

##### D. Upper-division writing requirement

All students in the earth science education track must submit two papers (term papers, laboratory reports, or independent research reports) that involve collecting data or observations, processing and interpreting this information, and preparing a professional-quality report. These reports must be submitted to the director of undergraduate studies for evaluation by the end of the junior year. If this evaluation is satisfactory, the student will have fulfilled the upper-division writing requirement. If it is not, the student must fulfill the requirement before graduation.

Note: The sequence CHE 123, CHE 124 or CHE 129, CHE 132 may be substituted for CHE 131, CHE 132, with permission of the undergraduate program director.

#### Earth Science Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Sample Course Sequence for the Major in Earth and Space Sciences

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CHE 131	4	CHE 132	4
GEO 102	3	MAT 125 or MAT 131	3-4
GEO 112	1	GEO 103	3

D.E.C. (or MAT 123 if needed)	3	GEO 113	1
Total	15	Total	15-16
<b>Sophomore Fall</b>			
<b>Credits</b>		<b>Spring</b>	<b>Credits</b>
MAT 126 or MAT 132	3-4	PHY 122/PHY 124 or PHY 132/ PHY 134	4
PHY 121/PHY 123 or PHY 131/ PHY 133	4	GEO/AST/ATM Elective	3
D.E.C.	3	D.E.C. or MAT 127	3
D.E.C.	3	D.E.C.	3
		Upper-Division D.E.C.	3
Total	13-14	Total	16
<b>Junior Fall</b>			
<b>Credits</b>		<b>Spring</b>	<b>Credits</b>
ATM 205	3	Upper-Division Concentration elective	3
Upper-Division Concentration elective	3	GEO/AST/ATM Elective	4
AST 101	3	BIO 204	2
AST 112	1	D.E.C.	3
BIO 201	3	Upper-Division elective	3
Upper-Division D.E.C.	3		
Total	16	Total	15
<b>Senior Fall</b>			
<b>Credits</b>		<b>Spring</b>	<b>Credits</b>
Upper-Division Concentration elective	3	Upper-Division Concentration elective	3
Upper-Division GEO, AST, or ATM elective	3	GEO/AST/ATM Elective	3
D.E.C.	3	Upper-Division D.E.C.	3
Upper-Division D.E.C.	3	Upper-Division D.E.C.	3
Upper-Division elective or D.E.C.	3	Upper-Division elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Economics (ECO)****Major in Economics****Department of Economics, College of Arts and Sciences**

Chair: Sandro Brusco

Assistant to the Chair: Ruth Ben-Zvi

Director of Undergraduate Studies: William Dawes

Undergraduate Program Coordinator: Jenille Johnson

Office: S-601 Social and Behavioral Sciences

Phone: (631) 632-7540

E-MAIL: [ugeconomics@stonybrook.edu](mailto:ugeconomics@stonybrook.edu)

Web Address: <http://www.stonybrook.edu/economics>

Minors of particular interest to students majoring in Economics: Applied Mathematics and Statistics (AMS), Business Management (BUS), Computer Science (CSE), International Studies (INT)

**Economics (ECO)**

Economics is the study of production, distribution, and exchange of goods and services. It investigates such questions as price formation, degree of employment of labor and other resources, efficient use of scarce resources, and the basis and effects of government policies in the economy. Economics also analyzes, compares, and contrasts different economic systems in the world, and studies the international economic relations among countries.

The areas of study in the Department fall into three broad classifications. The first of these, microeconomics, deals with the theoretical and empirical study of the behavior and interrelationships of individual economic agents, such as firms and individuals, and their interaction through markets. Next, macroeconomics examines the large sectors of the economy such as government, business, money and banking, and international trade. It also covers such topics as unemployment, inflation, and economic growth. Finally, econometrics uses statistics to estimate, test, and predict patterns of behavior of the various units and relationships that make up the economy.

The undergraduate economics program is designed to give students a beginning sense of what economists do as well as how they think. After taking the introductory course, ECO 108, students acquire a more thorough background in economic theory by taking ECO 303 and ECO 305. The remaining economics courses used to satisfy the major requirements focus on particular aspects of economics (e.g., labor markets, industrial organization, money and banking, economic development, finance) showing how economists analyze the theoretical and empirical issues. Some upper-division courses apply statistical methods, which are taught (but not required) in the program.

Students with a degree in Economics can pursue graduate studies leading to an M.A. or Ph.D. in Economics, or to a Master of Business Administration degree. The major is also especially useful for students interested in graduate studies in such areas as law, human resources, public policy, and health economics. The majority of graduating Economics majors who continue their education either go to law school or pursue an M.B.A. A small number of graduates go to graduate school in economics. More than half the graduating seniors go directly into the job market. The great majority find entry-level positions in finance, marketing, sales, and various forms of business analysis and research. Many M.B.A. programs require applicants to have had work experience before applying to their program, so many students enter the job market temporarily and eventually return to school for an advanced degree.

Students are urged to consider enrolling in ECO 488, Internship. Internships provide opportunities for students to integrate work experience into the Economics major by doing related readings, keeping a daily journal, and writing an analytical paper under the supervision of a faculty member. To register for ECO 488, students must have the permission of the internship coordinator in the Department of Economics and the internship manager in the Career Center. For further information, students should contact the Internship Coordinator in the Department.

**Requirements for the Major in Economics (ECO)**

The major in Economics leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 39 credits.

A. A minimum of 11 courses, at least nine of them in economics, distributed as follows:

1. ECO 108 Introduction to Economics

2. Intermediate economics courses:

ECO 303 Intermediate Microeconomic Theory

ECO 305 Intermediate Macroeconomic Theory

3. Six additional courses in economics at the 300 level and above. Each of these must be taken for a minimum of three credits.

4. Two additional courses, either in economics or from a list of pre-approved electives in other departments, each with a minimum of three credits.

Note: No more than two 400-level courses will count toward fulfillment of major requirements.

B. MAT 122 Overview of Calculus with Applications

or MAT 123 Introduction to Calculus

or AMS 151 Applied Calculus I  
or level 4 on the mathematics placement examination  
or any higher level calculus course (See Note 2)

#### C. Upper-Division Writing Requirement:

Students should meet the upper-division writing requirement before the end of the junior year, demonstrating their competence in writing for the discipline by obtaining a satisfactory evaluation of their writing from the faculty instructor of any upper-division ECO course except ECO 320. Where a term paper or other major writing assignment is a required part of the course, this work will form the basis of evaluation. When the course involves no major writing assignment, the instructor will assign a special paper for those students in the class seeking to satisfy the writing requirement. In these cases, the number of students who will be permitted to seek evaluation may be limited.

Students must request permission from the instructor at the beginning of the semester to use the course for this evaluation. Only students with a declared major in Economics or with an Economics concentration in either the multidisciplinary studies major or the social sciences major may apply to have their writing evaluated. Students who fail to fulfill the requirement on their first effort must do so in a subsequent semester before graduation.

#### Notes:

1. Students who need to take MAP 103 will be unable to take ECO 108 in the first semester of the freshman year and will have to adjust their schedule accordingly.
2. Economics is a quantitative social science. Students planning to use their background in economics for graduate studies or in their careers should take additional courses in mathematics and applied mathematics.
3. A maximum of four courses in economics taken at other institutions may be applied toward the major.

#### Independent Research

Students are encouraged to explore advanced subjects in economics through independent research supervised by a faculty member. Typically, an independent research project will emerge after a student has taken an upper-division ECO course that provides a foundation of knowledge and a relationship with a faculty member. The student should formulate the research project in consultation with the supervising faculty member before the start of the semester in which the research is undertaken for credit through ECO 487. The project should culminate in a substantial written paper. Credit is variable, and will be awarded on the basis of the University's guideline that one credit should involve about four hours per week of work. Outstanding work will be featured in the annual university undergraduate achievement celebration.

#### Internships

Students are encouraged to explore opportunities for study in the context of an internship in a business, government, social service agency, or union setting. Note that an internship for credit through ECO 488 is an academic undertaking; it is not the same as involvement in what the employing agency may call an internship.

An ECO 488 internship for credit provides an opportunity for the student to integrate work experience into the Economics major by doing related readings, keeping a daily journal reflecting on the lessons learned at work, and writing an analytical paper under the supervision of an ECO Department faculty member. Essentially, an internship for credit is an independent research project undertaken in the context of a work environment that provides the student with access to data, people, and experience that will make the study of some economic issue possible. Students are encouraged to base the internship study on an upper-division ECO course that has provided basic knowledge and analytic tools appropriate to the work setting. Credit is variable, depending upon the time involved.

To enroll for internship credit in ECO 488, a student must have the approval of a supervising faculty member in the Department of Economics and permission of the internship manager in the University's Career Center. This will involve acknowledgment and cooperation from the employing agency. Permission must be arranged before the start of the semester in which the student enrolls in ECO 488. The academic component of the internship must be done at the same time as the work component in the business or agency in which the student works.

#### Honors in Economics

Qualified students can graduate with honors in Economics. As specified below, the requirements include an honors thesis approved by the Department's director of undergraduate studies. Qualified students interested in graduation with honors are urged to enroll in upper-division economics courses that provide them with the opportunity to write research papers which may be submitted for consideration as an honors thesis. For further information, students should contact the director of undergraduate studies for the Department of Economics.

Honors in Economics will be awarded to graduating seniors who have achieved the following:

1. A grade point average of at least 3.25 in the four required courses (A. 1., 2.), with no less than a B in any one of these courses.
2. A grade point average of at least 3.50 in any four electives in economics at the 300 level.
3. Six credits in economics at the 400 level.
4. An honors thesis, submitted to the director of undergraduate studies for honors evaluation.

#### Sample Course Sequence for the Major in Economics

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1

D.E.C. A	3	D.E.C. A	3
MAT 122 or MAT 123 or AMS 151	3	MAT	3-4
D.E.C.	3	ECO 108	4
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	17-18
<b>Sophomore Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ECO 303	4	ECO 305	4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	16	Total	16
<b>Junior Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division ECO	3	Upper-Division ECO	3
Upper-Division ECO	3	ECO elective or other approved course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division ECO	3	Upper Division ECO	3
Upper-Division ECO	3	ECO elective or other approved course	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Ecosystems and Human Impact (EHI)****Major and Minor in Ecosystems and Human Impact**

Director: Dr. James Hoffmann  
 Program Office: W0511 Melville Library  
 Program Coordinator: Ginny Clancy  
 Phone: (631) 632-9404  
 Email: [ginny.clancy@stonybrook.edu](mailto:ginny.clancy@stonybrook.edu)  
 Website: <http://www.stonybrook.edu/commcms/sustainability/>

**Ecosystems and Human Impact (EHI)**

The Ecosystems and Human Impact major, leading to a Bachelor of Art degree, provides the skills, knowledge, and preparation for students to assess and address the complex interaction of humans and natural environments. The curriculum integrates principles and methodologies from ecology, biology, genetics, anthropology, human ecology, and geography, combined with an understanding of economics, ethics, and policy within a greater global perspective.

The major prepares students for entry-level employment in the public, private, or non-profit sectors concerned with a wide range of issues, such as: conservation of ecosystems, ecosystem restoration, loss of biodiversity, and development of sustainable bioresources. The major prepares students for graduate study in anthropology, geography, environmental science, sociology, natural resource management, and biology among other fields.

The major builds on the interdisciplinary sustainability core curriculum. Students will enroll in major-specific courses in their junior and senior year. In their junior or senior year students will have the opportunity to enroll in the study abroad program at Ranomafana, Madagascar, which provides training in field biology, ecology, primatology, and anthropology. Students enrolled in this program will take courses and conduct independent research that contributes to a better understanding of Ranomafana National Park and the link between the park and the people of the region. Local internships, research courses, and field courses are also available to students to build up real-world experience.

The Ecosystems and Human Impact minor is intended for students who seek to complement their chosen major with a coherent set of courses emphasizing the interaction between humans and ecosystems from an interdisciplinary perspective..

**Requirements for the Major and Minor in Ecosystems and Human Impact (EHI)**

## Requirements for the Major

## A. Required Foundation Courses for Major (32-33 credits)

- MAT 131 or MAT 125 Calculus
- ECO 108 Introduction to Economics
- SBC 111 Introduction to Sustainability
- SBC 113 Physical Geography
- SBC 116 Human Geography
- ENV 115 Chemistry, Life, and Environment
- SBC 201 Systems and Models
- ANP 120 Introduction to Physical Anthropology
- SBC 204 Population Studies
- SBC 205 Introduction to Geospatial Analysis
- BIO 201 and BIO 204 Fundamentals of Biology: Organisms to Ecosystems and lab

## B. Career and Leadership Skills (6 credits)

- CSK 102 Career Leadership Skills: Working in Teams
- CSK 104 Career Leadership Skills: Negotiation and Conflict Resolution
- CSK 302 Technical Writing and Communication
- One course selected from: CSK 101, CSK 103, CSK 105, CSK 106, CSK 107, or CSK 108

## C. Core Courses (31 credits)

- ENV 304 Global Environmental Change
- BIO 351 Ecology
- EHI 326 Conservation Genetics
- EHI 322 Human Ecology

In addition to the 4 core courses (12 credits) above, students are required to select four courses from group I (12-14 credits) and one course (3 credits) from group II. (Note ANP 325, ANP 391, ANP 350 are offered in Madagascar)

## Group I:

- ANP 325 Primate Behavior
- ANP 391 Ecosystem Diversity and Evolution
- ANP 350 Field Methods in Primatology and Field Biology
- BIO 352 Ecology Laboratory
- MAR 315 Conservation Biology and Marine Biodiversity
- MAR 388 Tropical Marine Ecology
- EHI 310 Preservation and Restoration of Ecosystems
- EHI 311 Ecosystem Based Management
- EHI 321 Human Reproductive Ecology
- EHI 340 Ecological and Social Dimensions of Disease
- EHI 342 Materials in Human and Natural World
- EHI 343 Sustainable Natural Resources

Group II:

- SBC 206 Economics and Sustainability
- SBC 309 Global Environmental Politics
- SUS 341 Environmental Treatises and Protocols
- SBC 307 Environmental History of North America
- SBC 320 Sub-Saharan Africa: Geography, Cultures, and Societies
- SUS 350 Contemporary Topics in Sustainability

One of the following courses may be substituted for any of the courses in Group II, but each of these courses below has a prerequisite outside the major.

- SBC 310 Migration, Development and Population Redistribution
- SBC 321 Ecology and Evolution in American Literature
- SUS 303 Demographic Change and Sustainability
- SUS 305 Collective Action and Sustainability
- EDP 309 Planning: Policies and Regulations
- SUS 301 Environmental Ethics
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society, and Health
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Sustainability

D. Systems Course (3 credits)

Choose one of the following:

- GEO 301 Sustainability of the Long Island Pine Barrens
- SBC 401 Integrative, Collaborative Systems Project or ANP 487 or ANT 487: Independent Study: Research in Biology, Natural History or Anthropology (both Cultural and Physical) as part of study abroad in Madagascar

E. Communications and Writing requirement

Proficiency in writing, oral communication, and computer literacy is encouraged in all students. In addition to CSK 302, these skills will be developed within the context of other formal coursework and no additional credits are required. To meet the upper-division writing requirement, students must submit two papers from any 300-level or 400-level course in the major to the Director of the SUS Undergraduate Program.

Note:

One course passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher. Course taken with the Pass/NC option may not be applied to the major.

Minor

The Ecosystems and Human Impact minor is intended for students who seek to complement their chosen major with a coherent set of courses emphasizing the interaction between humans and ecosystems from an interdisciplinary perspective.

Requirements for the Minor

No more than two courses that are used to satisfy your major can be applied to this minor. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 19 to 20 credits.

1. Required introductory courses:

- SBC 111 Introduction to Sustainability
- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- SBC 201 Systems and Models

One of the following two courses:

- ANP 120 Introduction to Physical Anthropology
- ENV 115 Chemistry, Life, and Environment

2. Required three advanced courses chosen from the following:

- ANP 325 Primate Behavior\*
- ANP 350 Methods in Studying Primates\*
- ANP 391 Ecosystem Diversity and Evolution\*
- BIO 301 Sustainability of the Long Island Pine Barrens
- BIO 351 Ecology
- BIO 352 Ecology Laboratory
- EHI 310 Restoration Ecology
- EHI 311 Ecosystem-Based Management
- EHI 322 Human Ecology
- EHI 342 Materials in Human and Natural World
- EHI 343 Sustainable Natural Resources
- ENV 304 Global Environmental Change
- ENV 340 Contemporary Topics in Environmental Science
- MAR 315 Conservation Biology and Marine Biodiversity
- SBC 309 Global Environmental Politics

\* These courses are offered as part of the Madagascar Study Abroad Program.

#### Declaration of the Minor

Students should declare the Ecosystems and Human Impact minor no later than the middle of their sophomore year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

#### Sample Course Sequence for the Major in Ecosystems and Human Impact

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	CSK 104	1
SBC 111	3	D.E.C. A	3
MAT 125 or MAT 131	3-4	ENV 115	3
SBC 113	3	SBC 205	1
CSK 102	1	SBC 116	3
		D.E.C.	3
Total	14-15	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SBC 201	1	ENV 304	3
ANP 120	4	Foreign Language or elective	3-4
BIO 201/BIO 204	5	ECO 108	4
CSK Elective	1	SBC 204	3
Foreign Language or elective	3-4	Elective	2-3
Total	14-15	Total	15-17
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
EHI 326	3	BIO 351	3
D.E.C.	3	Group I #1	3
Group II #1	3	Group I #2	3

D.E.C.	3	EHI 322	3
CSK 302	3	SBC 205	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Group I #3	3	Elective	3
Group I #4	3	Group I #5	3
SBC 401	3	D.E.C.	3
Internship/Research	6	D.E.C.	3
		Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Education and Teacher Certification

### Programs in Education and Teacher Certification

#### Professional Education Program, accredited by NCATE, National Council for Accreditation of Teacher Education

DIRECTOR: Dorit Kaufman  
 UNIVERSITY TEACHER CERTIFICATION OFFICER: Marvin Glockner  
 ASSOCIATE DIRECTOR FOR ADMINISTRATION: Mary Ann Short  
 ASSISTANT TO THE DIRECTOR: Patricia Dixon  
 Phone: (631) 632-4PEP (4737)  
 E-MAIL: PEP@stonybrook.edu  
 Web address: <http://www.pep.sunysb.edu>

Secondary Education and Teacher Certification Programs in English; Foreign Languages (Chinese, French, German, Italian, Japanese, Spanish); Mathematics; Sciences (Biology, Chemistry, Earth Sciences, Physics); and Social Studies

Pre-Kindergarten through Grade 12 Certification in Teaching English to Speakers of Other Languages (TESOL)

### Education and Teacher Certification

The Professional Education Program offers programs to prepare students to become teachers of academic subjects in secondary schools (grades 7 through 12) and to become teachers of English to speakers of other languages (TESOL) in grades Pre-K through 12. Stony Brook's teacher certification programs are registered and approved by the New York State Education Department.

Students complete the requirements of either a Departmental major or an interdisciplinary major in addition to teacher certification. It is recommended that students consult their planned major department as early as the second semester of the freshman year but no later than the second semester of their sophomore year to determine if the major includes the teacher education option. It is necessary to apply for admission to the Professional Education Program and to obtain guidance from program coordinators in completing teacher education and departmental major requirements for a degree. Teacher Education programs are offered in the following subject areas:

#### 1. Certification Grades 7 through 12:

- #English
- #Foreign Languages: Chinese, French, German, Italian, Japanese, and Spanish
- #Mathematics
- #Sciences: Biology, Chemistry, Earth Sciences, Physics (General Science 7-12 Extension Certification options are available for these programs)
- #Social Studies

#### 2. Certification Grades Pre-K through 12:

- #Teaching English to Speakers of Other Languages (TESOL)

Accelerated Bachelor's/Master's Degree Programs are also available. Prospective students should contact the director of the certification program that they are interested in for information about this enrollment option.

All graduate and five-year accelerated bachelor's/master's level programs include 5-6 extension options (except for TESOL, which is a PreK-12 program) with the addition of CEE 601 and CEE 602.

All students seeking a certification and resulting NYS license in the teaching of a specific science (Biology, Chemistry, Earth Science, or Physics) at the adolescent level (Grades 7 to 12) can, by the completion of 18 credits in two or more sciences combined other than the primary science for which they are licensed, add a General Science Extension to their primary license. See your teacher preparation program director or academic advisor for additional information.

#### University-Wide Coordination of the Programs

The various programs, each of which is registered and approved by the New York State Education Department, are coordinated by the Nationally Accredited Professional Education Program (PEP). PEP performs a major role in the Long Island region by coordinating, supporting, strengthening, and developing: 1) undergraduate and graduate (pre-service) and graduate (in-service) teacher certification and teacher education; 2) educational research and development; and 3) school-university partnership programs. PEP has had a significant positive impact upon the Long Island region and is widely recognized as a symbol of Stony Brook University's commitment to teacher education.

The University-wide approach to teacher education adopted by Stony Brook provides graduates of our teacher education programs with the intellectual rigor of an academic major as well as a valuable professional credential that qualifies them to teach in New York State and many other states in the country through the Interstate Agreement on the Qualification of Educational Personnel.

### Requirements for the Teacher Education Programs

#### General Information

Clinical placements for Stony Brook students are available in a cross-section of partnering school districts that draw upon populations with a wide range of socio-economic and cultural backgrounds, and students with diverse needs. Many of these schools are engaged in innovative and experimental programs in education.

The Office of Teacher Certification at Stony Brook advises prospective teacher certification candidates in Stony Brook programs on procedures for obtaining New York State teacher certification. Clearance and applications for the certificate are processed by the Office of Teacher Certification, which keeps all documentation pertaining to these services on file and makes it available to students for in-state and out-of-state certification purposes, and to prospective employers upon presentation of a hand-signed FERPA Release Form.

Certification is not automatic. Upon successful completion of the University's program, the student must apply for state certification by doing the following:

1. Complete the necessary online application form, available on NYSED's TEACH website (<http://www.highered.nysed.gov/tcert/certificate/apply.html>).
2. Complete the certificate requirements for Identification and Reporting of Child Abuse and Maltreatment, Substance Abuse Recognition and Referral, School Violence Prevention and Intervention, and Fingerprinting Clearance.
3. Pass the New York State Teacher Certification Examinations (NYSTCE). Information about these standardized tests may be found on the following website: <http://www.nystce.nesinc.com/>.
4. Submit a completed FERPA Release Form and Information Sheet with accompanying processing fee to the Teacher Certification Office for recommendation to NYSED upon completion of an institutional-based program.

The Career Placement Center helps students in three ways. Through its credentials service, recommendations supporting students in their application for jobs are kept on file. Copies of these recommendations are sent to prospective employers upon request. The center also posts announcements for teaching jobs available locally and in schools around the country. Students seeking employment in school districts off Long Island are invited to participate in the Long Island Teachers Recruitment Consortium. For more information, contact the Career Placement Center at (631) 682-6810 (Voice/TDD).

The Professional Education Programs follow guidelines set forth by the College of Arts and Sciences regarding rules effecting probation and/or academic dishonesty for undergraduate students matriculated in teacher education programs. Please refer to other sections of the Undergraduate Bulletin for additional information.

#### Requirements of the Teacher Education Programs

Students applying for certification must satisfy the following requirements:

1. Students must formally apply for admission to one of the six teacher certification programs by completion of the appropriate application with supporting documentation and "declaration of major form." An essay (500-750 words) on a topic germane to education is required of all students. Admission requirements may also include interviews and submission of writing samples. Registration in methods courses as well as other certification courses requires admission to the Professional Education Program. For some courses, approval of the PEP Program Director may be required. Submission of the application by the end of the sophomore year is recommended.
2. Students must complete all requirements of their chosen academic major, with a minimum of 36 credits in the content field required for teacher certification. Stony Brook requirements exceed NYSED requirements in most instances. Be sure to check specific requirements relative to the content area in which you wish to be certified with the appropriate Program Director.
3. Students must complete all pedagogy credits in the professional study of education (credits vary according to the specific certification program) including foundation and literacy courses, and 100 hours of fieldwork prior to student teaching with specific experiences dealing with areas related to high-needs districts, ethnic and cultural diversity, inclusion of students with special needs, integration of technology in the curriculum, literacy across all curricula, and other selected topics.
4. Students must complete 75 days of supervised student teaching.
5. All teacher candidates must have one year of a language other than English at the college level on a transcript of record. This requirement may be met through the study of American Sign Language as well as foreign languages. Please note that some majors have more extensive language requirements.
6. Students should maintain a cumulative g.p.a. of 2.75 to remain in good standing. A student who earns less than a C in either of two methodology courses and/or the student teaching seminar must repeat the course, as well as the associated field experience, and earn a satisfactory grade before being permitted to advance to the next course in the professional education sequence. A student who earns below a C in either the foundations or literacy courses must earn a satisfactory grade in these courses prior to being accepted for student teaching placement. Students must also meet program standards on all PEP performance assessments to remain in good standing and advance through the program. Professional education courses may only be repeated once. Students must complete all courses required for the major, cognate fields, and professional licensure before they will be allowed to student teach.

Note: In some instances, departmental requirements may vary from the standards outlined above. It is incumbent upon the student to contact the Teacher Education Program Director within their department or division for updates to these requirements. Requirements for degree and certification are subject to change; it is the responsibility of the individual student to consult the PEP Guide to Teacher Education for current regulations and further information.

New York State requires all teacher candidates who are applying for initial certification to pass several standardized tests. The New York State Education Department is currently in the process of updating its testing requirements. Students should visit the following web link to get an

overview of the fields of knowledge assessed on these exams, and for the most up-to-date information pertaining to these requirements: <http://www.nystce.nesinc.com/>. It is recommended that students contact their program director for guidance in this process.

Prior to filing for certification, all teacher candidates must have their fingerprints cleared by the Division of Criminal Justice Services. In addition, all teacher candidates must have successfully completed two-hour seminar/workshops in Identification and Reporting of Child Abuse and Maltreatment, Substance Abuse Recognition and Referral, and School Violence Prevention and Intervention. Certificates of Completion for these workshops must accompany the application for license along with transcripts from all institutions attended that contain coursework relevant to the specific license. This coursework must contain content, pedagogy, field experience including student teaching, and a minimum of one year of language other than English at the college level. The language requirement may vary by major and in some instances may require completion of two years of language.

7. Additional requirements set by the academic department in charge of the certification area.

Note: Courses taken for Pass/No Credit may not be used to satisfy the preparation in professional education component of any Teacher Education Program.

The following sections describe specific requirements for each of the University's Teacher Education Programs.

#### English Secondary Teacher Education Program

Program Director: Kenneth Lindblom, Ph.D., Department of English

Students interested in earning English Teacher Certification are encouraged to contact the Program Director for advisement.

#### Requirements for Initial Certification

A. All requirements for the major in English with a minimum of 36 credits in the cognate field, including specific course content areas required for accreditation. See Program Director for details.

B. A 3.00 grade point average.

C. A writing sample that best reflects the candidate's good writing skills.

D. Professional educational requirements:

1. PSY 327 Human Growth and Development in the Educational Context
2. SSE 350 Foundations of Education
3. CEF 347 Introduction to Special Education
4. EGL 440 Performance and Technology in Teaching Literature and Composition
5. EGL 441 Methods of Instruction in Literature and Composition
6. EGL 449 Field Experience I
7. EGL 450 Field Experience II
8. LIN 344 Language Acquisition and Literacy Development
9. EGL 451 Supervised Teaching--Grades 7-9
10. EGL 452 Supervised Teaching--Grades 10-12
11. EGL 454 Student Teaching Seminar

Note: To be eligible for EGL 441, students must have declared an English major and the teacher education program, and have taken at least one 300-level English course. The Program has established a number of specific requirements that may be satisfied through the courses taken to fulfill the requirements for the major. Consult with the Program Director for detailed information.

#### Foreign Languages Secondary Teacher Education Program

Program Director: Sarah Jourdain, Ph.D., Department of European Languages, Literatures, and Cultures

This program prepares students to be teachers of Chinese, French, German, Italian, Japanese, and/or Spanish in the secondary schools. It satisfies all requirements for New York State initial certification for the teaching of Languages Other Than English (LOTE), grades 7-12. This program is only open to students with majors in Asian and Asian American Studies, French, German, Italian, or Spanish.

Students who wish to enter this program are expected to consult the program director and establish an advising folder prior to the beginning of the junior year. Failure to do so may result in delays in meeting the certification requirements. The program is designed to be completed sequentially in the last two years of the teacher candidate's degree program. The final semester of the program is a full-time student teaching experience in a regional school with accompanying evening seminar at the University.

#### Requirements for Initial Certification in Any of the Languages

A. Completion of the requirements for the major in Asian and Asian American Studies, French, German, Italian, or Spanish

B. Professional educational requirements:

1. PSY 327 Human Growth and Development in the Educational Context
2. SSE 350 Foundations of Education

3. CEF 347 Introduction to Special Education
4. FLA 339 Methods and Materials in the Teaching of Foreign Languages and Field Experience I
5. FLA 340 Curriculum Development and Micro-Teaching and Field Experience II
6. LIN 344 Language Acquisition and Literacy Development
7. FLA 449 Field Experience I
8. FLA 450 Field Experience II
9. FLA 451 Supervised Teaching--Foreign Language, Grades 7-9
10. FLA 452 Supervised Teaching--Foreign Language, Grades 10-12
11. FLA 454 Student Teaching Seminar

Students are urged to take as many advanced language courses as possible and participate in a study abroad program prior to student teaching. Students must complete 36 credit hours of courses in the language to be eligible for certification. Courses taught in English will not satisfy the language requirement for certification purposes.

Prior to student teaching, students must participate in an official ACTFL OPI (Oral Proficiency Interview) and receive a minimum spoken proficiency rating of Advanced-Low as defined in the ACTFL Proficiency Guidelines-Speaking (1999). Students must contact Language Testing International (LTI) and arrange for either a face-to-face OPI or a phone interview.

Students wishing to prepare for dual certification (i.e., certification in two foreign languages) should consult the advisor for foreign language teacher education.

Notes:

1. To be eligible for FLA 339, the student must have declared a language major and the teacher education program, and have taken at least one 300-level language course and one 300-level literature course. Both FLA 339 and FLA 340 must be successfully completed prior to student teaching.
  2. To be eligible for student teaching, students must have maintained a 3.00 g.p.a. in the major and a 2.75 g.p.a. overall.
  3. Students should consider FLA 439, Introduction to Technology for Language Teaching, and FLA 440, Foreign Language Acquisition Research, in choosing electives for their major.
- French, German, or Italian Secondary Teacher Education Program

Students wishing to prepare for certification as secondary school teachers of French, German, or Italian, or any combination of two languages, including Spanish, should consult appropriate departmental advisors concerning requirements and procedures for the teacher education program. Those seeking certification in German are urged to take GER 411, GER 412, and GER 438 in addition to the courses required for the major and certification.

Chinese or Japanese Secondary Teacher Education Program

Students wishing to prepare for certification as secondary school teachers of Chinese or Japanese, or any combination of two languages, including French, German, Italian, and Spanish, should consult appropriate departmental advisors concerning requirements and procedures for the teacher education program.

Spanish Secondary Teacher Education Program

Students who wish to prepare for certification as secondary school teachers of Spanish should choose SPN 462, SPN 463 or SPN 465 in satisfying major Requirement A.5. They should consult appropriate departmental advisors concerning additional requirements and procedures in the teacher education program.

Mathematics Secondary Teacher Education Program

PROGRAM DIRECTOR: Lisa Berger, Ph.D., Department of Mathematics

This program prepares students to be teachers of mathematics in the secondary schools and satisfies all requirements for New York State initial certification for teaching mathematics, grades 7 to 12. It is only open to students with majors in Mathematics or Applied Mathematics and Statistics.

Students who wish to enroll in the program should apply to the undergraduate mathematics teacher preparation program during the second semester of their sophomore year, or the first semester of their junior year. Sophomore applicants should have taken at least two semesters of calculus, linear algebra, and MAT 200. Completion of a third semester of calculus is strongly recommended. Applicants must have grades of "C" or higher in each of these courses, with an average grade of at least "B". In addition, applicants are required to have an overall grade point average of 2.75 or higher.

Requirements for Initial Certification

- A. Completion of either the mathematics or the applied mathematics and statistics major.
- B. Completion of, or exemption from, the following courses:
  - MAT 200 Language, Logic, and Proof;
  - MAT 312 Applied Algebra OR MAT 313 Abstract Algebra
  - MAT 319 Foundations of Analysis OR MAT 320 Introduction to Analysis
  - MAT 336 History of Mathematics
  - MAT 360 Geometric Structures



- AMS 310 Probability and Statistics.

C. Professional educational requirements:

1. MAE 301 Foundations of Secondary School Mathematics
2. MAE 302 Methods and Materials for Teaching Secondary School Mathematics
3. MAE 311 Introduction to Methods of Teaching Secondary School Mathematics
4. MAE 312 Micro-Teaching
5. MAE 447 Directed Readings in Mathematics Education
6. PSY 327 Human Growth and Development in the Educational Context
7. SSE 350 Foundations of Education
8. CEF 347 Introduction to Special Education
9. LIN 344 Language Acquisition and Literacy Development
10. MAE 451 Supervised Teaching - Grades 7-9
11. MAE 452 Supervised Teaching--Grades 10-12
12. MAE 454 Student Teaching Seminar

Notes:

1. To be eligible for MAE 301/MAE 311, students must have declared a major in either mathematics or applied mathematics and statistics, and the teacher education program.
2. To be eligible to student teach, students must have:
  - passed the CST (Content Specialty Test);
  - a minimum cumulative g.p.a. of 2.75;
  - a grade of C or higher but with a minimum g.p.a. of 2.75 total in: all courses required for the MAT or AMS major; AMS 310; MAT 336; MAE 301, MAE 302, MAE 311, MAE 312, MAE 447; PSY 327, SSE 350; LIN 344;
  - a minimum g.p.a. of 2.75 in the MAE courses above;
  - a minimum cumulative g.p.a. of 2.75 in the mathematics courses above, or permission of program director.
3. With the permission of the Director of Mathematics Education, a well-prepared student may substitute MAT 364 for MAT 360.
4. Students are strongly encouraged to take MAE 330, AMS 301, and a one-year sequence that uses mathematics in physics, chemistry, biology, engineering science, or economics.

Science Secondary Teacher Education Program

PROGRAM DIRECTOR: Keith Sheppard, Ed.D., Department of Biochemistry and Cell Biology PROGRAM ASSOCIATE DIRECTOR: Linda Padwa, M.A., Department of Biochemistry and Cell Biology PHONE: (631) 632-7075

The Science Secondary Teacher Education Program offers undergraduate science education courses satisfying New York State requirements for initial certification as a secondary school teacher of biology, chemistry, earth science, general science, and physics. This program is only open to students with majors in biology, chemistry, earth and space sciences, physics.

Consult the Science Secondary Teacher Education Program concerning professional development courses. While the Program Director or Associate Director will advise regarding professional education requirements toward certification, students should approach departmental Teacher Education Program Directors for advisement concerning content requirements only relative to obtaining a license within a given cognate field.

Biology Secondary Teacher Education Program

This program is designed for students preparing to teach biology in secondary schools. Consult the director of undergraduate studies in biology for more details about appropriate biology courses. The content Director for undergraduate Biology majors is Dr. J. Peter Gergen. The undergraduate Biology Advisor for the Teacher Preparation Program is Ms. Ellen Lopez.

Chemistry Teacher Preparation Program

This program is designed for students preparing to teach chemistry in secondary schools. Consult the director of undergraduate studies in chemistry for more details about appropriate chemistry courses. The content Director for the undergraduate Chemistry program is Dr. Susan Oatis.

Earth Sciences Secondary Teacher Education Program

This program is designed for the student who is preparing to teach earth sciences in secondary schools. Consult the director of undergraduate studies in the Department of Geosciences for further details about appropriate disciplinary courses. The content Director for the undergraduate Earth Science program is Dr. Gilbert Hanson.

Physics Secondary Teacher Education Program

This program is designed for the student who is preparing to teach physics in secondary schools. Consult the director of undergraduate studies in physics for further details about appropriate physics courses. The content Director for the undergraduate Physics program is Dr. Robert McCarthy.

Requirements for Initial Certification in any of the Sciences

- A. Completion of the requirements for the biology, chemistry, earth and space science or physics major
- B. Professional educational requirements:

1. PSY 327 Human Growth and Development in the Educational Context
2. SSE 350 Foundations of Education
3. CEF 347 Introduction to Special Education
4. LIN 344 Language Acquisition and Literacy Development (3 credits)
5. SCI 410 Pedagogy and Methods for Science Education I
6. SCI 420 Pedagogy and Methods for Science Education II
7. SCI 449 Field Experience I
8. SCI 450 Field Experience II
9. SCI 451 Supervised Teaching-Middle Level Science (grades 7-9)
10. SCI 452 Supervised Teaching-High School Science (grades 10-12)
11. SCI 454 Science Student Teaching Seminar

Note: To be eligible for SCI 410/SCI 449, students must have declared a major in one of the above sciences and the teacher education program and have taken at least four science laboratory courses.

Social Studies Secondary Teacher Education Program

PROGRAM DIRECTOR: Lawrence Frohman, Ph.D., Department of History

The Social Studies Secondary Teacher Education Program prepares undergraduates for initial certification as secondary school (7-12) social studies teachers. Students wishing to apply to the program should consult with the program director as early as possible in their academic careers to insure that all program requirements are completed in a timely manner and graduation is not delayed. This program is only open to students with majors in Africana studies, anthropology, economics, history, political science, and sociology.

Requirements for Initial Certification

Students must complete the following requirements:

A. Preparation in Social Sciences

1. A major in one of the following social science departments: Africana Studies, Anthropology, Economics, History, Political Science, or Sociology. These are the only majors that are acceptable for social studies certification.
2. A minimum of 48 credits in the social sciences, including courses in the departments mentioned above but excluding psychology, linguistics and multidisciplinary studies. Students should note that not all courses offered through interdisciplinary programs (Africana Studies and Women's Studies, in particular) are considered social science courses for the purpose of state certification. Check with a program advisor before enrolling in such courses.
3. The Program has established a number of specific requirements that must be satisfied through the 48 social science credits required by the program. Consult with the Program Director for detailed information.

B. Professional educational requirements:

1. PSY 327 Human Growth and Development in the Educational Context
2. SSE 350 Foundations of Education
3. CEF 347 Introduction to Special Education
4. LIN 344 Language Acquisition and Literacy Development
5. SSE 397 Teaching Social Studies
6. SSE 398 Social Studies Teaching Strategies
7. SSE 449 Field Experience I
8. SSE 450 Field Experience II
9. SSE 451 Supervised Teaching-Social Studies, Grades 7-9
10. SSE 452 Supervised Teaching-Social Studies, Grades 10-12
11. SSE 454 Student Teaching Seminar

Notes:

1. To enroll in SSE 397/SSE 449, students must have declared a major in an appropriate social science department, and been accepted into the teacher education program.
2. Courses taken for Pass/No Credit may not be used to satisfy the 48-credit Requirement A, Preparation in Social Science.
3. Business courses may not be used to satisfy the economics course requirement.
4. Students must have a g.p.a. of 2.75 or higher to qualify for student teaching.

Teaching English to Speakers of Other Languages (TESOL) Pre-K-12 Teacher Education Program

INTERIM PROGRAM DIRECTOR: Ximena Zate, Ph.D., P.D., Department of Linguistics

The TESOL Teacher Education Program prepares undergraduates for initial certification as Pre-K-12 teachers of English to Speakers of Other Languages. Students wishing to apply to the program must major in Linguistics and have a minimum GPA of 2.75 overall and 3.0 in the major. Prospective applicants must consult with the Undergraduate Director in Linguistics and the Director of the TESOL Program as early as possible in their academic careers to ensure completion of the program requirements in a timely manner. The PEP Undergraduate Application form must be submitted to the Director of the TESOL Education Program by April 15 for Fall admission and by November 15 for Spring admission. Students must maintain a 2.75 overall GPA and a 3.0 GPA in the major in order to remain in the program.

Requirements for Initial Certification

- A. Completion of all requirements for the major in Linguistics.

B. A 3.00 g.p.a. in the major and a 2.75 overall g.p.a.

C. Two years of college-level study of a language or languages other than English. (Completion of Skill 3 Basic Foreign Language Competence satisfies the first year of this requirement.)

D. Linguistics and foundations courses:

- LIN 101 Introduction to General Linguistics
- LIN 201 Phonetics
- LIN 211 Syntax
- LIN 301 Phonology
- LIN 307 Introduction to Sociolinguistics
- LIN 431 Structure of an Uncommonly Taught Language
- Plus one additional 3 credit upper division linguistics course

E. Professional educational requirements: 1. PSY 327 Human Growth and Development in the Educational Context

2. SSE 350 Foundations of Education

3. CEF 347 Introduction to Special Education

4. LIN 344 Language Acquisition and Literacy Development

5. LIN 375 TESOL Pedagogy: Theory and Practice

6. LIN 378 Content-based Language and Literacy Development

7. LIN 449 Field Experience I (1 credit co-requisite of LIN 375)

8. LIN 450 Field Experience II (1 credit co-requisite of LIN 378)

9. LIN 451 Supervised Student Teaching in TESOL (grades P-6)

10. LIN 452 Supervised Student Teaching in TESOL (grades 7-12)

11. LIN 454 Managing Instruction, Assessment and Resources

Note: To be eligible for LIN 375, students must have:

1. Declared a major in linguistics
2. Been accepted into the TESOL Education program
3. Received a grade of C or higher in LIN 101, LIN 201, or LIN 211
4. For non-native speakers of English, received a SPEAK score of 57 or higher or TOEFL (iBT) Speaking score of 28

### Pathways to Certification

**Initial Licensure** requires course work as indicated in the charts below. *Students must apply for admission and be formally accepted into each program*

**Professional Licensure** requires 3 Yrs. of Teaching at Level (1<sup>st</sup> year – mentored) and a functionally relevant Master's Degree containing a minimum of 12 Cr. content course work in area of initial certification.

**License Maintenance** requires 175 Hrs. of In-service Course work within 5 years

	English	English	Foreign Languages	Foreign Languages	Mathematics	Mathematics
<b>Initial Licensure</b>	Undergrad	Graduate	Undergrad	Graduate	Undergrad	Graduate
Intro to Human Development (UG); Human Development (Grad)	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^
Foundations of Educ. (U.G.); Educ: Theory & Pract. (Grad)	SSE 350	CEE 505	SSE 350	CEE 505	SSE 350	CEE 505
Intro to Spec. Ed. (U.G.)/Principles and Practices of Spec. Ed. (Grad)	CEF 347	CEF 547	CEF 347	CEF 547	CEF 347	CEF 547
Methods Courses	EGL 440	CEE 588	FLA 339	FLA 505	MAE 311	MAE 510

	EGL 441	CEE 593	FLA 340	FLA 506	MAE 302 MAE 447	MAE 520 MAE530
Field Experience	EGL 449 EGL 450	CEF 551 CEF 552	FLA 449 FLA 450	FLA 549 FLA 550	MAE 312	MAE 540
Literacy Course (for new certifications)	LIN 344	LIN 544	LIN 344	FLA 540	LIN 344	LIN 544
Student Teaching	EGL 451 EGL 452	CEQ 591 CEQ 592	FLA 451 FLA 452	FLA 507 or FLA 540	MAE 451 MAE 452	MAE 551 MAE 552
Student Teaching Seminar	EGL 454	CEE 590	FLA 454	FLA 554	MAE 454	MAE 554
36 Credits in Content (U.G.); 15 Cr. Additional Content in MAT Degree Programs (Except Mathematics which requires only 12 Cr. Additional Content)	English #	English #	CHI, FRN, GER, ITL, JPN, RUS, SPN €	FRN, GER, ITL, RUS, SPN €€	Mathematics & Applied Math and Statistics	MAT, AMS
1 Yr. of Language	*	*	*	*	*	*
Child & Substance Abuse & Violence Prevention Seminars	#	#	#	#	#	#
NYSTCE — Standardized Exams	+	+	+	+	+	+

	Sciences	Sciences	Social Studies	Social Studies	TESOL	TESOL
<i>Initial Licensure</i>	Undergrad	Graduate	Undergrad	Graduate	Undergrad	Graduate
Intro to Human Development (UG); Human Development (Grad)	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^
Foundations of Educ. (U.G.); Educ: Theory & Pract. (Grad)	SSE 350	CEE 505	SSE 350	CEE 505	SSE 350	CEE 505
Intro to Spec. Ed. (U.G.)/Principles and Practices of Spec. Ed. (Grad)	CEF 347	CEF 547	CEF 347	CEF 547	CEF 347	CEF 547
Methods Courses	SCI 410 SCI 420	SCI 510 SCI 520	SSE 397 SSE 398	CEE 577 CEE 578	LIN 375 LIN 378	LIN 524 LIN 529
Field Experience	SCI 449 SCI 450	SCI 549 SCI 550	SSE 449 SSE 450	CEF 548 CEF 549	LIN 449 @ LIN 450 @	LIN 579 @
Literacy Course (for new certifications)	LIN 344	LIN 544	LIN 344	LIN 544	LIN 344	LIN 532 LIN 541

Student Teaching	SCI 451 SCI 452	SCI 551 SCI 552	SSE 451 SSE 452	CEQ 581 CEQ 582	LIN 451 LIN 452	LIN 581 LIN 582
Student Teaching Seminar	SCI 454	SCI 554	SSE 454	CEE 580	LIN 454	LIN 574
36 Credits in Content (U.G.); 15 Cr. Additional Content in MAT Degree Programs	BIO, CHM, ESS, PHY	BIO, CHM, ESS, PHY	AFS, ANT, ECO, HIS, POL, SOC (S.S. 48 cred)	See Footnote##	Linguistics	Linguistics
1 Yr. of Language	*	*	*	*	2 Yrs. of Language**	2 Yrs. of Language**
Child & Substance Abuse & Violence Prevention Seminars	#	#	#	#	#	#
NYSTCE — Standardized Exams	+	+	+	+	English Language Proficiency	English Language Proficiency

**Notes:**

**Please note that segments dealing with: Integration of Technology in the Curriculum, Inclusion of the Special Child, Multi-Culturalism and Diversity in the Classroom, and Literacy (the teaching of reading and writing English in each content field) must be included in the two foundations courses and in the methods courses as well as in a specially designed course that will be taught across the curricula.**

\*One year of a language other than English is required of all teachers in the State of New York, and may include American Sign Language (ASL).

\*\*Two years of a language other than English is required for TESOL and may include ASL.

# All teachers are required to submit evidence of completion of Child and Substance Abuse, and Violence Prevention Seminars. Fingerprint certification is also required.

+ All teachers must submit evidence of having passed the NYSTCE standardized tests required by the New York State Education Department. The following website provides information about these requirements (<http://www.nystce.nesinc.com>).

@ Field is a co-requisite of each methods course.

@@ Formerly SSE 327.

^ Formerly CEE 565. Effective fall 2008, CEE 565 will no longer be accepted towards completion of Stony Brook's registered and approved graduate level teacher education programs.

# English credits must include specific content areas. Contact Program Director for specifics.

## Applicants must have an undergraduate degree in history or one of the other social sciences, excluding psychology (plus a minimum 18 credits in history).

€ Undergraduate majors in Chinese and Japanese require 30 credits in the content field.

€€ Graduate Students in the Foreign Language programs are also required to take FLA 571, Technology and Education. New Special Education course requirements CEF 347 (U.G.) and CEF 547 (Grad) effective September 1.

Initial Certification: All students who have been formally admitted to and successfully complete an initial certification program at Stony Brook University, are eligible for an initial certification with institutional recommendation.

International Students: All international students who graduate from a "registered and approved" program at Stony Brook and obtain an initial certification may work in New York State with an appropriate visa. These individuals who hold an initial license must become naturalized citizens or obtain a permanent-resident green card within five years of receiving their initial certification or their license will expire.

Professional Certification: All teachers in New York State must earn a functionally relevant master's degree containing a minimum of twelve credits in the content area of initial license and teach at level (grade level range encompassed within initial certification) for a minimum of three years, the first of which must be mentored. All teachers in New York State must be U.S. citizens or non-U.S. citizens who have obtained lawful permanent resident status. Otherwise they will not be licensed.

**Five-year accelerated bachelor's/master's programs have been approved by the New York State Education Department (January 2006) for admissions beginning in the fall of 2006. Please contact the program director for the certification program of your interest in order to obtain advisement on course requirements.**

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Electrical Engineering (ESE)****Major and Minor in Electrical Engineering****Department of Electrical and Computer Engineering, College of Engineering and Applied Sciences**

CHAIRPERSON: Serge Luryi

UNDERGRADUATE PROGRAM DIRECTOR: Ridha Kamoua

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Minors of particular interest to students majoring in Electrical or Computer Engineering: Applied Mathematics and Statistics (AMS), Computer Science (CSE), Science and Engineering (LSE), Engineering and Technology Entrepreneurship (ETE)

**Electrical Engineering (ESE)**

Electrical Engineering is one of the College of Engineering and Applied Sciences (CEAS) programs leading to the Bachelor of Engineering (B.E.) degree. The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. It is a rigorous four-year program that provides thorough training in the fundamentals of electrical engineering during the first two years. Beginning in the third year, students may also choose to specialize in either microelectronics or telecommunications. The program culminates in the fourth year in an original design project, working on a team with other students and under the supervision of a faculty member. All students are assigned a faculty advisor who consults with them on course selection, academic progress, and career preparation. Throughout their program, the students work in state-of-the-art instructional laboratories that include computer-aided circuit design, lasers, machine vision and computer graphics, microprocessor systems design, microwave electronics, digital signal processing and the most up to date electronic communications.

Electrical engineers are recruited for a variety of fields including energy, aeronautics, communications, testing laboratories, computer technology of hardware and software, and systems for finance and banking. For example, a communications engineer may work on improving communications networks, designing efficient systems for commercial applications, tactical and traffic control systems, or satellite surveillance systems. A circuit design engineer may design, develop, and manufacture electronic circuits for a variety of applications including microcomputers.

Stony Brook electrical engineering students may work as interns in engineering and high-technology industries where they can apply their classroom and laboratory knowledge to real-world practice, gaining those skills as preparation for their careers. Upon graduation they are employed by companies in the New York region and across the nation including BAE Systems, Northrop Grumman, Omnicon Group, GE Energy, Motorola, Boeing, and Ford Motors. Many students also choose to continue to pursue graduate degrees in engineering, business, law or medicine.

**Program Educational Objectives**

The electrical engineering program has five program educational objectives (**PEOs**):

**PEO 1:** Our graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices.

**PEO 2:** Our graduates should excel in the best graduate schools, reaching advanced degrees in engineering and related disciplines.

**PEO 3:** Within several years from graduation our alumni should have established a successful career in an engineering-related multidisciplinary field, leading or participating effectively in interdisciplinary engineering projects, as well as continuously adapting to changing technologies.

**PEO 4:** Our graduates are expected to continue personal development through professional study and self-learning.

**PEO 5:** Our graduates are expected to be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.

**Student Outcomes**

To prepare students to meet the above program educational objectives, a set of program outcomes that describes what students should know and be able to do when they graduate, have been adopted. We expect our graduates to attain:

- a. An ability to apply knowledge of mathematics, science, and engineering;
- b. An ability to design and conduct experiments, as well as to analyze and interpret data;
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;

- d. An ability to function on multidisciplinary teams;
- e. An ability to identify, formulate, and solve engineering problems;
- f. An understanding of professional and ethical responsibility;
- g. An ability to communicate effectively;
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i. A recognition of the need for, and an ability to engage in, life-long learning;
- j. A knowledge of contemporary issues; and
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

More details about program educational objectives and outcomes can be found at <http://www.ece.sunysb.edu/peos>

### Requirements for the Major and Minor in Electrical Engineering (ESE)

#### Acceptance into the Major

Freshman and transfer applicants who have specified their interest in the major in Electrical Engineering may be accepted into the major upon admission to the University. Applicants admitted to the University but not immediately accepted into the Electrical Engineering major may apply for acceptance at any time during the academic year. The Department's undergraduate committee will consider an application if the following conditions have been met:

1. The student has completed at least 11 credits of mathematics, physics, or electrical and computer engineering courses required for the major
2. The student has earned a grade point average of 3.00 or higher in these course
3. No courses required for the major have been repeated
4. All transfer courses have been evaluated.

#### Requirements for the Major

The curriculum begins with a focus on basic mathematics and natural sciences followed by courses that emphasize engineering science and bridging courses that combine engineering science and design. The series of courses culminates in a one-year design experience that integrates various engineering skills and knowledge acquired. Technical elective courses are also required according to the student's chosen specialization. The core sequence, technical electives, and additional courses may be chosen in consultation with a faculty advisor, taking into consideration the particular interest of the student.

Completion of the major requires approximately 100 credits.

#### 1. Mathematics

AMS 151, AMS 161 Applied Calculus I, II  
 AMS 261 or MAT 203 Applied Calculus III  
 AMS 361 or MAT 303 Applied Calculus IV  
 AMS 210 or MAT 211 Linear Algebra

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: (MAT 131 and MAT 132) or (MAT 131 and MAT 171), or (MAT 125, MAT 126, and MAT 127) or (MAT 141 and MAT 142), or (MAT 141 and MAT 171).

#### 2. Natural Sciences & Mathematics

-PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and Laboratories (Note: The physics course sequence PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 or PHY 141, PHY 142 is accepted in lieu of PHY 131/PHY 133, PHY 132/PHY 134. Students are advised to take PHY 127 before PHY 126.)

-One 4- credit course or two 3 – credit courses from CHE 131, CHE 141, ESG 198, BIO 202 & BIO 204, BIO 203 & BIO 205, PHY 251 & PHY 252, AMS 301.

#### 3. Freshman Introduction to Electrical Engineering

ESE 123 Introduction to Electrical and Computer Engineering  
 ESE 124 Computer Techniques for Electronic Design I

#### 4. Core Courses

ESE 211 Electronics Lab A  
 ESE 218 Digital Systems Design  
 ESE 224 Computer Techniques for Electronic Design II  
 ESE 231 Introduction to Semiconductor Devices  
 ESE 271 Electrical Circuit Analysis  
 ESE 305 Deterministic Signals and Systems  
 ESE 306 Random Signals and Systems  
 ESE 314 Electronics Laboratory B  
 ESE 319 Introduction to Electromagnetic Fields and Waves  
 ESE 324 Electronics Laboratory C



ESE 337 Digital Signal Processing Theory  
 ESE 372 Electronics  
 ESE 380 Embedded Microprocessor Systems Design I

#### 5. Specializations

Students must select the general track or one of the two specializations by the end of the sophomore year.

##### a. General

4 ESE electives (any 300-level ESE course not required for the major or ESE 476)  
 2 Technical Electives (See Appendix A in EE Guide)

##### b. Microelectronics

ESE 311 Analog Integrated Circuits  
 ESE 330 Integrated Electronics  
 2 Technical Electives (See Appendix A in EE Guide)  
 2 ESE electives (See Appendix A in EE Guide) (must be selected from ESE 304, 307, 325, 345, 355, 366, 373, or 381)

##### c. Telecommunications

ESE 340 Basic Communication Theory  
 ESE 342 Digital Communications Systems  
 2 Technical Electives (See Appendix A in EE Guide)  
 2 ESE electives (must be selected from ESE 321, 323, 341, 346, 347, 360, or 363)  
 Note: Students should visit the Department of Electrical and Computer Engineering for a copy of a sample course sequence for each specialization.

#### 6. Design

ESE 440 and ESE 441, Engineering Design I and II.

Note: ESE 440 and ESE 441 are engineering design project courses that must be carried out at Stony Brook under the supervision of an Electrical and Computer Engineering faculty member.

#### 7. Upper-Division Writing Requirement: ESE 300 Writing in Electrical/Computer Engineering

All degree candidates must demonstrate skill in written English at a level acceptable for Electrical Engineering majors. Students must register for the writing course ESE 300 concurrently with or after completion of ESE 314, ESE 324, ESE 380, or ESE 382. Students whose writing does not meet the required standard are referred for remedial help. Detailed guidelines are provided by the Department.

#### 8. Engineering Ethics

ESE 301 Engineering Ethics and Societal Impact (DEC H)

#### Grading

All courses taken for the major must be taken for a letter grade. A grade of C or higher is required in the following courses:

1. ESE 211, ESE 218, ESE 231, ESE 271, ESE 300, ESE 337, ESE 372, AMS 151, AMS 161 (or MAT 131, MAT 132), PHY 131, PHY 132
2. For students in the Microelectronics Specialization: ESE 311, ESE 330, 2 ESE Electives, 1 Technical Elective
3. For students in the Telecommunications Specialization: ESE 340, ESE 342, 2 ESE Electives, 1 Technical Elective
4. For students in the General Track: Four ESE Technical Electives and one technical elective.

#### Honors Program in Electrical Engineering

The purpose of the honors program in Electrical Engineering is to give high achieving students an opportunity to receive validation for a meaningful research experience and for a distinguished academic career. A student interested in becoming a candidate for the honors program in Electrical Engineering may apply to the program at the end of the sophomore year. To be admitted to the honors program, students need a minimum cumulative grade point average of 3.50 and a B or better in all major required courses (including math and physics). Transfer students who enter Stony Brook University in the junior year need a minimum cumulative grade point average of 3.50 and a B or better in all required major courses (including math and physics) in their first semester at Stony Brook University.

Graduation with departmental honors in Electrical Engineering requires the following:

1. A cumulative grade point average of 3.50 or higher and a B or better in all major required courses (including math and physics) upon graduation.
2. Completion of ESE 494, a 1 credit seminar on research techniques, with a B or better during the junior year.
3. Completion of ESE 495, a 3-credit honors research project, with a B or better.
4. Presentation of an honors thesis (written in the format of an engineering technical paper) under the supervision of an ESE faculty member.  
 The thesis must be presented to and approved by a committee of two faculty members including the student's advisor.

For students who qualify, this honor is indicated on their diploma and on their permanent academic record.

#### Requirements for the Accelerated B.E./M.S. degrees

The intent of the accelerated five-year Bachelor of Engineering and Master of Science in Electrical Engineering (or Computer Engineering) program is to prepare high-achieving and highly-motivated undergraduate electrical engineering students for either doctoral studies or a variety of advanced professional positions. Electrical engineering students interested in the accelerated program should apply through the undergraduate

office of the Department of Electrical and Computer Engineering. The program is highly selective and is offered to the top 10 to 20 percent of the junior undergraduate class. Admission is based on academic performance (at least a major g.p.a. of 3.30) as well as undergraduate research and professional activities. The accelerated program is as rigorous as the current B.E. and M.S. programs taken separately. The requirements for the accelerated program are the same as the requirements for the B.E. and M.S. programs except that two 300-level electives in the B.E. program are substituted by two 500-level graduate courses. Therefore six graduate credits will be counted towards the undergraduate degree. Detailed guidelines and sample course sequences are provided by the Department.

#### Requirements for the Minor

The Electrical Engineering minor is intended for students with majors other than Electrical or Computer Engineering who seek to complement their chosen major through an introduction to the principles and techniques of electrical engineering. Students interested in the minor should apply through the office of the Department of Electrical and Computer Engineering, as early as possible. A cumulative grade point average of 2.75 is required for admission to the minor.

Students seeking to complete the ESE minor must meet the relevant prerequisites and corequisites of each ESE course.

At least nine credits must be in upper-division courses. All courses for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits.

1. ESE 123 (4 credits)
2. ESE 271 (4 credits)
3. Four or five ESE courses for a total of at least 13 credits.

Note: Students may not take ESE 124, ESE 275, ESE 300, ESE 324, ESE 440, ESE 441, ESE 475, ESE 476, ESE 488, or ESE 499 for credit toward the minor.

#### Sample Course Sequences for the Major in Electrical Engineering

##### ----- ALL SPECIALIZATIONS -----

Freshman Fall	Credits	Freshman Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
<b>AMS 151 (or MAT 131)</b>	3-4	<b>AMS 161 (or MAT 132)</b>	3-4
<b>PHY 131/PHY 133</b>	4	<b>PHY 132/PHY 134</b>	4
ESE 123	4	ESE 124	3
<b>D.E.C. A</b>	3	AMS 210 or MAT 211	3
Total	15-16	Total	14-15

Sophomore Fall	Credits	Sophomore Spring	Credits
AMS 361 (or MAT 303)	4	AMS 261 (or MAT 203)	4
<b>ESE 218</b>	4	<b>ESE 372</b>	4
ESE 224	3	ESE 306	4
<b>ESE 271</b>	4	<b>ESE 231</b>	3
ESE 305	3	<b>ESE 211</b>	2
Total	18	Total	17

##### ----- GENERAL TRACK -----

Junior Fall	Credits	Junior Spring	Credits
ESE 380	4	<b>ESE Elective</b> <sup>3</sup>	3
ESE 314	3	<b>ESE Elective</b> <sup>3</sup>	3
ESE 319	3	ESE 324	2
<b>ESE 337</b>	3	<b>ESE 300</b>	3
Math or Science Elective <sup>5</sup>	4	D.E.C.	3

		ESE 301 (D.E.C. H)	3
Total	17	Total	17

Senior Fall	Credits	Senior Spring	Credits
ESE 440	3	ESE 441	3
<b>ESE Elective</b> <sup>3</sup>	3	<b>ESE Elective</b> <sup>3</sup>	3
<b>Technical Elective</b> <sup>4</sup>	3	Technical elective <sup>4</sup>	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15

----- MICROELECTRONICS SPECIALIZATION -----

Junior Fall	Credits	Junior Spring	Credits
ESE 380	4	<b>ESE Elective</b> <sup>3</sup>	3
ESE 314	3	ESE 324	2
ESE 319	3	<b>ESE 300</b>	3
<b>ESE 337</b>	3	<b>ESE 311</b>	3
<b>ESE 330</b>	3	ESE 301 (H)	3
		D.E.C.	3
Total	16	Total	17

Senior Fall	Credits	Senior Spring	Credits
ESE 440	3	ESE 441	3
<b>ESE Elective</b> <sup>3</sup>	3	<b>Technical elective</b> <sup>4</sup>	3
Math or Science Elective <sup>5</sup>	4	Technical elective <sup>4</sup>	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	15

----- TELECOMMUNICATIONS SPECIALIZATION -----

Junior Fall	Credits	Junior Spring	Credits
ESE 380	4	<b>ESE Elective</b> <sup>3</sup>	3
ESE 314	3	ESE 324	2
ESE 319	3	<b>ESE 300</b>	3
<b>ESE 337</b>	3	<b>ESE 342</b>	3
<b>ESE 340</b>	3	ESE 301 (D.E.C. H)	3
		D.E.C.	3
Total	16	Total	17

Senior Fall	Credits	Senior Spring	Credits
ESE 440	3	ESE 441	3

<b>ESE Elective</b> <sup>3</sup>	3	<b>Technical Elective</b> <sup>4</sup>	3
<b>Math or Science Elective</b> <sup>5</sup>	4	Technical Elective <sup>4</sup>	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	15

General, Microelectronics and telecommunications Specialization:

All courses in **bold** must be passed with a minimum grade of C.

1 – AMS 151 and AMS 161 can be replaced by (MAT 131 and MAT 132) or (MAT 131 and 171), or (MAT 125, MAT 126, and MAT 127) or (MAT 141 and MAT 142), or (MAT 141 and MAT 171).

2- PHY 131 and PHY 132 can be replaced by (PHY 125, PHY 126, and PHY 127), or (PHY 141 and PHY 142). Students taking the three semester sequence should take PHY 125, PHY 127 and PHY 126 in that order.

3- General ---Choice of four 300 – level ESE electives that are not required courses, ESE 476 may also be used. 2 Technical Electives (See Appendix A in EE Guide)

Microelectronics -- Choice of two 300—level ESE electives that are not required, ESE 476 may also be used. (must be selected from ESE 304, 307, 325, 345, 355, 366, 373, or 381)Telecommunications -- Choice of two 300—level ESE electives that are not required, ESE 476 may also be used. (must be selected from ESE 321, 323, 341, 346, 347, 360, or 363)

4- Two courses selected from Appendix A.

5- Math or science elective: One 4- credit course or two 3 – credit courses from CHE 131, CHE 141, ESG 198, BIO 202& 204, BIO 203& 205, PHY 251&252, AMS 301

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Electronic, Optical, and Magnetic Materials (EOM)****Minor in Electronic, Optical, and Magnetic Materials****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

CHAIRPERSON: Michael Dudley

UNDERGRADUATE PROGRAM DIRECTOR: Gary P. Halada

ADMINISTRATIVE ASSISTANT: Lynn Allopenna

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OFFICE: 314 Engineering

PHONE: (631) 632-8484

WEB ADDRESS: <http://www.matscieng.sunysb.edu>**Electronic, Optical, and Magnetic Materials (EOM)**

The Department of Materials Science and Engineering offers the minor in Electronic, Optical, and Magnetic Materials for engineering science students or for non-engineering science students who seek to obtain a more thorough understanding of the engineering sciences. Emerging technologies in wireless communication, data storage and transmission, sensors, medical diagnostics, and semiconductor manufacturing require graduates with an understanding of electronics design, electromagnetic theory, and electronic and magnetic materials. The courses in the minor provide the student with a broad introduction to the engineering science principles and applications associated with electronic, optical, and magnetic materials.

Engineering science, computer engineering, electrical engineering, mechanical engineering, and applied mathematics and statistics students can assemble a sequence of courses with 18 to 24 credits to satisfy the minor. Courses used to satisfy the requirements of the minor may not be used to satisfy requirements of another minor in engineering science. The student's program must be approved by the undergraduate program director.

**Requirements for the Minor in Electronic, Optical, and Magnetic Materials (EOM)**

Completion of the minor requires 18 to 24 credits.

Requirements for students majoring in Engineering Science (ESG):

1. ESE 218 Digital Systems Design and ESE 380 Embedded Microprocessor Systems Design I or ESE 305 Deterministic Signals and Systems and ESE 315 Control System Design

2. Five courses chosen from:

ESG 201 Engineering Responses to Society  
 ESE 319 Introduction to Electromagnetic Fields and Waves  
 ESE 321 Electromagnetic Waves and Wireless Communication  
 ESM 325 Diffraction Techniques and Structure of Solids  
 ESM 336 Electronic Materials  
 ESM 369 Polymer Engineering  
 ESM 488 Cooperative Industrial Practice  
 ESM 499 Research in Materials Science

Requirements for all other students:

1. ESE 218 Digital Systems Design and ESE 380 Embedded Microprocessor Systems Design I or ESE 305 Deterministic Signals and Systems and ESE 315 Control System Design

2. ESG 100 Introduction to Engineering Science or ESE 123 Introduction to Electrical and Computer Engineering or MEC 101 and MEC 102 Engineering Computing and Problem Solving I, II

3. ESG 201 Engineering Responses to Society

4. Three courses chosen from: ESE 319 Introduction to Electromagnetic Fields and Waves

ESE 321 Electromagnetic Waves and Wireless Communication  
 ESM 325 Diffraction Techniques and Structure of Solids  
 ESM 336 Electronic Materials  
 ESM 369 Polymer Engineering  
 ESM 488 Cooperative Industrial Practice  
 ESM 499 Research in Materials Science

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Engineering Chemistry (ECM)****Interdisciplinary Major in Engineering Chemistry**

**Department of Chemistry, College of Arts and Sciences; Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

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Minors of particular interest to students majoring in Engineering Chemistry: Science and Engineering (LSE)

**Engineering Chemistry (ECM)**

The interdisciplinary major in Engineering Chemistry, which leads to the Bachelor of Science degree, is designed to provide students with a basic understanding of the chemistry and materials technology underlying modern materials engineering.

This program emphasizes a strong background in physical chemistry, infused with an orientation toward the solid-state sciences and materials technology. Its central theme is a chemistry core strengthened by materials science and laboratory courses, the latter with a unique "chemistry of materials" component. The choice of suitable electives helps the student to prepare for work or advanced study in areas such as electronic materials, interfacial phenomena, solid-state science and technology, polymers, ceramics, biomaterials, etc.

Jointly sponsored by the College of Arts and Sciences and the College of Engineering and Applied Sciences, the program is a basic preparation for training chemical and materials professionals who can enter a wide range of industries or proceed to graduate work in either solid-state chemistry or materials science.

**Requirements for the Major in Engineering Chemistry (ECM)**

## Diversified Education Curriculum Requirements

Students majoring in Engineering Chemistry must meet the D.E.C. requirements of the College of Arts and Sciences, with the following exceptions:

- A. An elementary foreign language course numbered 101 or 112, if taken to fulfill the entry skill in foreign language requirement, may also be used for one of the two courses needed to fulfill the D.E.C. category G requirement.
- B. Only one course need be taken from D.E.C. category F.

## Major in Engineering Chemistry (ECM)

The interdisciplinary major in Engineering Chemistry leads to the Bachelor of Science degree. The following courses are required and must be taken for a letter grade; P/NC grades are not acceptable. All of the courses used to fulfill the requirements of the major (CHE, MAT, ESG, PHY, etc.) must be passed with a grade of C or higher, with the exception of three courses, for which the grade may be C-. No transferred course with a grade lower than C may be used to fulfill any major requirement. At least six credits each of upper-division work in chemistry and in materials science and engineering must be taken at Stony Brook.

Completion of the major requires approximately 66 to 68 credits.

## A. Mathematics and Basic Science Requirements

1. MAT 131, MAT 132 Calculus I, II (See note, below)
2. One of the following pairs of courses: AMS 261 and AMS 361 Engineering Mathematics I, II; or MAT 203 and MAT 303 Calculus III, IV with Applications
3. ESG 111 Computer Science for Engineers or equivalent computer course
4. CHE 129/CHE 130, CHE 132 or CHE 131, CHE 132 General Chemistry or CHE 141, CHE 142 Honors Chemistry
5. CHE 133, CHE 134 General Chemistry Laboratory or CHE 143, CHE 144 Honors Chemistry Laboratory (CHE 199 General Chemistry Laboratory for Engineers acceptable with permission)
6. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141, PHY 142 Classical Physics I, II: Honors or PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 Classical Physics A, B, C plus labs
7. PHY 251/252 Modern Physics and Laboratory or ESG 281 An Engineering Introduction to the Solid State

Note: The following alternate calculus sequences may be substituted for MAT 131, MAT 132: MAT 141, MAT 142 or MAT 171 or MAT 125, MAT 126, MAT 127 or AMS 151, AMS 161. MAT 307 and MAT 308 may be substituted for MAT 203 and MAT 303, but only after consultation with the Mathematics Department.

## B. Core Program

1. CHE 301, CHE 302 Physical Chemistry I, II
  2. CHE 303 Solution Chemistry Laboratory
  3. CHE 304 Chemical Instrumentation Laboratory
  4. CHE 321 Organic Chemistry I
  5. CHE 378 Materials Chemistry
  6. ESG 325 Diffraction Techniques and Structure of Solids
  7. ESG 332 Materials Science I: Structure and Properties of Materials
  8. ESG 333 Materials Science II: Electronic Properties
- C. Upper-Division Writing Requirement

Each student majoring in Engineering Chemistry must submit a portfolio of three to five papers from previous chemistry or materials science coursework, at least two of which should be full laboratory reports from chemistry or materials science courses. This portfolio is to be submitted by the end of the junior year. It must be found acceptable in its clarity and precision of communication before the student can be cleared for graduation. The writing requirement may also be satisfied by the completion of CHE 385, with a grade of C or higher.

## Electives

Students make a selection of technical and open electives to total 120 credits. Students are advised to divide their electives among courses within the College of Engineering and Applied Sciences and the Department of Chemistry that strengthen their professional interests, and courses in the social sciences and humanities that help them place the problems of society and industry in perspective.

Students who wish to meet the American Chemistry Society certification requirements must take, in addition to the above, CHE 326 (organic), CHE 346 (biological), CHE 375 (inorganic), and the laboratories CHE 357, CHE 383, CHE 384.

## Bachelor of Science Degree/Master of Science Degree in Chemistry Program

A student interested in this research-intensive graduate program, intended to prepare students for professional employment in the chemical or pharmaceutical industries, may apply for admission at the end of the junior year. The program leads to a Bachelor of Science degree in Engineering Chemistry at the end of the fourth year and a Master of Science in Chemistry at the end of the fifth year. During the senior year, the student is expected to take two 500-level CHE courses and begin research in the senior research sequence CHE 495-CHE 496. In the fifth year, the student works full-time on research, earning 24 credits in CHE 599.

## Bachelor of Science Degree in Chemistry/Master of Science Degree in Materials Science

Engineering Chemistry students who are interested in pursuing graduate study in materials science may wish to apply for the five-year program at the end of their junior year. For further details, contact the director of the program in engineering chemistry.

**Sample Course Sequence for the Major in Engineering Chemistry**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
MAT 131		4 CHE 142 or CHE 132	4
CHE 141 or CHE 131		4 CHE 144 or CHE 134	1
CHE 143 or CHE 133		1 MAT 132	4
D.E.C.		3 ESG 111	3
Total		16 Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
D.E.C.		3 CHE 302	4
CHE 301		4 AMS 361	3
CHE 303		2 PHY 132/PHY 134	4
AMS 261		3 D.E.C.	4
PHY 131/PHY 133		4	
Total		16 Total	15

<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 321	4	CHE 304	2
ESG 281 or PHY 251/PHY 252	4	ESM 325	3
ESG 332	4	D.E.C.	3
D.E.C.	3	CHE 378	3
		Upper Division Elective	3
Total	15	Total	14
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
ESG 333	4	Upper Division Elective	3
Upper Division Elective	3	Electives	6
Elective	3		
Total	16	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Engineering Science (ESG)****Major in Engineering Science****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Chairperson: Michael Dudley

Undergraduate Program Director: Gary P. Halada

Administrative Assistant: Chandrani Roy

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Web address: <http://www.matscieng.sunysb.edu>

Minors of particular interest to students majoring in Engineering Science: Biomaterials (BES), Electronic, Optical, and Magnetic Materials (EOM), Manufacturing Engineering (MFE), Materials Science (ESM), Nanotechnology Studies (NTS), Physical Metallurgy (PME), Environmental Engineering (ENE)

**Engineering Science (ESG)**

The Department of Materials Science and Engineering offers the Bachelor of Engineering degree program in Engineering Science and several interdisciplinary undergraduate programs in conjunction with other science and engineering departments on campus. The joint programs provide basic training for graduates to enter a wide range of industries or to proceed to graduate studies in engineering fields. They are aimed at the materials aspect of mechanical engineering, electrical engineering, physics, and chemistry. Engineering Science students can choose to specialize in biomedical engineering, mechanical and manufacturing engineering, electrical engineering, materials science and engineering, civil and environmental engineering, nanoscale engineering, and engineering management. Reflecting the breadth and variety of topics falling within the domain of engineering science, the Department also offers seven minors that afford undergraduate students the opportunity to enhance their engineering or science studies with knowledge in a specific area. In addition to the minor in Materials Science, the Department offers minors in Biomaterials; Electronic, Optical, and Magnetic Materials; Manufacturing Engineering; Environmental Engineering; Physical Metallurgy; and Nanotechnology Studies. Each is detailed under a separate heading in the alphabetical listings of Approved Majors, Minors, and Programs.

The program mission is aimed toward providing an engineering education which thoroughly covers fundamental aspects of engineering design, physical and chemical sciences, mathematics, and materials science and engineering, while also providing flexibility so that students can create a program tailored to their particular academic and career interests in a traditional or emerging discipline. The program is designed to provide core competency and skills in communication, design, and research while preparing students to participate in a rapidly evolving high-technology environment.

**Program Educational Objectives**

Alumni of the ESG program should be engaged in the following activities:

1. Conducting successful careers in engineering or science-related disciplines, by recognizing and responding to emerging markets and technologies or completing graduate studies in top ranked institutions.
2. Contributing to the development of globally competitive economies on a regional and/or national scale.
3. Leading interdisciplinary research, design, and/or policy-making teams in government, academic, or industrial settings.
4. Engaging in life-long learning activities, including professional society membership and support, conference attendance, presentations or organization, and knowledge-transfer or community-based outreach activities in their organizations.
5. Conducting themselves in the engineering professions in a manner which holds paramount the importance of public health, safety and welfare, as well as their own ethical responsibilities.

**Program Outcomes**

Engineering programs must demonstrate that their students attain:

- a. an ability to apply knowledge of mathematics, science, and engineering;
- b. an ability to design and conduct experiments, as well as to analyze and interpret data;
- c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- d. an ability to function on multidisciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional and ethical responsibility;
- g. an ability to communicate effectively;
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;

- i. a recognition of the need for, and an ability to engage in, life long learning;
- j. a knowledge of contemporary issues; and
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

More details about program educational objectives and outcomes can be found at <http://www.matscieng.sunysb.edu/>

In addition to preparation for graduate study in engineering and materials science, the program in engineering science prepares students for a variety of employment opportunities as it is particularly suited to the nature of modern manufacturing processes in industry as well as to scientific institutions and laboratories. Throughout the curriculum, students develop skills needed to participate in the research experience and are encouraged to become involved in the many state-of-the-art research facilities associated with the Department, including world-class laboratories in polymer engineering, thermal spray research, surface science and engineering, nano-technology, semiconductor materials and crystal growth, and environmental materials engineering. Graduates of the program, trained to understand the materials and forces of nature and to apply that knowledge to practical problem solving, occupy engineering, scientific, and management positions in development, manufacturing, and marketing in major corporations in areas including communications, computing, and aerospace. Small and medium-sized companies also rely on the expertise of materials scientists in design and manufacturing. In addition, some graduates apply their knowledge to patent law and consulting. About ten percent of the program's graduates pursue advanced degrees in engineering research as well as in law, business, and medicine. The Engineering Science program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

### Requirements for the Major in Engineering Science (ESG)

Acceptance into the Major

Freshman and transfer applicants who have specified their interest in the Engineering Science major may be accepted directly into the major upon admission to the University. Students in good academic standing who were admitted to the University but not immediately accepted into the major may apply for acceptance in any semester, but priority for admission to the Engineering Science major is given to those students who have: 1) completed AMS 161 and PHY 132 or their equivalents, 2) earned a g.p.a. of 3.00 in all mathematics and physics courses with no more than one grade in the C range, and 3) received completed course evaluations for all transferred courses that are to be used to meet requirements for the major.

Requirements for the Major

The major in Engineering Science leads to the Bachelor of Engineering degree.

Completion of the major requires approximately 93 credits, in addition to any credits needed for General Education (D.E.C.) and other University requirements.

A. Core

1. Mathematics

AMS 151, AMS 161; AMS 261 or MAT 203; AMS 361 or MAT 303

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127; or MAT 131, MAT 132; or MAT 141, MAT 142; or MAT 171.

2. Natural Sciences

PHY 131/PHY 133 and PHY 132/PHY 134; PHY 251/PHY 252 or ESG 281; ESG 198

Notes:

a. The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142 Classical Physics I, II: Honors

b. The chemistry course sequence CHE 131, CHE 132, and CHE 133 or CHE 141, CHE 142, and CHE 143 is acceptable in lieu of ESG 198.

3. Computer Science: ESG 111

Note: CSE 114 or CSE 130 or ESE 124 may be substituted with permission of the department.

4. Engineering Science

-ESG 100; ESG 201; ESG 312; ESM 350; ESM 450; and the following eight courses:

-Materials Science and Engineering

-ESG 302 or CME 304, ESG 332, ESG 333, ESG 339

Note: Students specializing in Civil and Environmental Engineering in the Engineering Science degree program may substitute GEO 318 (Engineering Geology and Coastal Processes) or GEO 315 (Groundwater Hydrology) in place of ESG 339 (Thin Film Processing of Advanced Materials) in satisfying the core program requirements for the ESG degree.

-Electrical Engineering and Electronic Properties

-ESE 271

-Mechanical Engineering and Properties

-MEC 260, ESM 335

5. Engineering Synthesis and Design

-ESG 217, ESG 316, ESG 440, ESG 441; ESM 355

#### B. Engineering Specialization and Technical Electives

The area of specialization, composed of five technical electives including at least two design-oriented courses, (or four electives plus the upper-division prerequisite in electrical engineering, ESE 372, or mechanical engineering, MEC 363) must be declared in writing by the end of the junior year. It is selected in consultation with a faculty advisor to ensure a cohesive course sequence with depth at the upper level.

The seven areas of specialization are biomedical engineering, civil and environmental engineering, electrical engineering, materials science and engineering, mechanical and manufacturing engineering, nanoscale engineering, and engineering management.

#### C. Upper-Division Writing Requirement: ESG 300 Writing in Engineering Science

All degree candidates must demonstrate skill in written English at a level acceptable for Engineering Science majors. The Engineering Science student must register for the writing course ESG 300 concurrently with ESG 312. The quality of writing in the technical reports submitted for ESG 312 is evaluated and students whose writing does not meet the required standard are referred for remedial help. Detailed guidelines are provided by the Department. If the standard of writing is judged acceptable, the student receives an S grade for ESG 300, thereby satisfying the requirement.

#### Grading

All courses taken to satisfy Requirements A and B above must be taken for a letter grade. A grade of C or higher is required in the following courses (or their equivalents):

1. AMS 151, AMS 161; PHY 131/PHY 133 and PHY 132/PHY 134; ESG 217, ESG 302, ESG 312, ESG 332, ESG 440, ESG 441
2. Each of the five required technical electives offered by the college

#### Areas of Specialization

Each area of specialization requires two design-related courses and three elective courses above those used toward Requirement A, Core. Other technical electives may be substituted only with the approval of the undergraduate program director.

#### Biotechnology

Biotechnology involves the application of various engineering disciplines to biomedical problems, requiring a sound understanding of an engineering discipline coupled with principles of biology and biomaterials. Students utilize elective courses to learn the fundamentals of biology and bioengineering.

1. The following two courses must be completed:
  - a. BIO 150 The Living World or BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
  - b. ESM 353 Biomaterials
2. Three courses from the following:
  - ESM 334 Materials Engineering
  - ESM 369 Polymers
  - BIO 202 Fundamentals of Biology: Molecular and Cellular Biology (if not completed for 1 above)
  - BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
  - BIO 328 Mammalian Physiology
  - BIO 334 Principles of Neurobiology
  - BME 304 Genetic Engineering
  - BME 381: Nanofabrication in Biomedical Applications
  - BME 404: Essentials of Tissue Engineering
  - BME 481: Biosensors
  - EST 392 Engineering and Managerial Economics
  - ESM 488 or 499 (See Note)
  - ESG 440/ESG 441 Engineering Science Design III/IV (See Note)

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director may be used as a technical elective.

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

#### Civil and Environmental Engineering

Civil and environmental engineering entails the study, research, and design of infrastructure or processes responding to societal needs for sustainable development. The student completes one of two specializations. Each provides preparation for further study or employment in structural materials engineering, environmental remediation, or engineering involving design for environment (DFE).

## Civil Engineering Track:

## 1. Two required courses:

- a. GEO 102 The Earth and GEO 112 Physical Geology Laboratory
  - b. GEO/MAR 318 Engineering Geology and Coastal Processes or GEO 309 Structural Geology or MEC 363 Mechanics of Solids
- (Note: Students substituting GEO 318 Engineering Geology and Coastal Processes in place of ESG 339 Thin Film Processing of Advanced Materials can not use GEO 318 as a required course for the Civil Engineering Track)

## 2. Three technical electives chosen from the following:

- ARH 205-G Introduction to Architecture
- ATM 345 Atmospheric Thermodynamics and Dynamics
- ATM 348 Atmospheric Physics
- CSE 391 Special Topics in Computer Science (Solid Modeling topic only)
- CSE 325 Computers and Sculpture
- ESG 301-H Sustainability of the Long Island Pine Barrens
- EST 330-H Natural Disasters: Societal Impacts and Technological Solutions
- EST 392 Engineering and Managerial Economics
- GEO 312 Structure and Properties of Materials
- GEO 315 Groundwater Hydrology
- GEO 316 Geochemistry of Surficial Processes
- A third course from 1. above
- MAR 392-H Waste Management Issues
- MAR 393 Waste Treatment Technologies
- MEC 262 Dynamics
- MEC 402 Mechanical Vibrations
- MEC 442 Introduction to Experimental Stress Analysis
- MEC 455 Applied Stress Analysis
- ESM 212 Introduction to Environmental Materials Engineering
- ESM 334 Materials Engineering
- ESM 336 Electronic Materials
- ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director
- ESG 440, ESG 441 Engineering Science Design III, IV (See Note)

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

## Environmental Engineering Track:

It is highly recommended that students who intend to specialize in the Environmental Engineering track take CHE 131/CHE 133 and CHE 132/CHE 134 in place of ESG 198 in order to better prepare for higher level CHE coursework.

## 1. Two required courses:

- ESM 212 Intro to Environmental Materials Engineering
- CHE 312 Physical Chemistry Short Course (or CHE 301 Physical Chemistry I)

## 2. Three technical electives chosen from:

- ATM 205-E Introduction to Atmospheric Sciences
- ATM 247 Atmospheric Structure and Analysis
- ATM 305-E Global Atmospheric Change
- ATM 345 Atmospheric Thermodynamics and Dynamics
- ATM 348 Atmospheric Physics
- ATM 397 Air Pollution and its Control
- CHE 302 Physical Chemistry II
- CHE 321 Organic Chemistry I
- CHE 361 Nuclear Chemistry
- CHE 362 Nuclear Chemistry Laboratory
- BIO 201 E Fundamentals of Biology: Organisms to Ecosystems
- ECO 373-H Economics of Environment and Natural Resources
- ESG 301-H Sustainability of the Long Island Pine Barrens
- ESG 440, ESG 441 Engineering Science Design III, IV (See Note)
- ESM 334 Materials Engineering
- ESM 336 Electronic Materials
- ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director
- EST 392 Engineering and Managerial Economics
- GEO 309 Structural Geology
- GEO 312 Structure and Properties of Materials
- GEO 316 Geochemistry of Surficial Processes
- GEO 318/MAR 318 Engineering Geology and Coastal Processes (See Note II)
- MAR 301 Environmental Microbiology
- MAR 308 Principles of Instrumental Analysis

- MAR 318 Engineering Geology and Coastal Processes
- MAR 320 Limnology
- MAR 333-H Coastal Oceanography
- MAR 336 Marine Pollution
- MAR 340-H Environmental Problems and Solutions
- MAR 385 Principles of Fishery Biology and Management
- MAR 392-H Waste Management Issues
- MAR 393 Waste Treatment Technologies
- MAR 394 Environmental Toxicology and Public Health

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

Note II: Students substituting GEO 318 (Engineering Geology and Coastal Processes) in place of ESG 339 (Thin Film Processing of Advanced Materials) can not use GEO 318 as a required course for the Environmental Engineering Track.

#### Electrical Engineering

This specialization is intended to provide a depth of understanding of electronic devices, electronic materials, and electrical and electronic system design built upon the broad engineering science curriculum.

1. One of the following two-course design sequences:

- a. ESE 218 Digital Systems Design and ESE 380 Embedded Microprocessor Systems Design I
- b. ESE 305 Deterministic Signals and Systems and ESE 315 Control Systems Design

2. ESE 372 Electronics

3. ESM 336 Electronic Materials

4. Two courses chosen from the following:

- ESE 304 Applications of Operational Amplifiers
- ESE 306 Random Signals and Systems
- ESE 307 Analog Filter Design
- ESE 310 Electrical Circuit Analysis II
- ESE 311 Analog Integrated Circuits
- ESE 316 Digital Devices and Circuits
- ESE 319 Introduction to Electromagnetic Fields and Waves
- ESE 332 Semiconductor Device Characterization
- ESE 350 Electrical Power Systems
- ESE 352 Electromechanical Energy Converters
- ESE 358 Computer Vision
- ESE 362 Optoelectronic Devices and Optical Imaging Techniques
- ESE 381 Embedded Microprocessor Systems Design II
- ESG 440/ESG 441 Engineering Science Design III/IV (See Note)
- EST 392 Engineering and Managerial Economics

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director may be used as a technical elective.

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

#### Materials Science and Engineering

This specialization provides the opportunity for in-depth study of the relationship between performance-properties-processing in materials engineering and its applications.

1. Students must take the following two courses:

- a. ESM 336 Electronic Materials
- b. ESM 325 Diffraction Techniques and Structure of Solids

2. Three courses from the following:

- ESM 212 Introduction to Environmental Materials Engineering
- ESM 213 Introduction to Nanotechnology Studies
- ESM 334 Materials Engineering
- ESM 353 Biomaterials: Manufacture, Properties, and Applications
- ESM 369 Polymer Engineering
- ESM 400 Nanotechnology and Research
- ESM 475 Undergraduate Teaching Practicum
- ESG 440/ESG 441 Engineering Science Design III/IV (See Note)
- EST 392 Engineering and Managerial Economics

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director may be used as a technical elective.

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

### Mechanical and Manufacturing Engineering

This specialization addresses the rapidly changing technology in the mechanical engineering and manufacturing industries that requires a highly educated workforce with knowledge of mechanical properties of materials, materials processing, design, thermodynamics, statistics, and analysis.

1. MEC 310 Introduction to Machine Design and MEC 410 Design of Machine Elements

2. MEC 363 Mechanics of Solids

3. Two courses from the following:

- AMS 310 Survey of Probability and Statistics
- CSE 391 Special Topics in Computer Science (Solid Modeling topic only)
- CSE 325 Computers and Sculpture
- ESM 212 Introduction to Environmental Materials Engineering
- ESM 336 Electronic Materials
- MEC 262 Dynamics
- MEC 325 Manufacturing Processes
- MEC 402: Mechanical Vibrations
- MEC 411: Control System Analysis and Design
- MEC 442: Introduction to Experimental Stress Analysis
- MEC 460: Introduction to Robotics: Theory and Applications
- ESG 440/ESG 441 Engineering Science Design III/IV (See Note)
- EST 392 Engineering and Managerial Economics

Note: Other MEC coursework (completed with a grade of C or higher) may be counted as technical electives with permission of the Undergraduate Program Director.

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director may be used as a technical elective.

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

### Nanoscale Engineering

The creation of functional materials and devices which involves controllable processes and transformations at the scale of billionths of a meter promises to become a major focus of future efforts in both engineering and scientific research. With a thorough background in materials science, engineering design, and surface and molecular chemistry and devices, this specialization prepares students for graduate study, as well as professional positions in materials and process engineering and research and development.

It is highly recommended that students intending to specialize in the Nanoscale Engineering track take CHE 131/CHE 133 and CHE 132/CHE 134 in place of ESG 198 in order to better prepare for higher level CHE coursework.

1. Two required courses:

- a. ESM 213 Studies in Nanotechnology
- b. ESM 336 Electronic Materials

2. Three technical electives chosen from:

- ESM 212 Introduction to Environmental Materials Engineering
- ESM 334 Materials Engineering
- ESM 369 Polymer Engineering
- CHE 301 Physical Chemistry I
- CHE 302 Physical Chemistry II
- CHE 312 Physical Chemistry
- CHE 321 Organic Chemistry I
- CHE 322 Organic Chemistry II
- CHE 345 Structure and Reactivity in Organic Chemistry
- CHE 351 Quantum Chemistry
- CHE 378 Materials Chemistry
- BME 381 Nanofabrication in Biomedical Applications
- ESM 299 Directed Research in Materials Science (with permission of Undergraduate Program Director)
- ESM 325 Diffraction Techniques and Structures of Solids
- ESM 353 Biomaterials: Manufacture, Properties, and Applications
- ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research with permission of the program director

- ESG 440, ESG 441 Engineering Science Design III, IV (see Note)
- EST 392 Engineering and Managerial Economics

Note: ESG 440/ESG 441 Engineering Science Design III/IV counts for one technical elective with permission of the instructor and the undergraduate program director.

#### Engineering Management

Students may take a specialization in Engineering Management consisting of the following courses:

1. Two required courses, EST 392 Engineering and Managerial Economics and ESG 201 Engineering Responses to Society
2. Three technical electives which may be satisfied by the following courses:
  - a. BUS 210 Financial Accounting
  - b. BUS 330 Principles of Finance
  - c. BUS 340 Information Systems in Management
  - d. BUS 348 Principles of Marketing
  - e. EST 305 Applications Software for Information Management
  - f. EST 326 Management for Engineers
  - g. EST 327 Marketing for Engineers
  - h. EST 391 Technology Assessment
  - i. EST 393 Project Management
  - j. ISE 330 Information Management
  - k. ESM 212 Introduction to Environmental Materials Engineering
  - l. ESM 336 Electronic Materials
  - m. Another upper level course in Business, Technology and Society, or Economics with the permission of the undergraduate program director

#### Engineering Chemistry

The Engineering Chemistry major combines work in the Department of Materials Science and Engineering and the Department of Chemistry and leads to the Bachelor of Science degree, awarded through the College of Arts and Sciences. See the major entry for additional information.

#### Physics of Materials

Physics majors may wish to pursue a career in engineering physics, particularly in the application of solid-state physics to materials science and engineering. After taking five courses in the Department of Materials Science and Engineering, the student may become eligible for the master's degree program. See the physics major entry for additional information.

#### Bachelor of Engineering Degree/Master of Science Degree Program

An engineering science student may apply at the beginning of the junior year for admission to this special program, which leads to a Bachelor of Engineering degree at the end of the fourth year and a Master of Science degree at the end of the fifth year. In the junior year, the student takes ESM 350, which is normally taken in the senior year, instead of ESM 335. In the senior year, a student takes ESM 513, to use in lieu of ESM 335, in the fall and another graduate course in the spring. In the fifth year, the student takes 24 credits. The advantage of this program over the regular M.S. program is that a student may start his or her M.S. in the senior year, and that he or she needs only 24 credits in the fifth year as opposed to 30 credits for a regular M.S. student. For details of the M.S. degree requirements, see the graduate program director.

#### Sample Course Sequence for the Major in Engineering Science

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
WRT 101 or WRT 102	3	WRT 102 or D.E.C.	3
AMS 151#	3	AMS 161#	3
PHY 131/PHY 133#	4	PHY 132/PHY 134#	4
ESG 100	3	ESG 198	4
ESG 111	3		
Total	17	Total	15
Sophomore Fall	Credits	Spring	Credits
AMS 261	4	AMS 361	4
D.E.C.	3	ESG 281	4
MEC 260	3	ESG 201 (D.E.C. H)	3
ESG 217#	3	ESG 302#	4

ESE 271	4		
Total	17	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ESG 312# and ESG 300	4	ESM 335	4
D.E.C.	3	Technical Elective#	3
ESG 332#	4	ESG 339	4
ESG 333	4	ESG 316	4
D.E.C.	3	Technical elective#	3
Total	18	Total	18
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ESG 440#	3	ESM 350	3
ESM 450	3	ESM 355	3
Technical elective#	3	ESG 441#	3
Technical elective (design)#	3	Technical elective (design)#	3
D.E.C.	3	D.E.C.	3
ESG 375	1		
Total	16	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Engineering and Technology Entrepreneurship (ETE)****Minor in Engineering and Technology Entrepreneurship****Department of Electrical and Computer Engineering, College of Engineering and Applied Sciences**

Chairperson: Serge Luryi

Program Director: Wendy Tang

Senior Staff Assistant: Carolyn Huggins

Office: 267 Light Engineering

Phone: (631) 632-8415

E-mail: postmaster@ece.sunysb.edu

Web address: <http://www.ece.sunysb.edu>

Engineering and Technology Entrepreneurship (ETE)

The purpose of the ETE minor is to expose engineering students to entrepreneurial skills; and to expose non-engineering students to various technology entrepreneurship skills.

**Requirements for the Minor in Engineering and Technology Entrepreneurship (ETE)**

A total of 18 credit hours (6 courses) and no grades less than C may be used to meet the requirements for the minor. Students may declare the minor after completion of courses in Categories A and B.

**For engineering majors:**

- A. Two core engineering course from one of the engineering majors (6 credits)
- B. ESE 201 Engineering and Technology Entrepreneurship (3 credits)
- C. Two courses from the following choices (6 credits)
  - 1. EST 326 Management for Engineers
  - 2. EST 327 Marketing for Engineers
  - 3. EST 391-H Technology Assessment
  - 4. EST 393 Project Management
  - 5. EST 304 Communication for Engineers and Scientists 6
  - 6. CME 333 Business Economics for Engineers
- D. ESE 301 Engineering Ethics and Societal Impact *or* EST 331 Professional Ethics and Intellectual Property

**For non-engineering majors:**

- A. Any two combinations of the following engineering courses (6 credits)
  - 1. EST 192 Introduction to Modern Engineering
  - 2. EST 194-C Patterns of Problem Solving
  - 3. EST 202 Into to Science, Tech and Society Studies
  - 4. LSE 320 Future Trends in Science and Engineering
- B. ESE 201: Engineering and Technology Entrepreneurship (3 credits)
- C. Two courses from the following choices (6 credits)
  - 1. EST 326 Management for Engineers
  - 2. EST 327 Marketing for Engineers
  - 3. EST 391-H Technology Assessment
  - 4. EST 393 Project Management
  - 5. EST 304 Communication for Engineers and Scientists
- D. ESE 301 Engineering Ethics and Societal Impact *or* EST 331 Professional Ethics and Intellectual Property

**ETE Faculty**Faculty information for this program can be found at <http://www.ece.sunysb.edu>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**English (EGL)****Major and Minor in English****Department of English, College of Arts and Sciences**

Chairperson: Stephen Spector

Director of Undergraduate Studies: Benedict Robinson  
E-MAIL: benedict.robinson@stonybrook.edu

Assistant to the Chair: Lizabeth Rehn  
E-MAIL: Lizabeth.Rehn@stonybrook.edu

Office: English Department, Humanities 2096

Phone: (631) 632-7400

Web Address: <http://www.sunysb.edu/english>

Minors of particular interest to students majoring in English: Cinema and Cultural Studies (CCS), Comparative Studies (CLT), Foreign Languages, Journalism (JRN), Media Arts (MDA)

**English (EGL)**

Courses offered by the Department of English seek to develop students' understanding of important works of literature written in English, to provide a historical awareness of the range of thought and experience that has found expression in the English language, and to enlarge students' personal horizons by reflection upon cultural, social, and aesthetic experience. The development of this kind of knowledge also means a development of students' abilities to express themselves effectively in speech and in writing. Courses in English instruct students in becoming more observant, thoughtful, and articulate in response to what they read.

Students who graduate with a major in English pursue careers as writers, lawyers, journalists, librarians, academic and governmental administrators, and publishers, to name a few. Large businesses, for example, publish "in-house" newsletters and magazines, as well as material for the general public. News-papers seek copy editors able to write clear, accurate prose. The legal profession requires people skilled in the language arts. Many English majors go on to graduate or professional schools to educate themselves for professional careers.

The Department offers courses in creative writing (EGL 285, EGL 286, EGL 385, EGL 386, EGL 387) and secondary education leading to provisional New York State certification (EGL 398, EGL 451, EGL 452, EGL 454).

**Requirements for the Major and Minor in English (EGL)**

Requirements for the Major in English (EGL)

The major in English leads to the Bachelor of Arts degree. Courses must be passed with a letter grade of C or better in order to satisfy Requirement A below.

Completion of the major requires 54 credits.

**A. Study within the Area of the Major**

1. EGL 204 Literary Analysis and Argumentation (Prerequisite to all EGL 300 level courses. Special accommodations will be made for transfer students and crosslisted courses)
2. EGL 207 The English Language
3. EGL 205 Survey of British Literature I
4. Two survey courses from the following:
  - EGL 206 Survey of British Literature II
  - EGL 217 American Literature I
  - EGL 218 American Literature II
5. EGL 200-level elective course
6. EGL 301 Intensive Writing
7. Two 300-level Pre-1800 courses
8. EGL 300-level course in American or Anglophone Literature
9. Four courses from EGL 300-399

Notes on Section A:

1. No English course below the 200 level may be used to fulfill English major requirements. In addition, the following courses may not be used for the English major: EGL 440, EGL 441, EGL 449, EGL 450, EGL 451, EGL 452, EGL 454, EGL 475, EGL 476, EGL 488, EGL 494, EGL 495.
2. At least 12 credits in EGL courses applied to the major in English must be earned in 300-level courses at Stony Brook.

3. Of the eight 300-level required courses, only one may be EGL 385, EGL 396, or EGL 387.

### B. Study in Related Areas

1. Foreign Language Requirement: \*Six credits, or the equivalent of one year, of college study at the intermediate level, or one semester of study at the advanced level, or a passing grade on a challenge examination (see page 90 of this Bulletin) in the chosen language.
2. Six credits of study of History at the 200-level or higher.

Notes:

1. To satisfy Requirement B, courses must be passed with a letter grade of C or better.

**C. Upper-Division Writing Requirement:** Satisfactory completion of EGL 301 with a grade of C or better.

English Secondary Teacher Education Program

See the entry Education and Teacher Certification in the alphabetical listings of Approved Majors, Minors, and Programs.

The Honors Program in English

To be admitted into the Honors Program, students must have an overall GPA of at least 3.0 and a GPA in English courses of at least 3.5; they also must submit a sample paper evidencing an appropriate level of skill in literary analysis. Honors students must maintain these grade point averages in order to remain in the program. They will take three Honors Seminars, an Honors Practicum, and EGL 496.

Students should develop their plan for an Honors Thesis with an English faculty advisor, in consultation with the Honors Program Director.

Thesis topic must be approved by the Undergraduate Program Committee before the last week of the semester prior to the semester in which the student takes EGL 496. The completed thesis will be evaluated by the thesis advisor, a member of the Undergraduate Program Committee, and a third reader.

Honors Track students are required to take the following courses:

1. EGL 204: Literary Analysis and Argumentation
2. Four survey courses
  - A. EGL 205 Survey of British Literature I (Required)
  - B. Two of the following:
    - EGL 206: Survey of British Literature II
    - EGL 217: Survey of American Literature I
    - EGL 218: Survey of American Literature II
  - C. EGL 207: The English Language - formerly EGL 380
3. One 200-level elective
4. Eight upper-division English courses
  - A. EGL 301: Intensive Writing Course
  - B. Two EGL 300-level electives
  - C. Three Honors courses:
    - EGL 490 Honors, topic will vary
    - EGL 491 Honors Literature before 1800
    - EGL 492 Honors American Literature
  - D. EGL 496: Senior Honors Project
  - E. Honors Practicum: EGL 494 or EGL 495, for University upper-division credit only

Related courses:

5. Foreign Language: Six credits at the Intermediate level or beyond
6. History: Six credits at the Intermediate level or beyond

Requirements for the Minor in English (EGL)

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18 credits.

Courses required of all minors:

1. EGL 204 Literary Analysis and Argumentation
2. Two 200-level survey classes (options: EGL 205, EGL 206, EGL 217, EGL 218, EGL 224, EGL 226, EGL 243, EGL 274)
3. Three 300-level courses, one of which must be a genre course

Note: At minimum, EGL 204, an EGL survey, and a 300-level EGL course must be taken at Stony Brook.

### Sample Course Sequence for the Major in English

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
D.E.C.	3	D.E.C.	3

D.E.C.		3	D.E.C.		3
D.E.C.		3	D.E.C.		3
Elective		3	D.E.C.		3
Total		16	Total		16
<b>Sophomore Fall</b>					
	<b>Credits</b>		<b>Spring</b>		<b>Credits</b>
EGL 204		3	EGL 207		3
EGL 205		3	EGL survey (EGL 206, EGL 217, or EGL 218)		3
EGL survey (EGL 206, EGL 217, or EGL 218)	3		EGL 200-level elective	3	
Foreign Language (elementary)		3	Foreign Language (elementary)		3
D.E.C.		3	Upper-Division elective		3
Total	15		Total	15	
<b>Junior Fall</b>					
	<b>Credits</b>		<b>Spring</b>		<b>Credits</b>
EGL 301		3	EGL 300-level (Amer/Anglo Lit)		3
EGL 300-level Pre-1800		3	EGL 300-level Pre-1800		3
Foreign language (intermediate)		3	EGL 300-level elective		3
History		3	Foreign language (intermediate)		3
Upper-Division elective		3	D.E.C.		3
Total		15	Total		15
<b>Senior Fall</b>					
	<b>Credits</b>		<b>Spring</b>		<b>Credits</b>
EGL 300-level elective		3	EGL 300-level elective		3
EGL 300-level elective		3	EGL 300-level elective		3
History		3	Upper-Division elective		3
D.E.C.		3	Upper-Division elective		3
Upper-Division elective		3	Upper-Division elective		3
Total		15	Total		15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Environmental Design, Policy, and Planning (EDP)****Major and Minor in Environmental Design, Policy, and Planning**

Director: Dr. Harold Quigley, Psychology A # 346 B  
 Email: [hquigleyjr@gmail.com](mailto:hquigleyjr@gmail.com)  
 Program Office: W0511 Melville Library  
 Program Coordinator: Ginny Clancy  
 Phone: (631) 632-9404  
 Email: [ginny.clancy@stonybrook.edu](mailto:ginny.clancy@stonybrook.edu)  
 Website: <http://www.stonybrook.edu/commcms/sustainability/>

**Environmental Design, Policy, and Planning (EDP)**

The Environmental Design, Policy, and Planning major, leading to a Bachelor of Arts degree, provides the skills, knowledge, and preparation for students to understand and address complex issues related to development, land-use, urbanization, and suburban sprawl. The curriculum integrates principles and methodologies from social sciences, natural sciences, and humanities. The goal is to address the complex scientific, legal, ethical, political, environmental, and socio-economic issues that surround the development, management, and use of the built environment.

The B.A. degree prepares students for entry-level employment in the public, private, or non-profit sectors in a variety of fields including urban and regional planning, community planning, environmental consulting, land and real estate development, and public administration. The major prepares students for graduate study in environmental design, planning, architecture, law, management and business.

The major builds on the interdisciplinary sustainability core curriculum. Students will enroll in major-specific courses in their junior and senior year. As part of the preparation, students will work in teams with students enrolled in related majors to collaboratively solve problems. A design project is an essential part of the curriculum to provide real-world experience. Internships and independent research courses provide additional real-world experiences. Seniors are required to present their Design Project at an Annual Gathering of Researchers and Scholars.

**Requirements for the Major and Minor in Environmental Design, Policy, and Planning (EDP)****A. Required Foundation Courses for Major (33-34 credits)**

- MAT 131 or MAT 125 Calculus
- ECO 108 Introduction to Economics
- SBC 111 Introduction to Sustainability
- SBC 115 Introduction to Human Demography
- ENV 115 Chemistry, Life, Environment
- SBC 113/SBC 114 Physical Geography
- SBC 117 Drawing for Design
- AMS 102 Elements of Statistics
- SBC 201 Systems and Models
- POL 102 Introduction to American Government
- SBC 205 Introduction to Geospatial Analysis
- SBC 206 Economics and Sustainability

**B. Career Leadership Skills (5 credits)**

- CSK 102 Career Leadership Skills: Working in Teams
- CSK 101, CSK 103, CSK 104, CSK 105, CSK 106, CSK 107, CSK 108, or CSK 109
- CSK 302 Technical Writing and Communication

**C. Core Courses (31 credits):**

(Students are required to take: the 10 credits in Group 1; 6 credits from each of Groups 2 through 4; and 3 credits from Group 5)

**1. Core Courses (10 credits)**

- GSS 313 GIS Applications and Desig
- GSS 314 GIS Laboratory (for students enrolling in GSS 313 Spring 2013 or later)
- SBC 354 Drawing for Design--CAD
- EDP 303 Spatial Economics

**2. Historic and Theoretical Perspectives 300-level courses (6 credits)**

- SBC 200 Human Settlements: History and Future
- EDP 307 Theories and Design of Human Settlements

**3. Physical and Built Environment Upper Division Block (6 credits)**

- EDP 301 The Built Environment I
- EDP 302 The Built Environment II

## 4. Policy, Politics and Regulations (6 credits)

- EDP 309 Planning: Policies and Regulations
- One of the following courses: EDP 305 Risk Assessment and Sustainable Development; SBC 308 American Environmental Politics; SBC 309 Global Environmental Politics

## 5. Societal and Cultural Aspects (3 credits)

- SUS 303 Demographic Change and Sustainability
- SBC 307 American Environmental History
- SBC 310 Migration, Development and Population Redistribution
- SBC 312 Environment, Society and Health

One of the following can be substituted for any of the courses in Group 5.

NOTE: each course below has a prerequisite outside the major.

- SUS 301 or PHI 366 Environmental Ethics
- SBC 331 City Suburb Sprawl
- EHI 322 Human Ecology

## D. Design Project Course (3 credits)

- EDP 404 Environmental Design Project (see notes)

## E. Communications and Writing requirement

Proficiency in writing, oral communication, and computer literacy will be encouraged in all students. In addition to CSK 302, these skills will be developed within the context of other formal coursework and no additional credits are required. To meet the upper-division writing requirement, students must submit two papers from any 300-level or 400-level course in the major to the Director of the EDP Undergraduate Program.

Notes:

1. Internship with significant practical experience in planning and/or environmental design may be substitute for EDP 404 with permission of Undergraduate EDP Program Director.
2. One course passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher. Course taken with the Pass/NC option may not be applied to the major.

## Minor in Environmental Design, Policy, and Planning (EDP)

The Environmental Design, Policy, and Planning minor is intended for students who seek to complement their chosen major with a foundation in complex scientific, legal, ethical, political, environmental, and socio-economic issues that surround the development, management, and use of the built environment.

## Requirements for the Minor in Environmental Design, Policy, and Planning (EDP)

No more than two courses that are used to satisfy your major can be applied to this minor. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 21 credits.

## 1. Required four introductory courses:

- SBC 111 Introduction to Sustainability Studies
- SBC 113 Physical Geography
- SBC 200 Human Settlements: History and Future
- SBC 206 Economics and Sustainability

## 2. Required two advanced courses:

- EDP 301 The Built Environment I
- EDP 302 The Built Environment II

## 3. Required one advanced course from the following:

- EDP 303 Spatial Economics
- EDP 309 Planning: Policies and Regulations
- SBC 307 American Environmental History
- SBC 309 Global Environmental Politics
- SUS 350 Contemporary Topics in Sustainability

Declaration of the Minor

Students should declare the Environmental Design, Policy, and Planning minor no later than the middle of their sophomore year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

### Sample Course Sequence for the Major in Environmental Design, Policy, and Planning

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
SBC 111	3	D.E.C. A	3
D.E.C. A	3	CSK 102	1
SBC 101	3	ARS 154	3
MAT 125 or 131	4	ENV 115	3
SBS 113/SBC 114	4	SBC 205	1
		POL 102	3
Total	18	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SBC 201	1	SBC 200	3
ECO 108	4	SBC 354	3
AMS 102	3	Foreign language or elective	4
SBC 115	3	CSK 109	1
Foreign language or elective	4	CSK 10x selection	1
		D.E.C.	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
GSS 313	4	Group 3 Selection 2	3
Group 3: EDP 309	3	EDP 307	3
SBC 206	3	Group 2: EDP 301	3
CSK 302	3	EDP 302	3
Elective or D.E.C.	3	Elective or D.E.C.	3
Total	16	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Group 2: EDP 302	3	Internship/Research	6
EDP 404		D.E.C.	3
Group 4 selection 1	3	D.E.C.	3
D.E.C.	3	Elective	3
D.E.C.	3		
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Environmental Engineering (ENE)****Minor in Environmental Engineering****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Undergraduate Program Director: Gary P. Halada

Office: 308 Engineering

Phone: (631) 632-8526

**Environmental Engineering (ENE)**

Environmental engineering is the application of science and engineering principles to improving the environment (air, water, and/or land resources), to providing healthful water, air and land for human habitation and for other organisms, and to investigate the possibilities for remediation of polluted sites. Environmental engineering also involves design and application of technology, including development of new materials, in support of the principles of sustainability and green manufacturing. The coursework of the minor emphasizes the chemical mechanisms at work behind environmental processes that govern production and transport of pollutants, bioavailability and toxicity, changing ecological and geochemical factors, and design of remediation and pollution prevention methodologies. The minor also provides coursework on materials and technology development for sustainable development and manufacturing.

**Requirements for the Minor in Environmental Engineering (ENE)**

The minor in Environmental Engineering is composed of the following courses:

A. Two required courses:

ESM 212 Introduction to Environmental Materials Engineering

or BME 305 Biofluids\*

or CME 318 Fluid Mechanics\*

or MEC 364 Fluid Mechanics\*

One course selected from CHE 312: Physical Chemistry, short course or CHE 301: Physical Chemistry I

\*May be taken as a technical elective if not taken as a required course.

B. Technical electives (choose four, of which at least one must be an ESG or ESM course):

ESG 301: Sustainability of the Long Island Pine Barrens

ESG 332: Materials Science I: Structure and Properties of Materials

ESM 334: Materials Engineering

ESM 488 Cooperative Industrial Practice or ESM 499 Research in Materials Science or ESG 487 Cooperative Research in Technological Solutions: at least 3 credits, with permission of Director of the Minor.

BIO 386/ENS 311: Ecosystem Ecology and the Global Environment

CHE 302: Physical Chemistry II

GEO 315: Groundwater Hydrology

GEO 316: Geochemistry of Surficial Processes

GEO 318: Engineering Geology and Coastal Processes

MAR 301: Environmental Microbiology

MAR 336: Marine Pollution

MAR 392: Waste Management Issues

MAR 394: Environmental Toxicology and Public Health

ATM 397: Air Pollution and Its Control

CHE 310: Chemistry in Technology and the Environment

Note: Students in the College of Arts and Sciences (but not CEAS majors) may also use

ESG 302: Thermodynamics of Materials

or CME 304: Chemical Engineering Thermodynamics I

as a technical elective for the minor in Environmental Engineering.

Any substitution of a course outside this list for a technical elective requires the permission of the director of the minor prior to registering for the desired course.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



## Environmental Humanities

**Major in Environmental Humanities**

Director: Dr. Heidi Hutner, W0520, Melville Library

Email: [Heidi.hutner@stonybrook.edu](mailto:Heidi.hutner@stonybrook.edu)

Phone: (631) 632-5371

Program Office: W0511 Melville Library

Program Coordinator: Ginny Clancy

Phone: (631) 632-9404

Email: [gabby.clancy@stonybrook.edu](mailto:gabby.clancy@stonybrook.edu)

Website: <http://www.stonybrook.edu/commcms/sustainability/>

## Environmental Humanities (EHM)

The Environmental Humanities major, leading to a Bachelor of Arts degree, draws together a range of disciplines to explore human understanding and interpretation of nature. The curriculum integrates disciplines from social sciences and the humanities including: writing, literature, philosophy, history, anthropology, archaeology, and art and architectural history.

The major prepares students to lead efforts to revitalize public understanding of the natural world through nature education, museum work, community organizing, literacy education, advocacy, business, writing and the arts. They may also choose to pursue advanced degrees in literature, journalism, education, social work, the arts, the social sciences and law.

The major builds on the interdisciplinary sustainability core curriculum. Students will enroll in major-specific courses in their junior and senior year. As part of the degree requirements, students will work in teams with students enrolled in related majors to solve problems collaboratively. Students are encouraged to take advantage of local and international independent research opportunities, internships and field camps to gain real-world experience.

**Major and Minor in Environmental Humanities**

## Requirements for the Major in Environmental Humanities

## A. Required Foundation Courses for Major (31-33 credits)

- ANT 102 Introduction to Cultural Anthropology or ANT 104 Introduction to Archaeology
- EHM 201 Ecoaesthetics in Art
- MAT 118 Mathematical Thinking or MAT 122 Overview of Calculus with Applications
- POL 102 Introduction to American Government
- SBC 104 Introduction to Moral Reasoning
- SBC 111 Introduction to Sustainability
- Two of the following: SBC 113/114 Physical Geography OR ENV 115 Chemistry, Environment and Life OR MAR 104 Oceanography, BIO 201 Organisms to Ecosystems, OR EHM 118 Introduction to the Natural History of Long Island
- SBC 116 Human Geography
- SBC 203 Critical Analysis

## B. Career and Leadership Skills (3 credits)

Three courses selected from CSK 101-109 (1 credit each)

## C. Core Courses (21-22 credits)

Students are required to select 3 credits from each group (A-C). The remaining 12-13 credits may be selected from one area of concentration, or spread across all three areas. An internship or independent study may be completed in any of the three core areas and as many as 3 credits may be applied to replace one of the courses.

**Group A: Writing, Literature and Philosophy**

- EGL 373 Literature in English from Non-Western Cultures
- EGL 396 Topics in Literary and Cultural Studies in Asia, Africa and Latin America
- EGL 378 Contemporary Native American Fiction
- EGL 379 Native American Texts and Contexts
- EGL 395 Topics in Literary and Cultural Studies of Europe
- EHM 310 Beyond Eden: Contact Narratives, Origins and Sin
- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- SBC 330 Extreme Events
- SBC 331 City, Suburb and Sprawl
- SUS 301 Environmental Ethics

**Group B: Social Sciences**

- ANT 201 Peoples and Cultures of South America
- ANT 357 The Agricultural Revolution
- ANT 362 Long Island Archaeology
- ANT 381 Applied Anthropology

- EHM 314 Civilizations and Collapse
- EHM 315 Ethnographic Methods
- HIS 321 Long Island History
- SBC 307 American Environmental History
- SBC 308 American Environmental Politics
- SBC 309 Global Environmental Politics
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society and Health
- SUS 305 Collective Action and Sustainability

### Group C: Applied Environmental Aesthetics

- SBC 117 Design Drawing
- SBC 354 Drawing for Design—CAD
- ARS 205 Foundation—Idea and Form
- ARH 205 Introduction to Architecture
- ARH 390 Foundations in European Art
- ARH 391 Topics in Global Art
- ARH 396 Topics in American Art
- EHM 320 Artists and Designers of the East End
- EHM 330 The Household in Non-Western Society
- EHM 331 Precolumbian Urbanism
- SBC 200 History of Human Settlements and Long Island's Development
- EDP 307 Theory and Design of Human Settlement

With permission of the Program Director, a student may take SBC 487 Independent Study or SBC 488 Internship in lieu of any one course in any core area (with a max of 3 credits applied to the major requirements).

#### D. Systems Course (3 credits)

SBC 401 Integrative, Collaborative Systems Project

#### E. Upper-Division Writing Requirement

Proficiency in writing, oral communication, and computer literacy will be encouraged in all students. These skills will be developed within the context of other formal coursework and no additional credits are required. To meet the upper-division writing requirement, students must submit two papers from any 300-level or 400-level course in the major to the Director of the SUS Undergraduate Program.

#### Note:

One course passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher. Course taken with the Pass/NC option may not be applied to the major.

#### Minor in Environmental Humanities

The Environmental Humanities minor is intended for students who seek to complement their chosen major with a foundation in the humanistic aspects of environmental studies and develop skills in one of Environmental Humanities core areas of study.

#### Requirements for the Minor

No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Only two courses used to satisfy requirements for the student's major may be applied towards the minor. Completion of the minor requires 21 credits.

#### 1. Required four introductory courses: 12 credits

- SBC 203 Critical Analysis
- EHM 201 Ecoaesthetics in Art
- EHM 118 Introduction to the Natural History of Long Island

One of the following courses:

- ANT 102 Introduction to Cultural Anthropology
- ANT 104 Introduction to Archaeology

#### 2. Required three advanced courses from one or two of the three core areas: 9 credits.

### Group A: Writing, Literature and Philosophy

- EGL 378 Contemporary Native American Fiction
- EGL 379 Native American Texts and Contexts
- EHM 310 Beyond Eden: Contact Narratives, Origins and Sin

- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- SBC 330 Extreme Events
- SBC 331 City, Suburb and Sprawl
- PHI 366 Philosophy and the Environment

**Group B: Social Sciences**

- ANT 201 Peoples and Cultures of South America
- ANT 357 The Agricultural Revolution
- ANT 361 Peasants
- ANT 362 Long Island Archaeology
- ANT 381 Applied Anthropology
- EHM 314 Civilizations and Collapse
- EHM 386/HIS 386 The Maya
- HIS 321 Long Island History
- SBC 307 American Environmental History or HIS 365 North American Environmental History
- SBC 308 American Environmental Politics
- SBC 309 Global Environmental Politics
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society and Health
- SUS 305 Collective Action and Sustainability

**Group C: Applied Environmental Aesthetics**

- SBC 117 Design Drawing
- SBC 354 Drawing for Design—CAD
- ARH 205 Introduction to Architecture
- EHM 320 Artists and Designers of the Environment and Ecosystems
- EHM 330 The Household in Non-Western Society
- EHM 331 Precolumbian Urbanism
- SBC 200 History of Human Settlements and Long Island's Development
- EDP 307 Theory and Design of Human Settlement

## Declaration of the Minor

Students should declare the Environmental Humanities minor no later than the middle of their junior year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

**Sample Course Sequence for the Major in Environmental Humanities**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
SBC 111	3	CSK 100-level selection #2	1
WRT 101 (DEC A1)	3	WRT 102 (DEC A2)	3
MAT 122 or MAT 118 (DEC C)	3	ANT 102 or ANT 104 (DEC F)	3
SBC 113, SBC 118, ENV 115, or MAR 194	3	POL 102 (DEC C)	3
CSK 100-level selection #1	1	EHM 201 (DEC D)	4
Total	14	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SBC 203	3	Selection Core Courses Group A	3
CSK 100-level selection #3	1	Selection Core Courses Group B	3

SBC 116		3	Foreign Language or elective	3-4
SBC 104 (DEC B)		3	Course Course Selection Group A-C #1	3
EHM 118 (DEC E)		4	Elective	3
Selection Core Courses Group C	3			
Total		17	Total	15-16
<b>Junior Fall</b>	<b>Credits</b>		<b>Spring</b>	<b>Credits</b>
Core Course Selection Group A-C #2		3	Selection Core Courses Group B	3
Core Course Selection Group A-C #3		3	Selection Core Courses Group C	3
DEC		3	Foreign Language or elective	3-4
DEC		3	Core Course Selection Group A-C #1	3
Foreign Language or elective		3-4	Elective	3
Total		15-16	Total	15-16
<b>Senior Fall</b>	<b>Credits</b>		<b>Spring</b>	<b>Credits</b>
Elective/minor	3		SBC 401	3
Elective/minor		3	Elective/Minor	3
DEC		3	Elective/Minor	3
Research/Elective/Intership/ Fieldwork		3	DEC	3
Core Course Selection Group A-C #6	3		DEC	3
Total		15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Environmental Studies (ENS)****Interdisciplinary Major and Living Learning Center Minor in Environmental Studies****School of Marine and Atmospheric Sciences (SoMAS)**

Interim Dean and Director: Minghua Zhang

Director of Undergraduate Studies: Mary I. Scranton

Assistant to Director: Carol Dovi

Education Office: 105 Endeavour Hall

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Director of the Minor: Kamazima M. M. Lwiza, School of Marine and Atmospheric Sciences

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**Environmental Studies (ENS)**

The Environmental Studies major, leading to a Bachelor of Arts degree, is designed to provide students with the analytical and communication skills and the broad background necessary to understand and address complex environmental issues. The major also offers the opportunity for students to carry out focused study within a specific area of interest. Environmental issues are not resolved in the scientific, technological, social, or political arenas alone. The curriculum is, therefore, interdisciplinary and integrates principles and methodologies from the social sciences, engineering, the natural sciences, and humanities. The goal is to address the complex scientific, legal, political, socioeconomic and ethical issues that define and surround environmental issues.

The major in Environmental Studies prepares the student for further education and entry-level employment in areas such as public interest science and advocacy, environmental conservation, law, journalism, management, television documentary production, ecotourism, population studies, and public service including public health.

To demonstrate depth of learning, an area of concentration is required of all students in the major. Additionally, a research course, an internship, or field study is an essential part of the curriculum to provide real-world experience in an appropriate subject area.

The Environmental Studies major is administered by the School of Marine and Atmospheric Sciences. A Living Learning Center and a minor, with a residential component, are also available. A lounge and study area are also available within the Living Learning Center for commuter students enrolled in the major or minor. The Living Learning Center, which is part of the Science and Society College, offers special programs, such as a seminar series showcasing faculty research and selected courses in the major and minor. Students may not pursue the minor in conjunction with the major.

Students should contact the director of undergraduate studies to design and approve an acceptable course of study before declaring the major.

Students may learn more about the School of Marine and Atmospheric Sciences by visiting <http://www.somas.stonybrook.edu>.

**Requirements for the Major and Minor in Environmental Studies (ENS)****Requirements for the Major**

The major in Environmental Studies leads to the Bachelor of Arts degree. No more than one course required for the major can receive a letter grade less than C.

Completion of the major requires approximately 66 credits.

**A. Foundation Courses (34 credits)****1. Natural Sciences**

BIO 201 Fundamentals of Biology: Organisms to Ecosystems

BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I

CHE 131, CHE 133 General Chemistry and Lab (See Note 1)

MAT 125 or MAT 131 or MAT 141 Calculus

PHY 119/ENS 119 Physics for Environmental Studies (See Note 2)

One of the following: GEO 101 Environmental Geology or MAR 104 Oceanography or ATM 102 Weather and Climate or ENS 101 Prospects for Planet Earth

**2. Social Sciences**

ANP 120 Introduction to Physical Anthropology or ANT 104 Introduction to Archaeology (by permission)

ECO 108 Introduction to Economic Analysis

POL 102 Introduction to American Government

**3. Humanities**

PHI 104 Moral Reasoning or PHI 105 Politics and Society

**4. Communications**

Proficiency in writing, oral communication, and computer literacy will be encouraged in all students. These skills will be developed within the context of formal coursework and no additional credits are required.

#### 5. Upper-Division Writing Requirement

All students in the major must submit two papers from any upper division course in the major to the Director of Undergraduate Programs for evaluation by the end of the junior year.

#### B. Core Courses (20 credits)

##### 1. One of the following statistics courses:

AMS 102, AMS 110, AMS 310, ECO 320, POL 201, PSY 201, or SOC 202

##### 2. MAR 340 Environmental Problems and Solutions

##### 3. ENS 301 Contemporary Environmental Issues and Policies

##### 4. ENS 311/BIO 386 Ecosystem Ecology and the Global Environment

##### 5. ENS 312 Population, Technology, and the Environment

##### 6. One of the following (2 credits):

ENS 443 Environmental Problem Solving/Independent Research (See Note 3)

or 487 Research or 488 Internship (See Note 4)

#### C. Concentration (12 credits)

Students should select four upper division courses in a thematic area in consultation with the undergraduate director. Some sample concentrations are listed below, but other possibilities may be approved if discussed in advance with the departmental advisor. For all concentrations, appropriate substitutions will be permitted with approval of the undergraduate director.

##### 1. Atmospheric Studies

ATM 205 Introduction to Atmospheric Science

ATM 237 Global Atmospheric Change

ATM 397 Air Pollution and its Control

MAR 334 Remote Sensing in the Environment

Other upper-division ATM courses (ATM 345, ATM 346, or ATM 348) may be substituted with permission of the undergraduate program director

##### 2. Conservation Biology/Physical Anthropology

Four courses from the following:

ANP 321 Primate Evolution

ANP 350 Methods in Studying Primates

ANP 360 Primate Conservation

MAR 315 Conservation Biology and Marine Biodiversity

BIO 336 Conservation Biology

BIO 356 Applied Ecology and Conservation and Biology Lab

##### 3. Marine Science, Marine or Terrestrial Ecology

A variety of courses focusing on different aspects of ecology and marine sciences are available in both MAR and BIO. Students should choose four related courses from those below in consultation with the undergraduate director or departmental advisor.

The following courses are biological in nature: BIO 351, BIO 352, BIO 353, BIO 354 or BIO 385, BIO 319, BIO 356, BIO 359, MAR 301, MAR 302, MAR 305, MAR 315, MAR 349, MAR 366, MAR 370, MAR 371, MAR 375, MAR 380, MAR 385, MAR 388

The following courses cover aspects of marine science other than biology:

MAR 303, MAR 304, MAR 320, MAR 333, MAR 334, MAR 336, MAR 346, MAR 351, MAR 352+MAR 353 (other courses may be substituted with permission)

##### 4. Environmental Economics

ECO 303 Intermediate Microeconomic Theory

ECO 305 Intermediate Macroeconomic Theory

ECO 373 Economics of the Environment and Natural Resources

One of ECO 335, ECO 301; ENS/POL 333, HIS 365, AAS/HIS 352, EDP 303 Spatial Economics, or EDP 305 Risk Assessment and Sustainable Development.

##### 5. Environmental History

HIS 103 American History to 1877 or HIS 104 United States since 1877

Plus three additional courses from the following:

HIS 281, HIS 302, HIS 365, AAS/HIS 352.

##### 6. Environmental Law, Waste Management, and Public Policy

Four courses from among the following:

POL 320, POL 329, POL 351, PHI 364, PHI 366, PHI 375, POL 359, POL 364, HIS 365, AAS/HIS 352, HIS 302, MAR 392, MAR 393, MAR 394/BCP 394, ENS 333/POL 333.

#### Notes:

1. CHE 141, CHE 143 Honors Chemistry and Lab may be substituted for CHE 131, CHE 133

2. PHY 121/PHY 123, PHY 122/PHY 124 or PHY 125, PHY 126, PHY 127 or PHY 131/PHY 133, PHY 132/PHY 134 or PHY 141, PHY 142 may be substituted for PHY 119/ENS 119.

3. Two credits of any course numbered 487 or equivalent with one of the following designators: ANP, ANT, ATM, BCP, BIO, CHE, ECO, ENS, EST, GEO, MAR, PHY, POL. In addition to other prerequisites, credit toward the major requires approval of the research topic by the Director of Undergraduate Studies of the Marine Sciences Research Center.

4. Two credits of any course numbered 488 or equivalent with one of the following designators: ANP, ANT, ATM, BCP, BIO, CHE, ECO, ENS, EST, GEO, MAR, PHY, POL. In addition to other prerequisites, credit toward the major requires approval of the internship by the Director of Undergraduate Studies.

#### Honors Program in Environmental Studies

Graduation with departmental honors in Environmental Studies requires the following:

1. Students are eligible to participate in the Honors Program if they have a 3.50 GPA in all courses for the major by the end of the junior year. Students should apply to the SoMAS undergraduate director for permission to participate.
2. Students must prepare an honors thesis based on a research project written in the form of a paper for a scientific journal. A student interested in becoming a candidate for honors should submit an outline of the proposed thesis research project to the SoMAS undergraduate director as early as possible, but no later than the second week of classes in the last semester. The student will be given an oral examination in May on his or her research by his or her research supervisor and the undergraduate research committee. The awarding of honors requires the recommendation of this committee and recognizes superior performance in research and scholarly endeavors. The written thesis must be submitted before the end of the semester in which the student is graduating.
3. If the student maintains a GPA of 3.5 in all courses in their major through senior year and receives a recommendation by the undergraduate research committee, he or she will receive departmental honors.

#### Living Learning Center Interdisciplinary Minor in Environmental Studies

The Environmental Studies Living Learning Center, housed in the Science and Society College, offers a minor in Environmental Studies as well as activities that emphasize both scientific and social issues encompassed by the broad field of environmental studies. Through this program, motivated natural science and social science students are able to apply their other coursework specifically to the study of the environment. In addition, participation in the program adds a rewarding academic component to each student's residential experience. The minor in Environmental Studies provides enhanced exposure to one subfield of environmental studies, the natural science of the environment.

#### Requirements for the Minor

No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18 credits.

1. One introductory course chosen from the following:

ATM 102/EST 102 Weather and Climate

BIO 113 General Ecology

BIO 201 Principles of Biology: From Organisms to Ecosystems

GEO 101 Environmental Geology

MAR 101 Long Island Sound: Science and Use

MAR 104 Oceanography

2. ENS 101 Prospects for Planet Earth

3. ENS 301 Contemporary Environmental Issues and Policies

4. Two advanced courses chosen from the following:

ANP 360 Primate Conservation

ANT 420 Environmental Analysis Using Remote Sensing and Geographic Information Systems

ATM 397 Air Pollution and Its Control

BIO 351 Ecology

BIO 352 Ecology Laboratory

BIO 353/GEO 353 Marine Ecology

CHE 310 Chemistry in Technology and the Environment

GEO 304 Energy, Mineral Resources, and the Environment

GEO 315 Groundwater Hydrology

MAR 320 Limnology

MAR 333 Coastal Oceanography

MAR 340 Environmental Problems and Solutions

5. At least three credits of independent study or research in any department, approved by the minor coordinator or undergraduate director.

#### Declaration of the Minor

Students should declare the Environmental Studies minor no later than the middle of their junior year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

#### Sample Course Sequence for the Major in Environmental Studies

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3

ENS 101, MAR 104, GEO 101, or ATM 102	3	CHE 131	4
MAT 125	3	CHE 133	1
D.E.C.	3	PHI 104 or PHI 105	3
Elective	3	Elective	3
Total	16	Total	15
<b>Sophomore Fall Credits</b>			
AMS 110 or other statistics	3	ECO 108	4
D.E.C.	3	POL 102	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
		Elective	3
Total	12	Total	16
<b>Junior Fall Credits</b>			
BIO 201 and BIO 204	5	ENS 311 or BIO 386	3
MAR 340	3	ENS 301	3
PHY 119	4	Upper-Division concentration	3
Upper-Division elective	3	Upper-Division D.E.C.	3
Elective	2	Elective	3
Total	17	Total	15
<b>Senior Fall Credits</b>			
ENS 312	3	ENS 443 or research	2
Upper-Division concentration	3	Upper-Division concentration	3
D.E.C.	3	Upper-Division D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	14

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.



Department of European Languages, Literatures, and Cultures (CLS, EUR, FRN, GER, IAM, ITL, MVL, RUS)

**College of Arts and Sciences**

Chairperson: Nicholas Rzhovsky

Director of Undergraduate Studies: Irene Marchegiani

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

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Majors and Minors in Classical Civilization, European Studies, French, German, Italian, Italian American Studies, Medieval, Russian

**Department of European Languages, Literatures, and Cultures (CLS, EUR, FRN, GER, IAM, ITL, MVL, RUS)**

The Department of European Languages, Literatures, and Cultures fosters teaching and research in modern and classical European languages, literatures, and cultures at the undergraduate and graduate levels. Many courses in English translation also offer access to this field to students with a general interest in the Western tradition. The Department prepares students for post-graduate professional training, graduate study, and for a global market in which knowledge of other languages and cultures is increasingly essential. In addition, the Department promotes the training of secondary school language teachers in European languages through a program that conforms to the requirements in the New York State Regents Guidelines.

See individual listings for requirements for the majors and minors in: Classical Civilization, European Studies, French, German, Italian, Medieval Studies, and Russian.

**Study Abroad**

The Department strongly recommends both majors and minors to complete some of their coursework abroad in the junior or senior year. The University maintains exchange programs during the academic year and in the summer in Montpellier, France; Tübingen, Germany; Rome, Italy; Krakow, Poland; and St. Petersburg, Russia. There are several other programs in Germany, Poland, and Russia sponsored by other SUNY colleges and universities. See the Special Academic Opportunities chapter in this Bulletin and the Study Abroad Office for further details.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**European Studies (EUR)****Interdisciplinary Major and Minor in European Studies****Department of European Languages, Literatures, and Cultures; College of Arts and Sciences**

Chairperson: Nicholas Rzhnevsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Program: Timothy Westphalen

Assistant to the Chair: Victoria Judd

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**European Studies (EUR)**

The Program in European Studies is designed to foster knowledge of European civilization. In acquainting students with European culture and history, it enables them to understand those traditions that give Europe's diversified personality its inner coherence. The program promotes an interdisciplinary approach while insisting upon a structured course of study. Completion of courses at a European university on a study-abroad program is strongly recommended.

**The Major in European Studies**

The interdisciplinary major in European Studies introduces students to the rich variety of cultures, politics, languages, and literatures of Europe. Students acquire fundamental knowledge of European culture and history by beginning with two core courses (EUR 101 and EUR 201) and two courses in European History (HIS 101 and HIS 102). They deepen this knowledge by selecting four courses in one of several concentrations, and they develop breadth by taking two additional courses in a different concentration. Their program is intended to culminate in EUR 401, a capstone seminar in which students apply their general knowledge within a particular concentration to a specific project.

Graduates with the major in European Studies can expect to work in business, government, the service industry, and politics. Majors will also be prepared to continue with graduate studies in business, humanities, law, and social sciences.

**Requirements for the Major and Minor in European Studies (EUR)****Requirement for the Major**

The major in European Studies leads to a Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher. 18 credits for the major must be earned in courses numbered 300 or higher.

Completion of the major requires 39 credits.

**1. Core Courses**

EUR 101 The Foundations of European Culture

EUR 201 The Development of European Culture

EUR 401 Senior Research Seminar in European Studies

**2. Study of a European Language**

Two courses in one European language at the 300-level or higher

**3. European History**

HIS 101 European History: from Antiquity to Revolution

HIS 102 Modern European History from 1789 to 1945

**4. Concentration Requirement**

Four courses in one of the following concentrations, chosen in consultation with an advisor and approved by the Director of Undergraduate Studies.

**A. European History**

HIS 208 Ireland from St. Patrick to the Present

HIS 209 Imperial Russia

HIS 210 Soviet Russia

HIS 226/JDS 226 The Shaping of Modern Judaism

HIS 235 The Early Middle Ages

HIS 236 The Late Middle Ages

HIS 241/JDS 241 The Holocaust: The Destruction of European Jewry-Causes and Consequences

HIS 248 Europe 1815-1914

HIS 249 Modern Europe 1914-1945

HIS 251 Europe since 1945

HIS 310 Modern France, 1900 to the Present

HIS 312 From Empire to Third Reich: Germany, 1890-1945

HIS 318 Social and Intellectual History of Europe

HIS 336/WST 334 Women, Work, and Family in Modern European History  
 HIS 360/WST 360 Women in Premodern Europe  
 HIS 390 Topics in Ancient and Medieval Europe  
 HIS 391 Topics in Early Modern Europe  
 HIS 392 Topics in European History  
 HIS 393 Topics in Modern European History  
 HIS 395 Topics in Russian History

B. European Civilization Yesterday and Today  
 HUE 269 Topics in Contemporary Slavic Culture  
 HUE 392 Topics in Slavic Studies  
 HUF 216 French Civilization through the Ages  
 HUF 219 Modern France  
 HUG 229 Germany Today  
 HUI 216 Italian Civilization through the Ages  
 HUI 239 Modern Italy  
 HUI 336 Italian Americans and Ethnic Relations  
 HUR 249 Russia Today  
 HUS 255 Modern Spain

C. The Ancient and Medieval Foundations of Europe  
 ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, ca. 1400 AD  
 CLS 113 Greek and Latin Literature in Translation  
 CLL 215 Classical Mythology  
 THR 315 European History and Drama: The Classical Era  
 EGL 261/JDH 261 The Bible as Literature  
 RLS 270 Christianity  
 RLS 310 Biblical Theology  
 CLT 211 Literary Survey: Medieval Through Late Renaissance  
 PHI 300 Ancient Philosophy  
 PHI 304 Medieval Philosophy  
 MVL 141 The Legend of King Arthur  
 MVL 241 Heroes and Warriors

D. European Art History and Music  
 ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, ca. 1400 AD  
 ARH 102 Art in Culture from the Early Renaissance, ca. 1400, to Post-Modernism  
 ARH 306/HUI 306 The Early Renaissance in Italy  
 ARH 307/HUI 307 The Age of Michelangelo in Central Italy  
 ARH 310/HUI 310 Splendors of Renaissance Art in Venice  
 ARH 314 Northern Baroque Art and Architecture, 1600-1700  
 ARH 316 Baroque Art in Italy and Spain, 1600-1700  
 ARH 320 Art of the 18th Century  
 ARH 324 Architecture and Design of the 19th and 20th Centuries  
 ARH 337 Northern Renaissance Art  
 MUS 301 Music of the Baroque  
 MUS 302 The Music of J.S. Bach  
 MUS 303 The Music of Beethoven  
 MUS 305 Music of the Romantic Era  
 MUS 306 The Symphony  
 MUS 307 Imaginative Worlds of Opera

E. European Politics and Economics  
 POL 305 Government and Politics of the United Kingdom  
 POL 309 Politics in the European Union  
 POL 350 Contemporary European Political Theory  
 POL 392 Topics in Political Science and the European Tradition  
 ECO 317 Marxist Political Economy

Note: Students who choose this concentration are encouraged to double major with either Political Science or Economics, or to take certain additional courses not required by the major.

F. European Philosophy  
 PHI 247 Existentialism  
 PHI 277 Political Philosophy  
 PHI 300 Introduction to Ancient Philosophy  
 PHI 304 Medieval Philosophy  
 PHI 306 Modern Philosophy  
 PHI 308 19th-Century Philosophy  
 PHI 312 Topics in Contemporary European Thought

## G. European Literatures

EGL 205, EGL 206 Survey of British Literature I, II  
 EGL 231/HUR 231 Saints and Fool  
 EGL 232/HUR 232 Rebels and Tyrants  
 EGL 243 Shakespeare: The Major Works  
 EGL 302 Medieval Literature in English  
 EGL 304 Renaissance Literature in English  
 EGL 306 English Literature of the 17th Century  
 EGL 310 Neoclassical Literature in English  
 EGL 312 Romantic Literature in English  
 EGL 314 Victorian Literature  
 EGL 340 Chaucer  
 EGL 342 Milton  
 EGL 344 Major Writers of the Renaissance Period in England  
 EGL 345, 346 Shakespeare I, II  
 EGL 347 Major Writers of the Neoclassical Period of England  
 EGL 348 Major Writers of the Romantic Period in England  
 EGL 349 Major Writers of the Victorian Period in England  
 EGL 376 The Literature of Imperialism  
 HUF 311 French Literature in Translation  
 HUG 321 Topics in the Literature of Germany  
 HUI 234 Introduction to Twentieth-Century Drama  
 HUI 235 Sex, Love, and Tragedy in Early Italian Literature  
 HUI 331 Topics in Italian Literature  
 HUR 141 Literature and Empire  
 HUR 142 Literature and Revolution  
 HUR 235 Crime and Punishment in World Literature  
 HUR 241 Special Russian Author in Translation  
 HUR 341 Topics in Russian Literature  
 HUR 393 Literary Analysis of Russian Texts in Translation  
 CLT 212 Literary Survey: Enlightenment through Modern

Note: Students who wish to take 300-level EGL courses must first complete EGL 204. Also, courses in European literature taught in the original languages may be chosen to fulfill requirements of this concentration.

## H. European Cinema and Drama

HUF 211 French Cinema  
 HUG 221 German Cinema since 1945  
 HUI 231 Sex and Politics in Italian Cinema  
 HUI 431 Special Topics in Italian Cinema  
 HUR 241 Russian Cinema  
 THR 315 European History and Drama: The Classical Era  
 THR 316 European History and Drama: The Modern Era

## 5. Breadth Requirement

Two courses in one other program concentration, also chosen in consultation with the EUR Program Coordinator.

Note: To insure that students are broadly educated, no more than four courses within the concentration and breadth requirements may bear a single designator or be offered within a single department.

## 6. Upper-Division Writing Requirement

Before the second semester of the junior year, a student in the EUR major shall submit to the program coordinator two papers, each written for a different instructor, together with the instructor's written confirmation that the paper demonstrates suitably advanced writing proficiency. Both of the courses in which the papers were written must be upper-division and taken for the major. The student must notify the instructor before turning in the papers that they are intended to satisfy this requirement in addition to the course requirements.

The Honors Program in European Studies

To be eligible to participate in the honors program, majors must have an overall g.p.a. of 3.00 and an average g.p.a. of 3.50 in European Studies through their junior year. An eligible student wishing to write a senior thesis must find a faculty member to act as thesis advisor. The student, with the approval of this advisor, must submit a proposal of a project in writing to the Director of Undergraduate Studies. The deadline for submission of the proposal is April 30 for the spring semester, and November 30 for the fall semester. Selection of candidates and topics is made by a committee within the Department. Students chosen for the honors program must enroll in EUR 495 for the semester in which the thesis is written. The thesis is evaluated by the thesis advisor, and approved by two additional faculty. For further information consult the Director of Undergraduate Studies.

## Requirements for the Minor

The minor in European Studies is designed to provide an overview of the discipline and to complement most majors. At least 12 of the 24 credits required for the minor must be taken at Stony Brook.

## 1. Core Courses

EUR 101 The Foundations of European Culture

EUR 201 The Development of European Culture

2. Studies in a European Language

Two courses in one European language at the 300 level or higher.

3. Elective courses

Four courses chosen in consultation with the Director of Undergraduate Studies. Three of the courses must be within a particular concentration.

#### Declaration of the Minor

Students must declare the European Studies minor no later than the middle of their junior year, at which time they consult with the program advisor and plan their course of study for fulfillment of the requirements.

#### Sample Course Sequence for the Major in European Studies (Concentration in Medieval Studies)

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
EUR 101 (D.E.C. G)	3	EUR 201 (D.E.C. I)	3
HIS 101 (D.E.C. F)	3	HIS 102	3
Beginning or Intermediate Language (or D.E.C.)	4	MVL 141 (D.E.C. B)	3
		Beginning or Intermediate Language (or D.E.C.)	4
Total	14	Total	17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
HIS 235	3	HIS 236	3
HUI 216	3	HUF 216	3
MVL 241 (D.E.C. G)	3	HUI 235 (D.E.C. G)	3
D.E.C. C	3	D.E.C. E	3
Intermediate language course	3	Intermediate language course	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
EGL 304	3	ARH 101 (D.E.C. D)	3
PHI 304	3	HIS 391	3
300-level language course	3	300-level language course	3
D.E.C. E	3	D.E.C. H	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ARH 303	3	ARH 304	3
EUR 390	3	EUR 401	3
EGL 302	3	EGL 340	3
D.E.C. K	3	EUR 495 or Elective	3
D.E.C. J	3	Elective	3
Total	15	Total	15

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.

**French Language and Literature (FRN)****Major and Minor in French Language and Literature****Department of European Languages, Literatures, and Cultures; College of Arts and Sciences**

Chairperson: Nicholas Rzhovsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Program: Prosper Sanou

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.sunysb.edu/eurolang>

Minors of particular interest to students majoring in French: Business Management (BUS), Comparative Literature (CLT), Economics (ECO), English (EGL), History (HIS), International Studies (INT), Linguistics (LIN), Medieval Studies (MVL), Philosophy (PHI), Political Science (POL), other languages

**French (FRN)**

Pursuing French as an academic field means mastering the language in addition to studying the literature and the social and political culture of France and French-speaking countries. French is spoken all around the globe--in Europe, Africa, Asia, Canada, and the Caribbean--where it has produced rich national literatures and diverse cultures over the span of many centuries. As a recent Association of the Teachers of French publication has stated, "French is the other international language." Command of the language is the first prerequisite to entrance into the discipline which depends upon linguistic, literary, and analytical skills. On a more practical level, French is the language of government, law, management, and business in many regions of the international community, and the study of French as used in these areas is an applied field within the discipline.

Students who graduate with a major in French pursue diverse careers and employment. Many become teachers or take positions in international commerce, marketing, banking, or travel (e.g., airlines, travel agencies, Club Med). Others work in fields of government, publishing, journalism, or international relations. As a liberal arts major, French is also the choice of some who go on to professional schools in law, management and business, library science, computer technology, or medicine.

**Requirements for the Major and Minor in French (FRN)****Placement in Language Courses for Incoming Students**

The prerequisites for courses indicate approximate placement levels. One year of high school foreign language is generally considered the equivalent of one college semester. Students are advised to consult the FRN Program Coordinator if they believe the recommended course is inappropriate. A score of 85 or higher on the New York State Regents examination is sufficient for the Stony Brook University foreign language competence requirement. While students who have met the Skill 3 requirement through the Regents examination score do not need to take French at Stony Brook to satisfy the Skill 3 foreign language requirement, they are highly encouraged to continue their study of the language.

**Requirements for the Major**

The major in French Language and Literature leads to the Bachelor of Arts degree. Students must complete Concentration A or Concentration B. These concentrations are designed to allow maximum flexibility in the students' programs and to fulfill their varying needs and interests. Both require as a basis a solid preparation in French. Concentration A provides preparation for graduate study in literature; concentrations A and B both provide appropriate background for students preparing for work in law, government, international relations, business, banking, hotel management, or translation and interpretation. Students interested in teaching French in secondary schools may choose either Concentration A or B. However, they must have 36 credits in FRN before the State of New York will certify them. Please see the staff of the Foreign Language Secondary Teacher Education Program for further advising in this area. Foreign language education students are also highly encouraged to study more than one foreign language.

All courses offered for the major must be passed with a letter grade of C or higher. Transfer students must take at least 18 credits of French in residence at Stony Brook. Please note that FRN 475/FRN 476 (Undergraduate Teaching Practicum) may not count for the major or minor.

Completion of the major requires 36 credits for Concentration A (all in FRN or HUF) or 42 credits for Concentration B (30 credits of FRN and HUF, and 12 credits of a non-FRN discipline). All students should consult with the Director of the French Program.

**A. Concentration in Language and Literature****1. Required courses:****a. Language courses:**

FRN 311 Conversation

FRN 312 Composition

FRN 313 French Vocabulary through Popular Culture

FRN 411 Phonetics and Diction

## FRN 412 Stylistics

## b. Literature courses:

FRN 395 Readings in French Literature: Analysis and Interpretation I

FRN 396 Readings in French Literature: Analysis and Interpretation II

## 2. Elective courses:

15 additional credits in FRN courses beyond FRN 395, FRN 396, of which 12 credits must be in literature (Two courses from among HUF 211, HUF 216, HUF 219, and HUL 324 are also acceptable)

3. Upper-division writing requirement: See C below

## B. Concentration in French and a Second Discipline

## 1. Required courses:

a. FRN 311 Conversation

b. FRN 312 Composition

c. FRN 313 French Vocabulary through Popular Culture

d. FRN 395, FRN 396 Readings in French Literature: Analysis and Interpretation I, II

e. FRN 411 Phonetics and Diction

f. FRN 412 Stylistics

g. One course in French literature numbered 300 or higher

h. FRN 441 French Civilization or HUF 216 or HUF 219

i. One additional FRN or HUF course (Please note that no more than two HUF courses in total may count for the major or minor.)

## 2. Elective courses:

12 additional credits (nine of which must be 300-level or higher) to be chosen with the help of the designated advisor and approved by the Department. Students must choose a sequence of four courses in a department or program other than French (FRN or HUF).

## C. Upper-Division Writing Requirement

To demonstrate proficiency in writing English, students majoring in French must present a dossier of a minimum of two papers of at least three to five pages each. The dossier must be submitted before the second semester of the junior year to the FRN Program Coordinator. Since this requirement is a University requirement and not a French requirement, the Program Coordinator will accept research papers written in English for any course students have taken at Stony Brook University. Graded papers are much preferred. For students who do not have research papers written in English, they must translate two papers written for their FRN courses from French to English.

## Notes:

1. Students whose language proficiency is such that they can be exempted from FRN 311, FRN 312 may, and are strongly urged to, apply to have courses in art, music, history, or another language count for major credit.

2. Students who wish to offer their native language as the main area of concentration are asked to replace FRN 311, FRN 312, FRN 410, and FRN 411 by English courses appropriate to their level of proficiency in that language.

## Foreign Language Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

## Requirements for the Minor

All courses offered for the minor must be taken for a letter grade, excluding those graded S/U. All upper-division courses offered for the minor must be passed with a grade of C or higher. Students must complete either A. Emphasis on Language or B. Emphasis on Literature. Transfer students must take at least six credits of upper-division French or Italian courses in residence at Stony Brook.

Completion of the minor requires 21 credits.

## A. Emphasis on Language

## Required courses:

FRN 311 Conversation and Composition

FRN 312 Introduction to Stylistics

FRN 313 French Vocabulary through Popular Culture

FRN 395 or FRN 396 Readings in French Literature I or II

FRN 410 Business French (See Note)

FRN 411 Phonetics and Diction

FRN 412 Stylistics

Note: A French literature course or FRN 441 or HUL 324 may be substituted for FRN 410

## B. Emphasis on Literature

## Required courses:

FRN 311 Conversation and Composition

FRN 312 Introduction to Stylistics

FRN 395 Readings in French Literature I

FRN 396 Readings in French Literature II

Electives: three literature courses at the 300 level

## Honors Program in French

To be eligible to participate in the honors program, majors must have a cumulative grade point average of 3.00 and an average of 3.50 in French through the junior year. An eligible student wishing to write a senior thesis must find a faculty member of the Department to act as thesis advisor. The student, with the approval of this advisor, must submit a proposal of a project in writing to the Department. Deadline for submission of the proposal for fall semester is April 30 and for spring semester is November 30. Final selection of candidates and topics is determined by an honors committee of the Department. Students selected for the program must enroll in FRN 495 for the semester in which the thesis is written. The thesis is evaluated by the thesis advisor, another member of the Department, and a third reader from outside the Department. For further information consult the Director of Undergraduate Studies.

### Sample Course Sequence for the Major in French Language and Literature

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
FRN 211 or FRN 311 (depending on placement)	3	FRN 212 or FRN 312	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
FRN 311 or FRN 395	3	FRN 312 or FRN 396	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
FRN 395 (if not taken fall of sophomore year)	3	FRN 396 (if not taken spring of sophomore year)	3
FRN 411	3	FRN 412	3
One 300-level literature course	3	FRN 441 or one 300-level literature course	3
D.E.C.	3	D.E.C.	3
Elective	3	Upper-Division elective	3
		Upper-Division elective	3
Total	15	Total	18
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
FRN 413 (or FRN 410)	3	FRN 441 (if not taken spring junior year)	3
One or two 300-level literature courses	3-6	One 300-level literature course	3
Upper-Division elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15-18	Total	15



*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Geology (GEO)****Major and Minor in Geology****Department of Geosciences, College of Arts and Sciences**

Chairperson: Richard J. Reeder Director of Undergraduate Studies: Hanna Nekvasil

Major Advisor: Timothy Glotch

EMAIL: [Timothy.Glotch@stonybrook.edu](mailto:Timothy.Glotch@stonybrook.edu)

Office: 255 Earth and Space Sciences

Phone: (631) 632-8200

Web Address: <http://www.geosciences.stonybrook.edu>

Minors of particular interest to students majoring in Geology and Earth and Space Sciences: Environmental Studies (ENS), Marine Sciences (MAR), engineering minors

**Geology (GEO)**

The Department of Geosciences offers two undergraduate programs: the Geology major, leading to a Bachelor of Science degree, and the Earth and Space Sciences major, leading to a Bachelor of Arts degree. Minimum course requirements for the B.S. program in Geology are detailed below. For requirements for the B.A. program in Earth and Space Sciences, see the entry in the alphabetical listing of Approved Majors, Minors, and Programs. Upon declaring the major, the student is assigned a faculty advisor who will assist in the selection of a course sequence leading to the degree. Students should consult frequently with their faculty advisors regarding their progress and regarding appropriate science courses. Because the position of the scientist in society is responsible and complex, the student is cautioned to pay careful attention to general education in the arts, humanities, and social sciences.

**Geology**

The science of geology is focused on evaluation of the physical and chemical characteristics of the Earth and other planets and the processes that have controlled evolution of these characteristics over time. The B.S. program has built-in flexibility to allow majors to choose from a variety of electives in environmental geoscience, planetary geoscience, geophysics and geochemistry. This allows students to develop a major that best reflects their interests and career goals, by allowing students to build upon the core curriculum by selecting 15 credits of upper-level science/mathematics electives from both within and outside of the Geosciences. The major aims to provide the student with maximum preparation to carry out graduate and professional work in each of these fields. Students graduating with a B.S. in Geology typically go on to graduate school or obtain professional employment with environmental consulting firms or various government organizations.

**Requirements for the Major and Minor in Geology****Requirements for the Major**

The major in Geology leads to the Bachelor of Science degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 65 to 68 credits.

**A. Required departmental courses**

GEO 103 The Earth Through Time

GEO 113 Historical Geology Laboratory

GEO 102 The Earth and GEO 112 Physical Geology Laboratory

GEO 306 Mineralogy

GEO 309 Structural Geology

GEO 403 Sedimentation and Stratigraphy

GEO 407 Igneous and Metamorphic Petrology

**B. Required courses in the related sciences**

MAT 131, MAT 132 Calculus I, II (See Note 1 below)

CHE 131, CHE 132 General Chemistry or CHE 141, CHE 142 Honors Chemistry

PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141, PHY 142 Honors Physics

**C. Related science electives**

A set of upper-division science courses, totaling 20 credits, that has been approved by the department.

**D. Upper-Division Writing Requirement**

All students majoring in Geology must submit two papers (term papers, laboratory reports, or independent research papers) to the director of undergraduate studies for Department evaluation by the end of the junior year. If this evaluation is satisfactory, the student will have fulfilled the upper-division writing requirement. If it is not, the student must fulfill the requirement before graduation.

Notes:

1. The following alternate beginning calculus sequences may be substituted for MAT 131, MAT 132 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171. Equivalency for MAT courses achieved by earning the appropriate score on a University mathematics placement examination will be accepted as fulfillment of the requirement without the necessity of substituting other credits. For detailed information about the various calculus sequences, see "Beginning Mathematics Courses" under the entry for the Department of Mathematics and the individual course descriptions.

Suggested Clusters of Science Electives:

Students with interest in Geology:

GEO 310 Introduction to Geophysics  
 GEO 315 Groundwater Hydrology  
 GEO 320 Glacial Geology  
 GEO 405 Field Camp  
 GEO 487 Senior Research in Geology

Students with interest in Environmental Geoscience:

GEO 305 Field Geology  
 GEO 315 Groundwater Hydrology  
 GEO 316 Geochemistry of Surficial Processes  
 GEO 347 Remote Sensing  
 GEO 420 Environmental Analysis and Remote Sensing/GIS  
 MAR 340 Environmental Problems

Students with interest in Geological Oceanography:

GEO 310 Introduction to Geophysics  
 GEO 316 Geochemistry of Surficial Processes  
 GEO 318 Engineering Geology and Coastal Processes  
 GEO 353 Marine Ecology  
 MAR 304 Waves, Tides, and Beaches

Honors Program in Geology

Students in the Geology major who have maintained a grade point average of 3.50 in natural sciences and mathematics through the junior year may become candidates for Departmental honors in Geology by applying to the Department.

In addition to the academic program, the student must complete an honors thesis, which is evaluated by a committee composed of the student's advisor and two other science faculty members including one from outside of the Department. If the honors program is completed with distinction and the student has maintained a minimum 3.50 grade point average in all coursework in natural sciences and mathematics, honors are conferred.

Requirements for the Minor

For students majoring in other areas who are interested in obtaining a fundamental understanding of the earth sciences, a minor concentration in Geology is available. The Geology minor acquaints students with earth materials, the origin and evolution of life on earth, and physical processes that have shaped the earth through time.

All courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 20 credits.

Geology

GEO 103 and GEO 113  
 GEO 102 The Earth and GEO 112 Physical Geology Laboratory

Twelve additional credits from among GEO courses numbered 300 or higher. Courses must be approved by a departmental advisor.

### Sample Course Sequence for the Major in Geology

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CHE 131	4	CHE 132	4
GEO 102	3	MAT 131	4

GEO 112	1	GEO 103	3
D.E.C.	3	GEO 113	1
Total	15	Total	16
<b>Sophomore Fall</b>			
	<b>Credits</b>		<b>Credits</b>
MAT 132	4	GEO 306	4
PHY 131/PHY 133	4	PHY 132/PHY 134	4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
		D.E.C.	3
Total	14	Total	17
<b>Junior Fall</b>			
	<b>Credits</b>		<b>Credits</b>
GEO 407	3	GEO 309	4
GEO 403	4	Science Elective	3
D.E.C.	3	Science Elective	3
D.E.C.	3	Science Elective	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Senior Fall</b>			
	<b>Credits</b>		<b>Credits</b>
GEO 310	3	Science Elective	3
Science Elective	3	Upper Division Elective	3
Upper Division Elective	3	Upper Division Elective	3
Upper Division Elective	3	Upper Division Elective	3
Upper Division Elective	3	D.E.C.	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Geospatial Science (GSS)

### Minor in Geospatial Science

#### Sustainability Studies

Director: Dr. Michael Sperazza

Email: Michael.Sperazza@stonybrook.edu

Program Office: W0511 Melville Library

Program Coordinator: Ginny Clancy

Phone: (631) 632-9404

Email: ginny.clancy@stonybrook.edu

Website: [http://www.stonybrook.edu/commcms/sustainability/gss\\_.html](http://www.stonybrook.edu/commcms/sustainability/gss_.html)

## Geospatial Science

Geospatial analysis is used in a wide range of disciplines as a research tool, a decision-making tool, data analysis tool, and/or as a planning tool. The Minor in Geospatial Analysis is a flexible undergraduate minor that allows students drawn from a broad spectrum of backgrounds to acquire the necessary training in geospatial analysis to complement their area of study. Students will receive training in the use of Geographical Information Systems and may choose from several electives to broaden their experience in geospatial analysis.

### Requirements for the minor in Geospatial Science

Completion of the minor requires 19-20 credits.

#### Core courses:

- GSS 105 Introduction to Maps and Mapping
- GSS 313 GIS Design and Applications I
- GSS 314 GIS Laboratory (for students enrolling in GSS 313 Spring 2013 or later)

Select a course in Remote Sensing or GIS:

- Remote Sensing: GEO 440 or MAR 334
- GIS: GSS 325 Design and Applications II

#### Elective courses (select 9 or more credits from the following):

- GEO 440 Geological Applications of Remote Sensing
- MAR 334 Remote Sensing of the Environment
- GSS 323 GIS Database and Design
- GSS 325 GIS Design and Applications II (if not taken above)
- GSS 326 GIS Project Management
- GSS 487 Geospatial Science Research (see Note)
- GSS 488 Geospatial Science Internship (see Note)
- ANT 420/GEO 420 Environmental Analysis Using Remote Sensing and Geographic Information Systems
- BIO 319 Landscape Ecology Laboratory

Note: A maximum of three credits of GSS 487 Geospatial Science Research and/or GSS 488 Geospatial Science Internship may be applied to the minor.

## GSS Faculty

Faculty information for this program can be found at [http://www.stonybrook.edu/commcms/sustainability/faculty\\_profiles.html](http://www.stonybrook.edu/commcms/sustainability/faculty_profiles.html)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**German Language and Literature (GER)****Major and Minor in German Language and Literature****Department of European Languages, Literatures, and Cultures, College of Arts and Sciences**

Chairperson: Nicholas Rzhevsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Program: Robert Bloomer

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.sunysb.edu/eurolangs>

Minors of particular interest to students majoring in German: Business Management (BUS), Comparative Literature (CLT), Economics (ECO), English (EGL), History (HIS), International Studies (INT), Linguistics (LIN), Medieval Studies (MVL), Philosophy (PHI), Political Science (POL), other languages

**German Language and Literature (GER)**

The major in German is part of a liberal education and concerns itself primarily with the language, literature, and culture of the German-speaking countries. In a time of continuing political consolidation within the European Union and increasing cooperation between member nations in trade and commerce, technology and science, the environment, and the arts, a mastery of German and a deeper understanding of its societies and cultures can open opportunities for personal development and prepare students for diverse professional careers. The program places the study of German and its literature in the context of its culture, including its political, historical, and economic aspects.

The major in German is flexibly designed to permit emphasis on language, literature, or area studies. Students graduating with a major in German have found careers and job opportunities in international transportation, tourism, foreign trade and banking, government, science and technology, as well as in teaching and library sciences. For majors in the sciences, humanities, and social sciences, knowledge of German is important in international science and in areas of employment within the expanding East-West trade. It is often desired for admission to graduate school and for advanced graduate study in many disciplines.

**Requirements for the Major and Minor in German Language and Literature (GER)**

## Placement in Language Courses for Incoming Students

The prerequisites for courses indicate approximate placement levels. One year of high school foreign language is generally considered the equivalent of one college semester. Students are advised to consult the GER Program Coordinator if they believe the recommended course is inappropriate.

## Requirements for the Major

The major in German Language and Literature leads to the Bachelor of Arts degree. No previous knowledge of the language is required. All courses offered for the major must be passed with a letter grade of C or higher. Transfer students must complete at least 18 credits toward the major at Stony Brook.

## A. Concentration in German (36 credits)

## 1. Required courses:

- a. GER 211, GER 212 Intermediate German I, II (see Note)
- b. GER 311, GER 312 German Conversation and Composition I, II
- c. GER 313 German Vocabulary in Conceptual Groups
- d. GER 343 Introduction to Literary Genres
- e. GER 438 Structure of German
- f. GER 439 History of German

## 2. Elective courses: 12 additional credits chosen from: GER 344; HUG 221, HUG 229, HUG 321; MVL 241; HIS 312

## B. Concentration in German and a Second Discipline (42 credits)

## 1. Required courses:

- a. GER 211, GER 212 Intermediate German I, II (see Note)
- b. GER 311, GER 312 German Conversation and Composition I, II
- c. GER 313 German Vocabulary in Conceptual Groups
- d. GER 343 Introduction to Literary Genres
- e. GER 438 Structure of German
- f. GER 439 History of German
- g. Two HUG courses

2. Elective courses: 12 additional credits (nine of which must be 300-level or higher) in a discipline other than GER.

Note: The prerequisite for GER 211 is GER 101 or GER 112.

C. Upper-Division Writing Requirement: To demonstrate proficiency in writing in English, German majors must present a dossier consisting of a minimum of two papers of at least five pages each. This dossier must be submitted before the end of the second semester of the junior year to the GER Program Coordinator. The papers must be essays previously composed for upper division courses. Those originally in a foreign language must be rewritten in English. A faculty committee will judge the papers for clarity, accuracy, and appropriateness of style. If the dossier is judged to be unsatisfactory, the student will be asked to rewrite and resubmit the work in the senior year. Students must demonstrate acceptable writing skills before they graduate.

Foreign Language Secondary Teacher Education Program

See the Education and Teacher Certification entry in the degrees and requirements section.

#### Honors Program in German

To be eligible, majors must have a cumulative g.p.a. of 3.00 and a g.p.a. of 3.50 in German through the junior year. An eligible student, with the approval of a faculty member who will serve as thesis advisor, must submit a written thesis proposal to the Department's honors committee. Students selected enroll in GER 495 for the semester in which the thesis is written. The thesis is evaluated by the thesis advisor, another member of the Department, and a third reader from outside the Department. For further information and deadlines for submission, consult the Director of Undergraduate Studies.

#### Requirements for the Minor

A German minor is available for students majoring in other disciplines.

All upper-division courses in German offered to fulfill minor requirements below must be passed with a grade of C or higher. At least nine of the upper-division credits must be earned at Stony Brook.

Completion of the minor requires 21 credits.

1. GER 211, GER 212 Intermediate German I, II (see Note 1)
2. GER 311, GER 312 German Conversation and Composition I, II
3. GER 313 German Vocabulary in Conceptual Groups
4. GER 438 Structure of German
5. GER 439 History of German

Note 1: The prerequisite for GER 211 is GER 101 or GER 112.

Note 2: One HUG course can be substituted for a course in 3-5.

### Sample Course Sequence for the Major in German Language and Literature

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
GER 111	4	GER 112	4
HUG 229*	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3		
Total	17	Total	14
<hr/>			
Sophomore Fall	Credits	Spring	Credits
GER 211	3	GER 212	3
HIS 311* or HUG course	3	HIS 312* or HUG course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3

Elective	3	Upper-Division elective	3
Total	15	Total	15
Junior Fall	Credits	Spring	Credits
GER 311*	3	GER 312*	3
GER 343*	3	GER 344*	3
D.E.C.	3	GER 438*	3
Upper-Division elective.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15
Senior Fall	Credits	Spring	Credits
GER 401*	3	GER 402*	3
GER 403*	3	GER 404*	3
D.E.C.	3	GER 439*	3
Upper-Division elective	3	Elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

\*Fulfills requirement for the major

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Health Science (HAV, HAN)****Major in Health Science****School of Health Technology and Management**

Program Director: Deborah Zelizer

Assistant Director for Advising: Traci Thompson

Office: Level 2, Room 452, Health Sciences Center

Phone: (631) 444-2407

E-mail: Traci.Thompson@stonybrook.edu

Web Address: <http://healthtechnology.stonybrookmedicine.edu/>

Minors or second majors of particular interest to students majoring in Health Science: Biology (BIO), Business Management (BUS), Chemistry (CHE), Economics (ECO), Computer Science (CSE), Environmental Studies (ENS), Health and Wellness (LHW), Psychology (PSY), Sociology (SOC)

**Health Science (HAV, HAN)**

The School of Health Technology and Management (SHTM) offers a Bachelor of Science degree in Health Science (BSHS), with clinical and non-clinical concentrations. Non-clinical concentrations of study include community health education, disability studies, environmental health, health care informatics, health care management, and public health. Clinical concentrations of study include anesthesia technology, and medical dosimetry, emergency and disaster management, nuclear medicine technology, and radiologic technology.

**HAV/HAN**

The Health Science major requires that students receive a broad liberal arts education during their first three years (HAV). Students can declare Health Science as a major at any time. In the senior year (HAN), the curriculum focuses on health care related topics. Graduates will be knowledgeable about health care, and can expect to be employed by hospitals; integrated health care delivery systems; physician group practices; health departments; nursing homes; and managed care, corporate and not-for-profit organizations. They can also pursue clinical and graduate degrees through appropriate admissions processes.

**Requirements for the Major in Health Sciences (HAN)****Requirements for Enrollment in Senior-Year Courses in the Major in Health Sciences (HAN)**

While there is no formal application process, students should complete these requirements before advancing to the senior year courses in the program.

Health Science, first three years (HAV)

1. Completion of 91 credits with a minimum g.p.a. of 2.00 or higher
2. Completion of the Diversified Education Curriculum (D.E.C.)
3. Completion of a minimum of 16 credits in the natural sciences (D.E.C. category E) Note: HAN 200 and HAN 202 (or equivalent anatomy and physiology courses) are required natural sciences courses
4. Completion of 21 credits in related electives courses (see listing below)

Note: Any natural science course taken beyond the minimum requirement of 16 credits can also satisfy related elective requirement. Note: HAN 312 (or equivalent medical terminology course) is a required related elective course).

5. Completion of 10 credits at the upper-division level (courses numbered 300 or higher), including courses used to satisfy Requirements 1 through 5 above.

Note: 10 credits of computer science/information systems electives are strongly recommended as prerequisites for the Health Care Informatics concentration. CSE 101, CSE 113, and CSE 114 are strongly recommended.

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

**Requirements for the Major**

Note: See the Health Sciences Center Bulletin for course descriptions not included in this Bulletin.

**Senior Year Health Science (HAN)**

The major in Health Science leads to the Bachelor of Science degree. Completion of the degree requires a minimum of 29 credits after achieving senior status and advancement to senior-year courses. To be in good standing in the School of Health Technology and Management, the student must maintain a minimum 2.00 cumulative g.p.a. and a 2.50 minimum g.p.a. in required professional (HAN) courses. A minimum grade of C is required in each core Health Science program course before a student is permitted to advance to the concentration courses. If a student receives a grade less than C in any of the HAN courses, the course must be repeated.

**Core Courses**

To be completed during the first semester, senior year. Students must enroll in 15 credits of core health science courses including:

1. HAN 300 Health Care Issues
2. HAN 333 Communication Skills
3. HAN 335 Professional Ethics
4. HAN 364 Issues in Health Care Informatics

## 5. HAN 383 Professional Writing

### Courses in the Concentration

To be completed during the second semester, senior year. Students are advised to select an area of concentration because it will offer greater career opportunities.

#### A. Health Care Management

This concentration provides the knowledge and skills to manage health care practices, plan health care programs, and utilize the fundamentals of health care management and health services administration.

1. HAN 432 Introduction to Health Care Management
2. HAN 434 Corporate Compliance and Regulation
3. HAN 435 Sales and Marketing in Health Care
4. HAN 436 Continuous Quality Improvement in Health Care

#### B. Community Health Education

This concentration provides students with the knowledge and skills needed to plan, implement, and evaluate health education programs in the community. Students who successfully complete this concentration may be eligible to apply for the national certification examination of health educators. Employment opportunities include public and private health-related agencies, hospitals, and HMOs.

1. HAN 440 Introduction to Community Health Education
2. HAN 442 Community Health Education Models and Resources
3. HAN 444 Teaching Strategies
4. HAN 456 Behavioral and Social Aspects of Health

#### C. Public Health

This concentration provides students with a basic foundation, including epidemiology and biostatistics, in public health. Students who graduate with this concentration may find employment in health departments, public health agencies, health maintenance organizations and health-related corporations.

1. HAN 450 Introduction to Public Health
2. HAN 452 Epidemiology and Biostatistics
3. HAN 454 Issues in Public Health
4. HAN 456 Behavioral and Social Aspects of Health

#### D. Health Care Informatics

This concentration prepares the student for a career in health care information systems, and processing and managing health care data with computer and communication technologies. Emphasis is placed on health care information systems' architecture, computerized medical data processing, and clinical decision support systems.

1. HAN 462 Developing Health Information Systems
2. HAN 464 Health Information Systems Management
3. HAN 466 Applied Healthcare Informatics
4. HAN 467 Utilization and Outcomes Research Methods

#### E. Environmental Health

This concentration explores the concepts and principles of various environmental health issues, including lead management, pest management, hazardous waste management, and food service sanitation. Emphasis is placed on the recognition, identification, and control of environmental contaminants in the workplace; prevention and preparedness for hazardous material incidents; and compliance with various regulatory agencies.

1. HAN 470 Environmental Health and Safety Engineering
2. HAN 474 Industrial Hygiene
3. HAN 476 Hazardous Materials, Emergency Response, and Environmental Auditing
4. HAN 478 Internship in Environmental Health

#### F. Emergency and Critical Care

This concentration will serve the needs of those students interested in pursuing clinical graduate studies. Emphasis is placed on providing knowledge of the most frequently encountered medical emergencies, including trauma and resuscitation. In addition, due to the changing global environment, courses on hazardous materials and weapons of mass destruction will also be provided.

1. HAN 416 Special Issues in Emergency Care and Resuscitation
2. HAN 417 Cardiac and Medical Emergencies
3. HAN 471 Trauma and Trauma Systems
4. HAN 472 Weapons of Mass Destruction
5. HAN 477 HAZMAT Training

#### G. Disability Studies

This concentration provides an interdisciplinary focus of study in areas such as independent living, employment, adults and children with disabilities, and health and community issues. Job opportunities for entry-level professional and managerial positions may be found in developmental or physical disability services agencies, independent living centers, mental health centers, the geriatrics and vocational rehabilitation agencies.

1. HAN 443 Aging and Disability
2. HAN 446 Disability Health and Community
3. HAN 447 Children with Disabilities
4. HAN 448 Disability and Employment
5. HAN 449 Project in Disability Studies

#### H. Medical Dosimetry

This concentration is designed to provide students with the knowledge and skills necessary to be a Radiation Therapy Aide. Upon graduation, students may apply for admission to the 12-month, hospital-based post-baccalaureate Medical Dosimetry program, which prepares students for entry-level medical dosimetry positions. A Medical Dosimetrist is a member of the Radiation Oncology team who has the education and expertise necessary to generate radiation dose distributions and dose calculations in collaboration with the medical physicist and the radiation oncologist for cancer patients.

1. HAN 480 Introduction to Radiation Therapy and Medical Dosimetry
2. HAN 482 Introduction to Pathology
3. HAN 486 Principles and Practices of Radiation Therapy
4. HAN 488 Medical Imaging and Radiographic Anatomy
5. HAN 492 Radiation Oncology/Medical Physics II

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://www.hsc.stonybrook.edu/shtm/bshs>.

#### I. Nuclear Medicine Technology

This concentration within Radiologic Sciences is designed to educate students to meet a growing need in the health care industry for highly trained technologists who utilize rapidly developing technologies to image the human body. Nuclear medicine is widely used for imaging the bodies of patients with cancer and cardiac conditions. HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration. Students must complete the one-year post-baccalaureate clinical training in order to be eligible to take the National Registry Examination.

1. HAN 401 Radiobiology and Health Physics
2. HAN 402 Radiographic Anatomy and Pathology
3. HAN 426 Nuclear Medicine Instrumentation
4. HAN 427 Nuclear Medicine Procedures
5. HAN 429 Radiopharmacy and Therapy

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://www.hsc.stonybrook.edu/shtm/bshs>.

#### J. Radiologic Technology

This concentration in Radiologic Sciences is designed to educate students to meet the growing demand for imaging technologists. HAN 395 Radiation Physics in Medicine (4 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. Acceptance into the post-baccalaureate clinical year is required in order to enter the concentration. Students must complete the one-year post-baccalaureate clinical training in order to be eligible to take the National Registry Examination.

1. HAN 401 Radiobiology and Health Physics
2. HAN 402 Radiographic Anatomy and Pathology
3. HAN 404 Radiology Instrumentation
4. HAN 405 Radiographic Technique
5. HAN 406 Radiographic Procedures and Positioning I

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://www.hsc.stonybrook.edu/shtm/bshs>.

#### K. Anesthesia Technology

This concentration provides the knowledge and skills required for students to function as integral members of anesthesia teams in surgical settings. After completion of this concentration, students can work in entry-level non-clinical positions in an anesthesia department or continue to the post-baccalaureate Anesthesiology Technologist Program to be eligible to take the American Society of Anesthesia Technologists and Technicians (ASATT) certification examinations.

1. HAN 434 Corporate Compliance and Regulation
2. HAN 481 Intro. to Anesthesia
3. HAN 483 Cardiopulmonary Physiology for ASATT
4. HAN 485 Clinical Monitoring
5. HAN 489 Pharmacology for ASATT

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://www.hsc.stonybrook.edu/shtm/bshs>.

#### Related Electives

Students are encouraged to take related electives designated:

- ECO, CSE and BUS for the Health Care Management concentration
- CSE, PSY, ECO and BUS for the Health Care Informatics concentration
- HIS, HBP, ECO, MEC, BCP, SOC and BUS for the Environmental Health concentration
- LHW, ECO, ANT, SOC, HMC, PSY and BUS for the Public Health concentration
- SOC, HWC, LHW, PSY, SSI and HMC for the Community Health Education concentration

Relevant electives are subject to change. Call (631) 444-BSHS for current electives.

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Health and Wellness (LHW)****Living Learning Center Interdisciplinary Minor in Health and Wellness**

Director of the Minor: Deborah Zelizer, School of Health Technology and Management

Office: Faculty Director's Office, Schick College

Phone: (631) 444-6158

E-mail: Deborah.Zelizer@stonybrook.edu

**Health and Wellness (LHW)**

The interdisciplinary minor in Health and Wellness is designed to give students a foundation in the concepts of healthy living and to help students select future studies/careers in the health professions. Students taking the minor are encouraged to live in the Schick College Health and Wellness Living Learning Center, although it is not necessary to do so.

**Requirements for the Minor in Health and Wellness (LHW)**

Before declaring the Health and Wellness minor, each student should plan his or her program in consultation with the director of the minor. All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 19 credits.

1. LHW 102 Introductory Seminar to the Health Professions or HAS 190 Introduction to Health Professions

2. Six credits chosen from the following:

BIO 201 Fundamentals of Biology: Organisms to Ecosystems

BIO 202 Fundamentals of Biology: Molecular and Cellular Biology

BIO 203 Fundamentals of Biology: Cellular and Organ Physiology

HMC 200/SOC 200 Medicine and Society

MEC 280 Pollution and Human Health

PSY 103 Introduction to Psychology

PSY 220 Developmental Psychology

3. Six credits chosen from the following:

ANP 300 Human Anatomy

ANT 350 Medical Anthropology

BCP 394/MAR 394 Environmental Toxicology and Public Health

BIO 320 General Genetics

BIO 328 Mammalian Physiology or HBY 350 Physiology

BIO 350 Darwinian Medicine

PSY 356 Physiological Psychology

ECO 327 Health Economics

HBP 310 Pathology

PSY 326 Children's Social and Emotional Development

SOC 392 Special Topics (when topic is Health Care Delivery)

4. LHW 301 Issues in Health and Wellness

5. LHW 488 Internship in Health and Wellness

Note: At least 13 credits of coursework for the minor must be in courses that are outside the student's major.

**Declaration of the Minor**

Students should declare the Health and Wellness minor during their sophomore year or the beginning of the junior year, at which time they must consult the director and plan their course of study.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Hispanic Languages and Literature**

Majors, minors and programs for Hispanic Languages and Literature are found in the Spanish (SPN) program section of the bulletin.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**History (HIS)****Major and Minor in History****Department of History, College of Arts and Sciences**

Chairperson: Michael Barnhart

Director of Undergraduate Studies: Wilbur Miller

Assistant to the Chair: Susan Grumet

Office: S-301 Social and Behavioral Sciences  
Phone: (631) 632-7500

E-MAIL: Susan.Grumet@stonybrook.edu

Web Address: <http://www.sunysb.edu/history>

Minors of particular interest to students majoring in History: Africana Studies (AFS), International Studies (INT), Latin American and Caribbean Studies (LAC), Political Science (POL), Women's Studies (WST), Foreign Languages

**History (HIS)**

History is the systematic study of peoples, states, and societies from antiquity to our current times. Using both written records and material artifacts, historians attempt to reconstruct and interpret change over time in every facet of human experience, from political and economic systems to family life and gender roles, to name a few. The study of history is not only intrinsically interesting, but also contributes useful insights into the contemporary world and its problems.

History majors develop an in-depth knowledge of a specific region of the world, including its history, geography, and culture. In the process, they also learn how to conduct historical research, and to develop convincing arguments based on the evidence they uncover. Effective oral and written communication skills are strongly emphasized in all history courses.

Many History majors choose careers in law, teaching, archival or library science, or museum work. Because it emphasizes research and writing, history is also excellent preparation for many fields, including journalism, diplomacy, and international business. Combined with a concentration in science, the History major is also a good background for medicine or other health science professions.

The Department's offerings range over many eras, regions, and topics, concentrating on the United States, Europe, Latin America, East Asia, the history of science, and women's history. Surveys of these fields are offered at the 100 level for the United States and Europe and the 200 level for other areas. Students interested in the study of history should take these survey courses first, as prerequisites for more advanced coursework. American and European courses at the 200 level customarily examine a specific period, while 300-level courses typically examine specific topics (such as social or political history) or countries (such as Germany, Brazil, or China). History colloquia at the 400 level are small classes offering intensive reading and discussion on closely focused themes. The study of history emphasizes the mastery of large amounts of information and the ability to demonstrate that mastery through skillful writing.

Each semester the Department issues a booklet with detailed descriptions of its offerings. Students interested in history, whether as a major, a minor, a social science course related to their major, or for general liberal arts purposes, are invited to read this booklet and to seek advice from the Department's director of undergraduate studies and other faculty members.

**Requirements for the Major and Minor in History (HIS)****Requirements for the Major**

The major in History leads to the Bachelor of Arts degree. All courses taken to meet Requirements A and B must be taken for a letter grade. No grade lower than C may be applied toward the major. At least 12 credits in Requirement A must be taken within the Department of History at Stony Brook.

Completion of the major requires 39 credits.

**A. Study within the Area of the Major**

A minimum of 11 courses (33 credits) distributed as follows:

1. Two courses at the 100 level
2. A primary field of five courses to be selected from one of the following: United States, European, Asian, Latin American, ancient and medieval, or global history. Primary fields developed along topical or thematic lines may be selected with approval of the Department's undergraduate director. The primary field shall be distributed as follows:

Two courses at the 200 level

Two courses at the 300 level

One course at the 400 level, excluding HIS 447, HIS 487, HIS 488, HIS 495, and HIS 496

3. HIS 301 is a required course for all history majors and must be taken prior to the 400-level seminar.

4. Three courses selected from outside the primary field and above the 100 level, with at least one of these courses at the 300 or 400 level.

**B. Courses in a Related Discipline**

Two upper-division courses in one discipline, the discipline to be selected with departmental approval. Courses that are crosslisted with a history course do not satisfy this requirement.

### C. Upper-Division Writing Requirement

Students are required to complete one upper-division course from Group A (study within the area of the major) by the end of their junior year. They must inform the instructor of the course in advance of their plan to use the term paper (or papers) in fulfillment of the writing requirement for the major. In addition to the grade for the course, the instructor makes a second evaluation of writing competency in the field of history. If the second evaluation is favorable, the paper will be submitted to the Undergraduate Director for final approval.

Notes:

1. No transferred course with a grade lower than C may be applied toward Requirement A.

### The Honors Program in History

Departmental majors with a minimum g.p.a. of 3.50 in history courses and related disciplines as specified in the major requirements are eligible to enroll in the History honors program at the beginning of their senior year.

The student, after asking a faculty member to be a sponsor, must submit a proposal to the Department indicating the merit of the planned research. The supervising faculty member must also submit a statement supporting the student's proposal. This must be done in the semester prior to the beginning of the project.

The honors paper resulting from a student's research is read by two historians and a member of another department, as arranged by the director of undergraduate studies. If the paper is judged to be of unusual merit and the student's record warrants such a determination, the Department recommends honors.

### Requirements for the Minor

The minor is organized around one particular area of history (of the student's choice), defined either by geography (e.g., United States, Latin America) or topic (e.g., imperialism, social change). Courses offered for the minor must be taken for a letter grade. All courses offered for the minor must be passed with a grade of C or higher.

Completion of the minor requires 21 credits. At least nine of the 21 credits must be taken at Stony Brook, with three of the courses at the upper-division level. The specific distribution of the credits should be determined in consultation with the director of undergraduate studies. An example of an acceptable distribution would be the following:

A. Two 100-level HIS courses

B. Two 200-level courses in field of concentration

C. Three 300-level courses in field of concentration, with option of substituting one 400-level course for one of the three 300-level courses

Note: HIS 447, HIS 487, HIS 488, HIS 495, HIS 496 may not be used to satisfy major or minor requirements.

### Sample Course Sequence for the Major in History

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
HIS 101 or HIS 103 or HIS 109	3	HIS 102 or HIS 104	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Primary Field Course #1 (200 level)	3	HIS 200-level outside primary field	3
D.E.C.	3	Primary Field Course #2 (200 level)	3
D.E.C.	3	Elective	3
Elective	3	D.E.C.	3
D.E.C.	3	D.E.C.	3

		Upper-Division elective	3
Total	15	Total	18
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Primary Field Course #3 (300 level)	3	Primary Field course #4 (300 level)	3
HIS 300-level outside primary field	3	HIS 301 writing seminar	3
Upper-Division elective	3	Related discipline 300-level course	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Upper-Division elective	3
		Elective	1-2
Total	15	Total	16-17
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Primary Field course #5 (400-level special topics seminar)	3	Related discipline course(300 or 400-level)	3
HIS 300-level outside primary field	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Humanities (HUM)****Interdisciplinary Major in Humanities****Department of Cultural Analysis and Theory, College of Arts and Sciences**

Chair: Robert Harvey

Undergraduate Program Director for CAT: Raiford Guins

Undergraduate Advisor for HUM: E.K. Tan

Assistant to the Chair: Mary Moran-Luba

Office: Humanities 2048

Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cat/>

Minors of particular interest to students majoring in Humanities: Art History (ARH), Classics (CLS), Comparative Literature (CLT), English (EGL), French (FRN), German (GER), History (HIS), Italian (ITL), Interdisciplinary Arts (LIA), Judaic Studies (JDS), Medieval Studies (MVL), Music (MUS), Religious Studies (RLS), Spanish (SPN), Theatre Arts (THR), Women's Studies (WST)

**Humanities (HUM)**

The interdisciplinary program in Humanities, housed in the Department of Comparative Literary and Cultural Studies, is designed for undergraduates attracted to humanistic study—art, history, languages, literature, music, philosophy, religious studies, theatre—who prefer not to specialize in any single field. It involves introductory and upper-division work in several departments, described in the requirements below. Potential majors are strongly urged to consult the director of undergraduate studies to help them prepare individual programs.

**Requirements for the Major in Humanities (HUM)**

The interdisciplinary major in the Humanities leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher. In choosing courses to satisfy Requirement B, the student should be careful to consider the relevant prerequisites for the epochs chosen to satisfy Requirement D.

Completion of the major requires 48 credits. 24 of the 48 credits must be at the upper-division level.

**A. Basic Humanities Courses**

Six credits (two courses) of 100-level Humanities (HUM) courses.

**B. Introductory Coursework**

Twelve credits of introductory coursework (four courses numbered in the 100s or 200s) chosen from three of the following five areas:

1. Literature and Culture (CLL, CLS, CLT, EGL, HUF, HUG, HUI, HUM, HUR and other courses in literatures and cultures)
2. Cinema and Cultural Studies (CCS and courses which apply to the CCS minor)
3. Fine Arts: Art History (ARH), Digital Arts (DIA), Music (MUS), Theatre Arts (THR)
4. History (HIS)
5. Philosophy (PHI)

**C. Language Study**

Six credits (or the equivalent of one year) of college study of a language other than English at the intermediate level or beyond. Courses in literature or culture taught in the language may also apply.

**D. Advanced Studies by Epoch**

Twenty-four upper-division credits (seven courses numbered 300 or higher) in courses with the listed designators, to be distributed as follows:

- Three courses in two of the following epochs
- Two courses chosen from a third epoch

## 1. Ancient Worlds

[AAS, ANT, ARH, CLS, CLT, EGL, HIS, JDH, JDS, LAT, PHI, RLS]

## 2. The Middle Ages

[AAS, ARH, CLT, EGL, FRN, GER, HIS, ITL, LAT, MUS, MVL, PHI, RLS, RUS, SPN]

## 3. The Renaissance

[AAS, ARH, CLT, EGL, FRN, GER, HIS, ITL, MUS, PHI, RUS, SPN, THR]

## 4. Neoclassicism and Enlightenment

[AAS, ARH, CLT, EGL, FRN, GER, HIS, ITL, MUS, PHI, RUS, SPN]

## 5. Nineteenth-Century Frameworks

[AAS, AFS, AMR, ARH, CLT, EGL, FRN, GER, HIS, ITL, MUS, PHI, RUS, SPN]

## 6. Modern and Postmodern Societies and Cultures

[AAS, AFS, ARH, CCS, CLT, DIA, EGL, FRN, GER, HIS, ITL, HUF, HUG, HUI, HUM, HUR, JDH, JDS, MUS, PHI, RLS, RUS, SPN, THR]

**E. Upper-Division Writing Requirement**

No later than seven weeks after the start of the first semester of the senior year, students majoring in humanities must submit, to the director of undergraduate studies, two papers (totalling at least ten pages altogether) written in two different areas or epochs for upper-division courses pertaining to the major. They must achieve an evaluation of S (Satisfactory) on the portfolio. Further details are available from the Department chairperson or from the director of undergraduate studies.

**Honors Program in Humanities**

Humanities majors who have maintained a grade point average of 3.50 in the major and 3.00 overall through their junior year may attempt the degree in Humanities with honors.

The honors program requires an additional three credits above the 48 required for the major. These three additional credits are earned in a special research project pursued in the final semester of the senior year. The project involves the completion of a senior thesis.

Students who are eligible for the honors program must find an appropriate faculty member to act as thesis advisor. The student, with the approval of the supervising faculty member, must submit a proposal for the project in writing to the undergraduate program director by the last day of classes of the first semester of the senior year. Students who have obtained permission from the chairperson to pursue the project must enroll in HUM 495 while writing the thesis.

The thesis is evaluated by the thesis advisor and two members of the humanities faculty chosen by the student with the approval of the thesis advisor

### Sample Course Sequence for the Major in Humanities

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
Elementary Foreign Language	3 or 4	Area A course	3
Area A course	3	Elementary Foreign Language	3 or 4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16-17	Total	16-17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Area B course	3	Area B course	3
Area B course	3	Area B course (same dept. as another)	3
Intermediate Foreign Language	3	Intermediate Foreign Language	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Area D epoch 1	3	Area D epoch 1 (course #2)	3
Area D epoch 2	3	Area D epoch 2 (course #2)	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Area D epoch 1 (course #3)	3	Area D epoch 3 (course #2)	3
Area D epoch 3	3	Area D epoch 2 (course #3)	3
Upper-Division elective	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Information Systems (ISE)****Major and Minor in Information Systems****Department of Computer Science, College of Engineering and Applied Sciences**

Chairperson: Arie Kaufman

Undergraduate Program Director: Robert Kelly

Undergraduate Secretary: Diane Cerullo

Office: 1440 Computer Science

Phone: (631) 632-8470

E-mail: Robert.Kelly@stonybrook.edu

Web address: <http://www.cs.sunysb.edu>

**Information Systems (ISE)**

The Information Systems major, which is housed in the Department of Computer Science, prepares its graduates to design and build computerized data processing and decision support systems. The program is technically oriented, emphasizing the design and implementation aspects of large-scale information systems as well as the more traditional managerial and organizational issues, and it balances development of system engineering skills with learning to deliver reliable systems on time and within budget. Throughout the program, students are exposed to diverse application areas ranging from traditional business, finance, and accounting through telecommunications, networks, multimedia, and database management, to computer-aided design and industrial production management systems.

**Requirements for the Major and Minor in Information Systems (ISE)**

Acceptance into the Information Systems Major

Qualified freshman and transfer applicants may be accepted directly into the Information Systems major upon admission to the University. Currently enrolled students may apply for acceptance to the major with a cumulative grade point average of 2.80 or higher and after completing the following two courses with a grade point average of 3.00 or higher.

1. ISE 102 Introduction to Web Design and Programming
2. ISE 108 Introduction to Programming

Computer Science majors may declare the Information Systems major with a cumulative grade point average of 2.80 or higher.

Enrolling in ISE Courses

To enroll in ISE courses, students must have completed all prerequisites with a grade of C or higher (Pass/No Credit grades are not acceptable to meet prerequisites). For transfer students, official transfer credit evaluations must have been completed and approved. Failure to satisfy the prerequisites or to attend the first class may result in deregistration. The Pass/No Credit option is not available to ISE majors for ISE courses.

Requirements for the Major

The major in Information Systems leads to the Bachelor of Science degree. At least two of the courses under requirement A.2. below must be completed at Stony Brook.

Completion of the major requires approximately 64 credits.

A. Information Systems Courses:

1. Lower Division Courses

ISE 102 Introduction to Web Design and Programming

ISE 108 Introduction to Programming

ISE 208 Intermediate Programming

ISE 215 Foundations of Computer Science or ISE 218 Introduction to Computer Organization

2. Upper Division Courses:

ISE 312 Legal, Social, and Ethical Issues in Information Systems

ISE 305 Database Design and Practice

ISE 311 System Administration or ISE 321 Introduction to Network Administration

ISE 320 Information Management

3. Electives:

Four additional upper-division ISE courses, including ISE 475. Note: ISE 475 may be repeated once, but only one completion of the course will count towards the ISE upper division elective requirement.

B. Mathematics Courses

1. AMS 151 Applied Calculus I (or MAT 131 or MAT 141 or MAT 125, MAT 126)

2. AMS 210 Applied Linear Algebra or MAT 211 Introduction to Linear Algebra

3. AMS 310 Survey of Probability and Statistics or ECO 320 Mathematical Statistics

### C. Specializations

Students must complete a specialization in one of the application areas listed below, or else design a specialization of six to eight courses in another application area in consultation with the ISE undergraduate director before the courses for the specialization are completed.

### D. Upper-Division Writing Requirement: ISE 300 Technical Communications

All degree candidates must demonstrate technical writing skills at a level that would be acceptable in an industrial setting. To satisfy this requirement, students must pass ISE 300 Technical Communications, a course that requires various writing assignments, including at least one significant technical paper.

EST 304 Communication for Engineers and Scientists may be taken in lieu of ISE 300 to fulfill the ISE upper-division writing requirement.

### Grading

All courses taken to satisfy Requirements A through D must be taken for a letter grade and completed with a grade of C or higher. A grade of C or higher is required in prerequisite courses listed for all CSE and ISE courses.

#### Specialization in Business and Economics

Students may take a specialization in Business and Economics consisting of the following courses:

##### 1. Core Courses

- a. BUS 111 Introduction to Business for Non-Business Majors
- b. ECO 108 Introduction to Economics
- c. BUS 210 Financial Accounting

##### 2. One of the following:

- BUS 214 Managerial Accounting
- BUS 346 Operations Management
- BUS 349 Management Science
- BUS 355 Investment Analysis
- BUS 356 Financial Engineering
- ECO 348 Analysis for Managerial Decision Making
- ECO 389 Corporate Finance
- ESE 201 Engineering and Technology Entrepreneurship
- EST 392 Engineering and Managerial Economics
- EST 393 Production and Operations Analysis

##### 3. One of the following:

- BUS 348 Principles of Marketing
- ECO 326 Industrial Organization
- ECO 345 Law and Economic Issues
- POL 319 Business Laws
- POL 359 Public Policy Analysis
- POL 364 Organizational Decision Making
- SOC 381 Sociology of Organizations

##### 4. One of the following:

- EST 302 Assessment of Computer-Based Technologies
- EST 305 Applications Software in Information Management
- EST 320 Communication Technology Systems
- EST 325 Technology in the Workplace

#### Specialization in Technological Systems Management

Students may take a specialization in Technological Systems Management consisting of the following courses:

##### 1. Four required courses:

- a. EST 202 Introduction to Science, Technology, and Society Studies
- b. EST 391 Technology Assessment
- c. EST 392 Engineering and Managerial Economics
- d. EST 393 Project Management

##### 2. Two elective courses from the following:

- EST 310/ISE 340 Design of Computer Games
- EST 320 Communication Technology Systems
- EST 323/ISE 323 Human-Computer Interaction
- EST 326 Management for Engineers
- EST 327 Marketing for Engineers
- EST 421 Starting the High-Technology Venture

Note: Courses cross-listed between ISE and EST may be taken either as ISE electives (Item A.3) or as TSM specialization electives (Item C).

#### Specialization in Other Application Areas

A student may design a specialization in another application area of information systems in consultation with the ISE undergraduate director before the courses for the specialization are completed.

### Requirements for the Minor

The minor in Information Systems is open to all students not majoring in either Computer Science or Information Systems or minoring in Computer Science. To declare the minor in Information Systems, students must complete ISE 102 with a grade of C or higher and possess a cumulative grade point average of 2.80 or higher. The minor requires seven courses totaling 21 credits as outlined below:

1. ISE 102 Introduction to Web Design and Programming
2. ISE 108 Introduction to Programming
3. ISE 208 Intermediate Programming
4. Four electives totaling at least twelve credits. Electives must include nine credits of upper-division courses and at least nine credits of ISE courses. Approved electives include most ISE courses, as well as other courses relevant to Information Systems; for details contact the Department of Computer Science Undergraduate Office.

Note: All courses above must be passed with a grade of C or higher

**Sample Course Sequence for the Major in Information Systems**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
ISE 102	3	ISE 108	3
AMS 151	3	D.E.C.	3
D.E.C.	3	WRT 102 (D.E.C. A)	3
WRT 101 (D.E.C. A)	3	D.E.C.	3
		D.E.C.	3
Total	13	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ISE 208	3	Elective	3
ISE 215	3	Elective	3
AMS 210	3	Specialization Course	3
Elective	4	D.E.C.	3
D.E.C.	3	ISE Elective	3
Total	16	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ISE 305	3	ISE 311	3
ISE 320	3	Specialization Course	3
AMS 310 or ECO 320	3	Specialization Course	3
Specialization Course	3	D.E.C.	3
D.E.C.	3	ISE Elective	3
		ISE 312	3
Total	15	Total	18
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ISE 300	3	ISE elective	3
ISE elective	3	Specialization Course	3
Specialization Course	3	D.E.C.	3
D.E.C.	3	Elective	3
ISE 308	3	Elective	3

Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**International Studies (INT)****Living Learning Center Interdisciplinary Minor in International Studies**

Director of the Minor: Georges Fouron

Phone: (631) 632-6924

E-mail: Georges.Fouron@stonybrook.edu

Office: S-657 Social and Behavioral Sciences

**International Studies (INT)**

The interdisciplinary minor in International Studies provides an integrated view of global processes through a critical examination of the world's institutions, ideas, cultures, and historical traditions. Students should develop a strong grasp of current social, political, and economic developments in the world, and be able to apply this knowledge to analyze both the opportunities and problems created by global processes, and the possibilities for social activism and change. The minor is open to all undergraduates regardless of academic major or place of residence. As part of the minor requirements, students select a world region to study from among the following: Africa, Asia, Europe, Eurasia (post-Soviet states including Russia), Latin America/the Caribbean, and the Middle East. Students are strongly encouraged to participate in study abroad programs. With the approval of the director, credits earned for courses taken abroad may count toward fulfillment of the minor. In addition, the minor is a living learning center program affiliated with Stimson International College. Students are encouraged to live in Stimson College and actively participate in college events, but this is not required for completion of the minor.

**Requirements for the Minor in International Studies (INT)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 20 credits.

1. INT 201 Democracy and Capitalism

2. Two courses chosen from the following:

AMR 101 Local and Global: National Boundaries and World-Systems

ANT 102 Introduction to Cultural Anthropology

ANT 230 Peoples of the World

EUR 101 The Foundations of European Culture

EUR 201 The Development of European Culture

LIN 101 Introduction to Linguistics

PHI 105 Politics and Society

POL 101 World Politics

POL 103 Introduction to Comparative Politics

SOC 105 Introduction to Sociology

3. Three courses (9 credits) from any department focusing on the student's regional area of study. Two of these courses must be numbered 300 or higher.

4. INT 401 Global Social Problems

Note: With the approval of the director, study abroad may substitute for Requirement 3 above.

**Declaration of the Minor**

Students should declare the International Studies minor during their sophomore year or the beginning of the junior year, at which time they consult the director and plan their course of study.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Italian American Studies (IAM)****Interdisciplinary Minor in Italian American Studies****Department of European Languages, Literature, and Cultures; College of Arts and Sciences**

Chairperson: Nicholas Rzhovsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Minor: Peter Carravetta

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.italianstudies.org/iam>

Majors or other minors of particular interest to students minoring in Italian American Studies: Comparative Literature (CLT), English (EGL), History (HIS), International Studies (INT), Italian (ITL), Political Science (POL), Psychology (PSY), Sociology (SOC), Women's Studies (WST)

**Italian American Studies (IAM)**

Interdisciplinary in nature, Italian American studies considers the experiences of persons of Italian descent in North and South America with particular attention to experiences in the United States. The minor is designed to assist students in exploring the ways in which Italian and American cultures have combined to form a distinctive ethnic culture.

The minor in Italian American studies offers students the opportunity to survey developments in the field of Italian American studies, as well as to examine it in relation to the fields of history, literature, media, and language study.

Students are encouraged to approach Italian American studies from the perspective of their major. Combined with a major in Political Science, History, or Psychology, the minor provides students with an in-depth exploration of the role of ethnicity in the definition of what it means to be American. The study of the Italian American experience will assist students with a major in Sociology to understand the theoretical approaches to the study of urban and suburban cultures. Students of American literature or culture may use the minor to develop a specialty in the study of a specific ethnic American culture. Students examining issues of gender may use the minor to explore the effects of gender and ethnicity on American culture. Students who wish to pursue a career in law or the health professions may use the minor to further their understanding of the community they may ultimately serve.

Under the direction of an advisor, students must establish an advising folder with the minor coordinator who supervises students in fulfilling the requirements.

**Requirements for the Minor in Italian American Studies (IAM)**

All courses offered to for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits.

1. HUI 236 The Italian-American Scene
2. One of the following:  
HUI 216 Italian Civilization through the Ages  
HUI 237 Images of Italian-American Women  
HUI 239 Modern Italy
3. ITL 311 Italian Conversation and Composition or ITL 312 Italian Conversation and Composition
4. HUI 333 Italian-American Experience in Literature
5. HUI 336 Italian Americans and Ethnic Relations
6. HUI 338 Images of Italian Americans in Film
7. HUI 390 Humanities Topics in Italian-American Studies

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Italian Studies (ITL)****Major and Minor in Italian Studies****Department of European Languages, Literatures, and Cultures, College of Arts and Sciences**

Chairperson: Nicholas Rzhovsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Program: Charles Franco

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-7440

E-mail: Charles.Franco@stonybrook.edu

Web address: <http://www.sunysb.edu/eurolangs>

Minors of particular interest to students majoring in Italian: Business Management (BUS), Comparative Literature (CLT), Economics (ECO), English (EGL), History (HIS), International Studies (INT), Linguistics (LIN), Medieval Studies (MVL), Philosophy (PHI), Political Science (POL), other languages

**Italian Studies (ITL)**

Italian Studies at Stony Brook is a versatile program that allows the student to concentrate on the study of Italian language, culture, and literature. Students may choose an individualized course of study to fit their needs. Students interested in teaching Italian should concentrate on courses taught in the Italian language, while those interested in other careers should choose courses in culture, film studies, and Italian American social issues.

The Italian Studies major consists of an intensive study of the Italian language along with the study of the culture that has shaped Italian society and its interaction with American society through the study of literature, culture, and film studies.

The undergraduate program in Italian Studies provides training for secondary language teachers and for graduate studies in Italian. In conjunction with other disciplines, the Italian program also provides a basis for careers such as international business, law, and economics.

**Requirements for the Major and Minor in Italian Studies (ITL)**

Placement in Language Courses for Incoming Students

The prerequisites for courses indicate approximate placement levels. One year of high school foreign language is generally considered the equivalent of one college semester. Students are advised to consult the ITL Program Coordinator if they believe the recommended course is inappropriate.

Requirements for the Major

The major in Italian Studies leads to the Bachelor of Arts degree. Students must complete Concentration A or Concentration B. These concentrations are designed to allow maximum flexibility in the students' programs and to fulfill their varying needs and interests. Both require as a basis a solid preparation in the language of the major. Concentration A provides preparation for teaching at the secondary school level or for graduate study in literature; Concentrations A and B both provide appropriate background for students preparing for work in law, government, international relations, business, banking, hotel management, or translation and interpretation.

All students should consult with the Coordinator of the Italian program. Students opting for Concentration B must obtain Departmental approval for their program by submitting it in advance, after consultation with the advisor, to the director of undergraduate studies.

All courses offered for the major must be passed with a letter grade of C or higher. Transfer students must take at least 18 credits of the major language in residence at Stony Brook.

Completion of the major requires 36 credits for Concentration A and 42 credits for Concentration B.

**A. Concentration in Language and Literature****1. Required courses:**

ITL 311 Italian Conversation and Composition I

ITL 312 Italian Conversation and Composition II

ITL 395 Readings in Italian Literature I

ITL 396 Readings in Italian Literature II

ITL 411 Advanced Conversation and Composition

ITL 412 Advanced Conversation and Syntax

**2. Elective courses:**

Six additional ITL courses at the 400-level. In consultation with the program coordinator, up to three of these courses may be substituted with relevant HUI courses.

3. Upper-Division Writing Requirement: see C below.

#### B. Concentration in Italian and a Second Discipline

##### 1. Required courses:

ITL 311 Italian Conversation and Composition I

ITL 312 Italian Conversation and Composition II

ITL 395 Readings in Italian Literature I

ITL 396 Readings in Italian Literature II

ITL 411 Advanced Conversation and Composition

ITL 412 Advanced Conversation and Syntax

##### 2. Elective courses

a. Four additional ITL or HUI courses chosen in consultation with the program coordinator, of which 4 must be numbered 300 or higher

b. Four additional courses in a discipline other than Italian chosen in consultation with the program coordinator and approved by the Department, of which three must be numbered 300 or higher. (See Note 4 below.)

3. Upper-Division Writing Requirement: see C below

#### C. Upper-Division Writing Requirement

To demonstrate proficiency in writing English, students majoring in Italian must present a dossier of a minimum of two papers of at least three to five pages each. The dossier must be submitted before the end of the second semester of the junior year to the ITL Program Coordinator.

The dossier consists of papers previously composed for upper-division courses. If these papers were originally written in Italian, they must be rewritten in English. The papers are judged by a faculty committee for clarity, accuracy, and appropriateness of style. If the dossier is found to be unsatisfactory, the student will be asked to rewrite and resubmit the work in the senior year.

#### Notes:

1. Credits for ITL 411 and ITL 412 cannot be transferred and must be taken at Stony Brook.

2. Students who wish to offer their native language as the main area of concentration are asked to replace ITL 311 and ITL 312 by English courses appropriate to their level of proficiency in that language.

3. Students in the Foreign Language Secondary Teacher Education Program must complete 36 ITL credits.

4. ITL 475, ITL 476 and HUI 475, HUI 476 cannot be applied toward the requirements for the major in Italian.

#### Foreign Language Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Requirements for the Minor

For students majoring in other disciplines, an Italian minor, is available with two choices of emphasis. Students must complete either Emphasis A Language or Emphasis B Italian Studies.

All courses for the minor must be taken for a letter grade, excluding those graded S/U. All upper-division courses for the minor must be passed with a letter grade of C or higher.

Transfer students who wish to graduate with a minor in Italian must take at least six credits of upper-division Italian courses in residence at Stony Brook.

Completion of the minor with either emphasis requires 21 credits.

#### A. Emphasis on Language

ITL 311 or ITL 312 Italian Conversation and Composition

ITL 395 or ITL 396 Readings in Italian Literature

ITL 411 Advanced Conversation and Composition

ITL 412 Advanced Conversation and Syntax

Three additional courses with the designator ITL or HUI, at least one of which must be 300 level or higher

#### B. Emphasis on Italian Studies

ITL 311 or ITL 312 Italian Conversation and Composition

ITL 395 or ITL 396 Readings in Italian Literature

Two HUI courses at the 200 level

Three additional courses at the 300 level or higher in Italian studies chosen in consultation with the student's advisor

Note: Credits for ITL 411 and ITL 412 cannot be transferred from any other institution without prior permission of the department.

#### Honors Program in Italian

To be eligible to participate in the honors program, majors must have a cumulative grade point average of 3.00 and an average of 3.50 in Italian through the junior year. An eligible student wishing to write a senior thesis must find a faculty member of the Italian program to act as thesis advisor. The student must submit a proposal of a project in writing to the ITL Program Coordinator. Deadline for submission of the proposal for fall semester is April 30 and for spring semester is November 30. Final selection of candidates and topics is determined by an honors committee. Students selected for the program must enroll in ITL 495 for the semester in which the thesis is written. The thesis is evaluated by the thesis advisor, another member of the Italian program, and a third reader from outside the Italian program. For further information consult the Director of Undergraduate Studies.

**Sample Course Sequence for the Major in Italian Studies (Concentration in Language and Literature)**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
ITL 201 or ITL 211	6 or 3	ITL 311 or ITL 212	3
HUI or ITL elective	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
		D.E.C.	3
<b>Total</b>	<b>13-16</b>	<b>Total</b>	<b>16</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ITL 395	3	ITL 396	3
HUI or ITL elective	3	ITL 411	3
D.E.C.	3	ITL Upper-Division elective	3
D.E.C.	3	Elective	3
Elective	3	Elective	3
		Elective	1-3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16-18</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ITL 412	3	ITL Upper-Division elective	3
HUI or ITL Upper-Division elective	3	HUI or ITL Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ITL 432	3	ITL 495 (Honors Project)	3
HUI or ITL Upper-Division elective	3	ITL Upper-Division elective	3
ITL Upper-Division Elective	3	D.E.C.	3
D.E.C.	3	Elective	3
Upper-Division Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Japanese Studies (JNH)****Minor in Japanese Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Director of the Minor: Sachiko Murata, Asian and Asian American Studies

Administrative Assistant: Darlene Prowse

E-mail: [Darlene.Prowse@stonybrook.edu](mailto:Darlene.Prowse@stonybrook.edu)

Office: 1046 Humanities

Phone: (631) 632-7690

Web address: <http://www.stonybrook.edu/asianandam>

**Japanese Studies (JNH)**

In completing the minor in Japanese Studies, students take a series of courses centering on the history and civilization of Japan while keeping in view Japan's close ties with China and Korea. Students choose courses for the minor with the approval of the director of the minor.

**Requirements for the Minor in Japanese Studies (JNH)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18-19 credits.

1. JPN 211 Intermediate Japanese I

2. Five of the following:

- AAS 216 Introduction to Japanese Studies
- AAS 322 Literature of Japan
- AAS 331/WST 331 Japanese Literature in the Feminine Domain
- AAS 332 Japanese Literature in the Meiji Era
- AAS 447 Directed Readings in Asian and Asian American Studies (appropriate topic only)
- AAS 487 Supervised Research in Asian and Asian American Studies (appropriate topic only)
- AAS 382/RLS 382 Japanese Buddhism
- HIS 220 Introduction to Japanese History and Civilization
- HIS 344 Modern Japan
- HIS 353 Postwar Japan
- HIS 431, HIS 432 Colloquium in Asian History (appropriate topic only)
- JPN 311 Advanced Japanese I
- JPN 312 Advanced Japanese II
- JPN 331 Social Sciences Topics in Japanese Studies
- JPN 332 Humanities Topics in Japanese Studies
- JPN 410 Business Japanese
- JPN 411 Advanced Japanese III
- JPN 412 Advanced Japanese IV
- JPN 426 Structure of Japanese
- JPN 447 Independent Study
- JPN 487 Independent Research
- LIN 431 Structure of an Uncommonly Taught Language (appropriate topic only)
- PHI 344 Japanese Thought and Philosophy

**Notes:**

1. Students excused from JPN 211 because of previous Japanese language proficiency are required to take an extra course from Requirement 2.
2. From requirement 2, no more than six language credits are accepted.
3. Independent study may fulfill only three credits.
4. The Japanese Studies minor has full-year and half-year study abroad programs with five major Japanese universities. In addition, a summer program is offered during which students stay with Japanese host families for one month while studying in Japan. Credits earned during these programs count toward the Japanese Studies minor and the major in Asian and Asian American Studies.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Jazz Music (JAZ)****Minor in Jazz Music****Department of Music, College of Arts and Sciences**

Chairperson: Judith Lochhead

Director of Undergraduate Studies: Sheila Silver

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts

Phone: (631) 632-7330

E-mail: Perry.Goldstein@stonybrook.edu

Web address: <http://www.sunysb.edu/music>

**Music (MUS) and Jazz Music (JAZ)**

The study of music entails training in performance, theory, musicianship, and history in the context of a liberal arts degree. Technical study on an instrument or in voice and in music theory is coupled with broad historical and critical study of music.

The undergraduate major in Music at Stony Brook is designed as a balanced educational program that serves as preparation for professional careers and advanced training in performance, composition, scholarship, teaching, and other arts-related careers. The Department also offers the minor in Music and the minor in Jazz Music.

Students graduating with a major in Music pursue graduate study in musical performance, composition, history, and theory; teach music in private and public schools; take jobs in arts-related industries; and pursue advanced study in non-music fields, often in the health professions.

For requirement information regarding the Major and Minor in Music, see the Music section of this Bulletin.

**Requirements for Minor in Jazz Music**

All courses offered for the minor in Jazz Music must be passed with a letter grade of C or higher. At least 3 credits from Requirement 2 in either track must be at the upper division level. Completion of the General Track requires 21 credits. Completion of the Theory Track requires 24 credits.

The General Track is designed for students who are interested in jazz but who do not seek training in more sophisticated aspects of music theory and musicianship. The Theory Track, for which students take music major courses in theory and musicianship, is for students who want to acquire more specialized knowledge and skills in the areas of music theory and musicianship.

**General Track****1. Theory:**

MUS 119 Elements of Music or MUS 130 Sound Structures

MUS 315/316 Structural Principles of Music I and II

Note: Students well versed in music notation and basic theory (demonstrated by the MUS 119 challenge examination) should take MUS 130 Sound Structures

**2. History:**

MUS 308 History of Jazz and one of the following:

MUS 304, MUS 310, MUS 311, MUS 313, MUS 319, MUS 320, or MUS 355 (if offered as a jazz-related topic)

**3. Performance:**

Six semesters (6 credits) in any combination of the following courses:

MUS 189 Beginning Jazz Improvisation

MUS 264 Big Band Jazz Ensemble

MUS 267 Jazz Combo

Note: Students must audition to be accepted to MUS 189, MUS 264, and MUS 267.

**Theory Track****1. Theory:**

MUS 321 and MUS 322 Tonal Harmony I and II

MUS 120 and MUS 220 Musicianship I and II

Note: Students must pass the theory exam to be admitted to the above classes.

**2. History:**

MUS 308 History of Jazz and one of the following:

MUS 304, 310, 311, 313, 319, 320, or 355 (if offered as a jazz-related topic)

**3. Performance:**

Six semesters (6 credits) in any combination of the following courses:

MUS 189 Beginning Jazz Ensemble

MUS 264 Big Band Jazz Ensemble

MUS 267 Jazz Combo

Note: Students must audition to be accepted to MUS 189, MUS 264, and MUS 267.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Journalism (JRN)

### Major and Minor in Journalism

#### School of Journalism

Dean: Howard Schneider

Director of Undergraduate Studies: Paul Schreiber

Staff Associate for the Journalism Program: Jennifer Carlino

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## Journalism (JRN)

As innovative, digital technology accelerates the dissemination of news, information, and disinformation around the clock and around the world, the need for well-trained and independent-minded journalists has never been greater.

The journalism major program at Stony Brook is designed to prepare the next generation of journalists for careers in broadcast journalism, print journalism, and online journalism.

The course of study will emphasize both traditional journalistic values and skills, and the ability to succeed in a rapidly evolving multi-media landscape. Students will study news reporting, writing, editing, and producing. They will develop an appreciation for the mission of the press in a democratic society, standards of ethical and responsible journalism, and will be expected to leave the program with a passion for the public interest and the courage to do the right thing in the face of unprecedented competition.

To prepare for the future, all students will be required to take courses in broadcast, print, and online journalism, learning to work and think across multiple media platforms, before concentrating in an area during their final year of study. Students will have the opportunity to do reporting assignments both on Long Island and in New York City.

In addition, students will be required to either declare a second major or complete six courses in one of four multi-disciplinary concentrations outside the journalism major. This requirement is designed to help prepare students to report insightfully in the future. The four multi-disciplinary concentrations include Public Affairs/Public Policy, Diversity and American Society, Science and the Environment, and Global Issues and Perspectives.

The journalism minor is designed for students who seek an appreciation for the mission of the press, an understanding of journalistic principles, and a desire to improve critical thinking and writing skills.

All students should consult with the director of undergraduate studies or journalism advisor to design and approve an acceptable course of study.

### Requirements for the Major and Minor in Journalism (JRN)

Transfer students

Transfer students may transfer up to 9 credits of equivalent journalism courses in which they have earned a C or better. Transfer courses will be evaluated individually for equivalency by the undergraduate director.

Requirements for the Major

The major in journalism leads to the Bachelor of Arts degree. **Students must complete each course with a letter grade of C or higher in all JRN courses and Satisfactory in JRN labs for a course or lab to count toward the JRN major.** Students must also satisfy the upper-division writing requirement. Completion of the major requires 65 credits, including 47 credits in journalism and six courses in a multidisciplinary concentration, of which at least three are upper-division courses. To satisfy all requirements, a student must earn a minimum of 127 credits to graduate with a degree in journalism.

Students must complete three developmental phases, with core requirements in each phase. In Phase I, Values and Skills, students will study basic skills and ethics, including news reporting and writing for print and broadcast. In Phase II, New Challenges, students will explore the changes sweeping the journalistic landscape and choose from a menu of upper-division reporting and writing courses. In Phase III, Finding an Entry Point into the Profession, students will specialize in broadcast, print, or online journalism, and take advanced courses. In addition, students will complete a senior project in their area of specialty and then adapt it for two other media.

### Grammar Immersion

To progress in the major and minor program, students must pass a grammar proficiency test as part of JRN 111, a grammar course that is co-requisite with JRN 110. The grammar course includes an eight-week immersion lab in grammar, punctuation, and sentence structure. In the ninth week, all students take a proficiency test. Those who pass are excused from the lab for the rest of the semester. All other students must continue attending the lab and will be required to take a second test on the last day of class. Satisfactory/Unsatisfactory grading only. Students must receive a Satisfactory grade in JRN 111 in order to continue in journalism skills courses.



Note: WRT 200 may be used as a substitute for JRN 111 in satisfying the major or minor requirements.

Note: Not all courses are offered every semester.

#### A. Phase I: Values and Skills

Students must complete the following seven courses, not necessarily in this order:

- JRN 101 or JRN 103 News Literacy
- JRN 108 The History and Future of the American Press
- JRN 110/JRN 111 News I: Basic Reporting and Writing/Writing Immersion Lab
- JRN 210/JRN 211 News II: Advanced Reporting and Writing/Digital Photojournalism lab
- JRN 220 Journalism Law and Ethics
- JRN 288 On-Campus Internship
- JRN 310 News III: Reporting, Writing and Production for Broadcast

#### B. Phase II: New Challenges

1. Students must complete the following four courses:

- JRN 301 Journalism 24/7
- JRN 320 The Promise and Perils of Online Journalism
- JRN 340 Beat Reporting
- JRN 350 Journalistic Judgment

2. Electives for Phase II. Students must choose one course from the following:

- JRN 333 Business Reporting
- JRN 334 Science and Health Reporting
- JRN 335 Reporting in New York City / Print
- JRN 336 Sports Reporting
- JRN 337 Intro to Narrative Journalism
- JRN 355 Reporting in New York City / Broadcast

#### C. Phase III: Finding an Entry Point into the Profession

Requirements: completion of both courses in either Group A, B, or C. All students must complete JRN 490.

Group A: For Print

- JRN 361 News Editing and Presentation-Print
- JRN 364 City Editor

Group B: For Broadcast

- JRN 370 Advanced Reporting, Writing and Production for Broadcast
- JRN 371 Television Production

Group C: For Online

- JRN 380 Advanced Editing and Presentation for the Web
- JRN 381 Advanced Digital Storytelling

For all students:

- JRN 490 Senior Project

#### D. Required JRN Electives

Students are required to select a minimum of four elective credits in Journalism courses as part their major. Students may take any course for which they have the pre- and co-requisites.

#### E. Multidisciplinary Concentrations

Majors must complete six courses, including three upper division courses, in one of the following four multidisciplinary concentrations. Students may substitute a course within a concentration or propose a new concentration with the permission of the undergraduate director. Specific multidisciplinary concentrations and suggested courses are listed below. In lieu of a multidisciplinary concentration, students may complete a second major.

The purpose of the Multi-Disciplinary Concentration is to complement the journalistic knowledge and skills that students are developing. These courses, offered by departments around the university, are intended to help students expand their perspective in major areas of importance to journalists.

Students select one of four concentrations, each of which is designed to add breadth, depth and understanding to their reporting. Students may also may propose their own concentration.

The four concentrations are:

- Diversity and American Society
- Global Issues and Perspectives
- Public Affairs / Public Policy
- Science and the Environment

Majors must take six courses, including at least **three** upper-division courses, in one of these four concentrations. Students are not restricted to the listed courses, which are the types of survey courses recommended by the School of Journalism.

Majors may substitute courses that fit the theme of their concentration or propose a different concentration tailored to their interests. Either option requires permission in advance from the Undergraduate Director.

A concentration is not required for dual majors.

Please note:

- Many of these courses also count as DEC courses, and students may choose and apply DEC courses towards the concentration. Courses carry only the assigned number of credits for the course.
- Not all courses are offered every semester. Check prerequisites.
- Concentration courses taken prior to Spring 2013 remain valid. Starting in Spring 2013, concentration courses must come from these revised lists or be approved by the Undergraduate Director.

The multidisciplinary concentrations are as follows (complete 6 courses in any one area):

### **Science and the Environment**

Students study trends, acquire foundation knowledge, and get multiple perspectives on science and environmental issues that will help them report insightfully in the future. See Bulletin course descriptions for details and prerequisites. At least three of the courses must be 300 or above. Note: Not all courses are offered every semester. Some have prerequisites.

- ATM 102 Weather and Climate
- ATM 237 Topics in World Climate/Atmosphere (individual topics need pre-approval)
- BIO 103 Intro to Biotech
- BIO 113 General Ecology
- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- BIO 353 Marine Ecology
- BIO 358 Biology and Human Social and Sexual Behavior
- ENS 101 Prospects for Earth
- ENS 301 Contemporary Environmental Issues and Policies
- ENS 311 Ecosystem Ecology and the Global Environment
- ENS 312 Population, Technology and the Environment
- ENS 333 Environmental Law
- ENV 115 Chemistry, Life and Environment
- EST 201 Technological Trends in Society
- EST 330 Natural Disasters: Societal Impacts
- GEO 101 Environmental Geology
- GEO 102 The Earth
- GEO 103 The Earth Through Time
- GEO 107 Natural Hazards
- GEO 311 Geoscience and Global Concerns
- MAR 101 Long Island Sound: Science and Use
- MAR 104 Oceanography
- MAR 340 Environmental Problems and Solutions
- PHI 366 Philosophy of the Environment
- POL 333 Environmental Law
- SOC 340 Sociology of Human Reproduction
- SOC 344 Environmental Sociology
- SOC 340/WST 340 Sociology of Human Reproduction

### **Diversity and American Society**

Students study trends and acquire knowledge, insights, historical context, and multiple perspectives on important societal issues that will help them report insightfully in the future. See Bulletin course descriptions for details and prerequisites. At least three of the courses must be 300 or above. Note: Not all courses are offered every semester. Some have prerequisites.

- AAS 250 Language and Culture of Asian Americans

- AFH 382 Black Women's Diaspora
- AFS 319 The Politics of Race
- AMR 102 Making American Identities
- HIS 325 Civil Rights Movement
- HIS 362 Making Peace With the 60s
- HUI 336 Italian Americans and Ethnic Relations
- PHI 105 Politics and Society
- POL/WST 330 Gender Issues in the Law
- RLS 101 Western Religions
- RLS 102 Eastern Religions
- SOC 105 Intro to Sociology
- SOC 204 Intimate Relationships
- SOC/WST 247 Sociology of Gender
- SOC 302 American Society
- SOC 304 Sociology of Family
- SOC 310 Ethnic and Race Relations
- SOC 315 Sociology of Technology
- SOC 330 Media and Society
- SOC 336 Social Change
- SOC 337 Social Deviance
- SOC 338 Sociology of Crime
- SOC 378 War and the Military
- SOC 380 Social Psychology
- WST 102 Intro to Women's Studies in the Social Sciences
- WST 103 Women, Culture and Difference
- WST 310 Contemporary Feminist Issues
- WST 335 Women at Work in 20th Century America
- WST 347 Women and Politics
- WST 350 Black Women and Social Change: A Cross-Cultural Perspective
- WST 399 Topics in Gender and Sexuality (individual topics need pre-approval)

#### **Public Affairs/Public Policy**

Students study trends, acquire knowledge and historical context, and gain multiple perspectives on public policy issues that will help them report insightfully in the future. At least three of the courses must be 300 or above. Note: Not all courses are offered every semester. Some have prerequisites.

- AMR 102 American Identities
- BUS 111 Intro to Business for Non-Business Majors
- ECO 108 Intro to Economics
- ECO 305 Intermediate Macroeconomics Theory
- ECO 316 U.S. Class Structure
- ECO 360 Money and Banking
- ENS/POL 333 Environmental Law
- EST 330 Natural Disasters: Societal Impacts
- HIS 104 United States Since 1877
- HIS 325 Civil Rights Movement
- HIS 333 Women in U.S. History
- HIS 373 Crime and Criminal Justice 10
- HIS 378 War and the Military
- MAR 340 Environmental Problems and Solutions
- PHI 105 Politics and Society
- POL 102 Intro to American Government
- POL 103 Intro to Comparative Politics
- POL 309 Politics in the European Union
- POL 317 American Election Campaigns
- POL 318 Voters and Elections
- POL 322 The Presidency
- POL 323 U.S. Congress
- POL 325 Civil Liberties and Civil Rights
- POL 332 Politics of Criminal Due Process
- POL 336 U.S. Foreign Policy
- POL 367 Mass Media in American Politics
- SOC 247 Sociology of Gender

- SOC 302 American Society
- SOC 336 Social Change
- SOC 337 Social Deviance
- SOC 338 Sociology of Crime
- SOC/WST 340 Sociology of Human Reproduction

### Global Issues and Perspectives

Students study trends, acquire knowledge and historical context, and gain multiple perspectives on global issues that will help them report insightfully in the future. See Bulletin course descriptions for details and prerequisites. At least three of the courses must be 300 or above. Note: Not all courses are offered every semester. Some have prerequisites.

- AAS 201 Intro to Civilization of the Indian Subcontinent
- AAS 250 Language and Culture of Asian Americans
- AFS 240 Issues in Caribbean Society
- AFH 339 Arts of the African Diaspora
- AFH 390 Issues in Africana Studies (individual topics need pre-approval)
- AFS 337 Politics of Africa
- AFS 375 Slavery
- AMR 101 Local and Global: National Boundaries, World Systems
- ANT 250 African Peoples and Cultures
- ATM 237 World Climate and Atmosphere
- EST 330 Natural Disasters: Societal Impacts
- EUR 101 Foundations of European Culture
- GEO 311 Geoscience & Global Concerns
- HIS 221 Modern African History
- HIS 281 Global History & Geography
- HIS 341 20th Century China
- HIS 378 War and the Military
- HUF 219 Modern France
- HUI 239 Modern Italy
- HUS 254 Latin America Today
- HUS 255 Modern Spain
- POL 101 World Politics
- POL 103 Intro to Comparative Politics
- POL 309 Politics in the European Union
- POL 313 Problems / International Relations
- POL 336 U.S. Foreign Policy
- POL 337 Politics of Africa
- POL 338 Contemporary India: History, Politics, Diplomacy
- POL 350 Contemporary European Political Theory
- POL 374 Global Issues in the United Nations
- RLS 280 Islam
- SOC 248 Social Problems in Global Perspectives
- SOC 348 Global Sociology
- SOC 365 Intro to African Society
- SOC 374 Global Issues in the UN

### F. Upper-Division Writing Requirement

All students majoring in Journalism must submit two samples of their journalism course work (longer articles, term papers, case studies, or independent research projects) along with the instructor's written confirmation that the work demonstrates suitably advanced writing proficiency, in JRN 490 Senior Project. If this evaluation is satisfactory, the student will have fulfilled the upper-division writing requirement. If it is not, the student must fulfill the requirement before graduation.

### Requirements for the Minor

The journalism minor emphasizes knowledge and exposure to basic skills for students who seek an understanding of broadcast, online, and print media but who are not necessarily planning careers in journalism or intending to major in journalism. Courses in the minor provide students with a broad introduction to journalistic principles and practices as well as an understanding of the role of journalism in society. This program will be useful to students who are interested in sharpening their information-gathering and analytical skills, improving the speed and clarity of their writing, and improving their ability to communicate in whatever career they pursue.

Eighteen credits are required for the Minor in Journalism. Courses must be passed with a C or higher in all JRN courses and Satisfactory in JRN labs for a course or lab to count toward the JRN minor. **Students are required to complete at least nine credits of upper-division journalism courses to complete the minor in journalism.**

Not all courses are offered each semester, so programs should be planned as early as possible. Prerequisites will be enforced.

### Grammar Immersion

To progress in the minor program, students must pass a grammar proficiency test as part of JRN 111, a grammar course that is co-requisite with JRN 110. The grammar course includes an eight-week immersion lab in grammar, punctuation, and sentence structure. In about the ninth week, all students take a proficiency test. Those who pass are excused from the lab for the rest of the semester. All other students must continue attending the lab and will be required to take a second test on the last day of class. Satisfactory/Unsatisfactory grading only. Students must receive a Satisfactory grade in JRN 111 in order to continue in journalism skills courses.

#### A. Courses required of all minors:

- JRN 101 or JRN 103 News Literacy
- JRN 108 The History and Future of the American Press
- JRN 110/JRN 111 News I: Basic Reporting and Writing/Writing Immersion Lab
- JRN 301 Journalism 24/7

#### B. Minors need two additional upper-division electives:

- JRN 310 News III: Reporting/Writing for Broadcast\*
- JRN 320 The Promise and Perils of Online Journalism\*
- JRN 337 Introduction to Narrative Journalism
- JRN 390 Special Topics in Journalism\*

#### C. Optional elective (students may take one):

- SOC 330 Media and Society
- POL 367 Mass Media in American Politics

\*Students majoring in Journalism have priority registration for JRN 310, JRN 320, and JRN 390. Seats open to students minoring in Journalism based on availability.

Note: See a journalism advisor for additional elective options.

### Sample Course Sequence for the Major in Journalism

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
JRN 101 or JRN 103	3	JRN 108	3
D.E.C.	3	JRN 110/JRN 111*	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
Sophomore Fall	Credits	Spring	Credits
JRN 210/JRN 211	3	JRN 310	3
JRN 220	3	JRN 288*	1
JRN 301	3	Multidisciplinary concentration***	3
D.E.C.	3	Multidisciplinary concentration***	3
D.E.C.	3	D.E.C.	3
Total	15	D.E.C.	3
		Total	16
Junior Fall	Credits	Spring	Credits
JRN 320**	3	JRN 333, JRN 334, JRN 336, or JRN 337	3
JRN 340	3	JRN 350	3

JRN 391	1	JRN elective	3
Elective	3	Multidisciplinary concentration***	3
Multidisciplinary concentration***	3	Elective	3
D.E.C.	3	D.E.C.	3
Total	16	Total	18
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
JRN 364, JRN 370, or JRN 380**	3	JRN 490	3
JRN elective	3	JRN 361, JRN 371, or JRN 381**	3
Multidisciplinary concentration***	3	Multidisciplinary concentration***	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

\*Students are required to pass 111 and 211 to progress in JRN skills courses. \*\*These courses follow a sequence (e.g. JRN 370 and JRN 371). See Bulletin course descriptions for specifics. \*\*\*Or courses that count toward a second major.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Judaic Studies (JDS)****Minor in Judaic Studies****Department of History, College of Arts and Sciences**

Director of the Minor: Robert Hoberman

Undergraduate Secretary: Susan Grumet

Office: S-359 Social and Behavioral Sciences

Phone: (631) 632-7500

Web Address: <http://history.sunysb.edu/>

**Judaic Studies (JDS)**

The minor in Judaic Studies offers students an opportunity to acquire background in Hebrew and to study selected areas of Jewish history, culture, or religion. With the approval of an advisor from the Judaic Studies program faculty, the student must construct a program of at least 21 credits fulfilling the requirements listed below. The advisor helps to assure that the student's program has a curricular focus; courses from other departments suiting that focus may be included.

**Requirements for the Minor in Judaic Studies (JDS)**

No more than one course offered for the minor may be taken under the Pass/No Credit option. All other courses for the minor must be taken for a letter grade. Students interested in enrolling in the minor must consult with the coordinator of the minor in Judaic Studies and select an advisor from the Judaic Studies program faculty.

Completion of the minor requires at least 21 credits.

1. One year of Hebrew at a level appropriate to the student's previous background

2. Two of the following:

JDH 230/RLS 230 Judaism

JDS 225/HIS 225 The Formation of the Judaic Heritage

JDS 226/HIS 226 The Shaping of Modern Judaism

3. Three courses numbered 300 or higher approved in advance by the minor advisor.

Requirement 3 may be satisfied by courses in the Judaic Studies program itself or by related courses in other programs, if the subject is judged appropriate for the student's field of concentration. The following list of courses from other departments is meant to be representative and does not exclude the possibility of substituting others with the approval of the student's advisor.

ANT 402 Problems in Archaeology

RLS 301 Sources and Methods

RLS 402 Contemporary Theologies

RLS 450 Philosophical Theology

Appropriate topics from any directed readings course and from the following:

ANT 310 Ethnography

EGL 375 Literature in English in Relation to Other Disciplines

RLS 390 Special Topics

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Korean Studies (KOR)****Minor in Korean Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Director of the Minor: Hongkyung Kim, Asian and Asian American Studies, Asian and Asian and American Studies

Office: N5520 Melville Library

Phone: (631) 632-7311

E-mail: hongkyung.kim@stonybrook.edu

WEB ADDRESS: <http://www.stonybrook.edu/korea>

**Korean Studies (KOR)**

The Korean Studies Program at Stony Brook has been an intellectual bridge between Korea, Stony Brook, and the United States since 1982. Uniquely poised to be a hub for research and education in Korean religion and philosophy, and supported by an ever expanding library collection in Korean Studies, the Korean Studies Program is now one of the preeminent academic initiatives in Korean Studies in the United States.

**Requirements for the Minor in Korean Studies (KOR)**

Completion of the minor requires 18 credits. Only one course graded with the S/U credit option may be used toward the minor requirements. No more than three language courses may be used towards the minor.

Requirements for the minor:

1. AAS 217 Introduction to Korean Culture
2. Five courses chosen from the following, including at least three upper-division (300 or 400 level) courses:
  - KOR 111 Elementary Korean I
  - KOR 112 Elementary Korean II
  - KOR 211 Intermediate Korean I
  - KOR 212 Intermediate Korean II
  - KOR 311 Advanced Korean I
  - KOR 312 Advanced Korean II
  - KOR 331 Social Sciences Topics in Korean Studies
  - KOR 332 Humanities Topics in Korean Studies
  - KOR 351 Studies in Korean Literature
  - KOR 411 Advanced Korean III
  - KOR 412 Advanced Korean IV
  - AAS 240 Confucianism and Taoism
  - AAS 246 Korean and Japanese Religions
  - AAS 260 Buddhism
  - AAS 300 Intellectual History of East Asia
  - AAS 321 Korean Literature
  - AAS 346 Philosophy of Education in Korea and Japan
  - AAS 367 Meditation and Enlightenment
  - AAS 400 Seminar in Korean Studies\*
  - AAS 447 Directed Readings in Asian and Asian American Studies\*\*
  - AAS 475 Undergraduate Teaching Practicum I\*
  - AAS 487 Supervised Research in Asian and Asian American Studies\*\*
  - AAS 488 Internship\*

Note: Up to six credits taken in Korean Studies-related courses from other institutions and other programs may count for Korean courses with approval of the Director of the Program in Korean Studies.

\*AAS 400, AAS 475, and AAS 488 may only be taken once to apply to minor requirements.

\*\*AAS 447 and AAS 487 may be repeated and applied to the minor.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Latin American and Caribbean Studies (LAC)****Minor in Latin American and Caribbean Studies****Latin American and Caribbean Studies Center, College of Arts and Sciences**

Directors: Paul Firbas, Hispanic Languages and Literature

Administrative Assistant: Domenica Tafuro

Office: N-335 Social and Behavioral Sciences

Phone: (631) 632-7517

E-mail: [lacc@stonybrook.edu](mailto:lacc@stonybrook.edu)

WEB ADDRESS: <http://www.stonybrook.edu/lacc>

**Latin American and Caribbean Studies (LAC)**

The minor in Latin American and Caribbean Studies allows students to pursue an interdisciplinary course of study that provides a broad overview of Latin America and the Caribbean. Students are introduced to the principal historical, social, and cultural themes in the region, and through their electives, they are also able to develop more detailed knowledge of specific subjects in the region, such as the history of a particular country or the literature of a particular period.

**Requirements for the Minor in Latin American and Caribbean Studies (LAC)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18 credits.

1. LAC 200 Introduction to Latin American and Caribbean Societies
2. One literature or culture course, to be chosen from those listed in Group A
3. One history or social science courses, to be chosen from those listed in Group B
4. Two additional upper-division courses to be chosen from Groups A and B
5. LAC 488 Internship (or LAC 487 Research with permission of director)

**Notes**

1. Relevant special topics given in any department are acceptable for the minor with the approval of the director.
2. An expanded list of acceptable courses for groups A and B is available in the program office.

**Group A: Literature and Culture**

AFH 368/EGL 368 Caribbean and American Connections in Literature

AFH 385/HUF 385 French Caribbean Lit.

ARH 326 Arts of Ancient Mesoamerica

ARH 329 Arts of the African Diaspora

EGL 376 The Literature of Imperialism

HUS 254 Latin America Today

SPN 392 The Culture and Civilization of Spanish America

SPN 396 Introduction to Spanish-American Literature

SPN 410 Theory in Contexts

SPN 415 Hispanic Cultures in Contact

SPN 420 Topics in Latin American Cinema

SPN 435 Topics in Latin American Literature, Colonial Period-Present

The following topics courses may also be used when the topic is appropriate:

EGL 372 Topics in Women and Lit.

EGL 374, EGL 377 Literature in English in Relation to Other Disciplines

HUS 361 Latin American Literature

HUS 390 Latin American Cinema

MUS 311 Topics in Non-Western Music

SPN 405 Issues in Hispanic Cultural Studies

**Group B: Social Sciences**

AFH 329, AFH 330 Pan-African Literature I, II

AFS 239 Introduction to the Caribbean Experience

AFS 240 Issues in Caribbean Society

AFS 350/HIS 350 Black Women and Social Change: A Cross-Cultural Perspective

AFS 380/ANT 380 Race and Ethnicity in Latin America and the Caribbean

AFS 388/HIS 388 Slavery in Latin America and the Caribbean

ANT 201 Peoples of South America

ANT 219 Peoples of the Caribbean

ANT 361 Peasants

ECO 358 Topics in Developing Economies (when topic is appropriate)

HIS 213 Colonial Latin America

HIS 214/POL 214 Modern Latin America

HIS 216/POL 216 History of U.S.-Latin American Relations

HIS 382/POL 382 Politics and Political Change in Latin America  
HIS 386 Modern Brazil  
HIS 387/WST 387 Women, Development, and Revolution in Latin America  
HIS 389 Modern Mexico  
HIS 421, HIS 422 Colloquia in Latin American History  
POL 372 Politics in the Third World  
SOC 364 Sociology of Latin America

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Leadership Development (LDR)****Living/Learning Center Interdisciplinary Minor in Leadership Development**

Office: Faculty Director's Office, James College  
Phone: (631) 444-3164

**Leadership Development (LDR)**

The environment into which graduating seniors enter is a diverse and competitive one. In addition to being well grounded academically, the next generation of leaders must have a solid understanding of effective leadership strategies to motivate and direct the work of others in a meaningful way. The goal of the minor is to allow Stony Brook students with an interest in leadership to better prepare for their chosen professions by incorporating multidisciplinary theory and competencies into their lives.

**Requirements for the Minor in Leadership Development (LDR)**

## General LDR Minor Requirements

1. Before declaring the minor, each student should plan his or her program with the director of the minor.
2. All credits for the minor must be passed with a grade of C or higher.
3. Students in the College of Leadership and Service are strongly encouraged to consider the minor in Leadership Development, but it is not mandatory.
4. Students who are not residents of the LDS college are welcome to take the minor.
5. Students taking the LDR minor are expected to participate in LLC activities.

## Requirements for the Minor

Completion of the minor requires 21 credits.

1. LDR courses: nine credits from these three courses

LDR 210 Principles of Leadership

LDR 310 Case Studies in Leadership

LDR 410 Senior Seminar in Leadership

2. Practicum (Done in conjunction with LDR 410)

With the approval of the faculty Director, students will participate in experiential learning in one of two ways: a) leadership of a project or comprehensive task or b) being mentored by an established leader. Both models require active participation in true leadership activities such as development of vision and strategy.

3. Electives (12 credits)

The course designator of each selected course must be different from the designator associated with any of the student's majors or minors. For example, a student majoring or minoring in Business Management major cannot select any BUS courses, and a student majoring or minoring in Political Science major cannot select any POL courses. In addition, no more than two electives may have the same designator (including cross-listed courses). This is a list of courses appropriate to the minor. The faculty director may choose to modify this list.

AFS 277/HIS 277 Modern Color Line

AFS 325/HIS 325 Civil Right Movement

BUS 111 Business in the 21st Century

BUS 301 Corporate Communication

EGL 232/HUR 232 Rebels and Tyrants

HIS 104 U.S. Since 1877

INT 201 Democracy and Capitalism

LCR 200 Nature of Community

POL 101 World of Politics

POL 102 Introduction to American Government

POL 322 The Presidency in the American Political System

POL 323 U.S. Congress

POL 324 American Political Parties and Pressure Groups

POL 325 Civil Liberties and Civil Rights

POL 364 Organizational Decision Making

POL 374 Global Issues in the United Nations

POL 434 Supreme Court Decision Making

SOC 336 Social Change

WST 347/POL 347 Women and Politics

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Liberal Arts**

Information regarding the Interdisciplinary Major in Multidisciplinary Studies is found in the MTD program section.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Linguistics (LIN)****Major and Minor in Linguistics****Department of Linguistics, College of Arts and Sciences**

Chairperson: Richard Larson

Director of Undergraduate Studies: Lori Repetti

Assistant to the Chair: Sandra Brennan

Office: S-201 Social and Behavioral Sciences

Phone: (631) 632-7777

E-mail: Sandra.Brennan@stonybrook.edu

Web address: <http://www.linguistics.stonybrook.edu>

Minors of particular interest to students majoring in Linguistics: Anthropology (ANT), Computer Science (CSE), English (EGL), Foreign Languages, International Studies (INT), Philosophy (PHI), Psychology (PSY)

**Linguistics (LIN)**

Linguistics is the science of language. Language is at once the most diverse and the most clearly structured aspect of human behavior. It distinguishes humans from other species and much of human culture depends on it. Understanding the nature of human language is therefore a key to understanding human nature. Linguistics seeks to discover the common features of the languages of the world's peoples, to understand how languages change over time, and how language relates to other aspects of human society.

The major in Linguistics is designed to provide graduates with a set of skills and a body of knowledge. A graduate will have the skills to analyze the most important features of language: sounds, words, sentences, and conversation, using both formal and experimental methods. Students will also learn what linguists know about the languages of the world, their history and structure, and how language interacts with many facets of all cultures.

The Department also prepares its majors for provisional certification as Teachers of English to Speakers of Other Languages in New York State (TESOL) from kindergarten through grade 12. Candidates for TESOL certification must follow a specific track within the major, which includes a semester of student teaching. Approximately one-quarter of Linguistics majors elect this track in the major. It is also common for Linguistics majors to have a second major, either in a language or in an adjacent field such as psychology or computer science.

Options for further education that are taken by graduates include professional school in such areas as speech pathology and law, and graduate school in linguistics, philosophy, psychology, and computer science. A few graduates have gone on to technical positions in industry that involve speech engineering.

Instruction in uncommonly taught languages not offered elsewhere in the University is provided by the Department of Linguistics.

**Requirements for the Major and Minor in Linguistics****Requirements for the Major**

The major in Linguistics leads to the Bachelor of Arts degree. All linguistics courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 36 credits in linguistics and one year of a foreign language in addition to the University's entry skill requirement.

1. LIN 101 Human Language
2. LIN 201 Phonetics
3. LIN 211 Syntax
4. LIN 301 Phonology
5. LIN 431 The Structure of an Uncommonly Taught Language
6. Five additional upper-division linguistics courses (LIN 344 may not be used as one of these courses)
7. Two semesters of foreign language after completing Entry Skill 3, the University's foreign language requirement. These may be either in the same language with which the entry skill was met or in one or two other languages.
8. Upper-Division Writing Requirement: In the junior or senior year, students must successfully complete LIN 300 Writing in Linguistics, a one-credit course.

**Notes:**

1. Students majoring in Linguistics may be interested in courses offered through other departments. Students may count up to two non-LIN courses toward the Linguistics major, with the permission of the Director of Undergraduate Studies.
2. Students electing TESOL may not take any courses required for certification for Pass/No Credit. Requirements for TESOL certification are detailed following the Linguistics minor and honors program listings.

**Requirements for the Minor**

The minor requires 20 credits.

1. LIN 101 Human Language
2. LIN 201 Phonetics
3. LIN 211 Syntax
4. Three upper-division linguistics courses.

Notes:

1. One of the courses required for the minor may be taken for Pass/No Credit. All other courses must be passed with C or better.
2. Linguistics minors that are closely integrated with students' majors are strongly encouraged. The fields with which linguistics has special affinities are: anthropology, psychology, English, foreign languages, philosophy, and computer science.
3. Students must consult with the director of undergraduate studies in linguistics to enroll in the minor.

#### Honors Program

Linguistics majors who have maintained a g.p.a. of 3.50 in the major are eligible to graduate with departmental honors. An additional requirement for honors is the submission and presentation of a senior thesis based on research performed during the senior year. Students must submit a written thesis proposal for approval to a sponsoring faculty member in the semester prior to the start of their senior year. Acceptance into the honors program depends on approval of the proposal by the sponsoring faculty member, the director of undergraduate studies and the department. LIN 495 and LIN 496 will be taken as a 2 semester sequence during the senior year, for a total of six credits. Students will receive only one grade upon completion of the sequence. These courses must be taken in addition to the total credits required for the major. The student's thesis must be completed and the student must have a public presentation of their research no later than three weeks prior to the end of the semester in which they are enrolled in LIN 496. The thesis will be read and evaluated by a committee consisting of the student's sponsor, a member of the Department of Linguistics, and one other faculty member, as arranged by the Director of Undergraduate Studies.

If the thesis is accepted by the committee and the student retains a 3.50 g.p.a. for all linguistics courses taken, the Department will recommend that honors be conferred.

#### Teaching English to Speakers of Other Languages (TESOL) Teacher Education Program

The TESOL Teacher Education Program prepares undergraduates for initial certification as Pre-K-12 teachers of English to Speakers of Other Languages. Students wishing to apply to the program must major in Linguistics and have a minimum GPA of 2.75 overall and 3.0 in the major. Prospective applicants must consult with the Undergraduate Director in Linguistics and the Director of the TESOL Program as early as possible in their academic careers to ensure completion of the program requirements in a timely manner. The PEP Undergraduate Application form must be submitted to the Director of the TESOL Education Program by April 15 for Fall admission and by November 15 for Spring admission. Students must maintain a 2.75 overall GPA and a 3.0 GPA in the major in order to remain in the program.

#### Requirements for Initial Certification

- A. Completion of all requirements for the major in Linguistics.
- B. A 3.00 g.p.a. in the major and a 2.75 g.p.a. overall.
- C. Two years of college-level study of a language or languages other than English. (Completion of Skill 3 Basic Foreign Language Competence satisfies the first year of this requirement.) These may be in one, two, or three languages.
- D. Linguistics and foundations courses:
  - LIN 101 Human Language
  - LIN 201 Phonetics
  - LIN 211 Syntax
  - LIN 301 Phonology
  - LIN 307 Introduction to Sociolinguistics
  - LIN 431 Structure of an Uncommonly Taught Language
  - Plus one additional 3 credit upper division linguistics course
- E. Professional educational requirements:
  1. PSY 327 Introduction to Human Development
  2. CEF 347 Introduction to Special Education
  3. SSE 350 Foundations of Education
  4. LIN 344 Language Acquisition and Literacy Development
  5. LIN 375 TESOL Pedagogy: Theory and Practice
  6. LIN 378 Content-based Language and Literacy Development
  7. LIN 449 Field Experience I (1 credit co-requisite of LIN 375)
  8. LIN 450 Field Experience II (1 credit co-requisite of LIN 378)
  9. LIN 451 Supervised Student Teaching in TESOL (grades P-6)
  10. LIN 452 Supervised Student Teaching in TESOL (grades 7-12)
  11. LIN 454 Managing Instruction, Assessment and Resources

#### Five-Year Accelerated B.A./M.A. Program with Teacher Certification in Teaching English to Speakers of Other Languages (TESOL)

In addition to the regular B.A. program in Linguistics with teacher certification and the regular M.A. in TESOL, the Linguistics department offers a five-year accelerated B.A./M.A. degree program. Upon completion of the five-year program, graduates will hold a Bachelor's degree in Linguistics, New York State teaching certification in TESOL, and a Master's degree in TESOL. The combined program will allow students the opportunity to complete these requirements one semester sooner than students who complete the programs sequentially. The accelerated program is restricted to students with an outstanding undergraduate record who are expected to excel in the graduate program.

During the first four semesters as an undergraduate, students in the accelerated program will pursue a normal course of study for the B.A. in Linguistics with New York State certification in TESOL. Students must apply to the five-year accelerated program in the second semester of the

sophomore year. During the third year of study students will take two pedagogy courses and the field components associated with them at the graduate level, and will student-teach in the second semester of the fourth year. They will then enter the graduate program prepared to complete the M.A. degree in one year of full-time study.

The following are the minimum requirements for admission to the accelerated program:

1. A minimum GPA of 3.0 overall and 3.3 in linguistics courses;
2. The PEP admissions essay;
3. Recommendations from two linguistics faculty members;
4. Interviews with the Undergraduate Director in Linguistics and the Director of the TESOL program.

### Sample Course Sequence for the Major in Linguistics

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
LIN 101	3	D.E.C.	3
D.E.C.	3	Foreign language 112	4
Foreign language 111	4	D.E.C.	3
Total	14	Total	14
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
LIN 307	3	LIN 356	3
LIN 211	4	LIN 201	4
LIN 345	3	Foreign language 212	3
Foreign language 211	3	D.E.C.	9
D.E.C.	3		
Total	16	Total	19
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
LIN 330	3	LIN 300	2
LIN 301	4	LIN 431	4
D.E.C.	3	Upper-Division Electives	9
Upper-Division Elective	3		
Total	13	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
LIN 425	3	LIN 426	3
D.E.C.	3	Upper-Division Electives	12
D.E.C.	3		
Upper-Division D.E.C.	3		
Upper-Division Elective	3		
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Manufacturing Engineering (MFE)****Minor in Manufacturing Engineering****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Chairperson: Michael Dudley

Undergraduate Program Director: Gary P. Halada

Administrative Assistant: Lynn Allopenna

E-mail: Lynn.Allopenna@stonybrook.edu

Office: 314 Engineering

Phone: (631) 632-8484

Web address: <http://www.matscieng.sunysb.edu>

**Manufacturing Engineering (MFE)**

The Department of Materials Science and Engineering offers the minor in Manufacturing Engineering, suitable for Engineering Science students or for non-Engineering Science students who seek to obtain a more thorough understanding of the engineering sciences. The rapidly changing nature of technology in the manufacturing industries creates a need for graduates with a background in such areas as modern materials processing, design, thermodynamics, statistics, and analysis. The courses in the minor in Manufacturing Engineering provide the student with a broad introduction to the engineering science principles and applications associated with manufacturing engineering and provide important skills for careers in manufacturing, process and systems engineering, and quality engineering.

Engineering science, computer engineering, electrical engineering, mechanical engineering, and applied mathematics and statistics students can assemble a sequence of courses with 18 to 24 credits to satisfy the minor. Courses used to satisfy requirements of another minor in engineering science may not be used to satisfy requirements of another minor in engineering science. The student's program must be approved by the undergraduate program director.

**Requirements for the Minor in Manufacturing Engineering (MFE)**

Completion of the minor requires 18 to 24 credits.

Requirements for students majoring in Engineering Science (ESG)

1. ESM 334 Materials Engineering and ESM 335 Strength of Materials or MEC 310 Introduction to Machine Design and MEC 410 Design of Machine Elements
2. Five courses chosen from:  
AMS 310 Survey of Probability and Statistics  
ESG 201 Engineering Responses to Society  
ESM 336 Electronic Materials  
ESM 353 Biomaterials: Manufacture, Properties, and Applications  
ESM 369 Polymer Engineering  
ESM 488 Cooperative Industrial Practice  
ESM 499 Research in Materials Science  
EST 392 Engineering and Managerial Economics  
MEC 305 Heat and Mass Transfer

Requirements for all other students

1. ESM 334 Materials Engineering and ESM 335 Strength of Materials or MEC 310 Introduction to Machine Design and MEC 410 Design of Machine Elements
2. AMS 310 Survey of Probability and Statistics
3. One course chosen from the following:  
ESE 123 Introduction to Electrical and Computer Engineering  
ESG 100 Introduction to Engineering Science  
MEC 101 and 102 Engineering Computing and Problem Solving I, II
4. ESG 201 Engineering Responses to Society
5. ESM 335 Strength of Materials  
ESM 369 Polymer Engineering
6. Two courses from:  
ESM 353 Biomaterials: Manufacture, Properties, and Applications  
ESM 488 Cooperative Industrial Practice  
ESM 499 Research in Materials Science  
EST 392 Engineering and Managerial Economics  
MEC 305 Heat and Mass Transfer

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Marine Sciences (MAR)****Major and Minor in Marine Sciences****School of Marine and Atmospheric Sciences (SoMAS)**

Dean and Director: Minghua Zhang

Director of Undergraduate Studies: Mary I. Scranton

Assistant to the Director: Carol Dovi

Education Office: 105 Endeavour Hall

Phone: (631) 632-8681

E-mail: somasugrad@stonybrook.edu

Web address: <http://www.somas.stonybrook.edu>

**Marine Sciences (MAR)**

Marine Sciences is a highly interdisciplinary field requiring an understanding and application of basic science, including biology, physics, and chemistry. In particular, the Marine Sciences major provides students with a solid background in basic biology as well as in the physics and chemistry of the ocean. Upper-division electives permit each student to gain a deeper understanding of particular groups of organisms (microorganisms, algae, marine invertebrates, fish, and marine mammals) and of habitats (salt marshes, rocky intertidal, barrier islands, dunes, estuaries, and the open ocean).

Students are encouraged to participate in research and internships. Opportunities for experiential learning are available through field and laboratory courses taught at or near the Stony Brook campus and from a field station at the Stony Brook Southampton campus.

Most students who wish to have a career in research related to the marine environment will need to plan for graduate study. Career possibilities include research, education, or employment in government agencies or non-profit organizations.

The Marine Sciences major is administered by the School of Marine and Atmospheric Sciences, one of the leading oceanographic and atmospheric institutions in the nation.

The School of Marine and Atmospheric Sciences (SoMAS) is Stony Brook University's center for education, research, and public service in the ocean, atmospheric, and environmental sciences. Housed within the SoMAS are the Marine Sciences Research Center (MSRC) and the Institute for Terrestrial and Planetary Atmospheres (ITPA). MSRC is the only state-designated center for marine research, education, and public outreach within the State University of New York system. The SoMAS is one of the nation's leading coastal oceanographic and atmospheric institutions, and the expertise of the SoMAS faculty places SBU at the forefront of addressing and answering questions about regional environmental problems, as well as problems relating to the global ocean and atmosphere. The primary focus of the SoMAS faculty is on fundamental research designed to increase understanding of the processes that characterize the coastal ocean and the atmosphere. The SoMAS is also committed to applying the results of research to solve problems arising from society's uses and misuses of the environment. The SoMAS includes mission-oriented institutes in several major areas: the Institute for Terrestrial and Planetary Atmospheres, the Living Marine Resources Institute, the Institute for Ocean Conservation Science, the Long Island Groundwater Resource Institute, and the Waste Reduction and Management Institute. These institutes and many research projects add a wealth of varied resources to education and research at Stony Brook.

The SoMAS offers undergraduate majors in atmospheric and oceanic sciences, environmental studies, marine sciences, and marine vertebrate biology, and minors in environmental studies and marine sciences. See the separate entries for atmospheric and oceanic sciences (ATM), environmental studies (ENS), and marine vertebrate biology (MVB) in the alphabetical listings of Approved Majors, Minors, and Programs. The SoMAS also offers several cooperative programs in both marine and environmental sciences with departments in the College of Arts and Sciences (Chemistry, Geosciences) and the College of Engineering and Applied Sciences (Chemical and Molecular Engineering).

Students should contact the director of undergraduate studies to design and approve an acceptable course of study before declaring the major.

Students may learn more about the School of Marine and Atmospheric Sciences by visiting <http://www.somas.stonybrook.edu>

Research opportunities in marine sciences, atmospheric sciences, and waste management are available to undergraduates. Information on research opportunities may be found by contacting faculty directly or on the SoMAS Web site at <http://www.somas.stonybrook.edu>

**Requirements for the Major and Minor in Marine Sciences (MAR)****Requirements for the Major in Marine Sciences (MAR)**

The major in Marine Sciences leads to a Bachelor of Sciences degree. Completion of the major requires between 69 and 72 credits. Of these, no more than one course (4 credits) with a grade lower than C can be credited to the major.

**1. Foundation Courses (41-42 credits)**

BIO 201 Organisms to Ecosystems

BIO 202 Molecular and Cellular Biology

BIO 203 Cellular and Organ Physiology

BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I

BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences IIA (see Note 4)

CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry and Lab (see Note 1)

CHE 321 Organic Chemistry

MAT 125, MAT 126 Calculus (see Note 2)

ENS 119/PHY 119 Physics for Environmental Studies or PHY 121/PHY 123 Physics for Life Sciences with lab (see Note 3)

AMS 102 or AMS 110 Statistics

## 2. Oceanography Core (13 credits)

MAR 349 Biological Oceanography

MAR 352 Introduction to Physical Oceanography

MAR 353 Physical Oceanography Laboratory

MAR 351 Introduction to Ocean Chemistry

MAR 305 Experimental Marine Biology

## 3. Marine Biology (15-17 credits)

Five marine biology electives from below:

BIO 353 Marine Ecology

BIO 343 Invertebrate Zoology

BIO 346 Aquatic Arthropods and Vertebrates

MAR 301 Environmental Microbiology or MAR 302 Marine Microbial Ecology

MAR 303 Long Island Marine Habitats

MAR 315 Conservation Biology

MAR 320 Limnology

MAR 366 Plankton Ecology

MAR 370 Marine Mammals

MAR 371 The Biology and Conservation of Marine Birds and Sea Turtles

MAR 375 Marine Mammal and Sea Turtle Rehabilitation

MAR 380 Ichthyology

MAR 385 Fisheries Biology

MAR 388 Tropical Marine Ecology

MAR 394 Environmental Toxicology and Public Health

MAR 487 Research or MAR 488 Internship (maximum of three credits can be used for required elective)

Other classes may be substituted with permission of undergraduate director

## 4. Upper-Division Writing Requirement

All students in the major must submit two papers from any upper division course in the major to the director of undergraduate programs for evaluation by the end of the junior year.

Notes:

1. CHE 141/CHE 143, CHE 142/CHE 144 Honors Chemistry and Lab may be substituted for CHE 131/CHE 133, CHE 132/CHE 134

2. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 may be substituted for MAT 125, MAT 126

3. The first semester of any calculus-based Physics with lab can be substituted, such as PHY 125 or PHY 131/PHY 133 or PHY 141 or PHY 142.

4. BIO 207 may be substituted for BIO 205.

## Honors Program in Marine Sciences

Graduation with departmental honors in Marine Sciences requires the following:

1. Students are eligible to participate in the Honors Program if they have a 3.50 GPA in all courses for the major by the end of the junior year.

Students should apply to the SoMAS undergraduate director for permission to participate.

2. Students must prepare an honors thesis based on a research project written in the form of a paper for a scientific journal. A student interested in becoming a candidate for honors should submit an outline of the proposed thesis research project to the SoMAS undergraduate director as early as possible, but no later than the second week of classes in the last semester. The student will be given an oral examination in May on his or her research by his or her research supervisor and the undergraduate research committee. The awarding of honors requires the recommendation of this committee and recognizes superior performance in research and scholarly endeavors. The written thesis must be submitted before the end of the semester in which the student is graduating.

3. If the student maintains a GPA of 3.5 in all courses in their major through senior year and receives a recommendation by the undergraduate research committee, he or she will receive departmental honors.

## Requirements for the Minor in Marine Sciences (MAR)

The minor in Marine Sciences is open to students who either wish to prepare themselves for future graduate education in marine sciences or who are preparing for a career in a marine-related field. The minor, which is interdisciplinary in nature, provides a foundation in marine aspects of biology, chemistry, geology, and physics for the undergraduate. Intended primarily for science majors, the minor assumes completion of basic courses in mathematics, physics, chemistry, biology, or geology. No more than three credits of courses taken under the Pass/No Credit option may be applied toward the minor. Completion of the minor requires 18 credits.

1. MAR 101 or MAR 104

2. At least 15 credits from the following:

Upper-division MAR courses

BIO 343

BIO 353/GEO 353

Note: No more than three credits each of MAR 487 and MAR 488 may be applied toward this requirement.

**Sample Course Sequence for the Major in Marine Sciences**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CHE 131	4	CHE 132	4
CHE 133	1	CHE 134	1
MAT 125	3	MAT 126	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BIO 201 and BIO 204	5	BIO 203 and BIO 205	5
AMS 110	3	MAR elective	3
CHE 321	4	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	14
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BIO 202	3	BIO 353	3
MAR 305	3	MAR 349	4
ENS 119/PHY 119	4	MAR elective	3
Upper-Division D.E.C.	3	Upper-Division D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAR 352/MAR 353	3	MAR elective	3
MAR 351	3	MAR elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Upper-Division D.E.C.	3	Upper-Division D.E.C.	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Marine Vertebrate Biology (MVB)****Major in Marine Vertebrate Biology****School of Marine and Atmospheric Sciences (SoMAS)**

Interim Dean and Director: Minghua Zhang

Director of Undergraduate Studies: Mary I. Scranton

Assistant to the Director: Carol Dovi

Education Office: 105 Endeavour Hall

Phone: (631) 632-8681

E-mail: somasugrad@stonybrook.edu

Web address: <http://www.somas.stonybrook.edu>

**Marine Vertebrate Biology (MVB)**

The Marine Vertebrate Biology major provides students with a solid background in basic biology with an emphasis on marine vertebrate organisms such as fish, sharks, birds, turtles and marine mammals. It provides a more intensive zoology background than the Marine Sciences degree.

Students are encouraged to participate in research and internships. Opportunities for experiential learning are available through field and laboratory courses taught at or near the Stony Brook campus and from a field station at the Stony Brook Southampton campus.

Most students who wish to have a career in research related to the marine environment will need to plan for graduate study. Career possibilities include research, education, or work in government agencies or non-profit organizations. The Marine Vertebrate Biology major is also good preparation for the Master of Arts in Teaching high school biology program or a pre-vet or pre-med program. A few additional courses are required for admission to the MAT program or for veterinary or medical school admission.

The Marine Vertebrate Biology major is administered by the School of Marine and Atmospheric Sciences, one of the leading oceanographic and atmospheric institutions in the nation.

The School of Marine and Atmospheric Sciences (SoMAS) is Stony Brook University's center for education, research, and public service in the ocean, atmospheric, and environmental sciences. Housed within the SoMAS are the Marine Sciences Research Center (MSRC) and the Institute for Terrestrial and Planetary Atmospheres (ITPA). MSRC is the only state-designated center for marine research, education, and public outreach within the State University of New York system. The SoMAS is one of the nation's leading coastal oceanographic and atmospheric institutions, and the expertise of the SoMAS faculty places SBU at the forefront of addressing and answering questions about regional environmental problems, as well as problems relating to the global ocean and atmosphere. The primary focus of the SoMAS faculty is on fundamental research designed to increase understanding of the processes that characterize the coastal ocean and the atmosphere. The SoMAS is also committed to applying the results of research to solve problems arising from society's uses and misuses of the environment. The SoMAS also includes mission-oriented institutes in several major areas: the Institute for Terrestrial and Planetary Atmospheres, the Living Marine Resources Institute, the Institute for Ocean Conservation Science, the Long Island Groundwater Resource Institute, and the Waste Reduction and Management Institute. The institutes and many research projects add a wealth of varied resources to education and research at Stony Brook.

The SoMAS offers undergraduate majors in atmospheric and oceanic sciences, environmental studies, marine sciences, and marine vertebrate biology, and minors in environmental studies and marine sciences. See the separate entries for atmospheric and oceanic sciences (ATM), environmental studies (ENS), and marine sciences (MAR) in the alphabetical listings of Approved Majors, Minors, and Programs. The SoMAS also offers several cooperative programs in both marine and environmental sciences with departments in the College of Arts and Sciences (Chemistry, Geosciences) and the College of Engineering and Applied Sciences (Chemical and Molecular Engineering).

Research opportunities in marine sciences, atmospheric sciences, and waste management are available to undergraduates. Information on research opportunities may be found by contacting faculty directly or on the SoMAS Web site at <http://www.somas.stonybrook.edu>

All students should consult with the director of undergraduate studies to design and approve an acceptable course of study before declaring the major.

**Requirements for the Major in Marine Vertebrate Biology (MVB)**

The major in Marine Vertebrate Biology leads to a Bachelor of Science degree. Completion of the major requires between 69 and 74 credits. Of these no more than one course (4 credits) with a grade lower than C can be credited to the major.

**1. Foundation Courses (43-46 credits)**

BIO 201 Organisms to Ecosystems

BIO 202 Molecular and Cellular Biology

BIO 203 Cellular and Organ Physiology

BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I

BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences IIA (see Note 4)

CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry and Lab (see Note 1)

CHE 321 Organic Chemistry

MAT 125, MAT 126 Calculus (See Note 2)

ENS 119/PHY 119 Physics for Environmental Studies and MAR 352 Introduction to Physical Oceanography and MAR 353 Physical Oceanography Laboratory, or PHY 121/PHY 123, PHY 122/PHY 124 Physics for Life Sciences and labs (see Note 3)  
AMS 102 or AMS 110 Statistics

## 2. Zoology and Marine Vertebrate Core (13 credits)

BIO 344 Chordate Zoology

BIO 354 Evolution or BIO 320 Genetics

Two of the following:

MAR 370 Marine Mammals

MAR 376 Biology and Conservation of Sea Turtles

MAR 377 Biology and Conservation of Seabirds

MAR 380 Ichthyology

## 3. Marine Biology (12-14 credits)

MAR 349 Biological Oceanography or BIO 353 Marine Ecology

Three electives from below:

BIO 328 Mammalian Physiology

BIO 343 Invertebrate Zoology

BIO 351 Ecology

BIO 359 Behavioral Ecology

MAR 301 Environmental Microbiology or MAR 302 Marine Microbial Ecology

MAR 303 Long Island Marine Habitats

MAR 305 Experimental Marine Biology

MAR 315 Conservation Biology

MAR 366 Plankton Ecology

MAR 385 Fisheries Biology

MAR 487 Research or MAR 488 Internship (maximum of three credits can be used for required elective)

Other classes may be substituted with permission of undergraduate director

## 4. Upper-Division Writing Requirement

All students in the major must submit two papers from any upper division course in the major to the director of undergraduate programs for evaluation by the end of the junior year.

Notes:

1. CHE 141/CHE 143, CHE 142/CHE 144 Honors Chemistry and Lab may be substituted for CHE 131/CHE 133, CHE 132/CHE 134

2. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 may be substituted for MAT 125, MAT 126

3. PHY 125, PHY 126, PHY 127 or PHY 131/PHY 133, PHY 132/PHY 134 or PHY 141, PHY 142 may be substituted for the two-semester physics sequences listed above

4. BIO 207 may be substituted for BIO 205

## Honors Program in Marine Vertebrate Biology

Graduation with departmental honors in Marine Vertebrate Biology requires the following:

1. Students are eligible to participate in the Honors Program if they have a 3.50 GPA in all courses for the major by the end of the junior year.

Students should apply to the SoMAS undergraduate director for permission to participate.

2. Students must prepare an honors thesis based on a research project written in the form of a paper for a scientific journal. A student interested in becoming a candidate for honors should submit an outline of the proposed thesis research project to the SoMAS undergraduate director as early as possible, but no later than the second week of classes in the last semester. The student will be given an oral examination in May on his or her research by his or her research supervisor and the undergraduate research committee. The awarding of honors requires the recommendation of this committee and recognizes superior performance in research and scholarly endeavors. The written thesis must be submitted before the end of the semester in which the student is graduating.

3. If the student maintains a GPA of 3.5 in all courses in their major through senior year and receives a recommendation by the undergraduate research committee, he or she will receive departmental honors.

## Sample Course Sequence for the Major in Marine Vertebrate Biology

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CHE 131	4	CHE 132	4
CHE 133	1	CHE 134	1
MAT 125	3	MAT 126	3
D.E.C.	3	Total	12
Total	15		

<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BIO 201 and BIO 204	5	BIO 202 and BIO 205	5
AMS 110	3	BIO 344	4
CHE 321	4	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Total	15
Total	18		
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAR Vertebrate Core Elective	3	BIO 203	3
ENS/PHY 119	3	BIO 354	3
MAR Biology Elective	3	MAR 349	4
D.E.C.	3	Elective	3
Upper-Division D.E.C.	3	Upper-Division D.E.C.	3
Total	15	Total	16
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAR 352/353	3	MAR Vertebrate Core Elective	3
MAR Biology Elective	3	MAR Biology Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Upper-Division D.E.C.	3	Upper-Division D.E.C.	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Materials Science (ESM)****Minor in Materials Science****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Chairperson: Michael Dudley

Undergraduate Program

Director: Gary P. Halada

Administrative Assistant: Lynn Allopenna

E-mail: [Lynn.Allopenna@stonybrook.edu](mailto:Lynn.Allopenna@stonybrook.edu)

Office: 314 Engineering

Phone: (631) 632-8484

Web address: <http://www.matscieng.sunysb.edu>

**Materials Science (ESM)**

The development of new materials and research into the engineering applications of materials are critical to a wide variety of industries including aerospace, automotive, energy, electronics, environmental, medical instrumentation, advanced computing, and defense-related companies.

Without a clear understanding of the relationship between material structure, properties, and processing, achieving the performance necessary to meet the needs of current and future high technology applications would be impossible. For this reason, industrial and research laboratories value graduates with an understanding of materials science and engineering issues in addition to their other engineering or physical science knowledge.

**Requirements for the Minor in Materials Science (ESM)**

The sequence of courses included in the minor in Materials Science provides a firm background for students seeking employment in materials-related industries or those who will pursue graduate study in related fields. There are two versions of the minor: one for students enrolled in B.S. degree programs (e.g., physics and chemistry) and one for those enrolled in B.E. degree programs. (B.E. students should see the faculty advisor in their engineering major for approval before declaring the materials science minor.).

All courses offered for the minor must be passed with a letter grade of C or higher.

**For students with majors leading to the B.S. degree**

Six courses are required:

1. ESG 100 Introduction to Engineering Science
2. Two of the following:  
ESG 332 Materials Science I: Structure and Properties of Materials (see Note)  
ESG 333 Materials Science II: Electronic Properties  
ESG 339 Thin Film Processing of Advanced Materials
3. Two of the following:  
ESM 325 Diffraction Techniques and Structure of Solids  
ESM 334 Materials Engineering  
ESM 335 Strength of Materials  
ESM 353 Biomaterials: Manufacture, Properties, and Applications  
ESM 355 Materials and Processes in Manufacturing Design  
The course not completed for Requirement 2 (ESG 332, 333, 339)
4. One of the following:  
ESG 487 Cooperative Research in Technological Solutions  
ESM 488 Cooperative Industrial Practice  
ESM 499 Research in Materials Science  
ESM 475 Undergraduate Teaching Practicum

**For students with majors leading to the B.E. degree**

Five courses are required:

1. Four of the following:  
ESM 325 Diffraction Techniques and Structure of Solids  
ESM 334 Materials Engineering  
ESM 353 Biomaterials: Manufacture, Properties, and Applications  
ESM 369 Polymer Engineering  
CHE 301 Physical Chemistry I  
CHE 302 Physical Chemistry II  
CHE 351 Quantum Chemistry
2. One of the following:

ESM 475 Undergraduate Teaching Practicum  
ESG 487 Cooperative Research in Technological Solutions  
ESM 488 Cooperative Industrial Practice  
ESM 499 Research in Materials Science

No more than two non-ESM courses may count toward the minor. ESG core courses cannot be used to meet requirements for both the ESG major and the ESM minor.

Note: Students may use ESG 332 toward the minor in Materials Science only if it is not a required course in the student's major.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Mathematics (MAT)****Major and Minor in Mathematics****Department of Mathematics, College of Arts and Sciences**

Chairperson: Leon Takhtajan

Director of Undergraduate Studies: Marcus Khuri

Assistant to the Chair: Lucille Meci

Office: Mathematics P143

Phone: (631) 632-8250

E-mail: khuri@math.sunysb.edu

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Minors of particular interest to students majoring in Mathematics: Applied Mathematics and Statistics (AMS), Computer Science (CSE), Economics (ECO), Physics (PHY)

**Mathematics (MAT)**

Mathematics is an essential element in a wide range of human activities. It is the language of the physical sciences, and as such is an indispensable tool in the formulation of the laws of nature. In the social and biological sciences, it plays an increasingly important role in modeling complicated, large-scale phenomena. In addition, mathematics has an aesthetic side: awareness of the possibility of elegance and beauty in mathematical arguments has been a significant feature of human culture throughout history. Today more mathematics is being done, and more needs to be done, than ever before.

The undergraduate course offerings in Mathematics allow students to set up individualized programs of study consistent with their academic interests and career plans. Students should consider majoring in Mathematics even if they do not plan to become mathematicians or teachers of mathematics. The training in abstract reasoning and problem-solving is an excellent foundation for many different careers, such as law, graduate health professions, and business. Completion of a major in Mathematics points to a thinking person.

Students are encouraged to explore the various branches of pure and applied mathematics, as well as other mathematically oriented disciplines, to gain both breadth of knowledge and insight into career options. Mathematics majors can use their training as the foundation for advanced professional study, leading to research and teaching in universities or research in industrial research laboratories; they can use it also in secondary school teaching. In industry, undergraduate training in mathematics is excellent preparation for the important task of liaison work between the technological arm of a company and its marketing arm. A major in Mathematics is particularly appropriate for work in computer applications, operations research, and actuarial science. Double majors in Mathematics and another field, such as physics, computer science, applied mathematics and statistics, or economics, are common and are encouraged.

The secondary teacher education option is designed for students planning a career teaching mathematics in a secondary school. This option is described in detail in the "Education and Teacher Certification" entry in the alphabetical listings of Approved Majors, Minors, and Programs.

The Department of Mathematics offers tutorial help to all undergraduate students in its 100-level courses in the Mathematics Learning Center. Since the Center's staff consists of faculty and graduate students in mathematics as well as undergraduate tutors, students in more advanced courses can also find assistance there.

The Department encourages students to seek information and advice on appropriate mathematics courses, programs, and career goals. Professors in mathematics are available as advisors in the Undergraduate Mathematics Office to help with these matters. Advising hours can be obtained by calling the Department of Mathematics.

**Requirements for the Major and Minor in Mathematics (MAT)****Requirements for the Major in Mathematics (MAT)**

The major in Mathematics leads to the Bachelor of Science degree. Every student majoring in Mathematics is expected to complete some form of a one-variable calculus sequence, which is a prerequisite for some of the courses listed below. Appropriate sequences at Stony Brook total 8 to 12 credits.

Completion of the major requires 33 to 37 credits.

**A. Mathematics and Mathematics-Related Courses**

1. a. One course in multivariate calculus: MAT 203 or AMS 261 or MAT 205 or MAT 307 and one course in linear algebra: MAT 211 or AMS 210

or

b. MAT 307

2. Preparation in the language and logic of mathematics: this requirement can be met by either passing MAT 200 or by passing the MAT 200 challenge examination. (Note: the writing intensive course MAT 200 is a requirement for students in the Secondary Teacher Education Program.)

3. a. One course in linear algebra (MAT 211 or AMS 261) and one course in differential equations (MAT 303 or MAT 305 or AMS 361)

or

b. MAT 308

4. One course in computer literacy: MAT 331 or PHY 277 or CSE 114 or (for students graduating with the Secondary Teacher Education option) MAE 330.

Note: MAT 331 and MAE 330 may be used both here and in Requirement 7.

5. Two courses in algebra: MAT 310 and MAT 312 or MAT 313

6. Analysis:

Students must satisfy either a or b:

a. Three courses in analysis:

MAT 319 or MAT 320 and

two of the following:

MAT 322, MAT 324, MAT 341, MAT 342

b. For students graduating with the Secondary Teacher Education option: MAT 319 or MAT 320

7. Four mathematics-related courses beyond those taken to satisfy Requirements 5 and 6 (three will suffice if all of them are MAT courses), to be chosen from the following:

MAE 301

MAT courses numbered 310 or above except MAT 475

AMS courses numbered 301 or above except AMS 361 and AMS 475

CSE courses numbered 301 or above except CSE 475

A list of acceptable upper-division courses in chemistry, economics, philosophy, and physics is available in the Undergraduate Mathematics Office. Students in the Secondary Teacher Education Program must fulfill a modified version of this requirement, consisting of AMS 310, MAT 336, MAT 360, and MAE courses.

#### B. Upper-Division Writing Requirement

To satisfy the Departmental writing requirement, each student majoring in Mathematics, including double majors, must submit an acceptable portfolio of three pieces of writing from upper-division MAT or MAE coursework. Students should aim for completion of the portfolio early in their next-to-last semester to allow time to resolve any difficulties. Late completion may delay graduation. Each portfolio must be submitted no later than the beginning of the final semester, and each piece in it must have been approved by a Departmental faculty member as being mathematically correct and well written.

Notes:

1. Under special circumstances a student may request the director of undergraduate studies to allow substitution of an equivalent individual program for some or all of these requirements.
2. All courses used to fulfill the requirements for the major must be taken for a letter grade and must be completed with a grade of C or higher.
3. Students whose scores on the College Entrance Examination Board (CEEB) Advanced Placement Examination are documented earn credits as follows:

- 4 or 5 on BC examination: credit for MAT 131, MAT 132 (8 credits);
- 4 or 5 on AB examination: credit for MAT 131 (4 credits);
- 3 on either examination: 3 credits applicable to graduation but not the major.

4. Students who learned some linear algebra or multivariate calculus before entering Stony Brook should see an advisor in the Undergraduate Mathematics Office. For a student who has had some linear algebra, it may be appropriate to skip MAT 211 and to enroll directly in MAT 310.

5. Six credits of graduate MAT courses may be used in place of undergraduate courses in Requirement A7.

#### Honors Program in Mathematics

The honors program is open to junior and senior Mathematics majors who have completed at least two upper-division MAT courses with grades of B or higher and who have maintained a 3.00 overall grade point average. A prospective honors major must declare to the director of undergraduate studies an intention to participate in the program before registering for the senior year.

The program consists of a set of seven MAT courses, at least three of which are not used to fulfill the MAT major requirements. These courses must include: MAT 322 or MAT 324; MAT 401 or MAT 402; a course in algebra other than MAT 310 or MAT 318; and MAT 495. Substitution of appropriate graduate courses is permitted, and other substitutions are possible at the discretion of the undergraduate director. Conferral of honors is contingent upon:

1. Completion of the set of seven courses with a grade point average of at least 3.50;
2. Approval for honors by the faculty member or members who supervise MAT 495.

#### Mathematics Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Requirements for the Minor in Mathematics (MAT)

The minor in Mathematics is available for those students who want their formal university records to emphasize a serious amount of upper-division work in mathematics. Although a one-variable calculus sequence is not a requirement, it is a prerequisite for some of the courses listed below. The requirements listed below do not include single variable calculus or MAT 200 Logic, Language, and Proof; these are prerequisites for some of the courses listed below.

1. MAT 211 or AMS 210 or MAT 308
2. MAT 203 or AMS 261 or MAT 205 or MAT 307
3. MAT 310 or MAT 312 or MAT 313 or MAT 318
4. MAT 319 or MAT 320 or MAT 341 or MAT 342

5. Three additional MAT courses numbered 300 or higher (excluding 475)

All courses used to fulfill the requirements for the minor must be passed with a letter grade of C or higher.

#### Beginning Mathematics Courses

The Mathematics curriculum begins with a choice of calculus sequences, some including preparatory material from 12th-year mathematics in high school and some not. The three first-term calculus courses that assume knowledge of 12th-year mathematics are MAT 125, MAT 131, MAT 141 and AMS 151. A student may start any of these with the same background.

The three-semester sequence of one-variable calculus, MAT 125, MAT 126, MAT 127, is academically equivalent to the two-semester sequence MAT 131, MAT 132. Engineering students normally take the faster-paced MAT 131, MAT 132, or AMS 151, AMS 161 rather than MAT 125, MAT 126, MAT 127 because of the many requirements they must meet. MAT 141, MAT 142 is an enriched version of MAT 131, MAT 132. MAT 171 is a version of MAT 142 for students who have not taken MAT 141; offered only in the fall semester.

MAT 122 and MAT 123 combine precalculus and calculus for students who have not had a precalculus course in high school. A student who completes MAT 122 will have learned some precalculus material and will have a good idea of what calculus is and how it is used. MAT 123 is designed to lead into MAT 125 or MAT 131. Although MAT 122 is not designed as preparation for further calculus courses, students may follow that course with MAT 125 or MAT 131 if they take the one-credit course MAT 130 in the same semester as MAT 125 or MAT 131.

MAT 118 is a non-calculus course that surveys various topics in mathematics that do not require a background in precalculus or calculus; it is designed for students who do not intend to take further courses in mathematics.

For students whose high school preparation is insufficient to begin the MAT curriculum, or to enroll in another course applicable to the D.E.C. category C requirement, Mathematical and Statistical Reasoning, there are two review courses numbered MAP 101 and MAP 103. These courses do not carry graduation credit. MAP 103, a skills course, is for students who need further work in high school algebra and related topics before continuing with calculus or other mathematics. Some students, upon completing MAP 103, are able to pass the Mathematics Placement Examination at a level that allows them to go directly into MAT 125 or MAT 131.

#### Placement

The Department of Mathematics offers a placement examination which indicates the level of mathematical preparation of each student. The score on the examination is used to place the student in appropriate courses in mathematics, applied mathematics and statistics, biology, chemistry, and physics. It tests the student's skills at the time the test is taken; students are advised to study beforehand. There is a preliminary version of the examination given prior to orientation; all incoming students, including transfers, should take the preliminary placement examination. This exam is used only for registration purposes and cannot be used to fulfill graduation requirements. The preliminary score becomes invalid after two semesters.

A student wishing to use the placement examination to fulfill D.E.C. Category C or other graduation-related requirements or Skill 1, or if they have been or wish to be accepted into a major in the College of Engineering and Applied Sciences, must take a proctored version of the examination. This examination is given several times during the academic year, and by appointment with the Mathematics Department.

The placement exam consists of several parts; not all students will take all parts of the exam. Part I covers high school algebra, Part II deals with 12th year high school Mathematics (precalculus), and Part III covers single-variable calculus. The outcome of the test is one of nine levels:

Outcome	Placement
Level 1	MAP 101
Level 2	MAP 103
Level 2+	MAT 118 and Skill 1 or statistics
Level 3	MAT 118, MAT 123 or statistics
Level 4	MAT 125
Level 5	MAT 131 or MAT 141 or AMS 151
Level 6	MAT 126
Level 7	MAT 132 or MAT 142 or MAT 171 or AMS 161
Level 8	MAT 127 or MAT 132 or MAT 171 or MAT 142 or AMS 161
Level 9	Beyond 100-level calculus

Levels 1-3 can be achieved by a sufficiently high score on Part I, and levels 4-5 can be achieved by a sufficiently high score on Part II, and attaining levels 6-9 requires sufficiently high scores on Parts II and III. The entry skill in mathematics requirement may be satisfied by attaining a score of level 3 or higher on the proctored exam. The general education requirement for Mathematics (D.E.C. category C) may be satisfied by attaining a score of level 6 or higher on the proctored exam. Certain majors will also accept a sufficiently high score on the proctored exam in lieu of required math courses. A student who achieves a particular level is free to begin with a mathematics course corresponding to a lower level, so long as taking the course does not mean that credit is given for the same material twice.

#### Transfer Credit

When they enter, transfer students automatically receive credit toward graduation at Stony Brook for any courses they have already successfully completed at accredited institutions of higher education and that count toward graduation at that institution. The number of credits transferred appears on the Stony Brook transcript with no courses or grades indicated, and the number of transferred credits is unaffected by the student's score on the Mathematics Placement Examination. In some cases, a course designator ending in PQ (such as MAT 131PQ) may be placed on the student's transcript. In addition, transferred mathematics courses are automatically evaluated for applicability to the entry skill in mathematics requirement and the D.E.C. category C requirement; this evaluation does not depend on the result of the placement examination.

**Sample Course Sequence for the Major in Mathematics**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 131 or MAT 141 or MAT 125*	3-4	MAT 132 or MAT 142 or MAT 171 or MAT 126*	3-4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	MAT 200 or Elective	3
<b>Total</b>	<b>16-17</b>	<b>Total</b>	<b>16-17</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAT 203 or MAT 205 or AMS 261	3	MAT 303 or MAT 305 or AMS 361	3
MAT 211 or AMS 210	3	MAT 331	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAT 312 or MAT 313	3	MAT 322 or MAT 341 or MAT 342 or MAT 324	3
MAT 319 or MAT 320	3	MAT 310	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division electives	6
Elective	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division MAT electives	9	Upper-Division MAT electives	9
D.E.C.	3	Electives	6
Elective	3		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

\*Note: <http://www.stonybrook.edu/ugrbulletin/current/pdfs/matM.pdf>

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.

**Mechanical Engineering (MEC)****Major and Minor in Mechanical Engineering****Department of Mechanical Engineering, College of Engineering and Applied Sciences**

Chairperson: Fu-Pen Chiang

Undergraduate Program Director: Robert Kukta

Undergraduate Secretary: Augusta Kuhn

Office: 113 Light Engineering Lab  
Phone: (631) 632-8310

E-mail: Augusta.Kuhn@stonybrook.edu

Fax: (631) 632-8544

Web address: <http://me.eng.sunysb.edu>

Minors of particular interest to students majoring in Mechanical Engineering: Science and Engineering (LSE)

**Mechanical Engineering (MEC)**

Mechanical engineering is one of the core disciplines of engineering and it encompasses a large number of subdisciplines that are at the heart of both traditional and leading edge technologies. It is a broad profession concerned with activities such as energy conversion, power generation, design, and manufacturing. The theoretical and technical bases of knowledge include the pure sciences, mathematics, and the engineering sciences, especially the mechanics of solids and fluids, thermodynamics, and kinematics. Mechanical engineering requires aptitude and interest in the physical sciences and the language of mathematics, and the ability to apply these to societal needs. The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The educational objectives of the undergraduate mechanical engineering program at Stony Brook University recognize that students have a variety of career objectives and a choice of industrial environments in which to pursue them. While the majority of our graduates are immediately employed in industry, a significant percentage pursues graduate study. Most of the students entering graduate schools continue with mechanical engineering studies. However, some go to law, business, and medical schools. The mechanical engineering curriculum provides students with a core education in mathematics and the physical sciences along with a broad sequence of courses covering thermal processes and fluid mechanics, mechanical design, solid mechanics, and the dynamic behavior and control of mechanical systems. Students also take courses that introduce them to the use of advanced computational methods for engineering design and analysis as well as data processing and analysis. A series of laboratory courses introduces them to sensors and electronics, modern instrumentation and experimental techniques used in engineering for tasks ranging from product design, evaluation, and testing to research. In addition, students can select electives to provide either higher level academic training in preparation for graduate school or a broader exposure to subjects related to engineering practice to enhance their preparation for a job after graduation.

**Program Educational Objectives**

The educational objectives of the mechanical engineering program are to prepare our graduates to:

1. Establish a successful career in mechanical engineering or related fields in industry and other organizations where an engineering approach to problem solving is highly valued.
2. Contribute significantly in a multidisciplinary work environment with high ethical standards and with an understanding of the role of engineering in the economy and the environment.
3. Excel in graduate study and research, reaching advanced degrees in engineering and related disciplines.
4. Achieve success in professional development through life-long learning.

**Program Outcomes**

To prepare students for the above educational objectives, we have adopted the following set of program outcomes that describe what they are expected to attain when they graduate:

- a. the ability to apply knowledge of mathematics, science, and engineering to mechanical engineering problems (in particular, a knowledge of chemistry and calculus-based physics with depth in at least one, an ability to apply advanced mathematics through multivariate calculus and differential equations, and a familiarity with statistics and linear algebra);
- b. the ability to design and conduct experiments and to analyze and interpret data;
- c. the ability to work professionally in both the thermal and mechanical systems areas including the design and realization of such systems to meet desired needs;
- d. the ability to identify, formulate, and solve engineering problems;

- e. the ability to function as a member of multidisciplinary teams;
- f. a solid understanding of professional and ethical responsibility;
- g. an ability to communicate effectively in written, oral, and visual form;
- h. the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- i. a recognition of the need for and the ability to engage in life-long learning;
- j. a knowledge of contemporary issues; and
- k. the ability to use modern engineering techniques, skills, and computing tools necessary for engineering practice.

More details about the program educational objectives and outcomes can be found at [http://me.eng.sunysb.edu/index.php?option=com\\_content&view=article&id=50&Itemid=143](http://me.eng.sunysb.edu/index.php?option=com_content&view=article&id=50&Itemid=143)

## Mechanical Engineering (MEC)

### Requirements for Acceptance to the Major in Mechanical Engineering

Freshman and transfer applicants who have specified their interest in the Mechanical Engineering major may be accepted directly into the major upon admission to the University. Students in good academic standing who were admitted to the University but not immediately accepted into the major may apply for acceptance after they meet the following minimum requirements: 1) completion of at least 10 credits of mathematics, physics, and engineering courses required for the major, 2) earned a G.P.A. of 3.0 in all mathematics, physics, and engineering courses applicable to major requirements with no more than one grade of C or lower, and 3) completion of course evaluations for all transferred courses that are to be used to meet requirements of the major. Students interested in applying for admission are encouraged to talk to the Undergraduate Program Director.

### Requirements for the Major in Mechanical Engineering (MEC)

The major in Mechanical Engineering leads to the Bachelor of Engineering degree.

Completion of the major requires approximately 107 credits.

#### 1. Mathematics

- a. MAT 131, MAT 132 Calculus I, II
- b. AMS 261 Applied Calculus III or MAT 203 Calculus III with Applications
- c. AMS 361 Applied Calculus IV: Differential Equations or MAT 303 Calculus IV with Applications

Note: The following alternate calculus course sequences may be substituted for MAT 131, MAT 132 in major requirements or prerequisites: MAT 125, MAT 126, MAT 127 or AMS 151, AMS 161 or MAT 141, MAT 142

#### 2. Natural Sciences

- a. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and Laboratories
- b. PHY 251 Modern Physics and PHY 252 Modern Physics Laboratory or ESG 281 Engineering Introduction to the Solid State
- c. ESG 198 Fundamentals of Engineering Chemistry

Notes: The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142 Classical Physics I, II: Honors

The following chemistry courses may be substituted for ESG 198:

CHE 131 General Chemistry I or CHE 141 Honors Chemistry I

#### 3. Laboratories

- MEC 316 Mechanical Engineering Laboratory I
- MEC 317 Mechanical Engineering Laboratory II

#### 4. Mechanical Engineering

- MEC 101 Engineering Computing and Problem Solving I
- MEC 102 Engineering Computing and Problem Solving II
- MEC 125 Fundamentals of Machining
- MEC 202 Engineering Drawing and CAD I
- MEC 203 Engineering Drawing and CAD II
- MEC 214 Probability and Statistics
- MEC 220 Practical Electronics Mechanical Engineers
- MEC 260 Engineering Statics
- MEC 262 Engineering Dynamics
- MEC 301 Thermodynamics MEC 305 Heat and Mass Transfer
- MEC 325 Manufacturing Processes
- MEC 363 Mechanics of Solids
- MEC 364 Introduction to Fluid Mechanics

#### 5. Materials Science

## ESG 332 Materials Science I: Structure and Properties of Materials

## 6. Engineering Design

MEC 310 Introduction to Machine Design  
 MEC 320 Numerical Methods in Engineering Design and Analysis  
 MEC 410 Design of Machine Elements  
 MEC 411 System Dynamics and Controls  
 MEC 422 Thermal System Design  
 MEC 440 Mechanical Engineering Design I  
 MEC 441 Mechanical Engineering Design II

## 7. Engineering Economics

EST 392 Engineering and Manufacturing Economics or ECO 108 Introduction to Economics

## 8. Technical Electives

Three technical elective courses are required, two mechanical engineering (MEC) courses and one selected from courses offered by any department of the College of Engineering and Applied Sciences, including MEC. A list of approved technical elective courses may be found in the Department's Undergraduate Guide.

## 9. Writing and Oral Communication Requirement

MEC 300 Technical Communication in Mechanical Engineering  
 Grading

The grade point average of all required MEC courses and all technical electives must be at least 2.00.

## The Minor in Mechanical Engineering

The minor in Mechanical Engineering is offered for students who want the record of their University studies to show a significant amount of upper-division work in the discipline. Entry into this minor presupposes a background in mathematics and physics, represented by the prerequisite requirements for the courses listed below.

## Requirements for the Minor in Mechanical Engineering (MEC)

Completion of the minor requires 18-20 credits, of which 12-13 are from required courses and 6-7 from electives.

A student who wishes to pursue this minor should consult with the undergraduate program director in the Department of Mechanical Engineering before registering for the elective courses. All courses must be taken for a letter grade and a g.p.a. of 2.00 or higher is required for the six courses that constitute the minor.

## 1. Four required courses:

MEC 260 Engineering Statics  
 MEC 262 Engineering Dynamics  
 MEC 301 Thermodynamics or ESG 302 Thermodynamics of Materials  
 MEC 363 Mechanics of Solids

## 2. Two elective courses chosen from the following:

MEC 305 Heat and Mass Transfer  
 MEC 310 Introduction to Machine Design  
 MEC 320 Numerical Methods in Engineering Design and Analysis  
 MEC 325 Manufacturing Processes and Machining  
 MEC 364 Introduction to Fluid Mechanics  
 MEC 393 Engineering Fluid Mechanics  
 MEC 398 Thermodynamics II  
 MEC 402 Mechanical Vibrations  
 MEC 411 System Dynamics and Control

Note: Other electives require the approval of the undergraduate program director.

## The Accelerated B.E./M.S. Degree Program in Mechanical Engineering

The accelerated B.E./M.S. program in mechanical engineering allows students to use up to nine graduate credits taken as an undergraduate toward both B.E. and M.S. degree requirements, thus reducing the normal time required to complete both degrees. The program is designed for upper-division mechanical engineering students with superior academic records. For detailed program requirements, including admission requirements, please refer to the Graduate Bulletin.

**Sample Course Sequence for the Major in Mechanical Engineering**

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1

MAT 131	4	D.E.C.	3
MEC 101	2	MAT 132	4
PHY 131/133	4	MEC 102	2
WRT 101	3	PHY 132/134	4
D.E.C.	3	WRT 102	3
Total	17	Total	17
<b>Sophomore Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MEC 125*	1	MEC 203	2
MEC 220	2	MEC 262*****	3
MEC 202	1	MEC 363***	3
MEC 260**	3	AMS 361 or MAT 303	4
AMS 261 or MAT 203	4	ESG 198 or CHE 131	4
ESG 281 or PHY 251/252	4	MEC 214	1
D.E.C.	3		
Total	18	Total	17
<b>Junior Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MEC 301	3	MEC 300	1
ESG 332	4	MEC 305	3
MEC 316	3	MEC 310	3
MEC 364	3	MEC 317	2
EST 392 or ECO 108 (D.E.C. F)	3	MEC 320	3
		MEC 325	3
Total	16	Total	15
<b>Senior Fall</b>			
	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MEC 410	3	MEC 441	3
MEC 411	4	Technical Elective	3
MEC 422	3	Technical Elective	3
MEC 440	3	D.E.C.	3
Technical elective	3	D.E.C.	3
Total	16	Total	15

\*Note: <http://www.stonybrook.edu/ugrbulletin/current/pdfs/mecM.pdf>

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.



**Media Arts (MDA)****Living Learning Center Minor in Media Arts****Department of Theatre Arts, College of Arts and Sciences**

Director of the Minor: Norm Prusslin, Theatre Arts

Administrative Assistant: Ed Quinn

E-MAIL: Norman.Prusslin@stonybrook.edu

Office: 3046 Staller Center for the Arts  
Phone: (631) 632-7300

Web address: <http://ws.cc.sunysb.edu/theatrearts>

Other minors of particular interest to students minoring in Media Arts: Dance (DAN), Interdisciplinary Arts (LIA), Journalism (JRN), Music (MUS), Political Science (POL), Theatre Arts (THR)

**Media Arts (MDA)**

The Media Arts minor is designed primarily, but not exclusively, for residents of Douglass College, who wish to add an academic dimension to their residential experience. The minor in this Living Learning Center provides for a coordinated set of courses that examine media technology, theory, and practice. Students taking the Media Arts minor are provided with an overview the range of media and explore their effect on contemporary culture.

There are two tracks that students choose in consultation with the director of the minor: Mass Media and New Media. The Mass Media track not only provides students with an understanding of the history and theory of broadcast media, but the opportunity to gain practical experience in the production and broadcast of radio and television. The New Media track is a project based curriculum in digital media that introduces students to numerous visual, animation, and audio programs, while giving them the opportunity to explore the rapid cultural and social changes brought about by this revolutionary medium. Students select courses appropriate to the chosen track in consultation with the director of the minor.

The minor prepares students for specialized studies in any one of the media. Media skills broaden career options for students majoring in any of the natural sciences, social sciences, or humanities. The Media Arts minor is also for students who simply want to develop critical standards and practical skills in order to live intelligently in this media-saturated world.

**Requirements for the Minor in Media Arts (MDA)**

All courses offered for the minor must be passed with a letter grade of C or higher. At least 12 of the 21 credits must be taken at Stony Brook.

Completion of the minor requires 21 credits.

**A. Required Courses:**

THR 117 Media: Analysis and Culture  
THR 216 Introduction to Visual Interpretation  
THR 277 The Media Industry  
THR 403 Media: Theory and Criticism  
One of the following courses:  
THR 480 Projects in Media  
THR 488 Internship (appropriate topic only)

**B. Six credits, of which at least three must be numbered 300 or higher, to be chosen from among:**

AFS 463 Blacks and Mass Media  
ARS/MUS/THR 208 Technology in the Arts  
ARS/MUS/THR 318 Interactive Performance, Media, and MIDI  
EST 100 Societal Impact of Computers  
HUM 201 Film and Television: Genre  
HUM 202 Film and Television: History and Theory  
MUS 340 Introduction to Music Technology  
MUS 437 Electronic Music  
POL 367 Mass Media in American Politics  
THR 298 Student Media Leadership  
THR 325 Scriptwriting for Film and Television  
THR 356 Scene Design  
THR 372 Introduction to Television  
THR 375 Television Production  
THR 379 Radio News  
THR 480 Projects in Media (See Note 2)  
THR 487 Independent Research  
THR 488 Internship (appropriate topic only; See Note 2)

## Notes:

1. No more than six credits required for the Media Arts minor may be counted toward the theatre arts major.
2. No more than a total of six credits from THR 480 and 488 may be applied to the minor.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Medieval Studies (MVL)****Minor in Medieval Studies****Department of European Languages, Literatures, and Cultures, College of Arts and Sciences**

Chairperson: Nicholas Rzhovsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Minor: Charles Franco

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

Phone: (631) 632-7440

E-mail: Charles.Franco@stonybrook.edu

Web address: <http://www.sunysb.edu/eurolang>

**Medieval Studies (MVL)**

The minor in Medieval Studies (MVL) offers students the opportunity to acquire an understanding of the historical, cultural, and social forces that shaped Western Civilization during the European Middle Ages. Under the direction of an advisor from the Medieval Studies Program faculty, the student must establish an advisement folder with the minor coordinator and construct a program fulfilling the requirements listed in this Bulletin.

**Requirements for the Minor in Medieval Studies (MVL)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires at least 21 credits.

1. MVL 141 The Legend of King Arthur

2. Two courses chosen from the following:

HIS 235 The Early Middle Ages

HIS 236 The Late Middle Ages

HIS 360 Women in Premodern Europe

MVL 241 Heroes and Warriors

3. Three of the following courses, including at least two different designators, in medieval philosophy, art, music, or literature. At least two of the courses must be numbered 300 or higher.

ANT 361 Peasants

ARH 101 Art in Culture from Prehistoric Times to the Age of the Cathedrals, c. 1400 A.D.

ARH 305 Art and Culture of the Middle Ages

CLT 211 Literary Survey: Medieval through Late Renaissance

EGL 300 Old English Literature

EGL 302 Medieval Literature in English

EGL 340 Chaucer

HUF 216 French Civilization through the Ages

HUI 216 Italian Civilization through the Ages

HUI 235 Themes in Western European Literature: Sex, Love, and Tragedy in Early Italian Literature

HUL 324 Romance Linguistics

ITL 424 History of the Italian Language

ITL 430, 431 Studies in 13th- and 14th-Century Literature

LAT 355 Early Medieval Latin

LAT 356 Late Medieval Latin

MUS 350 Western Music before 1600

MVL 241 Heroes and Warriors (if not used for Requirement 2)

PHI 304 Medieval Philosophy

RLS 270 Christianity

RLS 310 Biblical Theology

Additional relevant courses may become available. Consult the coordinator of the medieval studies minor.

4. HIS 451 Colloquium in Medieval History or MVL 447 Directed Readings in Medieval Studies

Note: Also required, but not included in the 21 credits for the minor: Completion of intermediate level Latin (LAT 252) or a relevant intermediate-level European foreign language numbered 201, or 212 or higher.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Middle Eastern Studies (MES)****Minor in Middle Eastern Studies****College of Arts and Sciences**

Director of the Minor: Robert Hoberman, Linguistics

E-MAIL: Robert.Hoberman@stonybrook.edu

Office: S-213 Social and Behavioral Sciences

Phone: (631) 632-7462

**Middle Eastern Studies (MES)**

The interdisciplinary minor in Middle Eastern Studies allows students interested in the Middle East to design an individual program of study centered around a particular area of concentration in consultation with an advisor.

**Requirements for the Minor in Middle Eastern Studies (MES)**

All courses offered for the minor must be taken for a letter grade. Failure to obtain prior approval of the program may result in denial of credit for the minor

Completion of the minor requires 18 credits.

1. SOC 264 Introduction to Middle Eastern Studies
2. 15 credits chosen from courses on the Middle East, of which at least nine credits must be upper-division. Courses to be distributed as follows:
  - a. 12 credits in courses on the student's approved topic
  - b. Three credits in a related course from another minor topic area in Middle Eastern studies

Notes:

1. Other courses may be substituted for SOC 264 with the permission of the director of the minor.
2. Besides the required courses, it is strongly recommended that students take a year of language related to their chosen topic area.

**Sample Programs**

The following programs are suggested as examples only. Students should consult an advisor about other possibilities, such as Islamic studies, Middle Eastern history, or Semitic languages and linguistics. The courses indicated in parentheses are recommended language courses but are not required.

**Near Eastern Religions**

ANT 360 Ancient Mesopotamia

JDH 230/RLS 230 Judaism

JDH 320/RLS 320 The Rabbinic Tradition

JDS 225/HIS 225 The Formation of the Judaic Heritage

JDS 226/HIS 226 The Shaping of Modern Judaism

AAS 280/RLS 280 Islam

AAS 380/RLS 380 Islamic Classics

SOC 264 Introduction to Middle Eastern Society

SOC 386 State and Society in the Middle East

ARB 111, ARB 112 Elementary Arabic or HBW 111, HBW 112 Elementary Hebrew

**Ancient Near East**

ANT 290 Science and Technology in Ancient Society

ANT 358 Ways to Civilization

ANT 360 Ancient Mesopotamia

JDS 225/HIS 225 The Formation of the Judaic Heritage

SOC 264 Introduction to Middle Eastern Society

SOC 386 State and Society in the Middle East

ARB 111, ARB 112 Elementary Arabic or HBW 111, HBW 112 Elementary Hebrew

**Middle Eastern Culture and Politics**

ANT 310 Ethnography (appropriate topic only)

ANT 311 Immersion in Another Culture (appropriate topic only)

AAS 280/RLS 280 Islam

AAS 380/RLS 380 Islamic Classics

SOC 264 Introduction to Middle Eastern Society

SOC 386 State and Society in the Middle East

ARB 111, ARB 112 Elementary Arabic or HBW 111, HBW 112 Elementary Hebrew

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Multidisciplinary Studies (MTD)****Interdisciplinary Major in Multidisciplinary Studies****College of Arts and Sciences**

PROGRAM DIRECTOR: Darcy Lonsdale, Marine Science

Office: E-3310 Melville Library

Phone: (631) 632-7080

PROGRAM ADVISOR: Catherine Marrone, Sociology

E-mail: Darcy.Lonsdale@stonybrook.edu

Web address: <http://www.sunysb.edu/uaa/multidisciplinary>

**Multidisciplinary Studies (MTD)**

The Multidisciplinary Studies major, which offers no courses of its own, allows students who are interested in more than one discipline to design their own programs by drawing on courses from two or three different areas of study. For example, students who wish to enter the health professions frequently combine biology with psychology, English, or sociology. Others with interests in the social or physical sciences may choose courses from those areas in conjunction with study in art, music, or theatre. Studies may be pursued to suit individual interests in one subject or time period such as international affairs or the colonial era. An academic minor such as Business Management, China Studies, Women's Studies, Latin American Studies, or Child and Family Studies may also fulfill one of the student's areas.

The individual programs of study for Multidisciplinary Studies majors are so diverse that no general statement can be made about their career paths after graduation. Majors frequently enter graduate or professional school or seek careers in business, education, or government agencies. Since the program of study requires careful planning, students choosing this major must see one of the MTD advisors to plan their individual program.

**Requirements for the Major in Multidisciplinary Studies (MTD)****Acceptance to the Major**

Students seeking admission to the major should read the detailed instructions found on the program Web site. Each student must write a Curricular Plan which states the two or three areas of concentration that will satisfy the Course Distribution requirement, and explains how this selection serves his or her intellectual, professional, or personal goals. In addition, if any course to be credited toward one of the two or three areas of concentration does not bear the course designator of the corresponding department or program, the inclusion of that course must be justified in the Curricular Plan. Upon acceptance of the Plan by one of the Multidisciplinary Studies advisors, the student will be admitted to the major. A student wishing to change areas of concentration or justify the inclusion of additional courses must submit a revised Curricular Plan for approval by one of the program advisors.

**Requirements for the Major**

The major in Multidisciplinary Studies leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 45 credits.

**A. Course Distribution**

Courses from two or three departments or areas are distributed as follows:

1. 15 credits in department or area A;
2. 15 credits in department or area B;
3. 15 credits in department or area C (or 15 credits in additional courses from department or area A, B, or both).

**B. Upper-Division Writing Requirement**

All students majoring in Multidisciplinary Studies must satisfy the upper-division writing requirement established in one of the two or three departments chosen for distribution of Multidisciplinary Studies major credit. The department in which the upper-division writing requirement is satisfied must be a department within the College of Arts and Sciences. Students must report the department in which they will meet the upper-division writing requirement to the director of the Multidisciplinary Studies major by the start of their final semester. Details of the writing requirement for each major are listed among the major requirements in each department. In cases where there is no clearly identified department, the student should consult with an advisor in the Multidisciplinary Studies major.

**Further Stipulations**

1. At least 30 credits offered to fulfill major requirements must be in upper-division courses, that is, courses numbered 300 or higher. Of these, at least nine credits in concentration A and nine credits in concentration B must be in upper-division courses.
2. A maximum of 15 credits may be used in courses from departments outside the College of Arts and Sciences such as business, computer science, or health sciences courses.
3. The 45 credits must include at least 15 upper-division credits taken at Stony Brook.

4. No more than six credits of independent study (including directed readings, research, and projects), with no more than three credits in a single concentration, will be accepted toward the major.
5. No more than three credits of S/U graded courses, including teaching practica and internships, will be accepted toward the major.
6. No courses taken under the Pass/No Credit option will be accepted toward the major.
7. Students in the Multidisciplinary Studies major may not declare a second major.

#### Honors Program in Multidisciplinary Studies

The honors program is open to Multidisciplinary Studies majors who have a cumulative g.p.a. of 3.00 and a g.p.a. of 3.50 in their MTD areas of concentration. A student wishing to enter the honors program should begin the process during the junior year by finding a faculty mentor from one of the student's areas of concentration to supervise the writing of an honors thesis in that area. The student must write a proposal indicating both the topic of the planned thesis and the remaining courses to be taken for completion of the major, which must include two research courses or seminars chosen with the advice and approval of the mentor. Preferably the thesis topic and the courses will be of an interdisciplinary nature. The proposal, along with a statement by the mentor supporting the student's proposal and indicating the merit of the plan, must be submitted to the Multidisciplinary Studies advisory committee by the beginning of the semester before the semester of graduation (September for May or August graduation, January for December graduation).

The honors thesis is examined by the student's mentor, a faculty member in a different department which corresponds to another of the student's MTD areas of concentration, and a Multidisciplinary Studies faculty advisor. Submission of an acceptable thesis will satisfy the upper-division writing requirement. If the thesis is judged by these readers to be of sufficient merit and the student has completed the other elements of the approved plan and maintained the g.p.a. levels specified above, honors are conferred.

#### Sample Course Sequence for the Major in Multidisciplinary Studies

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
Lower-Division Area A course	3	Lower-Division Area B course	3
D.E.C.	3	Lower-Division Area C course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Lower-Division Area B course	3	Upper-Division Area A course	3
Lower-Division Area C course	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division Area A course	3	Upper-Division Area A course	3
Upper-Division Area B course	3	Upper-Division Area B course	3
Upper-Division Area C course	3	Upper-Division Area C course	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division Area A course	3	Upper-Division elective	3
Upper-Division Area B course	3	Upper-Division elective	3
Upper-Division Area C course	3	Upper-Division elective	3

Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Music (MUS)****Major and Minor in Music****Department of Music, College of Arts and Sciences**

Chairperson: Judith Lochhead

Director of Undergraduate Studies: Sheila Silver

Assistant to the Chair: Martha Zadok

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts

Phone: (631) 632-7330

E-mail: [Sheila.Silver@stonybrook.edu](mailto:Sheila.Silver@stonybrook.edu)

Web address: <http://www.sunysb.edu/music>

Minors of particular interest to students majoring in Music: Jazz (JAZ), Anthropology (ANT), Art History (ARH), Cinema and Cultural Studies (CCS), Dance (DAN), English (EGL), History (HIS), Philosophy (PHI), Theatre Arts (THR)

**Music (MUS), Jazz Music (JAZ), and Music and Technology (MTX)**

The undergraduate major in music balances studies in the performance, composition, theory, and history of Western art music with the broad general education implied by a liberal arts degree. The department offers a Bachelor of Arts degree in Music with no specific "tracks" in performance, history, composition, or theory. All students take the same general program and are encouraged to select electives that reflect their individual interests and potential careers.

Students graduating with a major in Music pursue graduate study in musical performance, composition, history, and theory; teach music in private and public schools; take jobs in arts-related industries; and pursue advanced study in non-music fields.

For requirement information regarding the Minor in Jazz Music, see the Jazz Music section of this Bulletin.

For requirement information regarding the Minor in Music and Technology, see the Music and Technology section of this Bulletin.

**Requirements for the Major and Minor in Music****Requirements for the Major in Music (MUS)**

The major in Music leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 63 credits.

**Admittance to the Major**

Any student wishing to major in Music must pass an audition in voice or instrument and a musicianship examination that tests aural skills and musical literacy (elementary theory, interval recognition, simple melodic, harmonic, and rhythmic dictation, and sight singing). The undergraduate musicianship examination is given four times each year: the first or second day of each semester, in February, and at the end of April. Auditions are held in the General and Scholarship Auditions in February of each year and during the first week of classes. Students should consult the Department office or contact the director of undergraduate studies to sign up for the undergraduate musicianship examination and to make an appointment for an audition. Please see the department webpage for information on how to audition.

**A. Study within the Area of the Major****1. Theory:**

MUS 121 Musicianship I, MUS 122 Beginning Keyboard, MUS 141, MUS 142 Keyboard Harmony A, B, MUS 220, MUS 221 Musicianship II, III, MUS 321, MUS 322 Tonal Harmony I, II, MUS 323 Techniques of Music, 1880 to the Present, MUS 331 Musicianship IV, MUS 421 Analysis of Tonal Music, MUS 422 Analysis of Post-Tonal Music

**2. History and Literature:**

- a. MUS 130 Sound Structures, MUS 350 Western Music before 1600, MUS 351 Western Music, 1600-1830, MUS 352 Western Music from 1830 to the Present
- b. Two additional music history courses numbered 450 (each semester a different topic will be offered) or one additional history course numbered 450 plus one other elective selected from the following: MUS 432 Counterpoint, MUS 434 Orchestration, MUS 439 Composition, MUS 487 Independent Project. All 487 projects which are to be used to fulfill the elective requirement must be approved by the Undergraduate Studies Committee one semester before the course is to be undertaken. Such projects may include a lecture-recital or full recital with researched program notes.

**3. Study of Individual Instrument or Voice:**

- a. A minimum of four semesters from courses in the series MUS 161-MUS 187 Performance Study (2 credits each) or MUS 361-MUS 387 Advanced Performance Study (4 credits each).



b. Mandatory co-registration in a performance ensemble for each semester of lessons. Instrumentalists should enroll in MUS 262 University Orchestra, MUS 263 University Wind Ensemble, or MUS 264 Jazz Ensemble. Singers should enroll in MUS 261 Stony Brook Chorale. Pianists and guitarists should enroll in MUS 391 Chamber Music.

Note: No more than 30 credits of individual instruction in instrument or voice may be included in the 120 credits required for the B.A. degree.

### **B. Upper-Division Writing Requirement**

As evidence of acceptable writing skills in the discipline, students majoring in Music must submit to the director of undergraduate studies a portfolio of three papers no later than one month before the end of their junior year. Papers written for music history courses (MUS 350, MUS 351, MUS 352 or higher) or for MUS 421 or MUS 422 are preferred, but in any case at least two of the three papers must be from such a course. The remaining paper may have been written for other courses in the humanities or fine arts, such as English, theatre arts, or foreign languages. The papers should demonstrate a mastery of language sufficient to express clearly and accurately concepts of sophistication commensurate with upper-division work. A special committee reads the papers and assesses the quality of writing. The committee communicates the results of its assessment by the end of the student's junior year. If writing skills are judged deficient, the committee recommends a course of action for the improvement of such skills and reviews examples of writing during the senior year. Students must demonstrate acceptable writing skills before they graduate. Students who need extra work on writing skills may be identified as early as during MUS 130 and asked to do additional work or writing courses in order to be able to pass their Upper-Division Writing Requirement when they are juniors.

### **C. Foreign Language**

Students who intend to continue their studies beyond the B.A. degree are advised that most graduate music programs require a reading knowledge of French or German, often both. (For this purpose, but not for the entry skill in foreign language requirement, language courses may be taken under the Pass/No Credit option.)

#### Honors Program in Music

Candidates for honors in Music must be nominated by a faculty member who agrees to act as sponsor for the honors project. An eligible student may submit a proposal for a project to the proposed sponsor, who forwards the proposal together with a letter of nomination to the Department of Music's undergraduate studies committee. To be eligible, a student must have maintained at least a 3.00 cumulative g.p.a., and a 3.00 g.p.a. in music. After entering the honors program, a student must maintain at least a 3.50 g.p.a. in music.

The project, which may be in performance, composition, history, or theory, must be carried out under the supervision of the sponsor. The completed project is reviewed by an evaluating committee consisting of the sponsor, another member of the Music faculty, and an outside evaluator.

Complete guidelines for the honors program are available from the director of undergraduate studies.

#### The Minors in Music (MUS) and Jazz Music (JAZ)

Both the minor in Music (MUS) and the minor in Jazz Music (JAZ), each of which has a General track and a Theory track, are designed to provide students interested in music with a foundation in the theory and history of music and experience in a performing ensemble. Less rigorous than the Music major, the minor is not intended to prepare students for advanced study or professional work in music.

The General track is designed for students who are interested in music but who do not seek training in more sophisticated aspects of music theory and musicianship. The Theory track, for which students take Music major courses in theory and musicianship, is for students who want to acquire more specialized knowledge and skills in the areas of music theory and musicianship.

#### Requirements for the Minor in Music (MUS)

All courses offered for the minor must be passed with a letter grade of C or higher. At least three credits from Requirement 2 or 3 in either track must be upper division. The General track requires 20 credits; the Theory track requires 24 credits.

A Note on the Performance Requirement: With the permission of the director of undergraduate studies, students who do not pass the audition for one of the ensembles may fulfill the performance requirement through private lessons (MUS 161-MUS 187). For students in the minor who fulfill the performance requirement through lessons, the ensemble corequisite for private lessons (MUS 161-MUS 187) will be waived.

#### **General Track**

##### 1. Theory:

MUS 119 Elements of Music or MUS 130 Sounds Structures, MUS 315 Structural Principles of Music I, MUS 316 Structural Principles of Music II or MUS 340 Introduction to Music and Technology

Note: Students well-versed in music notation and basic theory (as demonstrated by the MUS 119 challenge examination) should take MUS 130 Sound Structures

##### 2. History:

MUS 101 and two courses chosen from the following: MUS 105, 301-314, 319-323.

##### 3. Performance:

Two semesters of one or more of the following:

MUS 261 Stony Brook Chorale, MUS 262 University Orchestra, MUS 263 University Wind Ensemble, MUS 264 Jazz Ensemble, MUS 266 Guitar Workshop, MUS 391 Chamber Music

#### **Theory Track**

##### 1. Theory:

MUS 121 Musicianship I, MUS 130 Sound Structures, MUS 220 Musicianship II, MUS 221 Musicianship III, MUS 321 Tonal Harmony I, MUS 322 Tonal Harmony II

2. History:

MUS 105 and one course chosen from the following: MUS 105, 301-314, 319-320

3. Performance:

Three semesters from the following: MUS 261 Stony Brook Chorale, MUS 262 University Orchestra, MUS 263 University Wind Ensemble, MUS 264 Jazz Ensemble, MUS 266 Guitar Workshop, MUS 267 Jazz Combo, MUS 268 Marching Band, MUS 391 Chamber Music  
Requirements for the Minor in Jazz Music (JAZ)

For requirement information regarding the Minor in Jazz Music, see the Jazz Music section of this Bulletin.

Requirements for the Minor in Music and Technology (MTX)

For requirement information regarding the Minor in Music and Technology, see the Music and Technology section of this Bulletin.

### Sample Course Sequence for the Major in Music

The music major program is designed to be easily completed in 3 years of study. Additional elective courses may be added at any time.

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
MUS 121		2 MUS 220	2
MUS 122		1 MUS 141	1
MUS 130		3 MUS 322	3
MUS 321		3 MUS 350	4
Performance Study		2 Performance Study	2
Ensemble	1-2	Ensemble	1-2
Total	16-17	Total	17-18
<b>Sophomore Fall</b>		<b>Spring</b>	<b>Credits</b>
MUS 221		2 MUS 331	2
MUS 142		1 MUS 421	1
MUS 323		3 MUS 352	4
MUS 351		4 Performance Study	2
Performance Study		2 Ensemble	1-2
Ensemble	1-2	D.E.C.	3
D.E.C.		3 D.E.C.	3
Total	16-17	Total	16-17
<b>Junior Fall</b>		<b>Spring</b>	<b>Credits</b>
MUS 422		3 Performance Study	2-4
MUS 450		4 Ensemble	1-2
Performance Study	2-4	Upper-Division Music elective*	3
Ensemble	1-2	D.E.C.	3
D.E.C.		3 D.E.C.	3
D.E.C.		3 D.E.C.	3
Total	16-19	Total	15-18
<b>Senior Fall</b>		<b>Spring</b>	<b>Credits</b>
Performance Study	2-4	Performance Study	2-4

Ensemble	1-2	Ensemble	1-2
D.E.C.	3	D.E.C. (Upper-Division)	3
D.E.C.	3	D.E.C. (Upper-Division)	3
D.E.C.	3	D.E.C.	3
Total	12-13	Total	12-15

\*Students may take another history class, 450, or any of the following: 439, 491, 432, 434, or 437.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Music and Technology Studies (MTX)****Minor in Music and Technology Studies****Department of Music, College of Arts and Sciences**

Chairperson: Judith Lochhead

Director of Undergraduate Studies: Sheila Silver

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts

Phone: (631) 632-7330

E-mail: Sheila.Silver@stonybrook.edu

Web address: <http://www.sunysb.edu/music>

**Music and Technology (MTX)**

The minor in Music and Technology is designed to provide students interested in music, media, and digital technology and the arts, with a foundation specific to the latest developments in music and technology along with a basic background in the history and theory of music. Students in other majors who have interdisciplinary interests will find this minor valuable as preparation for further studies dealing with the arts and culture. Less rigorous than the music major, the minor is not intended to prepare students for advanced study or professional work in music.

**Music and Technology (MTX)**

The minor in Music and Technology is designed to provide students interested in music, media, and digital technology and the arts, with a foundation specific to the latest developments in music and technology along with a basic background in the history and theory of music. Students in other majors who have interdisciplinary interests will find this minor valuable as preparation for further studies dealing with the arts and culture. Less rigorous than the music major, the minor is not intended to prepare students for advanced study or professional work in music. This track requires a minimum of 20 credits.

## 1. Basics:

- MUS 119 Elements of Music, or MUS 130 Sound Structures
- MUS 208 Introduction to Art and Technology

Note: Students well-versed in music notation and basic theory (demonstrated by the MUS 119 challenge examination) should take MUS 130 Sound Structures.

## 2. General:

- One course chosen from the following, MUS 101, MUS 105
- and one from the following: MUS 301-314, 319-320

## 3. Specific:

- MUS 341 Sound Design plus one course chosen from the following:
- MUS 317 Interactive Media, MUS 318 Movie Making, MUS 344 Audio Engineering

## 4. Performance: two semesters of one or more of the following:

- MUS 261 Stony Brook Chorale
- MUS 262 University Orchestra
- MUS 263 University Wind Ensemble
- MUS 264 Jazz Ensemble
- MUS 267 Jazz Combo
- MUS 268 Marching Band
- MUS 161-187 Individual lessons
- MUS 391 Chamber Music

(all of the above are by audition only – please note that most instrumental lessons require a co-requisite of an ensemble – please see course descriptions)

5. In lieu of two semesters (2 credits) of performance ensemble, a student may take an additional course from #2 or #3 above or MUS 315.

6. If a Music major wants to also do a minor in Music and Technology he/she must undertake a relevant independent project under faculty supervision, taken as a 3 credit MUS 487 Independent Project.

MTX Faculty

Faculty information for this program can be found at <http://naples.cc.stonybrook.edu/CAS/music.nsf/pages/faculty>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Nanotechnology Studies (NTS)****Interdisciplinary Minor in Nanotechnology Studies****College of Engineering and Applied Sciences**

Program Co-Directors: Gary P. Halada, Mary Frame-McMahon, Chad Korach, David Ferguson

Office: 308 Engineering Building

Phone: 631-632-8526

E-mail: Gary.Halada@stonybrook.edu

**Nanotechnology Studies (NTS)**

The minor in Nanotechnology Studies (NTS) is an interdisciplinary, research-intensive program intended for students in majors from the College of Engineering and Applied Sciences or the College of Arts and Sciences who wish to learn about the emerging field of nanotechnology. The coursework in the minor will provide a broad background in the science, design, manufacture, and societal, health, and environmental impacts of nanomaterials and nanoscale structures and their applications in engineering and health related areas. The inclusion of a minimum of two semesters of research in the students' own major areas, as well as choice of technical electives, will allow for integration into current interests and disciplines, and will provide knowledge and skills valuable to students planning to seek employment or graduate studies in fields related to the engineering, business, policy or the broader impact of nanotechnology.

Admittance to the minor requires the approval of the NTS faculty committee, following review of student performance in the 213 class and other relevant coursework.

**Requirements for the Minor in Nanotechnology Studies (NTS)**

All courses for the minor must be passed with an average grade of B or higher.

Completion of the minor requires 18-22 credits and consists of the following requirements:

1. BME 213 or ESM 213 or EST 213 or MEC 213
2. Two semesters (at least 6 credits) of independent research (499 or 488), co-advised by a faculty members from the student's major program and a second faculty advisor from the NTS faculty committee. Research topics must be approved by both faculty advisors for courses to be accepted to the NTS minor.
3. Two technical electives, chosen from among the following courses:
  - a. BME 381 Nanofabrication in Biomedical Applications
  - b. ESG 339 Thin Film Processing of Advanced Materials
  - c. PHY 472 Solid State Physics
  - d. ESE 231 Introduction to Semiconductor Devices
  - e. CHE/ESM 378 Materials Chemistry
  - f. MEC 470 Introduction to Tribology
  - g. EST 391 Technology Assessment
  - h. ESM 212 Introduction to Environmental Materials Engineering
  - i. Another upper division technical course with permission of the NTS faculty committee
4. BME 400 or ESM 400 or EST 400 or MEC 400

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Major in Nursing (HNI/HNC)****School of Nursing**

Program Director for the 12 Month Accelerated Bachelor of Science and Two Year Basic Baccalaureate Programs: Professor Patricia Voelpel  
 Program Assistant: Karen Allard  
 Email: Karen.Allard@stonybrook.edu  
 Phone: 631-444-3554

Program Director for Registered Nurse Baccalaureate Program and Registered Nurse Baccalaureate to Masters Programs: Dr. Philip Tarantino  
 Program Assistant: Kathleen Miller  
 Email: kathleen.miller.1@stonybrook.edu Phone: 631-444-3241

Director, Office of Student Affairs: Jennifer Coppola  
 Office: Health Sciences Center Level 2 Phone: (631) 444-3200  
 Email: Jennifer.Coppola@stonybrook.edu

Web Address: <http://www.nursing.stonybrookmedicine.edu>

**School of Nursing**

Nurses synthesize knowledge from a variety of fields of study as they are prepared to assist people in the performance of activities that contribute to health, its recovery, or to the alleviation of distress or discomfort in preparing people for a peaceful death.

The mission of the School of Nursing is to provide accessible, high quality undergraduate and graduate education to diverse student populations for the development of nurse leaders at all entries of practice. This mission will be accomplished through innovative programs that reflect the needs and current trends of society. Programs are implemented by faculty who are committed to education of the highest standards and who promote clinical practice, scholarly activity, and research that advances the scientific and theoretical foundation of nursing.

The goals of the program in nursing at Stony Brook University are to:

- Educate a diverse population of men and women for professional generalist nursing practice in a variety of health care settings.
- Contribute to the scholarly development of the profession by testing and evaluating theoretical formulations, applications of knowledge, and innovative practices.
- Provide an educational foundation for advanced and specialized study in a field of nursing.
- Prepare for improvement of health care at the local, state, and national levels through individual, collaborative, and interdisciplinary efforts.
- Provide an environment and infrastructure that supports faculty teaching, scholarship, research, service and practice.
- Provide a mechanism for continuous program assessment, evaluation and improvement.

The curriculum of the School of Nursing emphasizes using the nursing process to provide health promotion, maintenance, and restoration among diverse populations of patients; using theory to conceptualize health responses to those populations; applying research finds to improve nursing practice; applying principles of leadership and management in nursing and health care delivery; and practicing interdisciplinary collaboration to improve health care and health outcomes through advocacy, activism, and courage.

**Basic Baccalaureate Program****On-Site, Two Years, Upper Division**

The nursing curriculum, concentrated in the upper division years, leads to the Bachelor of Science degree with a major in Nursing. Applicants to the Two Year Basic Baccalaureate Program are required to meet the following admission criteria: 57 college credits (see the required courses listed below), with a minimum grade of C or better, and a minimum cumulative GPA of 2.8.

Required Courses for Application to the Two Year Basic Baccalaureate Program:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Lifespan or Developmental Psychology 3 credits
- Microbiology (Lab Required) 3-4 credits
- Anatomy (Anatomy and Physiology I, Lab Required, 3-4 credits)
- Physiology: Anatomy and Physiology II, Lab Required, 3-4 credits)
- Chemistry I 3-4 credits
- Additional Science (Biology, Physics, etc.) 3-4 credits
- Group Theory/Social Psychology 2-3 credits
- Statistics 3 credits

- Arts/Humanities/History\* 9 credits
- Electives 16 credits

\*Effective for admission in 2013, three out of the following six courses must be completed (9 credits). Must be three separate courses:

- Second semester of introductory foreign language 3 credits
- American History 3 credits
- Other World Civilizations 3 credits
- Humanities 3 credits
- The Arts 3 credits
- Western Civilization 3 credits

### **Accelerated Bachelor of Science Program**

#### **On-Site, One Year**

The Accelerated Bachelor of Science Program is designed for students who have completed a bachelor's degree from an accredited institution. The concentrated nursing curriculum leads to a Bachelor of Science degree with a major in Nursing. Applicants to the Accelerated Bachelor of Science Program are required to meet the following admission criteria: a BA or BS in any major, an overall cumulative average of 2.8, and the following required courses with a minimum grade of C or better:

- Microbiology (Lab Required) 3-4 credits
- Anatomy (Anatomy and Physiology I) (Lab Required) 3-4 credits
- Physiology (Anatomy and Physiology II) (Lab Required) 3-4 credits
- Chemistry I 3-4 credits
- Additional Science (Biology, Physics, etc.) 3-4 credits
- Lifespan or Developmental Psychology 3 credits
- Statistics 3 credits

### **Registered Nurse to Bachelor's Degree Program**

#### **Offered On-Site or through the Distance Education Program with On-Site requirements.**

The Registered Nurse Baccalaureate Program is designed for students with either an associate degree or diploma in nursing. The curriculum is concentrated in the upper division and leads to a Bachelor of Science degree with a major in nursing. The upper division nursing major draws on the lower division prerequisite courses from the humanities and the natural and social sciences. Applicants to the Registered Nurse to Baccalaureate Program are required to meet the following admission criteria: 57 college credits (see the required courses listed below), with a minimum grade of C or better, and a minimum cumulative GPA of 2.5.

Required courses for application to the Registered Nurse to Baccalaureate Program:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Lifespan or Developmental Psychology 3 credits
- Group Theory / Social Psychology 2-3 credits
- Microbiology (Lab Required) 3-4 credits
- Anatomy (Anatomy and Physiology I) (Lab Required) 3-4 credits
- Physiology (Anatomy and Physiology II) (Lab Required) 3-4 credits
- Chemistry I 3-4 credits
- Additional Science 3-4 credits
- Statistics 3 credits
- Arts/Humanities/History\* 9 credits
- Electives 16 credits

\*Effective for admission in 2013, three out of the six must be completed (9 credits). Must be three separate courses:

- Second semester of introductory foreign language 3 credits
- American History 3 credits
- Other World Civilizations 3 credits
- Humanities 3 credits
- The Arts 3 credits
- Western Civilization 3 credits

### **Registered Nurse Bachelor's to Master's Degree Program**

#### **Offered On-Site or through the Distance Education Program with On-Site requirements.**

The Registered nurse BS/MS program curriculum is concentrated in the upper division and leads to a Bachelor of Science degree with a major in nursing. Upon meeting progression criteria, students will continue to the Master of Science program in their designated specialty.



Applicants to the Registered Nurse Baccalaureate to Masters Program are required to meet the following admission criteria: 57 college credits (see the required courses listed below), with a minimum grade of C or better. A minimum cumulative GPA of 3.0 and one to two years of relevant clinical experience (depending on specialty) are also required.

Required Courses for application to the Registered Nurse Bachelor's to Master's Program:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Lifespan or Developmental Psychology 3 credits
- Group Theory/Social Psychology 2-3 credits
- Microbiology (Lab Required) 3-4 credits
- Anatomy (Anatomy & Physiology I) (Lab Required) 3-4 credits
- Physiology (Anatomy & Physiology II) (Lab Required) 3-4 credits
- Chemistry I 3-4 credits
- Additional Science (Biology, Physics, etc.) 3-4 credits
- Statistics 3 credits
- Arts/Humanities/History\* 9 credits
- Electives 16 credits

\*Effective for admission in 2013, three out of the six must be completed (9 credits). Must be three separate courses:

- Second semester of introductory foreign language 3 credits
- American History 3 credits
- Other World Civilizations 3 credits
- Humanities 3 credits
- The Arts 3 credits
- Western Civilization 3 credits

For additional information, visit <http://www.nursing.stonybrookmedicine.edu>

### Sample Course Sequence: Requirements for Application to the School of Nursing

Freshman Fall	Credits	Spring	Credits
WRT 102*	3	MAT 125**	3
MAT 123**	3	BIO 203	3
PSY 103	3	SOC 105	3
DEC B, D, or G	3	CHE 132	4
CHE 129/CHE 130	4	CHE 134 (optional lab)	1
CHE 133 (optional lab)	1		
Total	16-17	Total	13-14
Sophomore Fall	Credits	Spring	Credits
ANP 300	4	AMS 102	3
BIO 202	3	HBM 320	3
PSY 220	3	HBM 321	1
D.E.C. B, D, or G	3	PSY 240	3
BIO 204 (optional lab)	2	D.E.C. B, D, or G	3
		D.E.C. B, D, or G	3
Total	13-15	Total	16

\*Students who place into WRT 101 should enroll in WRT 101 in the fall of year one; enroll in WRT 102 in the fall of year two (for a total of 16 credits).

\*\*Math and chemistry courses for year one will depend on math placement exam score.

\*\*\*Students should select one of the following options: one each D.E.C. B, D, and G; one D.E.C. B and two D.E.C. G ; one D.E.C. D and two D.E.C. G. The School of Nursing will not accept skills or techniques classes (D.E.C. D) for our Arts and Humanities requirements.

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*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Major in Occupational Therapy

### **School of Health Technology and Management**

Chairperson: Eva Rodriguez

Assistant to the Chair: Catherine Gropper

Office: Health Sciences Center Level 2 Room 439

Phone: (631) 444-2363

Email: catherine.gropper@stonybrook.edu

Web Address: <http://healthtechnology.stonybrookmedicine.edu/programs/otp/welcome>

### **Occupational Therapy**

Occupational therapy is the art and science of directing an individual's participation in selected tasks to restore, reinforce, and enhance performance in activities that are important and meaningful to their health and well-being. Reference to occupation in the title is in the context of an individual's goal directed use of time, energy, interest, and attention. An occupational therapist's fundamental concern is the client's development and maintenance of the capacity to perform, throughout the life span and with satisfaction to self and others, those tasks and roles essential to productive living and to the mastery of self and the environment.

Occupational therapy provides service to those individuals whose abilities to cope with tasks of living are threatened or impaired by developmental deficits, the aging process, poverty, cultural differences, physical injury or illness, or psychological and social disability. Occupational therapy serves a diverse population in a variety of settings such as hospitals and clinics, rehabilitation facilities, long-term care facilities, extended care facilities, sheltered workshops, schools and camps, private homes, and community agencies.

The occupational therapy program offers an entry-level, multi-award B.S. in Health Science/M.S. in Occupational Therapy (BSHS/MSOT) degree.

### **Pre-Application Requirements for the Major in Occupational Therapy**

1. 3 credits of English composition
2. 6 credits in the arts and/or humanities, excluding studio, skills, and techniques courses
3. 9 credits of Social and Behavioral Sciences (must include Introduction to Psychology and Abnormal Psychology and either Introduction to Sociology or Introduction to Cultural Anthropology).
4. 8 credits of biology and 4 credits of anatomy, or 4 credits of biology and 8 credits of anatomy & physiology
5. 3 credits of Statistics
6. 4 credits of Chemistry with laboratories (must be courses designated for science majors)
7. 4 credits of Physics with laboratories (must be courses designated for science majors)
8. Cardiopulmonary resuscitation and first-aid certification
9. A minimum of 40 hours experience observing occupational therapy treatment in two different settings (outpatient rehabilitation, developmental disabilities, acute care, nursing homes, and schools) under the supervision of an occupational therapist (OTR)
10. 2.50 g.p.a. (Preference is given to students with a 3.00 g.p.a. or higher)

Notes:

1. Students completing the courses at Stony Brook should take BIO 202, BIO 203, and BIO 204 Fundamentals of Biology.
2. Preference is given to students who have completed science requirements within the last ten years.

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Optics (OPT)****Minor in Optics****Department of Physics and Astronomy, College of Arts and Sciences**

Director of the Minor: Harold J. Metcalf, Physics and Astronomy

Assistant to the Director: Elaine Larsen

Office: Room P-110 Graduate Physics

Phone: (631) 632-8100

E-mail: Harold.Metcalf@stonybrook.edu

Web address: <http://www.physics.sunysb.edu>

**Optics (OPT)**

The minor in Optics, which is housed in the Department of Physics and Astronomy, is intended for students outside the physics major who wish to obtain a thorough understanding of the nature of light and its interactions with matter. After learning the basic principles of optics in PHY 300, students may pursue their scientific or professional interests by taking further courses in the Department of Physics and Astronomy or the College of Engineering and Applied Sciences.

**Requirements for the Minor in Optics (OPT)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 21 credits.

## A. Basic courses:

- PHY 132/134 or 142 Classical Physics II
- PHY 251/252 Modern Physics and Laboratory or ESG 281 An Engineering Introduction to Solid State
- PHY 300 Waves and Optics
- PHY 301 Electromagnetic Theory or ESE 319 Introduction to Electromagnetic Fields and Waves

## B. At least two of the following:

- ESE 358 Computer Vision
- ESE 363 Fiber Optic Communications
- ESE 441 Engineering Design I\*
- ESE 499 Research in Electrical Sciences\*
- ESG 441 Engineering Science Design IV\*
- ESM 499 Research in Materials Science\*
- MEC 342\* Introduction to Experimental Stress
- MEC 441 Mechanical Engineering Design II\*
- MEC 499 Research in Mechanical Engineering\*
- PHY 302 Electromagnetic Theory
- PHY 452 Lasers
- PHY 487 Research\*

\*These courses may be used if the research project is in optics. Each such course must be taken for three credits and the student must obtain written approval of the Department of Physics and Astronomy for his or her research proposal before starting research.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Pharmacology (BCP)****Major in Pharmacology****Department of Pharmacological Sciences, College of Arts and Sciences**

Chairperson: Michael Frohman

Director of Undergraduate Studies: Robert Watson  
PHONE: (631) 444-1574 E-MAIL: Watson@pharm.stonybrook.edu

ASSISTANT DIRECTOR: Janice Kito  
Phone: (631) 444-3027  
E-mail: Janice.Kito@stonybrook.edu

DIRECTOR OF LABORATORY: Mohammad Ajmal  
PHONE: (631) 632-4343  
E-MAIL: Mohammad.Ajmal@stonybrook.edu

UNDERGRADUATE PHARMACOLOGY  
Office: T8-140, Basic Science Tower

Web address: <http://www.pharm.stonybrook.edu/>

Minors of particular interest to students majoring in Pharmacology: Biomaterials (BES), Bioengineering (BNG), Biomedical Engineering (BME), Chemistry (CHE), English (EGL), Philosophy (PHI), Political Science (POL)

**Pharmacology (BCP)**

Pharmacology is an interdisciplinary science which investigates the actions of drugs and chemicals on biological systems. It requires a knowledge of the sources, chemical properties, biological effects, and therapeutic uses of drugs. It is a science that is basic not only to medicine but also to pharmacy, nursing, dentistry, and veterinary medicine. Pharmacological studies range from those that determine the effects of chemical agents upon subcellular mechanisms, to those that deal with the potential hazards of drug therapy for major diseases. By unlocking mysteries of drug action, discovering new therapies, and developing new medicinal products, pharmacology inevitably touches upon all of our lives.

The curriculum in Pharmacology, leading to the Bachelor of Science degree, is designed to prepare students for careers in drug research and development and to provide a solid background for those students who choose to pursue graduate studies in the pharmacological sciences. Focusing on cellular, molecular, and human pharmacology, the program allows students to develop an understanding of this discipline in a basic science teaching and research environment.

Students majoring in Pharmacology have the conceptual and practical knowledge to pursue technical and professional careers in all areas of drug research and development within the pharmaceutical and biotechnology industry, research institutes, and government agencies. The program provides an excellent foundation for graduate programs in pharmacology, toxicology, and molecular biology. The Pharmacology curriculum teaches students the principles of pharmacology and toxicology and mechanisms of drug action to students whose career interests lie in medicine, and other branches of health care and life sciences. Current career objectives in order of choice are Ph.D. programs in pharmacology, M.D./Ph.D., and M.D. degrees, and entry-level scientist positions in industry.

**Requirements for the Major in Pharmacology (BCP)**

Acceptance into the Undergraduate Pharmacology Program

Acceptance into the program requires an application process involving reference letters, a personal statement, and an interview. Applications are available through the Undergraduate Pharmacology Web site at <http://www.pharm.stonybrook.edu/undergrad>. Note: Students may not declare a double major among biology, biochemistry, and pharmacology.

Requirements for the Major in Pharmacology (BCP)

The major in Pharmacology leads to the Bachelor of Science degree. All courses offered for the major must be taken for a letter grade. In the requirements listed below, a minimum grade point average of 3.00 must be obtained for all 100-level and upper-division courses.

Completion of the major requires approximately 68-69 credits.

**A. Courses in Related Fields**

1. CHE 131, CHE 132 General Chemistry or CHE 141, CHE 142 Honors Chemistry
2. CHE 133, CHE 134 General Chemistry Laboratory or CHE 143, CHE 144 Honors Chemistry Laboratory
3. CHE 321, CHE 322 Organic Chemistry or CHE 331, CHE 332 Honors Organic Chemistry
4. CHE 327 Organic Chemistry Laboratory A or CHE 333 Organic Chemistry Laboratory B

5. MAT 131, MAT 132 Calculus I, II (See Note 1)
6. PHY 121/PHY 123, PHY 122/PHY 124 Physics for the Life Sciences and labs (See Note 1)

#### B. Courses in Biological Sciences

1. BIO 202 and BIO 203 Fundamentals of Biology
2. BIO 204 and BIO 205\* Fundamentals of Scientific Inquiry I and II
3. BIO 310 Cell Biology
4. HBY 350 Physiology (BIO 328 will be allowed as a substitute under extenuating circumstances.)
5. BIO 361, BIO 362 Biochemistry I, II
6. BIO 365 or BIO 311 Biochemistry Laboratory

\*BIO 207 may be used as a substitute for BIO 205

#### C. Pharmacology

1. BCP 400 Writing in Pharmacology
2. BCP 401 Principles of Pharmacology
3. BCP 402 Advanced Pharmacology
4. BCP 403 Principles of Pharmacology Laboratory
5. BCP 404 Advanced Pharmacology Laboratory
6. BCP 406 Pharmacology Colloquium
7. BCP 487 Pharmacology Research (at least three credits are required to graduate, along with a written senior thesis)

#### D. Upper-Division Writing Requirement

To fulfill the upper-division writing requirement in Pharmacology, a sample of writing from an upper-division course in biological sciences, must be submitted to the Department of Pharmacological Sciences for evaluation by the Pharmacology writing committee. This writing sample can be a laboratory report, a term paper, or a report for a reading or research course, and it must contain at least 750 words of text. It is to be accompanied by a form (available in the Department of Pharmacological Sciences office) signed by the student and the instructor of the course for which the material was written. The student must enroll in BCP 400 Writing in Pharmacology for the semester in which the upper-division writing requirement is being attempted. The deadline for submission of the writing sample is December 1 for students graduating in the following May or August, and May 1 for students graduating in the following December. If the writing in this sample is judged to be satisfactory by the writing committee, the requirement is fulfilled. If the writing is judged unsatisfactory, the student is advised to seek help in writing skills from the Writing Center and must pass a writing examination administered by the Department of Pharmacological Sciences at a scheduled time prior to graduation.

#### E. Courses Recommended but not Required for the Major

BCP 475 Undergraduate Teaching Practicum I

BCP 488 Internship

BIO 320 General Genetics

CHE 301 Physical Chemistry I

CHE 302 Physical Chemistry II

CHE 312 Physical Chemistry (Short Course)

Note: The following alternate sequences may be substituted for major requirements:

for MAT 131, MAT 132: MAT 125, MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171

for PHY 121/PHY 123, PHY 122/PHY 124: PHY 131, PHY 132 or PHY 141, PHY 142 or PHY 125, PHY 126, PHY 127

#### Honors Program in Pharmacology

Graduation with honors in Pharmacology requires: 1) a cumulative grade point average of 3.50 or higher in all courses in Requirements A, B, and C above, and 2) presentation of an outstanding thesis based on a research project performed under BCP 487, written in the format of a paper in a scientific journal. A student interested in becoming a candidate for honors should submit an outline of the proposed thesis research project to the

pharmacology director, no later than the second week of classes in the last semester. (Acceptance of a project for BCP 487 registration does not imply automatic acceptance of that project for honors.) The director, in consultation with the student, then appoints a thesis committee consisting of the research sponsor and two additional faculty members. Two members of the thesis committee must be members of the Department of Pharmacological Sciences and one must be a member of another department in a related field.

Copies of the finished thesis, approved by the research sponsor, must be presented to the pharmacology director and thesis committee at least 21 days before the date of graduation.

Accelerated Bachelor of Science (BS) in Pharmacology and Master of Public Health (MPH) Evaluative Science Concentration

The BS in Pharmacology is an excellent preparation for the MPH degree, particularly for the MPH

Evaluative Sciences concentration which focuses on the highly quantitative areas of biostatistics and demography. The current demand for MPH graduates with quantitative backgrounds is strong.

Admission Requirements: Students must have completed 60 credits of undergraduate coursework with a minimum GPA of 3.0 in all college work before being admitted into any accelerated Bachelor/Masters degree program. Additional entry requirements for this specific accelerated degree consist of: GPA in courses required for the Pharmacology major of at least 3.3, and letters of recommendation from two faculty members in the undergraduate Pharmacology Program. Students in this accelerated BS/MPH program will be able to complete both degrees in 5 years.

Please see the Pharmacology Undergraduate Program Director for further information.

### Sample Course Sequence for the Major in Pharmacology

\*\*BCP 487 research project is usually begun by the fall semester of the senior year

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
CHE 131	4	CHE 132	4
CHE 133	1	CHE 134	1
MAT 131	4	MAT 132	4
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHE 321	4	BIO 203 and BIO 205	5
BIO 202 and BIO 204	5	CHE 322 or 326	4
D.E.C.	3	CHE 327	2
D.E.C.	3	D.E.C.	4
D.E.C.	3	D.E.C.	3
Total	18	Total	18
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHY 121/123	4	PHY 122/124	4
BIO 361	3	BIO 362	3
BIO 365 or 311	2	BIO 310	3
Upper division elective	3	BCP 406	2
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BCP 401	3	BCP 402	3
BCP 403	2	BCP 404	2
HBY 350	3	**BCP 487	3

HBH 393	1	Elective	3
Elective	3	Elective	3
Total	12	Total	14

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Philosophy (PHI)****Major and Minor in Philosophy****Department of Philosophy, College of Arts and Sciences**

Chairperson: Robert P. Crease

Director of Undergraduate Studies: Tim Hyde

Assistant to the Chair: Alissa Betz

Office: 213 Harriman Hall

Phone: (631) 632-7570

Web address: <http://www.sunysb.edu/philosophy>

Minors of particular interest to students majoring in Philosophy: Art History (ARH), Studio Art (ARS), Biology (BIO), Comparative Literature (CLT), Computer Science (CSE), English (EGL), Linguistics (LIN), Mathematics (MAT), Political Science (POL), Religious Studies (RLS), Women's Studies (WST)

**Philosophy (PHI)**

Philosophy explores and critically examines the deeper meanings of human life and the world in which we live. It studies the foundations of all forms of knowledge and human activity and the interconnections among them. Its studies include the nature of existence, knowledge, and value; human reasoning and its limits; art, science, literature, and the human condition; and justice and the nature of the good. It unifies these diverse topics by concentrating on the fundamental nature of human experience and cognition as well as the conceptual foundations of the sciences.

A major in philosophy gives students access to the fruits of 2,500 years of thought on matters of ultimate concern. It encourages and provides the means of thinking effectively about timeless questions through a study of important writings on these topics. A successful student of philosophy is equipped to engage in intellectual conversation on a range of topics of both classical and contemporary concern. The study of philosophy encourages breadth and depth of understanding and promotes the ability to think cogently and rigorously.

Philosophy majors prepare themselves for a wide range of professional and business occupations that value highly developed skills of analysis, comprehensive thinking, and communication. Students majoring in Philosophy commonly pursue careers in law, medicine, business, technology, public service, teaching, and editing and publishing. In addition to its focus on the broader intellectual aspects of liberal studies, the Department of Philosophy stresses interdisciplinary studies in emerging fields such as feminism, computation and consciousness, environmentalism, philosophy of technology, and cross-cultural philosophies from a global perspective.

**Requirements for the Major and Minor in Philosophy (PHI)**

Requirements for the Major in Philosophy (PHI)

The major in Philosophy leads to the Bachelor of Arts degree. Philosophy courses are distributed among three categories indicated, in parentheses after the title of the course. Courses offered for the major must be passed with a letter grade of C or higher. No more than two 100-level philosophy courses may be used to satisfy major requirements.

Completion of the major requires 36 credits.

1. PHI 300 Ancient Philosophy and PHI 306 Modern Philosophy
2. PHI 400 Individual Systems of the Great Philosophers or PHI 401 Individual Systems of the Great Philosophers or PHI 402 Analysis of Philosophic Texts
3. Two courses in Category I, Styles and Systems of Philosophy in Historical Perspective, excluding those in Requirements 1 and 2 above.
4. Three courses in Category II, Basic Skills and Problem Areas of Philosophy
5. Three courses in Category III, Philosophy in Relation to Other Arts and Sciences. Two upper-division courses in another discipline, if appropriately related to a student's program, may be substituted for one Category III course. Approval for such a substitution must be obtained from the undergraduate director prior to course election.
6. PHI 435 Senior Seminar
7. Upper-Division Writing Requirement

Philosophy majors must achieve an evaluation of S (Satisfactory) on the written work for either PHI 300 or PHI 306, which, for this purpose, must be taken before the end of the junior year. With advance permission from the Undergraduate Director, an evaluation of S (Satisfactory) on written work for another 300-level philosophy course which calls for intensive writing may be substituted. Students who wish to satisfy this requirement must inform the instructor of their intention to do so no later than the third week of the semester, so that the student's essays for the course may be given special appraisal for advanced writing skills appropriate to Philosophy majors, in addition to their appraisal for the course. A student must achieve an appraisal of S in advanced writing skills in order to register for PHI 435 Senior Seminar.

Notes:

1. PHI 200 and 206 may not be counted for the major if taken after 300 and 306, respectively.

2. Students who expect to pursue graduate study should include PHI 220 in their programs.
3. No more than 6 philosophy courses may be used to satisfy D.E.C. requirements.

#### Honors Program in Philosophy

To qualify for the honors program, a student must be a junior or a senior in the major with an overall g.p.a. of at least 3.00 and a g.p.a. in philosophy of 3.50. The student must maintain this average throughout participation in the honors program. To seek honors, a student must plan a program prior to the first semester of the senior year with a faculty advisor and the director of undergraduate studies. The program consists of three courses at the 300 level or higher, concentrated on related aspects of a central problem. At least one of the courses should be PHI 495, the Philosophy Honors Thesis course under the direction of the advisor and lead to the completion of an honors thesis. This paper is reviewed by the advisor and one other member of the Philosophy faculty and by a faculty member from outside the Department. The senior paper is then the focus of an oral examination. Honors are awarded upon passage of the examination.

#### Requirements for the Minor in Philosophy (PHI)

The minor in Philosophy requires 18 credits, which must include at least nine credits in upper-division courses. The minor must be approved by the director of undergraduate studies. Students anticipating a minor may select one of the following emphases: history of philosophy; logic, science, and technology; moral, political, and legal issues; literature and the arts. Students pursuing the Political Theory/Philosophy track in the Political Science major may fulfill the Philosophy minor with 15 PHI credits, counting two of their upper-division POL electives in place of one PHI course. Alternatively, a student may design a minor in Philosophy tailored to his or her own interests, subject to approval by the director of undergraduate studies. Courses offered for the minor must be passed with a letter grade of C or higher. No more than one 100-level course can be counted toward satisfying the minor requirements.

#### Undergraduate Research Tracks in Philosophy

Occasionally, Undergraduate Research tracks are offered in Philosophy. These tracks afford students special opportunities to do sophisticated and concentrated research on a particular topic in philosophy while still undergraduates. Seven courses are required over a three-year period. The first five courses provide important skills and background. In the third year, the research team, which consists of a faculty member and a small group of students, spends two semester-long research courses on a philosophical project of professional caliber, doing work that may even lead to publication. More specific information on available Under-graduate Research tracks, including particular topics and the courses designed for them, are available from the Undergraduate Office.

#### Study Abroad

Philosophy majors and other interested students who would like to spend a semester or a year studying in France, Germany, England, Spain, Italy, or other countries, should consult the Department's director of undergraduate studies. With the permission of the Department, Philosophy majors may also use credits from other study abroad programs to satisfy major requirements.

#### Sample Course Sequence for the Major in Philosophy

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
PHI Category I course	3	PHI Category I course	3
D.E.C.	3	PHI Category II course	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHI Category II course	3	PHI 300	3
PHI Category II course	3	PHI Category III elective	3
PHI Cat. III course	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHI Category III course	3	PHI 306	3

PHI elective	3	PHI Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>		<b>Spring</b>	
	<b>Credits</b>		<b>Credits</b>
PHI 400 or 401 or 402	3	PHI 435	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Physical Metallurgy (PME)****Minor in Physical Metallurgy****Department of Materials Science and Engineering, College of Engineering and Applied Sciences**

Chairperson: Michael Dudley, Materials Science and Engineering

Undergraduate Program Director: Gary P. Halada  
Administrative Assistant: Lynn Allopenna  
E-mail: Lynn.Allopenna@stonybrook.edu

Office: 314 Engineering  
Phone: (631) 632-8484

Web address: <http://www.matscieng.sunysb.edu/>

**Physical Metallurgy (PME)**

The Department of Materials Science and Engineering offers the minor in Physical Metallurgy, suitable for Engineering Science students or for non-Engineering Science students who seek to obtain a more thorough understanding of the engineering sciences. Physical metallurgy is the study of the structure of metals and its influence on material properties and performance. It is an essential component of many areas of mechanical, manufacturing, civil, and materials engineering in the aerospace, automobile, transportation, energy, environmental, biomedical, and electronics industries as well as in engineering research and design for military and government applications. The courses in the minor provide the student with a broad introduction to the engineering science principles and applications associated with physical metallurgy.

Computer Engineering, Engineering Science, Electrical Engineering, Mechanical Engineering, and Applied Mathematics and Statistics students can assemble a sequence of courses with 18 to 24 credits to satisfy an Engineering Science minor. Courses used to satisfy the requirements of the minor may not be used to satisfy requirements of another minor in Engineering Science. The student's program must be approved by the undergraduate program director.

**Requirements for the Minor in Physical Metallurgy (PME)**

Completion of the minor requires 18 to 24 credits.

Requirements for students majoring in Engineering Science (ESG):

1. ESM 334 Materials Engineering  
ESM 335 Strength of Materials  
ESM 353 Biomaterials: Manufacture, Properties, and Applications

2. Four courses chosen from:  
ESG 201 Engineering Responses to Society  
ESM 325 Diffraction Techniques and Structure of Solids  
ESM 488 Cooperative Industrial Practice  
ESM 499 Research in Materials Science  
MEC 305 Heat and Mass Transfer

Requirements for all other students:

1. ESG 201 Engineering Responses to Society
2. ESG 100 Introduction to Engineering Science or MEC 101 and 102 Engineering Computing and Problem Solving I, II or ESE 123 Introduction to Electrical and Computer Engineering
3. ESM 334 Materials Engineering  
ESM 335 Strength of Materials  
ESM 353 Biomaterials: Manufacture, Properties, and Applications
4. Two courses chosen from:  
ESM 488 Cooperative Industrial Practice or ESM 499 Research in Materials Science  
ESM 325 Diffraction Techniques and Structure of Solids

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Physics (PHY)****Major and Minor in Physics****Department of Physics and Astronomy, College of Arts and Sciences**

Chairperson: Laszlo Mihaly

Assistant to the Chair: Nathan Leoce-Schappin

Director of Undergraduate Studies: Abhay Deshpande

Assistant to the Director: Diane Diaferia

Astronomy Coordinator: James Lattimer

Office: P-110 Physics

Phone: (631) 632-8036, 632-8100

Web address: <http://www.physics.sunysb.edu>

Minors of particular interest to students majoring in Physics: Astronomy (AST), Computer Science (CSE), Electrical Engineering (ESE), Materials Science (ESM), Mathematics (MAT), Nanotechnology Studies (NTS), Science and Engineering (LSE)

**Physics (PHY)**

Physics is the study of the basic physical principles that govern our universe. This study uses the language of mathematics and is applied in all other natural sciences (astronomy, chemistry, biology, geology, etc.) and engineering. The objective of the major in Physics is to teach students those principles, and, in general, how to think scientifically about the physical world.

A basic education in physics is also applicable to many other fields, including astronomy, engineering, computer programming, geology, biophysics, medicine, medical technology, teaching, law, business, etc. Since the basic principles of physics do not go out of style, and will be the basis for many new technologies, the Physics major provides the ability to adapt to new conditions; hence its permanent value. After graduation approximately half of our Physics majors go on to graduate school, either in physics or in a related field (such as those mentioned above). The other half initially take positions in industry, but many of them later return to graduate school.

**Requirements for the Major and Minor in Physics (PHY)**

The major in Physics leads to the Bachelor of Science degree. Each course used to satisfy the major numbered 300 or above must be completed with a grade of C or higher; a maximum of three courses at the 100 or 200 level passed with a grade of C- may be applied to the major.

Completion of the major requires approximately 67 credits.

**A. Courses in Physics**

- PHY 131/133, 132/134 Classical Physics I, II with Laboratories (See Note 1)
- PHY 251/252 Modern Physics with Laboratory
- PHY 277 Computation for Physics and Astronomy
- PHY 300 Waves and Optics
- PHY 301 Electromagnetic Theory
- PHY 303 Mechanics
- PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
- PHY 308 Quantum Physics
- PHY 335 Electronics and Instrumentation Laboratory
- PHY 445 Senior Laboratory

Notes:

1. The sequence PHY 125, 126, 127 or PHY 141, 142 may substitute for PHY 131/133, 132/134. PHY 127 may be taken before PHY 126.
2. At least four courses numbered 300 or above must be taken at Stony Brook.

**B. Courses in Mathematics**

1. One of the following sequences: MAT 125, 126, 127 Calculus A, B, Cor MAT 131, 132 Calculus I, II or MAT 141, 142 Honors Calculus I, II or MAT 171 Accelerated Single Variable Calculus or AMS 151, 161 Applied Calculus I, II
2. One of the following: MAT 205 Calculus III or MAT 203 Calculus III with Applications or AMS 261 Applied Calculus III
3. One of the following: MAT 305 Calculus IV or MAT 303 Calculus IV with Applications or AMS 361 Applied Calculus IV: Differential Equations

Note: Equivalency for MAT courses achieved on the Mathematics Placement Examination is accepted as fulfillment of the corresponding requirements, as indicated in the Course Descriptions section of this Bulletin.

### C. Courses in Related Fields

Twelve credits of acceptable physics-related courses that complement a Physics major's education. A list of acceptable courses is posted in the Physics and Astronomy Undergraduate Office.

### D. Upper-Division Writing Requirement

Students are certified as satisfying the upper-division writing requirement by completing a writing project within their major. Scientific research is often presented using a terse language, but physicists and astronomers must also write engagingly in funding applications and in communicating their work to others. This is what is expected in writing submitted to meet this requirement. Within the first month of the semester in which the student plans to satisfy the requirement, the student should speak with the course instructor or research supervisor about his or her intent to expand upon a course assignment (for example by adding a discussion of the history and significance of a physics experiment) or research project to meet the upper-division writing requirement. If there are questions over the suitability of the proposed writing project, the student should discuss the proposal with the undergraduate program director. Students should obtain comments on a draft of their text during the course of the semester, and the final text should be submitted to the instructor or research supervisor by the last day of classes for that semester. The course instructor or research supervisor will read the paper for evidence that the student's writing meets the requirement. Finally, the paper and the instructor's recommendations go to the undergraduate program director for a final determination. Satisfaction of the writing requirement is certified independently of the course grade, and is best completed in the junior year.

## Introductory Physics Sequences

### Honors

To receive the Bachelor of Science in Physics with honors, in addition to having completed all the requirements for the B.S. in Physics, a student must satisfy the following:

- 1. PHY 487 Research
- 2. Two other 400-level physics courses
- 3. Overall grade point average of at least 3.30 in all physics courses numbered 300 or higher.

### The Research Program

Students who wish to pursue graduate study in physics should choose a program similar to this suggested example:

#### Freshman Year

- PHY 131/133 Classical Physics I with Laboratory or PHY 141 Classical Physics I: Honors
- PHY 132/134 Classical Physics II with Laboratory or PHY 142 Classical Physics II: Honors
- MAT 131 Calculus I
- MAT 132 Calculus II

#### Sophomore Year

- PHY 251/252 Modern Physics with Laboratory
- PHY 277 Computation for Physics and Astronomy
- PHY 300 Waves and Optics
- MAT 205 Calculus III
- MAT 305 Calculus IV
- CHE 131, 132 General Chemistry or CHE 141, 142 Honors Chemistry
- CHE 133, 134 General Chemistry Laboratory or CHE 143, 144 Honors Chemistry Laboratory

#### Junior Year

- PHY 301, 302 Electromagnetic Theory
- PHY 303 Mechanics
- PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
- PHY 308 Quantum Physics
- PHY 335 Electronics and Instrumentation Laboratory
- MAT 211 Linear Algebra
- MAT 341 Applied Real Analysis
- MAT 342 Applied Complex Analysis

#### Senior Year

- PHY 405 Advanced Quantum Physics
- PHY 445 Senior Laboratory

- At least 3 credits of PHY 487 research, and one other 400 level course.

Note: Of the courses mentioned above, MAT 211, MAT 341, MAT 342, PHY 302, and 400 level courses other than PHY 445 are not required for the B.S. in Physics.

#### Specialization in Optics

Students majoring in Physics may decide to pursue a specialization in Optics. This specialization is listed on the official transcript.

In addition to the courses required for the major, students must complete the following with a grade of C or better to satisfy the requirements of the specialization:

##### A. Required Departmental Courses (6 credits)

PHY 302 Electricity and Magnetism II

PHY 452 Lasers

##### B. Optics-Related Laboratory Experience

PHY 487 Research (at least three credits, optics related)

##### C. One Additional Elective Course:

Either PHY 405 Advanced Quantum Mechanics, or one of many courses in other departments including the College of Engineering and Applied Sciences (CEAS) that could meet the requirements for this additional elective. Advance approval of such courses must be obtained from the Director of Undergraduate Studies. Examples of such courses in the CEAS are: ESE-340, (Communication Theory); ESE-357 (Digital Image Processing); ESE-358 (Computer Vision); ESE-362 (Opto-electronic Devices); ESE-363 (Fiber Optic Communications); and ESM-325 (Diffraction Techniques).

#### Physics Secondary Teacher Education Program

See the Education and Teacher Certification entry in alphabetical listings of Approved Majors, Minors, and Programs.

#### Introductory Physics Sequences

The Department of Physics offers four Introductory Physics Sequences. The PHY 121/123, 122/124 sequence is designed specifically for students majoring in biological sciences or pre-clinical programs. Any of the other three sequences (PHY 131/133, 132/134; PHY 141, 142; PHY 125, 126, 127) together with PHY 251/252 constitute a comprehensive introduction to classical and modern physics for those who may major in Physics, other physical sciences, or engineering. These three Introductory Physics Sequences cover the same material, although the pace is different. The two-semester sequence (PHY 131/133, 132/ 134 or PHY 141, 142) should be taken only by students who are prepared for a pace considerably faster than that of the PHY 125, 126, 127 three-semester sequence. The PHY 141, 142 sequence is designed for students with the strongest interest and preparation in physics and mathematics. The flow chart shows the four basic Introductory Physics Sequences available. (In the PHY 125, 126, 127 sequence, 126 and 127 may be taken in either order.)

#### Minor

The minor in Physics is available for students who want their University studies to include significant upper-division work in physics.

All courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 20 physics credits beyond the Introductory Physics Sequence.

Requirements for the Minor in Physics for students with majors in the College of Arts and Sciences:

- PHY 251/252 Modern Physics
- PHY 300 Waves and Optics
- PHY 301 Electromagnetic Theory
- PHY 303 Mechanics
- PHY 335 Electronics and Instrumentation Laboratory
- One of the following:
- PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
- CHE 302 Physical Chemistry II

Requirements for the Minor in Physics for students with majors in the College of Engineering and Applied Sciences:

- PHY 251/252 Modern Physics
- One of the following:
  - PHY 300 Waves and Optics
  - ESE 321 Electromagnetic Waves and Wireless Communication
  - ESG 281 An Engineering Introduction to the Solid State
- One of the following:
  - PHY 301 Electromagnetic Theory
  - ESE 319 Introduction to Electromagnetic Fields and Waves
  - PHY 303 Mechanics
- One of the following:

- PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
- ESM 309 Thermodynamics of Solids
- MEC 398 Thermodynamics II
- One of the following:
  - PHY 335 Electronics and Instrumentation Laboratory
  - ESE 314 Electronics Laboratory B

**Sample Course Sequence - Major in Physics**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
PHY 131/PHY 133	4	PHY 132/PHY 134	4
MAT 131	4	MAT 132	4
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHY 251/PHY 252	4	PHY 300	4
PHY 277	3	MAT 305	3
MAT 205	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHY 301	3	PHY 306	3
PHY 303	3	PHY 308	3
PHY-related elective	3	PHY 335	3
MAT 211 or MAT 341	3	MAT 211 or MAT 342	3
D.E.C.	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PHY 487	3	PHY 445	3
PHY elective	3	PHY elective	3
PHY-related elective	3	PHY-related elective	3
D.E.C.	3	PHY-related elective	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Political Science (POL)****Major and Minor in Political Science****Department of Political Science, College of Arts and Sciences**

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Assistant to the Chair: Pam Wolfskill

Undergraduate Coordinator: Janet Cea

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Minors of particular interest to students majoring in Political Science: Africana Studies (AFS), Applied Mathematics and Statistics (AMS), Anthropology (ANT), Economics (ECO), Environmental Studies (ENS), History (HIS), International Studies (INT), Philosophy (PHI), Service Learning Research (LCR), Sociology (SOC), Technology and Society (EST), Women's Studies (WST)

**Political Science (POL)**

Political Science is the study of how societies make collective decisions through politics and government. It is subdivided into the following areas: American politics (study of American institutions and practices); comparative politics (study of foreign governments); international relations (study of war, international organization, and foreign policies); political theory (study of the bases of legitimate political authority); political behavior (study of why people vote and act as they do in political matters); and public policy (study of organizational decision-making and the consequences of government action).

The objective of the Political Science major is to give the student a general introduction to all the major subfields of the discipline and an in-depth exposure to one or two of them. Students study not only the major literature of the subfields, but also learn research methods and become familiar with ongoing research. Internships in Long Island, Albany, and Washington offer selected students the opportunity to gain practical experience.

The Political Science major provides a strong liberal arts background for students who may enter such fields as journalism, business, public administration, social welfare, teaching, and law. Those who graduate from law school go on to work in law firms, in businesses, and in government agencies at all levels. Most Political Science majors who apply to law school are admitted, many of them to top-ranking institutions. Some Political Science majors attend graduate school in the field, leading to careers as teachers and researchers of politics at colleges and universities.

**Requirements for the Major and Minor in Political Science (POL)****Requirements for the Major in Political Science (POL)**

The major in Political Science leads to the Bachelor of Arts degree. All political science courses numbered 200 or higher offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 39 credits.

**A. Study Within the Area of the Major****1. Required courses: (9 credits)**

POL 101 World Politics

POL 102 American Government or 105 Honors American Government

POL 103 Comparative Politics

Note: Above courses must be taken for a letter grade and passed with a grade of C or higher in order to be counted toward completion of the major requirements.

**2. Political Science electives: (24 credits)**

a. All must be selected from courses numbered 200 or above (excluding POL 201), and at least 12 credits must be from courses numbered 300 or above. At least 12 of these 24 credits must be selected from courses in one of the programs of study listed below. No more than six credits from courses with Satisfactory/Unsatisfactory grading may be applied.

b. At least twelve credits must be taken in courses offered by the Political Science Department at Stony Brook or cross-listed by the Department. Only transfer courses with a grade of C or higher may be accepted toward the major.

**B. Study in Related Areas (6 credits)**

Two courses numbered 300 or higher, offered by another department (and not crosslisted with a political science course or included as a philosophy course in the political theory/philosophy program of study) in subjects directly related to the chosen program of study. Courses taken at another institution may be used to satisfy this requirement if they were passed with a grade of C or higher.

**C. Methodology Requirement**

Majors must demonstrate competence in appropriate social science methodology by passing with a grade of C or higher any one of the following courses: AMS 102, BUS 215, ECO 320, POL 201, PSY 201, or SOC 202. The Department suggests that students fulfill this requirement no later

than the beginning of their junior year. A course taken to fulfill the methodology requirement may not count toward fulfilling any other major requirement.

#### D. Upper-Division Writing Requirement

Political Science majors are expected to fulfill the upper-division writing requirement by the end of their junior year. The requirement may be met in either of two ways:

Method I: Students may submit to the Department's director of undergraduate studies a portfolio of papers on subjects relevant to political science. These papers may include term papers or shorter pieces written for political science courses at Stony Brook or elsewhere. There is no requirement concerning the number of papers submitted, but the portfolio must consist of at least 20 pages of material.

Method II: Students may seek to have their writing evaluated by the instructor of any upper-division political science course in which there is an assigned research paper. Writing evaluation forms are available in the Department office for students to give to their instructors along with their papers. Students should check with the undergraduate office if they have any questions about whether they have fulfilled the writing requirement. Students whose writing is not judged adequate should consult with the director of undergraduate studies on further steps to fulfill the writing requirement.

#### Note:

Students must take four 300-level courses in one of the following programs of study within the major:

1. Comparative Politics and International Relations;
2. American Government, Law, and Public Policy;
3. Political Behavior and Political Psychology;
4. Political Theory/Philosophy.

#### Programs of Study

##### Comparative Politics and International Relations

POL 214, 216, 302, 305, 307, 309, 310, 311, 313, 336, 337, 345, 350, 357, 372, 382, 405, 411, 412, 413. Also 287, 401, 402, 403, 404, 447, 487, and 495 when the topic is appropriate.

##### American Government, Law, and Public Policy

POL 302, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 336, 343, 344, 347, 350, 351, 359, 364, 365, 366, 367, 368, 406, 434. Also 287, 401, 402, 403, 404, 447, 487, and 495 when the topic is applicable.

##### Political Behavior and Political Psychology

POL 302, 316, 317, 318, 323, 343, 344, 346, 347, 348, 349, 350, 351, 364, 367, 368, 377, 434. Also 287, 401, 402, 403, 404, 406, 447, 487, and 495 when the topic is applicable.

##### Political Theory/Philosophy<

Students may choose from the following courses in political science and philosophy to complete this program of study: PHI 249 Marxism, PHI 277 Political Philosophy, PHI 363 Philosophy of the Social Sciences, PHI 366 Philosophy and the Environment, PHI 367 Philosophy of War and Peace, PHI 372 Ethical Inquiry, PHI 375 Philosophy of Law, PHI 377 Contemporary Political Philosophy, PHI 379 Philosophy of Race, PHI 384 Advanced Topics in Feminist Theory, POL 321, POL 325, POL 344, POL 350. Also POL 402, POL 403, POL 404, and POL 405 when the topic is applicable.

#### Honors Program

Departmental majors with a 3.50 g.p.a. in political science courses and a 3.00 cumulative g.p.a. may enroll in the Political Science honors program at the end of their junior year. The student, after asking a faculty member to be a sponsor, must submit a proposal to the Department describing the research project that is to be the subject of the honors thesis. The supervising faculty member must also submit a statement supporting the student's proposal. If the project is approved by the Department, the student may enroll in POL 495-496 Senior Honors Project in Political Science in the fall and spring semesters of the senior year. The honors paper resulting from the student's research is read by two Political Science faculty members and a faculty member from another department, as arranged by the director of undergraduate studies. If the paper is judged to be of extraordinary merit and the student's record warrants such a determination, honors are conferred.

#### Requirements for the Minor in Political Science (POL)

The minor in Political Science is organized around one of the four programs of study listed for the major and must be approved by the Department's director of undergraduate studies.

Completion of the minor requires 24 credits distributed as follows:

1. Two 100-level POL courses selected from 101, 102 (or 105), and 103
2. Six POL courses numbered 200 or higher (excluding POL 201), of which at least three must be at the upper-division level. At least four of the courses must be in one of the programs of study listed above.

No more than six credits of courses with Satisfactory/Unsatisfactory grading may be applied to the minor. All courses except POL 287, 488, and 489 must be taken for a letter grade. No grade less than C in courses numbered 200 and above may be used to fulfill minor requirements. At least nine credits must be taken in courses offered by the Political Science Department at Stony Brook or cross-listed by the Department. Only transfer courses with a grade of C or higher may be accepted toward the minor.

#### B.A./M.A. Accelerated Degree Program in Political Science

Undergraduate Stony Brook students currently enrolled with a major in Political Science are eligible for the five-year accelerated B.A./M.A. in Political Science/ Public Policy Program, in which up to six graduate credits are earned during the senior year, while also fulfilling the B.A.

requirements. Upon admission to the program, the student takes the following two courses (or others approved by the Graduate Program Director) in the senior year:

POL 535 Public Policy Analysis and Evaluation

POL 536 Public Management and Organizational Behavior

These six credits will also be applied to the 24-credit, upper-level undergraduate elective requirement for political science majors. The student then completes the remaining graduate requirements during the fifth year of full-time study.

### Sample Course Sequence for the Major in Political Science

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
POL 100-level*	3	POL 100-level*	3
POL 100-level*	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
POL 201**	3	POL 300-level	3
POL 200-level	3	Introductory course in related area	3
D.E.C.	3	Introductory course in related area	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
POL Upper-Division course from selected Program of Study***	3	POL Upper-Division course from selected Program of Study***	3
POL Upper-Division course from selected Program of Study***	3	POL Upper-Division course from selected Program of Study***	3
Upper-Division course in related area	3	Upper-Division course related in area	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
POL Upper-Division elective	3	Electives, directed research, internship, or honors	15
POL Upper-Division elective	3		
D.E.C.	3		
Upper-Division elective	3		
Upper-Division elective	3		
Total	15	Total	15

\*Every Political Science major must take POL 101, 102, and 103. The three courses are independent of one another and may be taken in any sequence.

\*\*Any of the following courses may be substituted for POL 201: AMS 102, BUS 215, ECO 320, PSY 201, or SOC 202.

\*\*\*See the lists under "Programs of Study" (right).

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Psychology (PSY)****Majors in Psychology****Department of Psychology, College of Arts and Sciences**

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Minors of particular interest to students majoring in Psychology: Child and Family Studies (CFS), Human and Gender Development (LHD), Women's Studies (WST)

**Psychology (PSY)**

The study of psychology provides an understanding of the biological, cognitive, social, and clinical origins of behavior, thought, and emotion, and the methods that psychologists use to investigate these. Knowledge of psychological principles and the ability to evaluate theories and research are essential in our rapidly changing society.

The Department of Psychology offers undergraduate programs leading to a Bachelor of Science (B.S.) degree or a Bachelor of Arts (B.A.) degree. The objective of both programs is to provide a broad overview of psychology, and both require extensive exposure to areas other than psychology as a context for study in the major. The B.S. program places relatively more emphasis on the natural sciences and mathematics. Both the B.S. and B.A. programs provide excellent preparation for graduate school.

The Psychology major provides students with a background of fundamental subject matter that will equip them for subsequent graduate study in related fields. The major is also beneficial for students seeking careers that involve knowledge about interpersonal relationships such as medicine, education, law, or management. Psychology expertise is also relevant to standard business settings in which a major goal is to adapt products and services to closely reflect human needs and capabilities.

**Requirements for the Majors in Psychology (PSY)**

Completion of the major for either a B.S. or a B.A. in Psychology requires 58 to 67 credits.

All courses required for either the B.S. or B.A. degree must be passed with a letter grade of C or higher.

**Study within Psychology**

For both degree programs, 34 to 35 credits in psychology to be distributed as follows:

**1. Core Program**

- PSY 103 Introduction to Psychology
- PSY 201 Statistical Methods in Psychology or another statistics course approved by the Department
- PSY 310 Research and Writing in Psychology

**2. Survey Courses in Psychology**

Three survey courses from the list below, two from either Group A or B, and one from the other group:

**Group A**

- PSY 220 Survey in Developmental Psychology
- PSY 230 Survey in Clinical Psychology
- PSY 240 Survey in Social Psychology

**Group B**

- PSY 250 Survey in Biopsychology
- PSY 260 Survey in Cognition and Perception

## 3. Five PSY courses

For the B.A. student:

1. One course numbered 200 or higher, excluding PSY 273, 283, 310, 399, 447, 475, 476, 487, 488, 495-496, and the discontinued PSY 300.
2. Four more courses from among advanced courses numbered 301 to 384, excluding PSY 310.
3. Although not required for B.A., the Department strongly recommends that any B.A. student planning to attend graduate school should gain research experience by becoming a research assistant (PSY 273). Undergraduate Research Opportunities can be found through the Department of Psychology Web page.

For the B.S. student:

1. One course numbered 200 or higher, excluding PSY 273, 283, 310, 399, 447, 475, 476, 487, 488, 495-496, and the discontinued PSY 300.
2. A laboratory course (PSY 380-384).
3. Advanced statistics (PSY 301 or AMS 315).
4. Two more courses numbered 300 or higher, excluding PSY 310, 399, 447, 475, 476, 487, 488, 495-496, and the discontinued PSY 300.
5. Upper-Division Writing Requirement

The upper-division writing requirement can be fulfilled through a writing sample of at least six pages, submitted in PSY 310 or any other 300-level psychology course, that is judged by the instructor of that course to be satisfactory writing in the discipline of psychology. The writing sample may consist of one or more reports or term papers that are prepared as part of the regular assignments for a course, or the sample may be prepared exclusively to fulfill the upper-division writing requirement. A student must obtain the permission of the instructor prior to submitting a writing sample for evaluation. An evaluation form that can be obtained in the Undergraduate Psychology Advising Office (Room B-115) must be submitted to the instructor with the writing sample.

A student who receives an "unsatisfactory" on the writing sample may, with the permission of the instructor, revise and re-submit the sample for evaluation. Alternatively, the student may submit another sample in another course. Since instructors are obligated to accept only a limited number of writing samples for evaluation in a given course, students are strongly advised to attempt to complete the writing requirement in their junior year.

#### Courses Outside the Psychology Department

In addition to the 34 to 35 credits in psychology, students must also complete 24 to 32 credits of courses outside the Department. This requirement differs in some aspects between the B.S. and B.A. degrees.

For the B.A. Student

One 3-4 credit course from each of the 4 categories below:

1. Mathematics Choose from among the following: AMS 101, CSE 110, MAT 118 or any higher AMS, CSE, or MAT course approved by the department. Note: PSY 201 (or equivalent introductory statistics courses) does not satisfy this requirement. Students who pass the Mathematics Placement Exam at Level 4 or above are not required to complete a course in this category.
2. Biology: Any one-semester BIO course
3. Philosophy: Any one-semester PHI course
4. Social Sciences: Any one-semester SOC, ANT, or POL course except SOC 201 or 202 or POL 201.
5. A 12-credit (minimum four courses) concentration in one of the course subjects listed below. At least two courses must be upper-division (numbered between 300 and 499). Practica, research, and internship courses do not satisfy this requirement.

- Africana Studies (AFS)
- Anthropology (ANT)
- Applied Mathematics and Statistics (AMS)
- Biology (BIO)
- Child and Family Studies (CFS)
- Computer Science (CSE)
- Economics (ECO)
- History (HIS)
- Linguistics (LIN)
- Mathematics (MAT)
- Philosophy (PHI)
- Political Science (POL)
- Sociology (SOC)
- Women's Studies Program (WST)

The concentration requirement may also be satisfied by an approved minor or a second major in any department or program.

Note: If a student completes a concentration in Anthropology, Biology, Mathematics, Philosophy, Political Science, or Sociology, the concentration will automatically satisfy the associated requirement listed in requirements 1 to 4 above for the B.A. student.

For the B.S. Student

All three categories below are required.

1. Mathematics: a. Calculus I (MAT 125, 131, 141, or AMS 151) and
- b. Calculus II (MAT 126, 132, 142, or AMS 161)

Note: Passing the mathematics placement examination at level 8 or higher also satisfies this requirement. Ideally students should take courses in sequential pairs (i.e., MAT 125, 126).

2. Biology:

- a. Two courses from the following: BIO 201, BIO 202, and BIO 203
- b. Students enrolling in BIO 201, BIO 202, or BIO 203 in the fall 2007 semester and subsequent semesters will be required to take BIO 204 plus BIO 205\* (lab components).

\*BIO 207 may be substituted for BIO 205

Note: Students who elect the Biology concentration need only take one course from category a and BIO 204, for a total of one lecture and one lab course.

3. Any two concentrations from the following five choices:

- a. Biology: Two BIO or biology-related courses. The list of approved courses to satisfy this requirement may be obtained from the Undergraduate Psychology Office.
- b. Chemistry: CHE 131 and 133, CHE 132 and 134; or CHE 141 and 143, CHE 142 and 144; or CHE 321, 322, and 327.
- c. Mathematics: Two courses. The list of approved courses to satisfy this requirement may be obtained from the Undergraduate Psychology Office.
- d. Physics: PHY 121/123 and 122/124; or PHY 125, 126, and 127; or PHY 131/133 and 132/134; or PHY 141 and 142.
- e. Computer Science: CSE 113 and 114.

Notes for B.A. and B.S. students:

1. Transfer students must take at least 12 credits of psychology in residence at Stony Brook.
2. No more than six credits from among PSY 273, 283, 447, and 487 may be taken in one semester. Other restrictions on applying these courses toward graduation requirements exist; consult the Undergraduate Psychology Office and see also Course Credit and Grading Option Limits in the "Academic Policies and Regulations" chapter.
3. Students interested in a major in Psychology should meet with a Psychology Department Undergraduate Advisor (Room B-115). Additional meetings should be scheduled periodically to review progress toward fulfilling Department requirements.

Honors Program in Psychology

The Psychology honors program features:

- 1) a faculty mentor and
- 2) collaborative research with faculty which results in a senior thesis. Students are encouraged to apply for acceptance to the honors program by the first week of November during their junior year at Stony Brook. The latest point at which students may enroll is three semesters prior to graduation. Application forms and information are available in the Undergraduate Psychology Office. To be eligible for the honors program, a student must have a cumulative g.p.a. of 3.20 or higher and a g.p.a. of 3.50 or higher in courses required for the Psychology major. A student whose cumulative grade point average falls below 3.00 may be dropped from the honors program. Conferral of honors in Psychology requires the following:

1. A cumulative g.p.a. of 3.00 and a 3.50 g.p.a. in psychology.
2. Successful completion of a senior thesis while enrolled in PSY 495 and 496, see below.

The Psychology honors program is followed for three semesters. During the spring of their junior year, students enroll in PSY 399 Junior Honors Seminar; during the senior year they enroll in PSY 495 (first semester) and 496 (second semester) Senior Honors Seminar.

### Sample Course Sequence for the Major in Psychology (B.A. Degree)

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A		3 D.E.C. A	3
PSY 103		3 PSY Group A (220 or 230 or 240) OR PSY Group B (250 or 260)	3
MAT course*		4 PHI course	3
BIO course		4 SOC or ANT or POL course**	3
D.E.C.		3 Statistics course***	3
Total	16-18	Total	16

<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PSY Group B (if Group A taken) OR Group A (if Group B taken)	3	PSY Group A or B course	3
Course outside concentration (#1)	3	PSY 200 and above elective	3
PSY 310 (or D.E.C. course and take PSY 310 in spring)	3	D.E.C. (or PSY 310 if not taken in fall)	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PSY Upper-Division elec. (301 to 384)	3	PSY Upper-Division elective (301-384)	3
Course outside concentration (#2)	3	Upper-Division course outside concentration (#3)	3
Upper-Division elective	3	PSY Upper-Division elective (301-384)	3
Upper-Division elective	3	D.E.C.	3
Elective	3	Elective	3
Elective	3	Total	15
Total	16-18		
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper-Division outside concentration (course #4)	3	D.E.C.	3
PSY Upper-Division elective (301-384)	3	Upper-Division elective	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

\*One course from among the following: AMS 101, CSE 110, MAT 122 or any higher AMS, CSE, or MAT course except AMS 102. (Students who pass the current Department of Mathematics placement examination with a score of 4 or higher have fulfilled this requirement.)

\*\*Any course offered by these departments except SOC 202 or POL 201

\*\*\*Choose one of the following: AMS 102, ECO 320, POL 201, PSY 201, or SOC 202

### Sample Course Sequence for the Major in Psychology (B.S. Degree)

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
PSY 103	3	PSY Group A (220 or 230 or 240)OR PSY Group B (250 or 260)	3



MAT 125 or 131 or 141	3-4	D.E.C.	3
CHE 131*	3-4	MAT 126 or 132 or 142	3-4
D.E.C.	3	D.E.C.	3
Total	16-18	Total	16-17
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PSY 201**	3	PSY 310	4
PSY Group B (if Group A taken)OR Group A (if Group B taken)	3	PSY Group A or B	3
BIO 201, 202, or 203, and 204	5	PSY elective***	3
D.E.C.	3	BIO 201, 202, or 203, and 205	5
D.E.C.	3	D.E.C.	3
Total	17	Total	18
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PSY advanced laboratory (380 or 381 or 382 or 383 or 384)	3-4	PSY 301 or AMS 315	3
Science sequence elective	3	Science sequence elective	3
PSY Upper-Division elective***	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
D.E.C.	3	Elective	3
Total	15-16	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
PSY Upper-Division elective***	3	PSY Upper-Division elective ***	3
D.E.C.	3	D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15

#Note: Passing a placement test at the appropriate level also satisfies the calculus requirement.

\* CHE 131 is a prerequisite to the 200-level BIO courses.

\*\* Other statistics courses allowed are AMS 102, ECO 320, POL 201, or SOC 202.

\*\*\* May not use any of the following to fulfill this requirement: PSY 273, 283, 399, 447, 475, 476, 487, 488, or 495-496.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Religious Studies (RLS)****Major and Minor in Religious Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Program Director: William Chittick

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Phone: (631) 632-7690

WEB ADDRESS: <http://www.stonybrook.edu/asianandam>

Minors of particular interest to students majoring in Religious Studies: China Studies (CNS), Classics (CLS), Japanese Studies (JNS), Judaic Studies (JDS), Korean Studies (KOR), Medieval Studies (MVL), Middle Eastern Studies (MES), Philosophy (PHI), South Asian Studies (SOA)

**Religious Studies (RLS)**

The Program in Religious Studies offers an interdisciplinary approach to the analysis of religion in its many forms and aspects. To the variety of religious traditions, both living and historical, the program brings the techniques and questions of philosophy, history, literature, and the human sciences. Designed for flexibility in meeting students' interests and needs, the Religious Studies program offers a major, a minor, an honors program, and a variety of electives useful for broadening one's knowledge of religious phenomena, for supplementing the major program in many related fields of humanities and social science, and for meeting general education requirements.

The major in Religious Studies is an attractive option for students seeking a general liberal arts education with strength in humanities. It develops skills in reading texts with sophisticated critical awareness, and in expressing complex ideas orally and in writing. It affords insight into the fundamental traditions that shape historic cultures, East and West, and forms habits of tolerance and appreciation of unfamiliar ideas and values.

Students also major in Religious Studies intending to go on to further professional training in this field or in closely related ones like law and diplomacy. Those who wish to pursue graduate studies are encouraged to study the languages needed for their areas of interest, and to supplement their major requirements with related work in history, philosophy, and the arts.

More information and advising in regard to any of the program's services are available through the program director.

**Requirements for the Major and Minor in Religious Studies (RLS)****Requirements for the Major in Religious Studies (RLS)**

Attentive and personal advising is a primary commitment of the Religious Studies faculty, and students who enter the program are assigned to an individual advisor who will help them find the courses best suited to their area of interest in the major and make productive use of their electives outside the major and the general education requirements of the University. Students commonly complete minors or even second majors in related fields. Final approval of courses selected for major requirements should be obtained prior to registration for the senior year. Requirements for the major may be satisfied with RLS courses and, with advisor's approval, with courses from other programs listed under "Related Courses in Other Programs". Students wishing to satisfy the requirements with yet other courses may do so with the approval of the major advisor.

The major in Religious Studies leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires 30 credits.

**A. Required Courses**

#RLS 301 Sources and Methods (ordinarily taken in the fall of the junior year; may be taken in the senior year by those who do not meet the prerequisites as juniors)

#RLS 400 Religious Studies Seminar (ordinarily taken in the spring of the senior year)

**B. Depth Requirement**

Four courses at the 200, 300, and 400 levels in one of the following areas of emphasis: 1. Hinduism (SKT 111, 112 may also count as one course for this area)

2. Buddhism

3. East Asian religions (Chinese, Japanese, and Korean religions)

4. Judaism (in coordination with Judaic studies; ordinarily all four courses in this area emphasis are JDS and JDH, but one may be replaced with a relevant RLS or other course with advisor's approval)

5. Christianity (to include at least one Judaic studies course; JDH/RLS 230 or JDS/HIS 225, 226 recommended)

6. Islam (may include one course in Judaism or Christianity; ARB 111, 112 may also count as one course for this area)

7. Theology, philosophy, and method in religion

8. Other areas, as available; these must be approved by the major advisor before the first semester of the senior year.

C. Breadth requirement: Four RLS courses in areas outside the area emphasis.

**D. Upper-Division Writing Requirement**

Majors are required to demonstrate a capability for expressing themselves effectively in writing. They should meet this requirement by taking RLS 301 before the end of their junior year and achieving a special overall rating of "satisfactory" on the written work in that course apart from the course grade. An overall rating of "unsatisfactory" necessitates remedial action. More detailed information about this requirement is available from the program.

### The Honors Program in Religious Studies

Religious Studies majors who have maintained a grade point average of 3.50 in the major and 3.00 overall through their junior year may be invited to attempt the degree in Religious Studies with honors.

The honors major requires a total of 36 credits, consisting of the 30 credits required for the major and six additional credits in a special research project pursued through both semesters of the senior year under the supervision of a member of the faculty, with registration in RLS 495-496.

When the supervising faculty member judges the student ready, an honors essay based on this special project is presented and defended at a meeting of the Religious Studies Seminar, which consists of the Religious Studies faculty and participating faculty from related disciplines. Thereafter, the Religious Studies faculty, together with at least one faculty member from another discipline who attended the seminar, meet to decide whether to recommend conferring the degree with honors. The decision is based on the student's overall record, the recommendation of the special project supervisor, the student's performance in presenting the honors essay, and the judgment of the faculty concerning its intrinsic worth.

Students who wish to become candidates for honors should consult with the program coordinator during their junior year. Faculty supervision of the senior honors project must be agreed upon and arranged before the end of the junior year.

### Requirements for the Minor in Religious Studies (RLS)

The minor in Religious Studies consists of six courses (18 credits), at least three of which (nine credits) must be at the upper-division level. At least 12 credits, including RLS 301, must be taken for a letter grade. In addition to these general requirements, the program is designed to ensure: 1) an encounter with the variety of world religions; 2) a grasp of problems of method and the critical use of sources in the study of religion; and 3) sufficient depth in a single area emphasis to read advanced work in the area with experience and judgment. Requirements to meet these goals are:

1. RLS 101 or AAS 102/RLS 102 or one 200 level RLS course
2. One 200-level RLS course
3. RLS 301
4. At least three courses in one of the area emphases listed for the major

Students should consult the program director by the semester in which they register for RLS 301 for advice on coordinating the Religious Studies minor with the student's major program. Final approval of courses selected to meet the minor requirements should be obtained prior to registration for the senior year.

**Sample Course Sequence for the Major in Religious Studies**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
RLS 101 or 102	3	Selected Area Emphasis course #1 (200 level)	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	D.E.C.	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>16</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Selected Area Emphasis course #2 (200 level or higher)	3	Selected Area Emphasis course #3 (300 level or higher)	3
RLS elective outside Area Emphasis	3	RLS elective outside Area Emphasis	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
D.E.C.	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
RLS 301	3	RLS Up-Div elec outside Area Emphasis	3
Selected Area Emphasis course #4 (300 level or higher)	3	D.E.C.	3
RLS Up-Div elec outside Area Emphasis	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
D.E.C.	3	RLS 400	3
Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Major in Respiratory Care****School of Health Technology and Management**

Chairperson: James Ganetis

Assistant to the Chairperson: Patricia Bley

Office: Health Sciences Center Level 2 Room 414

Phone: (631) 444-3180

Email: Patricia.Bley@stonybrook.edu

Web Address: <http://healthtechnology.stonybrookmedicine.edu/>

**Respiratory Care**

Respiratory therapists specialize in the diagnosis and treatment of patients with heart, lung and sleep disorders. They work with a wide variety of patients, from premature infants to the elderly. They provide services in many settings including hospitals, clinics, physician offices, nursing homes, and rehabilitation centers. Many are also taking advantage of growing opportunities in diagnostic sleep labs, cardiac catheterization labs, and in-home health care. Individuals who graduate from the program are employed as clinicians, managers, educators and researchers.

**Pre-Application Requirements for the Major in Respiratory Care**

1. 3 credits of English composition
2. 6 credits in the arts and/or humanities, excluding studio, skills, and techniques courses
3. 6 credits in the social and behavioral sciences
4. 11 credits in biological sciences, including 3 credits in microbiology (See Note 1)
5. 8 credits of chemistry with labs
6. 4 credits of physics with lab
7. 3 credits of statistics
8. Certification in Basic Life Support (BLS) from the American Heart Association
9. 2.50 cumulative g.p.a.

**Notes:**

1. Students completing the courses at Stony Brook should take BIO 202, BIO 203, and BIO 204, and HBM 320 or BIO 315 Microbiology.
2. Stony Brook freshmen are eligible to declare respiratory care as a major. In addition to the requirements listed above, students in this four-year program must successfully complete HAT 210 Introduction to Respiratory Care with a grade of B or higher.
3. Courses in anatomy and physiology, logical and critical reasoning, medicine and society, and an additional physics course with lab are recommended.

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Russian Studies (RUS)****Minor in Russian Studies****Department of European Languages, Literatures, and Cultures, College of Arts and Sciences**

Chairperson: Nicholas Rzhnevsky

Director of Undergraduate Studies: Irene Marchegiani

Coordinator of the Minor: Izabela Kalinowska-Blackwood

Assistant to the Chair: Victoria Judd

Office: Humanities 1055

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Web address: <http://www.sunysb.edu/eurolangs>

Minors of particular interest to students majoring in Russian: Business Management (BUS), Comparative Literature (CLT), Economics (ECO), English (EGL), History (HIS), International Studies (INT), Linguistics (LIN), Medieval Studies (MVL), Philosophy (PHI), Political Science (POL), other languages

**Russian Studies (RUS)**

The minor in Russian Studies is flexible and gives students the opportunity to select a particular area of emphasis. A student who successfully completes a minor in Russian attains a broadly based background in Russian culture; depending on which electives are chosen, the student also acquires a more specialized knowledge of language, literature, or cultural studies. The Department offers courses in Russian as well as in translation, and the Russian minor may be combined with work in other disciplines.

Russian minors have found employment in teaching, government service, foreign trade and banking, communications, translating, and interpreting. The expansion of East-West trade and the new business ventures in Russia seeking cooperation with Europe, Asia, and Africa offer creative career opportunities. Some Russian students have continued on to do graduate work in Russian or Slavic Studies at Yale, Harvard, Northwestern, Berkeley, and American University. Others have become certified as secondary school teachers. Science, social science, and pre-med minors have found the study of Russian to be particularly useful in their careers.

**Requirements for the Minor in Russian Studies (RUS)**

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires at least 21 credits.

1. HUR 249 Russia Today
2. HUR 141, HUR 142 Introduction to Russian Literature I, II
3. Twelve credits of 300- and 400-level RUS and HUR courses

A Russian concentration of 15 credits can also be created through the Multidisciplinary Studies Major. Students should consult with the RUS Program Coordinator in planning a minor or a concentration in MTD.

**Placement in Language Courses for Incoming Students**

The prerequisites for each course indicate which language level the course is geared towards. As a rule of thumb, one year of high-school foreign-language study is considered the equivalent of one semester of study at the college level for non-native speakers. Heritage speakers, by contrast, are placed according to their relative mastery of both the spoken and written language. Students are advised to consult the coordinator of the Russian minor.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Major in Social Work****School of Social Welfare**

Program Director: Bertha Murphy

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Director of Admissions and Student Services: Kathy Albin

Email: [Kathleen.Albin@stonybrook.edu](mailto:Kathleen.Albin@stonybrook.edu) Office: Health Sciences Center, Level 2, Room 093

Phone: (631) 444-3141

Web Address: <http://www.socialwelfare.stonybrookmedicine.edu>

**School of Social Welfare**

The undergraduate program leads to a Bachelor of Science degree with a major in social work. The program is designed to prepare students for the rapidly growing and changing job opportunities in the health and social welfare field. The curriculum provides the foundation for generalist social work practice in entry-level positions in a wide range of health and social welfare organizations.

The program includes field placements two days a week in hospitals, nursing homes, schools, youth services and a wide variety of social welfare organizations.

The basic program is a two-year upper-division full-time program that includes 12 credit hours in supervised fieldwork (internships) in health, mental health, social welfare and other agencies. The first-year courses focus on social work practice, human behavior and the social environment, political economy, research in social work, and social and health policy. The second year includes courses in social work practice, and a wide array of electives

Flexibility and responsiveness to student needs are hallmarks of the program and classes. Field education sites are available from the East End of Long Island to New York City.

The program is fully accredited by the Council on Social Work Education. The program meets the requirements necessary to apply for admission to Master of Social Work (MSW) programs and to apply for advanced standing in Master's programs in those schools of social work that offer that option.

**Pre-Application Requirements for the Major in Social Work**

1. 3 credits of English composition
2. 6-8 credits in the fine arts and humanities, excluding elementary languages, design, or skills improvement courses.
3. 3 credits of American political systems
4. 3 credits of introductory anthropology or sociology
5. 3 credits of introductory psychology
6. 3 credits of American history (post-Reconstruction)
7. 3-4 credits of introductory human biology
8. 3-4 credits in natural science or college-level mathematics
9. 2.50 cumulative g.p.a.

Applicants should have demonstrated interest in the social welfare field through paid or volunteer experience in programs aimed at social improvement.

For additional information please visit <http://www.socialwelfare.stonybrookmedicine.edu>

**Sample Course Sequence: Requirements for Application to the School of Social Welfare**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
D.E.C. A English Composition	3	D.E.C. A English Composition	3
BIO 101	3	D.E.C. E (Natural Science) or Math	3

ANT 102 or SOC 105	3	POL 102	3
MAP 103*	3	HIS 104	3
		D.E.C. B or G (Humanities)	3
Total	12	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
D.E.C. B, D or G (Humanities)	3	**200- 300-level D.E.C. categories courses	15
PSY 103	3		
**200- and 300-level D.E.C. categories courses	9		
Total	15	Total	15

\* Students must take a mathematics placement examination. \*\*The above program puts most of the required courses into the first year, but they could equally be spread over two years since the student cannot enter the social work major until the junior year. Application should be submitted in the sophomore year. Volunteer work is desirable.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Sociology (SOC)****Major in Sociology****Department of Sociology, College of Arts and Sciences**

Chairperson: Michael Schwartz

Director of Undergraduate Studies: Cathy Marrone

Assistant to the Chair: Pat Bremer

Undergraduate Secretary: Sharon Worksman

Office: S-401 Social and Behavioral Sciences

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E-MAIL: Sharon.Worksman@stonybrook.edu

Web address: <http://www.sunysb.edu/sociology>

Minors of particular interest to students majoring in Sociology: Anthropology (ANT), Business Management (BUS), Human Sexual and Gender Development (LHD), International Studies (LKS), Political Science (POL), service learning for community-based action research (LCR)

**Sociology (SOC)**

Sociology is the systematic study of social life. It is based on the assumption that there are certain patterns to the way people live and think and that by studying their behavior and attitudes, these patterns can be discovered and explained. Sociologists investigate how the group influences behavior, from the smallest (a two-person relationship, like husband and wife) to the largest (huge organizations, such as General Motors or the Catholic Church). Anything having to do with social behavior is the subject matter of sociology.

The Bachelor of Arts program at Stony Brook seeks to develop in students both an understanding of a history of social thought and skills in the collection and analysis of social data. The core program includes one semester of Introduction to Sociology, one semester of sociological theory, one semester of research methods, and one semester of statistics.

Students who have completed this program have attended graduate schools in sociology or related disciplines, law school, social welfare, and pursued careers in advertising, marketing, and business management. Some work in the field of market research (studying for large companies what products people want to buy), demography (studying the population scientifically, as in the United States census), criminology (investigating the causes and nature of crime and criminal justice), urban planning, polling, and public opinion (like the Gallup or Harris Polls).

**Requirements for the Major in Sociology (SOC)**

The major in Sociology leads to the Bachelor of Arts degree. All sociology courses offered for the major, except those graded S/U, must be passed with a letter grade of C or higher. Of courses outside the Department offered for the major, only one may be taken with the Pass/No Credit option.

Completion of the major requires 39 credits, of which 30 to 33 are in sociology courses.

**A. Study within the Area of the Major****1. Required courses**

SOC 105 Introduction to Sociology

SOC 201 Research Methods

SOC 202 Statistical Methods in Sociology or another allowed statistics course

SOC 361 Historical Development of Contemporary Sociology

**2. Sociology electives**

Free selection of courses, totaling 18 credits, from among all sociology course offerings.

**Notes:**

1. If any required course is waived for any reason, it must be replaced with an additional elective.
2. Only six credits of independent study courses (SOC 447, 487, and 488) may be used toward the requirements of 18 elective credits in sociology.
3. SOC 362, Contemporary Sociological Theory, is strongly advised for any student who is considering graduate education in sociology.

**B. Study in Related Areas**

At least three courses (nine credits) chosen from one of the following related social sciences: Africana studies (only those courses with designator AFS), anthropology, child and family studies, economics, history, linguistics, political science, psychology, and women's studies (only those WST courses crosslisted with social sciences courses). Credits from applied social science professions such as social work, police science, education, and management science are not applicable. Courses that are crosslisted with a sociology course do not satisfy this requirement.

**C. Upper-Division Writing Requirement**

Sociology majors are expected to fulfill the upper-division writing requirement by the end of the 7th semester. Students may meet the requirement by having their writing evaluated in certain upper-division courses. Students who have indicated that they wish to have their writing evaluated receive a separate report on writing proficiency in addition to their regular course grade.

Students whose writing is not judged adequate should consult with the director of undergraduate studies on further steps to fulfill the writing requirement.

Notes for Transfer Students:

1. The Department of Sociology requires that transfer students take at least 12 credits in sociology in residence at Stony Brook to complete the sociology major.
2. No transferred sociology course with a grade lower than C is accepted for credit in the major.

#### Honors Program

The honors program is open to seniors majoring in Sociology who have maintained a g.p.a. of 3.50 in the major and 3.20 overall, and who have completed or are in the process of completing the methods and statistics requirement and the upper-division writing requirement. Students should apply for the honors program before the beginning of their senior year. With the approval of the sponsoring faculty member, the student must submit a written proposal for a major paper or research project to be completed during the senior year. Acceptance into the honors program depends on the approval of the proposal by the Department.

In the senior year, the student enrolls in SOC 495 during the first semester and SOC 496 during the second semester, for a total of six credits. The student's major paper or research project must be completed no later than four weeks prior to the end of the second semester, to allow for possible revisions. It is read and evaluated by a committee consisting of the student's sponsor, one other Sociology faculty member, and one faculty member from another department.

If the honors program is completed with distinction and the student has achieved a 3.50 g.p.a. in all sociology courses taken in the senior year, honors are conferred.

#### Sample Course Sequence for the Major in Sociology

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
SOC 105	3	SOC elective	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SOC 201	3	SOC 202 or AMS 102	3
SOC elective	3	SOC elective	3
Social science elective	3	Social science elective	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SOC 361	3	SOC Upper Division elective	3
SOC Upper-Division elective	3	SOC Upper Division elective	3
Social science elective	3	SOC Upper Division elective	3
D.E.C.	3	SOC Upper Division elective	3
Elective	3	SOC elective	3
Total	15	Total	15

<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SOC Upper-Division elective	3	SOC Upper-Division elective	3
SOC Upper-Division elective	3	Upper-Division elective	3
SOC Upper-Division elective	3	Upper-Division elective	3
SOC Upper-Division elective	3	Elective	3
SOC elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**South Asian Studies (SOA)****Interdisciplinary Minor in South Asian Studies****Department of Asian and Asian American Studies, College of Arts and Sciences**

Director of the minor: Kamal K. Sridhar

Office: 1046 Humanities

Phone: (631) 632-7690

E-mail: [indstudy@ccmail.sunysb.edu](mailto:indstudy@ccmail.sunysb.edu)

Web address: <http://www.stonybrook.edu/commcms/asian/>

Other minors of particular interest to students minoring in South Asian Studies: Anthropology (ANT), China Studies (CNS), International Studies (INT), Japanese Studies (JNS), Korean Studies (KOR), Religious Studies (RLS)

**South Asian Studies (SOA)**

The minor in South Asian Studies provides a broad introduction to a major world civilization through a set of coordinated courses in selected areas of South Asian society and culture. Courses are offered in South Asian languages, religions, philosophy, history, politics, culture, literatures, linguistics, and performing arts. Both traditional and contemporary aspects are covered. The minor serves as a foundation for specialization in area studies (South Asia), complements knowledge of other areas in Asian Studies, and offers cross-cultural experience valued in many fields, including international business. With the approval of the director of the minor, the student constructs a coherent and individualized program of study. Students may also earn academic credits through Study Abroad in India opportunities.

The Center for India Studies (telephone: 631-632-9742), located in E-5350 Melville Library, offers a reference library, lectures and performing arts programs, publications, and internship opportunities for students minoring in South Asian Studies. Visit <http://www.sunysb.edu/india> for details.

**Requirements for the Minor in South Asian Studies (SOA)**

All courses offered for the minor must be passed with a letter grade of C or higher. At least nine credits toward the minor must be upper-division.

Completion of the minor requires seven courses or 21 credits.

1. AAS 201 Introduction to the Civilization of the Indian Subcontinent
2. AAS 338 Contemporary India: History, Politics, and Diplomacy
3. One of the following:
  - AAS/RLS 256 Hinduism
  - AAS/RLS 260 Buddhism
  - AAS/RLS 280 Islam
4. Three of the following:
  - AAS 110 Appreciating Indian Music
  - AAS 209 Indian Classical Dance
  - AAS 212 Asian and Asian American Studies Topics in the Humanities (appropriate topic only)
  - AAS/LIN 250 Languages and Cultures of Asian Americans
  - AAS 320 Literature of India
  - AAS 330 Language and Society in South Asia
  - AAS 326 Indian Mythology
  - AAS 327 Great Epics of India: Ramayana and Mahabharata
  - AAS/PHI 386 Topics in Asian Philosophy
5. One additional course (a minimum of 3 credits) chosen from the following:
  - AAS 211 Asian and Asian American Studies Topics in the Social Sciences (appropriate topic only)
  - AAS 212 Asian and Asian American Studies Topics in the Humanities (appropriate topic only)
  - ANT 311 Immersion in Another Culture (appropriate topic only)
  - AAS 333 Indian Cinemas & Cultures
  - ARH 203 History of Asian Art
  - CLT 220 Non-Western Literature (appropriate topic only)
  - EGL 373 Literature in English from Non-Western Cultures (appropriate topic only)
  - EGL 374 Literature in Relation to Other Disciplines (appropriate topic only)
  - HIN 111 Elementary Hindi I
  - HIN 112 Elementary Hindi II
  - HIN 211 Intermediate Hindi I
  - HIN 212 Intermediate Hindi II
  - LIN 431 Analysis of an Uncommonly Taught Language (appropriate topic only)
  - AAS/RLS 367 Meditation and Enlightenment
  - AAS/RLS 380 Islamic Classics
  - AAS 391, 392 Special Topics in Asian and Asian American Studies (formerly SAS 401, 402)
  - AAS 447 Directed Readings (formerly SAS 447)
  - AAS 487 Supervised Research (formerly SAS 487)
  - SKT 111 Elementary Sanskrit I

SKT 112 Elementary Sanskrit II  
THR 313 Asian Theatre and Drama

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Spanish Language and Literature (SPN)****Major and Minor in Spanish Language and Literature****Department of Hispanic Languages and Literature, College of Arts and Sciences**

Chairperson: Victoriano Roncero-López

Director of Undergraduate Studies: Daniela Flesler

Office: N-3014 Melville Library

Phone: (631) 632-6959

Web address: <http://www.sunysb.edu/hispanic>

Other minors of particular interest to students minoring in Spanish: comparative literature (CLT), international studies (INT), Latin American and Caribbean studies (LAC)

**Spanish Language and Literature (SPN)**

Spanish studies involve language, literature, cultural history, and linguistics as applied to Spain, Spanish America, and Latino communities in the United States. The field combines the humanities and the social sciences to give the student an understanding of the diverse aspects of Hispanic culture.

Because so many facets of North American life—business, industry, commerce, communications media, the arts, science, and technology—have become truly international in scope, many career opportunities exist for persons with language skills and knowledge of other cultures. A student majoring in Spanish could begin preparation for a career in any of these fields as well as in teaching. A student minoring in Spanish could combine such studies with plans for governmental service, international business, the health professions, or a major in another language and literature.

The Department offers a major program leading to the Bachelor of Arts degree in Spanish language and literature and a minor in Spanish. Students wishing to major in Spanish should consult with a Departmental advisor to choose individual programs.

**Placement**

Entering students who wish to continue the study of Spanish started in high school should consult a departmental advisor to help them choose the appropriate course.

**Requirements for the Major and the Minor in Spanish Language and Literature (SPN)****Requirements for the Major in Spanish Language and Literature (SPN)**

The major in Spanish Language and Literature leads to the Bachelor of Arts degree. All courses offered for the major must be taken for a letter grade (except that S is acceptable for SPN 311 and 312 completed through Challenge examinations). All upper-division courses in Spanish must be passed with a letter grade of C or higher.

Completion of the major requires 36 credits.

**A. Required Basic Courses**

1. SPN 311 Spanish Conversation and Composition (or SPN 310 Spanish Grammar and Composition for Students of Hispanic-American Background) and SPN 312 Introduction to Literary Studies

(Note: Challenge examinations are only given for SPN 311. See Notes 1 and 2, below.)

2. SPN 321 Advanced Spanish Grammar and Composition

3. SPN 391 The Culture and Civilization of Spain

or SPN 392 The Culture and Civilization of Spanish America

4. Three courses from:

- SPN 395 Introduction to Spanish-American Literature I
- SPN 396 Introduction to Spanish-American Literature II
- SPN 397 Introduction to Spanish Literature I
- SPN 398 Introduction to Spanish Literature II

5. SPN 393 Introduction to Hispanic Linguistics

**B. Advanced Courses in Hispanic Linguistics, Literature, and Culture**

Twelve additional credits in upper-division SPN courses chosen in consultation with the Departmental advisor. (HUL 324 is also acceptable. A maximum of three credits of SPN 447 is applicable toward this requirement.) At least three of the upper-division courses for the major must be 400-level. 300-level courses in the above list that are in excess of the required number may also count in this category.

**C. Upper-Division Writing Requirement**

To demonstrate their proficiency in writing English, Spanish majors must present a dossier consisting of a minimum of two papers of at least three to five pages each. This dossier must be submitted before the end of the second semester of their junior year to the director of undergraduate studies. The papers consist of translations of essays submitted as part of the work for upper-division courses. 300- or 400-level courses in the above list that are in excess of the required number may also count in this category. Papers are judged for clarity, accuracy, and appropriateness of style by a faculty committee. Students may resubmit in their senior year.

Notes:

1. Students of Spanish-speaking background may take the Challenge examination for SPN 310/311.
2. The Department requires transfer students to take at least 18 credits of Spanish courses in residence at Stony Brook to complete a Spanish major.

#### The Honors Program in Spanish

To be awarded honors, a Department major must

- 1) maintain a cumulative grade point average of at least 3.00 and a grade point average of at least 3.50 in Spanish courses taken for the major; and
- 2) write a senior thesis judged worthy of honors. Students eligible to write a senior thesis must find a member of the Department faculty to act as a thesis advisor and enroll in SPN 495. The thesis topic must be approved by the director of undergraduate studies, the chairperson, and the thesis advisor. The thesis is evaluated by the thesis advisor, another member of the Spanish faculty, and a third reader from outside the Department. Application to the honors program must be made during Prime Time the semester prior to registering for the program.

#### Spanish Secondary Teacher Education Program

See the Education and Teacher Certification entry in the alphabetical listings of Approved Majors, Minors, and Programs.

#### Requirements for the Minor in Spanish Language and Literature (SPN)

All upper-division courses in Spanish offered to fulfill minor requirements must be passed with a letter grade of C or higher. At least nine credits of upper-division Spanish courses must be earned at Stony Brook to complete the minor.

Completion of the minor requires 24 credits.

#### A. Basic Language

1. SPN 311 Spanish Conversation and Composition or SPN 310 Spanish Grammar and Composition for Students of Hispanic-American Background
2. SPN 312 Introduction to Literary Studies
3. SPN 393 introduction to Hispanic Linguistics

#### B. Advanced Courses

1. SPN 321 Advanced Spanish Grammar and Composition
2. Four other upper-division SPN courses, two of which must be at the 400 level

#### Study Abroad

Language majors and other interested students who would like to spend a semester or a year studying abroad should consult the director of undergraduate studies prior to going abroad. See also the Study Abroad entry in the chapter titled "Special Academic Opportunities."

#### Sample Course Sequence for the Major in Spanish (High School Preparation)

Freshman Fall	Credits	Spring	Credits
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
SPN 310	3	SPN 312	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
Sophomore Fall	Credits	Spring	Credits
SPN 321	3	SPN 392	3
SPN 395 or 397	3	SPN 396 or 398	3
D.E.C.	3	D.E.C.	3

D.E.C.	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SPN 391 or Upper-Division elective	3	SPN 393	3
SPN 400-level elective	3	SPN Upper-Division elective	3
Elective	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
		Elective	3
Total	15	Total	18
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SPN 400-level elective	3	SPN 400-level elective	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Upper-Division elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15

**Sample Course Sequence for the Major in Spanish (Advanced Language Preparation)**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
SPN 210 or 211 (not accepted for major credit)	3	SPN 212 (not accepted for major credit)	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SPN 310 or 311	3	SPN 312	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SPN 321	3	SPN 396 or 398	3
SPN 395 or 397	3	SPN 392	3
D.E.C.	3	SPN Upper-Division elective	3
D.E.C.	3	D.E.C.	3



Elective	3	Elective	3
Elective	3		
Total	18	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SPN 391 or Upper-Division elective	3	SPN 393	3
SPN 400-level elective	3	SPN 400-level elective	3
SPN 400-level elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Sustainability Studies (SUS)****Major and Minor in Sustainability Studies**

Director: Dr. Arlene Cassidy  
 Email: arlene.cassidy@stonybrook.edu  
 Program Office: W0511 Melville Library  
 Program Coordinator: Ginny Clancy  
 Phone: (631)632-9404  
 Email: ginny.clancy@stonybrook.edu  
 Website: [http:// www.stonybrook.edu/commcms/sustainability/](http://www.stonybrook.edu/commcms/sustainability/)

**Sustainability Studies (SUS)**

The Sustainability Studies major, leading to a Bachelor of Arts degree, provides the skills, knowledge, and preparation for students to understand and address the environmental, social, political, economic and ethical issues related to the transformation of our current societies to ones that are sustainable. The curriculum integrates principles and methodologies from social sciences, natural sciences, and humanities.

The major prepares students for entry-level employment in the public, private, or non-profit sectors in a variety of fields including economic development, foreign aid, public administration, law, diplomacy, public policy, public health, resource and energy conservation, business, finance, international trade, or eco-tourism. The major prepares students for graduate study in social science, political science, law, management and business.

The major builds on the interdisciplinary sustainability core curriculum. Students will enroll in major-specific courses in their junior and senior year. As part of the preparation, students will work in teams with students enrolled in related majors to collaboratively solve problems. Students are encouraged to take advantage of internships, project courses, independent research, and field courses to gain real-world experience.

**Requirements for the Major and Minor in Sustainability Studies (SUS)**

Requirements for the Major in Sustainability Studies (SUS)

**A. Required Foundation Courses (32-33 credits)**

- MAT 131 or MAT 125
- ECO 108 Introduction to Economics
- POL 102 Introduction to American Government
- PHI 104 Moral Reasoning
- SBC 111 Introduction to Sustainability Studies
- SBC 115 Introduction to Human Demographics
- SBC 201 Systems and Models
- SBC 205 Introduction to Geospatial Analysis
- SBC 206 Economics and Sustainability
- SBC 113 Physical Geography
- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- CHE/ENV 115 Chemistry, Life, Environment

**B. Career and Leadership Skills (6 credits)**

- CSK 102 Career Leadership Skills: Working in Teams
- CSK 302 Technical Writing and Communication

Two of the following courses, each 1 credit:

- CSK 101 Career Leadership Skills: Advocacy and Change
- CSK 104 Career Leadership Skills: Negotiation and Conflict Resolution
- CSK 105 Career Leadership Skills: Leadership
- CSK 106 Career Leadership Skills: Communication Methods and Strategies
- CSK 107 Career Leadership Skills: Assessment

**C. Core Courses (27 credits)**

Required:

- SUS 302 Integrative Assessment Models
- PHI 366 Philosophy and the Environment or SUS 301 Environmental Ethics

Required seven (7) three-credit courses with a minimum of one (1) course in each of the following five groups:

Group 1: Physical Environment and Renewable and Non-Renewable Resources

- ENV 304 Environmental Global Change
- ENV 340 Contemporary Topics in Environmental Science
- SUS 342 Energy and Mineral Resource
- EHI 342 Materials in Natural and Human Environment
- EHI 343 Sustainable Natural Resources
- GEO 313 Understanding Water Resources for the 21st Century

#### Group 2: Ecology

- EHI 310 Preservation and Restoration of Ecosystems
- EHI 311 Ecosystem-Based Management
- BIO 351 Ecology

#### Group 3: Human Population

- SUS 303 Demographic Change and Sustainability
- SBC 310 Migration, Development and Population Redistribution
- EHI 321 Human Reproductive Ecology

#### Group 4: Economics

- EDP 303 Spatial Economics
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Management
- SUS 308 Economic Development

#### Group 5: Environment, Policy and Society

- SUS 305 Collective Action and Advocacy
- SBC 307 Environmental History of North America
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society, and Health
- EDP 305 Risk Assessment and Sustainable Development
- SUS 341 Environmental Treatises and Protocols
- SUS 350 Contemporary Topics in Sustainability
- SBC 487 Research
- SBC 488 Internship

#### D. Systems Courses (3 credits)

One course selected from the two choices below:

- SBC 401 Integrative, Collaborative Systems Project
- GEO 301 Sustainability of the Long Island Pine Barrens

#### E. Communications and Writing Requirement

Proficiency in writing, oral communication, and computer literacy will be encouraged in all students. In addition to CSK 302, these skills will be developed within the context of other formal coursework and no additional credits are required. To meet the upper-division writing requirement, students must submit two papers from any 300-level or 400-level course in the major to the director of the SUS Undergraduate Program.

Note:

One course passed with a C- may be applied to the major; all other courses offered for the major must be passed with a letter grade of C or higher. Course taken with the Pass/NC option may not be applied to the major.

#### Minor in Sustainability Studies (SUS)

The Sustainability Studies minor is intended for students who seek to complement their chosen major with a foundation in the social, economic, and environmental aspects of sustainability.

#### Requirements for the Minor in Sustainability Studies (SUS)

No more than two courses that are used to satisfy your major can be applied to this minor. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 18 credits.

#### 1. Required three introductory courses:

- SBC 111 Introduction to Sustainability Studies
- SBC 206 Economics and Sustainability

And one of the following four courses:

- PHI 104 Moral Reasoning
- SBC 115 Introduction to Human Demography
- POL 102 Introduction to American Government
- CHE/ENV 115 Chemistry, Life, Environment

2. Required three courses from the following:

- BIO 301/ECO 301 Sustainability of the Long Island Pine Barrens
- PHI 366 Philosophy and the Environment or SUS 301 Environmental Ethics
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Management
- SUS 308 Economic Development
- ENV 340 Contemporary Topics in Environmental Science\*
- EDP 303 Spatial Economics
- SBC 307 Environmental History of North America
- SBC 309 Global Environmental Politics
- SBC 310 Migration, Development and Population Redistribution
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society, and Health
- SBC 401 Integrative, Collaborative Systems Studies
- SUS 305 Collective Action and Advocacy
- SUS 341 Environmental Treatises and Protocols
- SUS 350 Contemporary Topics in Sustainability\*
- EHI 311 Ecosystem-Based Management

\*An Internship with significant practical experience [SBC 488 Internship] or an approved research project [SBC 487 Research] may be substituted for SUS 350 or ENV 340.

Declaration of the Minor

Students should declare the Sustainability Studies minor no later than the middle of their sophomore year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

### Sample Course Sequence for the Major in Sustainability Studies

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101		1 First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
MAT 125 or 131	4	CSK Elective #1	1
SBC 111	3	ENV 115	3
SBC 113	3	SBC 205	1
CSK 102	1	POL 102	3
		D.E.C.	3
Total	15	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SBC 201	1	Elective	3
SBC 115	3	ECO 108	4
BIO 201	3	Foreign language or elective	4
Foreign Language or elective	4	SBC 104	3
D.E.C.	3		
CSK elective #2	1		
Total	15	Total	14

<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
SUS 301	3	Group 1 elective	3
SUS 302	3	Group 2 elective	3
SBC 206	3	Group 3 elective	3
CSK 302	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Group 4 Selection 1	3	Group 1-5 selection	3
Group 5 Selection 1	3	Group 1-5 selection	3
SBC 401	3	D.E.C.	3
Internship/Research	6	Elective	3
		Elective	3
Total	15	Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Technological Systems Management (TSM)****Major and Minor in Technological Systems Management****Department of Technology and Society, College of Engineering and Applied Sciences**

CHAIRPERSON: David L. Ferguson

UNDERGRADUATE PROGRAM DIRECTOR: Tian-Lih Teng

ADVISOR: Rita Reagan-Redko

OFFICE: 335 Harriman Hall

PHONE: (631) 632-1057

E-MAIL: Ted.Teng@stonybrook.edu and Rita.Reagan-Redko@stonybrook.edu

WEB ADDRESS: <http://www.stonybrook.edu/est>**Technological Systems Management (TSM)**

The Department of Technology and Society offers the major in Technological Systems Management leading to the Bachelor of Science degree. The program integrates a foundation in the natural sciences, engineering, applied sciences, or environmental studies with applications in technology systems, assessment, and management. The Department also offers a minor in Technological Systems Management.

The major prepares students for careers in government, industry, or education in positions such as manager of computer network systems, manager of information systems, quality control specialist, systems or environmental analyst, technical sales representative, or technology trainer/educator-in short, all professions and business ventures that are dependent on technological applications and implementation and in which project management is key to success. Students are also prepared for advanced study in areas such as business, law, education, policy analysis, and industrial or environmental management.

The Department's focus is on technological advances that shape every facet of modern life. Students develop understanding of the characteristics, capabilities, and limitations of current and emerging technologies. Successful practices in government, industry, education, and personal life depend on such understanding. The Department applies engineering concepts that underlie technological change and that form the bridge from engineering to other disciplines. In this multidisciplinary approach, the Department provides one of the vehicles by which Stony Brook interacts with other universities and colleges, pre-college institutions, professional schools, government, and industry. Effective management of modern technologies requires use of tools from many domains: science and engineering, information technologies, economics, legal and regulatory practice, psychology and sociology, design and assessment.

**Requirements for the Major and Minor in Technological Systems Management (TSM)**

## Acceptance into the Major in Technological Systems Management

Freshman and transfer applicants who have specified their interest in Technological Systems Management may be accepted directly into the major upon admission to the University. Applicants admitted to the University but not immediately accepted into the Technological Systems Management major may apply for acceptance at any time during the academic year by contacting the director of the undergraduate program. Students in good academic standing may apply in any semester but priority for admission to the major is given to those students who have:

- 1) completed AMS 161 and the second course in a natural science sequence, or their equivalents
- 2) earned a cumulative grade point average of 2.50
- 3) received completed course evaluations for all transferred courses that are to be used to meet requirements of the major.

## Requirements for the Major in Technological Systems Management (TSM)

Students must complete a specialization in one of the following: natural science, engineering and applied science, or environmental studies. (For those students who have a major in one of those areas and who pursue Technological Systems Management as a second major, the first major will serve as the specialization.)

Completion of the major requires approximately 79 credits.

## A. Mathematics

AMS 151, AMS 161 Applied Calculus I, II

Note: The following alternate calculus course sequences may be substituted for

AMS 151, AMS 161: MAT 125, MAT 126, MAT 127

or MAT 131, MAT 132

or MAT 141, MAT 142

or MAT 171

## B. Natural Sciences

One of the following sequences:

1. PHY 131/PHY 133 and PHY 132/PHY 134 Classical Physics I, II and Laboratories

Note: One of the following alternate physics course sequences may be substituted for PHY 131/PHY 133 and PHY 132/PHY 134:

PHY 121/PHY 123 and PHY 122/PHY 124

or PHY 125, PHY 126, PHY 127, PHY 133, PHY 134

or PHY 141, PHY 142

2. BIO 201, 202, 204 or BIO 201, 203, 204 or BIO 202, 203, 204 Fundamentals of Biology

3. CHE 131, CHE 132/CHE 133 General Chemistry I, II and lab

or CHE 141, CHE 142/CHE 143 Honors Chemistry I, II and laboratories

4. GEO 102, GEO 112 The Earth/Physical Geology Lab and one of the following:

GEO 304 Energy, Mineral Resources and the Environment

GEO 311 Structural Geology

Note: This sequence will not fulfill the University D.E.C. E requirement.

5. BIO 201 Principles of Biology: Organisms to Ecosystems and one of the following:

GEO 101 Environmental Geology

MAR 104 Oceanography

ATM 102 Weather and Climate

ENS 101 Prospects for Planet Earth

### C. Study in Related Areas: Specialization

A cluster of seven related courses, totaling at least 21 credits, in one area of natural science, engineering, applied science, or environmental studies from a single department or program. At least three courses, totaling at least nine credits, must be at the 300 or 400 level, or equivalent as approved by the undergraduate program director/advisor.

### D. Technological Systems Management

#### 1. Required courses (11)

a) EST 192 Introduction to Modern Engineering

b) EST 194 Patterns of Problem Solving

c) EST 202 Introduction to Science, Technology, and Society Studies

d) EST 305 Applications Software for Information Management

e) EST 326 Management for Engineers

f) EST 327 Marketing for Engineers

g) EST 391 Technology Assessment

h) EST 392 Engineering and Managerial Economics

i) EST 393 Project Management

j) EST 440 Interdisciplinary Research Methods

k) EST 441 Interdisciplinary Senior Project

#### 2. Electives

a) EST 213 Studies in Nanotechnology

b) EST 304 Communication for Engineers and Scientists

c) EST 310 Design of Computer Games

d) EST 320 Communication Technology Systems

e) EST 331 Ethics and Intellectual Property

f) EST 341 Waste Treatment Technologies

g) EST 488 Internship in Technology and Society

Note: Students may take other 300 or 400 level courses in their area of specialization with the approval of the undergraduate program director/advisor.

### E. Upper-Division Writing Requirement

All degree candidates must demonstrate skill in written English at a level acceptable for Technological Systems Management majors. To satisfy this requirement, a TSM major must submit a paper written for an upper-division EST course for review. Students whose writing does not meet the required standard are referred for remedial help. The requirement may also be met by earning a letter grade of C or higher in a writing-intensive course approved by the Department or, if the student has a double major, by satisfying the upper-division writing requirement in the other major.

### Grading

All courses taken to satisfy requirements A through D above must be taken for a letter grade. A grade of C or higher is required in all.

### Requirements for the Minor in Technological Systems Management (TSM)

All students must complete six or more of the following EST electives (minimum 18 credits) with a g.p.a. of 2.50 or higher. No grade less than C may be used to meet the requirements for the minor. EST courses counted toward the requirements for a student's major may not be counted towards the requirements for the TSM minor.

1. EST 192 Introduction to Modern Engineering

2. EST 303 Crisis Communication

3. EST 304 Communication for Engineers and Scientists

4. EST 305 Applications Software for Information Management

6. EST 325 Technology in the Workplace
7. EST 326 Management for Engineers
8. EST 393 Project Management
9. Another EST course with permission of the Undergraduate Program Director

### Sample Course Sequence for the Major in Technological Systems Management

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
EST 194	3	EST 192	3
AMS 151	3	EST elective	3
Natural Science 1	4	AMS 161	3
D.E.C. A	3	Natural Science 2	4
		D.E.C.	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>17</b>
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
EST Elective	3	EST 305	3
D.E.C.	3	EST 392	3
EST 202	3	Specialization course	3
D.E.C. B	3	Elective	3
Specialization course	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
EST 327	3	EST 326	3
EST 391 (D.E.C. H)	3	EST 393	3
Specialization course	3	Specialization course	3
EST elective	3	EST Elective	3
D.E.C.	3	EST Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
EST 440	3	EST 441	3
Specialization course 300/400 level	3	Specialization course 300/400 level	3
D.E.C.	3	Specialization course 300/400 level	3
D.E.C.	3	Elective	3
Elective	3	Elective	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

\*Note: <http://www.stonybrook.edu/ugrbulletin/current/pdfs/tsmM.pdf>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*



**Theatre Arts (THR)****Major and Minor in Theatre Arts****Department of Theatre Arts, College of Arts and Sciences**

Chairperson: John Lutterbie

Director of Undergraduate Studies: Deborah Mayo

Assistant to the Chair: Ed Quinn

Office: 3046 Staller Center for the Arts

Phone: (631) 632-7300

E-MAIL: Deborah.Mayo@stonybrook.edu

Web Address: <http://ws.cc.sunysb.edu/theatrearts>

Minors of particular interest to students majoring in Theatre Arts: English (EGL), Interdisciplinary Arts (LIA), Media Arts (MDA)

**Theatre Arts (THR)**

Theatre arts is traditionally the study of the dramatic event typified by productions associated with the New York stage, whether it be Broadway or Off-Broadway. In recent years, however, the concept of theatre has expanded to include performances from around the world, extending from the most sacred rituals to the most profane performance art. What was once the study of the live actor before a live audience now requires an investigation into the impact of technology and media on the practice of theatre. This exciting and expanding discipline defines the Department of Theatre Arts at Stony Brook, where students can study acting, design, and directing; immerse themselves in playwriting, dance, and media; and explore interactive computing technologies as a tool of study and a means of personal expression.

The objective of study in Theatre Arts is to provide students with the opportunity to explore a range of forms of self-expression. Students are introduced to the practical tools necessary to communicate effectively through the theatre, dance, the media, and technology. In addition, they investigate the historical and theoretical basis on which these art forms are based, giving them a strong foundation on which to pursue the many opportunities available to a student graduating as a Theatre major.

Students graduate with a strong background in the liberal and theatre arts. After graduation they may pursue theatre-related careers, go on to further study, or enter other professions such as law, business, publishing, advertising, communications, computer graphics, and public relations.

**Requirements for the Major and Minor in Theatre Arts (THR)**

Requirements for the Major in Theatre Arts (THR)

The major in Theatre Arts leads to the Bachelor of Arts degree. All courses offered for the major in theatre arts must be passed with a letter grade of C or higher.

Completion of the major requires 58 credits.

**A. Theatre Arts Core Program**

1. THR 103 Theatre and Technology

2. THR 105 Acting I

3. THR 104 Play Analysis

4. THR 115 Stagecraft

5. THR 201 Theatre History I

6. THR 202 Theatre History II

7. Two of the following courses:

THR 205 Acting II

THR 208 Introduction to Media Technology

THR 215 Introduction to Design

THR 216 Intro to Visual Interpretation

THR 230 Voice for the Actor

THR 232 Improvisation

8. One of the following courses:

THR 315 Advanced Topics in Theatre History I

THR 316 Advanced Topics in Theatre History II

9. THR 312 American Theatre & Drama

10. One of the following courses:

THR 320 Production I

THR 321 Production II

Note: It is strongly recommended that students interested in Design/Production take both THR 320 and THR 321.

11. One of the following courses:

ARH 102 Art in Culture from the Early Renaissance, ca. 1400, to Postmodernism

ARS 205 Foundations: Idea and Form

ARS 154 Foundations of Drawing

ARS/MUS/THR 208 Introduction to Media Technology

12. One of the following courses:

MUS 101 Introduction to Music

MUS 119 The Elements of Music

MUS 130 Sound Structures

13. THR 401 Senior Seminar

14. One of the following courses:

THR 487 Independent Research

THR 488 Professional Internship (See Note)

THR 483 Projects in Theatrical Design

THR 484 Projects in Theatre

Note: It is strongly recommend that students do a professional internship either in the summer between the junior and senior years or during the senior year. Faculty advisors are available to help guide students in pursuing an internship opportunity.

#### B. Electives

Majors must complete a minimum of 12 additional upper division credits (300 level courses or higher) chosen from the following:

THR 303 Costume Crafts Laboratory

THR 304 Marketing Laboratory

THR 305 Lighting and Sound Laboratory

THR 306 Stagecraft Laboratory

THR 307 Performance Laboratory (See Note)

THR 317 Interactive Performance, Media, and MIDI

THR 318 Music and the Moving Image

THR 323 Costume Design

THR 322 Acting III

THR 326 Playwriting

THR 334 Performance Art

THR 336 Stage Management

THR 337 Advanced Technical Theatre

THR 346 Lighting Design

THR 351 Special Topics in Performance

THR 352 Special Topics in Performance

THR 354 Topics in Dramaturgy

THR 356 Scene Design

THR 405 Acting IV (See Note)

THR 438 Directing I

THR 439 Directing II

Note: May be repeated once for credit but may only count once toward fulfillment of elective requirements

#### C. Upper-Division Writing Requirement

Before the end of the second semester of the junior year, each student submits to the director of undergraduate studies a portfolio of at least two papers written for different instructors in upper-division courses, one of which should be an advanced theatre arts course. The director of undergraduate studies, in consultation with the faculty, evaluates the papers to determine the writing competence of the student.

\Note: Students majoring in theatre arts may not satisfy D.E.C. categories B and D with THR courses.

#### Honors Program in Theatre Arts

The honors program is open to seniors majoring in Theatre Arts who have maintained a grade point average of 3.00 overall and 3.25 in the major.

Students should apply for the honors program at the end of their junior year. The student must find a faculty member of the Department to act as sponsor and, with the approval of the sponsor, submit a written proposal for a project to the Department. Acceptance into the honors program depends upon the approval of the proposal by the Department. The project may be in history, criticism, directing, media, technology, performance, design, or management. The honors project is reviewed by at least two members of the Department of Theatre Arts faculty and one outside evaluator. If the honors project is carried out with distinction and the student has achieved a 3.50 g.p.a. in all theatre arts courses taken during the senior year, honors are conferred. Course credit for the honors project is given under THR 487. Guidelines are available in the Department office.

#### The Minor in Theatre Arts (THR)

The minor in Theatre Arts provides the student with the opportunity to explore several aspects of the dramatic arts. The course of study should lead the student to an understanding of the necessary next steps should his or her interest be sharpened by the experience.

#### Requirements for the Minor

All courses offered for the minor must be passed with a letter grade of C or higher. At least 12 of the 21 credits must be taken at Stony Brook.

Completion of the minor requires 21 credits.

A. Theatre Arts Minor Core Program

1. THR 105 Acting I
2. THR 115 Stagecraft
3. THR 320 Production or THR 321 Production II
4. One of the following courses:

- THR 312 American Theatre and Drama
- THR 313 Asian Theatre and Drama
- THR 315 European History and Drama: The Classical Era
- THR 316 European History and Drama: The Modern Era

B. Electives

Nine credits to be chosen from courses in theatre arts, six of which must be upper-division.

Note: Students who choose upper-division theatre electives for the requisite 9 credits (see B above) need only take an additional three credits of upper division elective work to satisfy University requirements.

**Sample Course Sequence for the Major in Theatre Arts**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
D.E.C.	3	THR 105	3
D.E.C.	3	THR 115	4
THR 103	3	THR 201	3
THR 104	3		
Total	16	Total	14
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
THR 202	3	MUS 101 or MUS 119 or MUS 130	3
ARH 102 or ARS 205 or ARS 154 or ARS 208	3	2 of: THR 215, 208, 205, 216, 230, 232, & 354	6
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
D.E.C.	3		
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
THR 312	3	THR 315 or THR 216	3
THR 320 or THR 321	3	THR Upper-Division elective	3
THR elective	3	Elective	3
D.E.C.	3	D.E.C.	3
Elective	3	Upper-Division elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
THR 401 (Senior Seminar)	3	THR Upper-Division elective	3

One of: THR 487, 488, 483, 484	3	Upper-Division elective	3
THR Upper-Division elective	3	Upper-Division elective	3
Upper-Division elective	3	Upper-Division elective	3
D.E.C.	3	Elective	3
Total	15	Total	15

#Theatre Arts majors may not satisfy D.E.C. categories B and D with THR courses

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Women's and Gender Studies (WST)****Major and Minor in Women's and Gender Studies****Department of Cultural Analysis and Theory, College of Arts and Sciences**

Chair: Robert Harvey  
 Undergraduate Program Director for CAT: Raiford Guins  
 Undergraduate Advisor for WST: Ritch Calvin  
 Assistant to the Chair: Mary Moran-Luba  
 Office: Humanities 2048  
 Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cat/>

Majors and other minors of particular interest to students majoring or minoring in Women's and Gender Studies: English (EGL), Health and Wellness (LHW), Gender and Sexual Development (LHD), History (HIS), Philosophy (PHI), Psychology (PSY), Sociology (SOC)

**Women's and Gender Studies (WST)**

Women's and gender studies is an interdisciplinary area of scholarship and research that focuses on the significance of gender as a variable in experience, history, and culture. Women's and gender studies raises questions that often have been ignored or marginalized, and it makes the experience and history of women central to the study of any human concern. Scholarship in women's and gender studies demonstrates the need to recognize new models of knowledge, as well as the need to be critical of theories and approaches that do not take into account the difference of gender. In so doing, women's studies serves as a site for "reflective critique," and it has often challenged the traditional disciplines to reflect on their concepts and methods in ways that have enriched those disciplines.

At Stony Brook, the Women's and Gender Studies program introduces students to the history of feminism, as well as its contemporary theories and methods. Feminist theory in a global context provides the background for a critique of the social construction of gender and its relation to other systems of privilege.

The major and minor in Women's and Gender Studies are designed for students interested in the interdisciplinary study of gender and women. The programs emphasize the development of skills in critical thinking, argumentation, and writing. The program consists of a set of core courses offered in women's studies as well as related courses in other disciplines. Students wishing to complete the major or minor should consult the Department and establish an advising folder by the beginning of the junior year.

Because it emphasizes transposable skills of reading, writing, analysis, and expression, women's and gender studies provides an excellent preparation for graduate school, professional school, or employment. Graduates have gone on to careers in law, medicine, social work, psychology, teaching, and business, among other fields, and graduate work in women's studies. Double majors, combining Women's and Gender Studies with another field, are not uncommon.

Students may choose to pursue a combined Women's and Gender Studies B.A. and Master of Public Health.

**Requirements for the Major and Minor in Women's and Gender Studies (WST)**

Requirements for the Major in Women's and Gender Studies (WST)

The major in Women's and Gender Studies leads to the Bachelor of Arts degree. No more than three credits offered for the major may be taken Pass/No Credit or Satisfactory/Unsatisfactory. All other courses for the major must be passed with a letter grade of C or higher. No transferred course with a grade lower than C may be applied toward major requirements. No more than two 100-level courses may be applied toward major requirements. At least 18 credits must be in courses numbered 300 or higher. Students may choose to pursue an accelerated Women's and Gender Studies B.A. and Master of Public Health. For further information on the accelerated degree, please see the program Director.

Completion of the major requires 36 credits.

**A. Core Courses**

1. WST 102 Introduction to Women's Studies in the Social Sciences OR WST 103 Women, Culture, and Difference
2. WST 291 Introduction to Feminist Theory
3. WST 301 Histories of Feminism
4. WST 305 Feminist Theories in Context
5. WST 408 Senior Research Seminar for Women's Studies Majors

**B. Focused Studies**

1. One course in each of the following categories (See Note 1)
2. Women's Studies in a Global Context WST 395 Topics in Global Feminism (or approved other course)
3. Gender, Race, and Ethnicity WST 398 Topics in Gender, Race, and Ethnicity (or approved other course)
4. Gender and Sexuality WST 399 Topics in Gender and Sexuality (or approved other course)

**C. Electives**

I) Twelve credits from WST courses. The following courses offered by other departments may also be used to satisfy this requirement (also see Note 2):

- AFS 345 Culture and Gender: Women in Africa and the Caribbean
- AFS 370 The African-American Family
- ANT 295 Sex and Human Nature
- ANT 367 Male and Female
- CCS 311 Gender and Genre in Film
- CCS 325 Culture in Context
- CCS 326 Social and Cultural Theory
- CFS 308 Violence in the Family
- EGL 371 Topics in Gender Studies
- HIS 394 Topics in History of Medicine and Reproduction (approved topic only, including History of Human Reproduction in Western Civilization)
- HUM 122 Images of Women in Literature
- HUM 123 Sin and Sexuality in Literature
- HWC 349 Overview of Gay and Lesbian Issues
- PSY 240 Social Psychology
- RLS 426 Feminine Spirituality

#### D. Upper-Division Writing Requirement

Students must present to the director of undergraduate studies a minimum of ten typewritten pages of formal writing, prepared for an upper-division course listed above as acceptable for the major requirements. This written work must have been judged by the course instructor to be satisfactory for the upper-division writing requirement in the field of Women's and Gender Studies. Normally this requirement is met through the work in WST 408.

Notes:

1. A list of approved courses which satisfy requirement B can be found on the WST community blackboard Web site at <http://blackboard.stonybrook.edu>.
2. Related special topics courses given in various departments are acceptable for the Women's Studies major and minor with the approval of the undergraduate director. A list will be available in the Women's Studies Office at preregistration each semester. The list will also be available on the WST community blackboard Web site.
3. At least two WST topics courses must be used in satisfying Requirement B.
4. No more than six credits from WST 447 and WST 487 may be applied toward the major.

#### Specialization in Gender, Sexuality, and Public Health

Students choosing to pursue this specialization receive additional preparation for a career in public health. Depending on the student's choice of courses, this specialization can be useful for students planning careers in midwifery, medicine, nursing, or counseling and education related to sexuality and/or reproduction.

#### Requirements for the Specialization in Gender, Sexuality, and Public Health

1. 18 credits of coursework (See Notes)  
See the list of elective courses below; a current list of courses approved for this specialization can be found on the WST community blackboard Web site at <http://blackboard.stonybrook.edu>.
2. Internship  
Three of the 18 credits for the specialization must be in an approved internship or other related applied experience.

Notes:

1. No more than 3 of the 18 credits required for the specialization may be lower-division.
2. All A-F graded courses must be passed with a grade of C or better.
3. The specialization courses may overlap with major requirements, but not replace any.

#### Elective courses for the Specialization in Gender, Sexuality, and Public Health

1. WST 111 Introduction to Queer Studies in the Humanities
2. WST 112 Introduction to Queer Studies in the Social Sciences
3. WST 391 Music and Sexuality
4. WST 392 Plague Narratives: Images of Illness and Identity
5. WST 392 Feminist Bioethics
6. WST 394 Women and Health in a Global Context
7. WST 394 Women, Science, Fiction and Reproduction
8. WST 394 Social Issues in Human Reproduction
9. WST 394 Reproductive Technologies

10. WST 399 Sexual Citizens
11. WST 399 Queer Theory
12. WST 401 Women and Medicine
13. WST 401 Maternal and Fetal Medicine
14. HIS/WST 316 Healer and Witch
15. WST/SOC 340 Sociology of Reproduction
16. WST/ AFS 381 AIDS, Race and Gender in the Black Community
17. HIS 111 Women in Medicine
18. HIS/WST 374 Historical Perspectives on Gender Orientation
19. HIS 394 AIDS and Social History
20. HIS 461 Historical Perspectives on Women's Health Care
21. PSY 349 Women's Health Issues.

#### Specialization in Gender and Social Change

Students choosing to pursue this specialization receive additional preparation for a career in social change creating professions, such as law, social work, public policy, or the media. Depending on the student's choice of courses, this specialization can be useful for students planning careers in civil rights work, community organizing, work with abused women and children, politics, or visual media, to give only a few examples.

#### Requirements for the Specialization in Gender and Social Change

1. 18 credits of coursework (See Notes)

See the list of elective courses below; a current list of courses approved for this specialization can be found on the WST community blackboard Web site at <http://blackboard.stonybrook.edu>

2. Internship

Three of the 18 credits for the specialization must be in an approved internship or other related applied experience.

#### Notes:

1. No more than 3 of the 18 credits required for the specialization may be lower-division.
2. All A-F graded courses must be passed with a grade of C or better.
3. The specialization courses may overlap with major requirements, but not replace any.

#### Elective courses for the Specialization in Gender and Social Change

1. WST 310 Contemporary Feminist Issues
2. WST 377/PSY 347 Psychology of Women
3. WST 391 Music and Sexuality
4. WST 392 Cultures of Disability
5. WST 394 Social Issues in Human Reproduction
6. WST 395 Feminist Theory in a Global Context
7. WST 395 Issues in Transnational Feminism
8. WST 395 Global Activism
9. WST 395 Global Feminism: Maids, Nannies and Sex Workers and Today's Feminism
10. WST 396/HIS 396 Women, Utopia and Dystopia
11. WST 396/HIS 396 Women and Social Welfare
12. WST 397 Applied Developmental Psychology Of Gender
13. WST 398 Gender and Social Movements
14. WST/SOC 247 Sociology of Gender
15. LHD 301 Men in American Society
16. LHD 301 Gender and Technology
17. LHD 401 Gender and Contemporary Media
18. LHD 401 Gender and Body Image
19. WST/SOC 247 Sociology of Gender
20. WST/POL 330 Gender and Law
21. WST/SOC 340 Sociology of Reproduction
22. WST/SOC 347 Gender and Politics
23. WST/AFS 350 Black Women and Social Change
24. WST/SOC 371 Gender and Work
25. AAS 392 Gender and Caste in Hindu Law
26. AFS 345 Women in Africa and the Caribbean
27. CCS 401 Masculinity and Popular Culture
28. CFS 308 Violence in the Family
29. HIS 300 Race, Gender and Rights/US Legal
30. PSY 240 Social Psychology
31. SOC 390 Sex and Society
32. SOC 390 Sociology of Masculinity

## Requirements for the Minor in Women's and Gender Studies (WST)

Only one course (no more than three credits) offered for the minor may be taken for Pass/No Credit, and no more than 6 credits may be taken for S/U. At least 15 credits must be graded with a letter grade (A through F).

Completion of the minor requires 21 credits.

1. WST 102 Introduction to Women's Studies in the Social Sciences OR WST 103 Women, Culture, and Difference
2. WST 291 Introduction to Feminist Theory OR WST 301 Histories of Feminism
3. WST 407 Senior Research Seminar for Women's Studies Minors
4. Twelve credits chosen from among WST courses (or their crosslisted equivalents) and the list in WST major requirement C above. At least six of these credits must be numbered 300 or above. It is strongly recommended that these courses be chosen from among the following options: WST 390-G, 391-G, 392-H, 393-I, 394-H, 395-J, 396-K&4, 397-F, 398-K, or 399-G.

**Sample Course Sequence for the Major in Women's and Gender Studies**

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
First Year Seminar 101	1	First Year Seminar 102	1
D.E.C. A	3	D.E.C. A	3
WST 102	3	WST 103	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Total	16	Total	16
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Major elective	3	Major elective	3
D.E.C.	3	D.E.C.	3
D.E.C.	3	D.E.C.	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15	Total	15
<b>Junior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
WST 301	3	WST 305	3
WST 395	3	WST 398	3
Upper-Division D.E.C.	3	D.E.C.	3
D.E.C.	3	Upper-Division elective	3
Upper-Division elective	3	Elective	3
Total	15	Total	15
<b>Senior Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Major elective	3	WST 408	3
WST 399	3	Major elective	3
D.E.C.	3	Upper-Division D.E.C.	3
Upper-Division elective	3	Upper-Division elective	3
Elective	3	Elective	3
Total	15	Total	15



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*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Writing and Rhetoric (WRT)****Minor in Writing****Program in Writing and Rhetoric, College of Arts and Sciences**

Director: Eugene Hammond

Assistant to the Director: Jilleen May

E-mail: [writingprogram@stonybrook.edu](mailto:writingprogram@stonybrook.edu)

Office: 2005 Humanities

Phone: (631) 632-7390

Web address: <http://www.stonybrook.edu/writrhet>

**Writing and Rhetoric (WRT)**

The Program in Writing and Rhetoric offers courses that fulfill the University's D.E.C. category A English Composition requirement. The program also provides electives for students who want to explore writing in different contexts and enhance their proficiency in academic writing.

The philosophy of the University's Program in Writing and Rhetoric is that writing is an ongoing process as well as a finished product. Because writing well requires re-thinking and re-writing, the program emphasizes revision. Courses require multiple drafts of all papers submitted for the final writing portfolio.

Writing courses stress collaborative learning in the classroom and are designed as workshops. Students work in small groups to learn aspects of writing analysis and criticism to better analyze their own writing as well as the writing of fellow students. By learning how to analyze their writing, students learn to improve their writing. All group work is supervised by writing instructors experienced in workshop teaching and in critical commentary on student writing. The primary goal of all writing courses is effective communication, orally and in writing.

**Minor in Writing**

Advanced knowledge of written communication helps learners in all disciplines to become better students, employees, citizens, and human beings. This minor complements nearly any choice of major concentration since writing competency is necessary in many upper-level courses and in most professions, regardless of subject area. The writing minor allows students a high degree of flexibility in choosing coursework that suits their interests and schedules.

**Facilities****The Writing Center**

The Writing Center provides free, individual help with writing to all members of the University community, including undergraduate and graduate students, faculty, and staff. Tutors assist with writing projects ranging from freshman composition essays to dissertation proposals. Tutors receive ongoing training in all aspects of the teaching of writing and are prepared to mentor a whole host of issues (e.g., getting started, developing arguments, revising, editing, learning techniques for editing and proofreading, understanding specific aspects of grammar, and addressing the needs of English as a second language students). Although the Center does not provide proofreading or copyediting services, the tutors are always willing to teach strategies to help writers eliminate error on their own.

Sessions generally take three forms: weekly appointments with the same tutor that students can extend through the semester; drop-in sessions that depend on the availability of tutors, and e-tutoring sessions that students can access through the Center's Web site at <http://www.stonybrook.edu/writrhet>. All tutoring sessions are approximately 50 minutes long.

For hours of operation or to schedule an appointment, call (631) 632-7405.

**Electronic Writing Classrooms**

The Program in Writing and Rhetoric has two computer labs that are used for instructional purposes. The Life Sciences EWC, located in L-112, contains 26 personal computers. The History EWC, located in SBS S316, has 22 PCs. Both are open to scheduled classes only. MS Office, Dreamweaver, and Photoshop, along with teaching and Internet tools, are installed on all machines, and both labs have projection capability and access to networked laser-quality printing. Class times are posted at <http://www.stonybrook.edu/writrhet>

**Minor in Writing (WRT)**

Advanced knowledge of written communication helps learners in all disciplines to become better students, employees, citizens, and human beings. This minor complements nearly any choice of major concentration since writing competency is necessary in many upper-level courses and in most professions, regardless of subject area. The writing minor allows students a high degree of flexibility in choosing coursework that suits their interests and schedules.

**Requirements for the Minor in Writing**

Completion of the writing minor requires 18 credits. At least 12 of the 18 credits must be taken at Stony Brook University. Transfer credits are awarded solely by permission of the Program in Writing and Rhetoric Director. Courses taken for the minor must be passed with a letter grade of C or higher. Only a selection of elective courses are offered each semester.

**Required course for all writing minors:**

- WRT 102 Intermediate Writing Workshop

**Elective courses for the minor (choose any five):**

- WRT 200 Grammar and Style for Writers
- WRT 205 Writing about Global Literature
- WRT 206 Writing about African-American Literature
- WRT 301 Writing in the Disciplines: Special Topics
- WRT 302 Critical Writing Seminar: Special Topics (with the following topics: Fiction Writing, Women Writing, Writing About Film, Environmental Writing, Writing for the New Media, Life Writing & Story Telling, Faith, Literature, and Writing)
- WRT 303 The Personal Essay
- WRT 304 Writing for your Profession
- WRT 305 Writing for the Health Professions
- WRT 381 Advanced Analytic and Argumentative Writing
- WRT 392 Theories and Methods of Mentoring Writers
- WRT 487 Independent Project
- WRT 488 Internship
- A Writing Intensive course from any other discipline on campus with the permission of the Director of the Program in Writing and Rhetoric

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*