

**About the Bulletin:**

The information in this publication, which pertains to the Fall 2017/Spring 2018 academic semesters, is accurate as of April 1, 2017. Circumstances may require that a given course be withdrawn or that alternate offerings be made.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 following academic year edition is published in April. The Fall/Spring edition of the online bulletin shall encompass academic activities related to Summer Session and Fall semester enrollment, 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 Any information in a printed copy of the Undergraduate Bulletin may be superseded by the appropriate online version.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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and Lynn Zawie, Web Production Coordinator in Office of Communications & Marketing.

**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.

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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.

A listing of distinguished professors is available at <http://www.stonybrook.edu/commcms/provost/policies/distinguished-faculty.shtml>.

## 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 upon a general education experience (D.E.C. for students matriculating prior to Fall 2014, and Stony Brook Curriculum for freshmen matriculating Fall 2014 and later and transfers matriculating Spring 2015 and later), 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.; M.S., Advanced Certificate in Nutrition, 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.; Ph.D. in Health and Rehabilitation Sciences; 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 Health Sciences 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:**

**Mary R. Truhlar**

**Dean, School of Nursing:**

**Lee Anne Xippolitos**

**Dean, School of Social Welfare:**

**Jacqueline B. Mondros**

This section provides an overview of Stony Brook's Health Sciences Schools and gives link 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 3,800 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 programs and degrees listed below. For expanded information on all undergraduate and graduate Health Sciences 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
- M.S. Occupational Therapy
- Advanced Certificate in Health Care Management
- M.S. Applied Health Informatics
- M.S. and Certificate Healthcare Quality and Patient Safety
- M.S. Physician Assistant (entry-level or post-professional)

- D.P.T. Physical Therapy (entry-level)
- Ph.D. in Health and Rehabilitation Sciences

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 athletic training, 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 athletic training, 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
- Concurrent D.D.S./M.S. Biomedical Sciences (Track in Oral Biology and Pathology), D.D.S./M.B.A. or D.D.S./M.P.H.
- Combined D.D.S./Ph.D. Oral Biology and Pathology or Combined D.D.S./Ph.D. Molecular and Cell Biology
- Combined D.D.S./M.S. Material Science Engineering
- M.S., Ph.D. Oral Biology and Pathology
- Post-Doctoral Certificates in Endodontics, Orthodontics and Dentofacial Orthopedics, and Periodontics
- Residency Certificates in General Dental Practice, Pediatric Dentistry, Dental Anesthesiology, Prosthodontics and Oral Maxillofacial Radiology (offered in conjunction with Stony Brook University Hospital)

#### **School of Medicine**

- M.D. Doctor of Medicine
- M.D./Ph.D., M.S., Ph.D. Basic Sciences
- M.D./M.P.H.
- M.D./M.B.A.
- M.D./M.A.
- M.S., Advanced Certificate in Nutrition

#### **Program in Public Health**

- M.P.H Master of Public Health
- M.B.A./M.P.H
- M.P.H/M.A.P.P
- M.P.H/M.S. Nutrition
- Advanced Certificate in Health Communication, and Advanced Certificate in Health Education and Promotion

#### **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, Health Sciences 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 Health Sciences senior year curriculum after completion of 91 university credits, including specific courses and program prerequisites. Students in the lower-division Clinical Laboratory Sciences, Athletic Training, 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. In addition, students can declare as a four year lower division major in freshman year: Athletic Training, Clinical Laboratory Sciences, and Respiratory Care. Students in these three 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. Applicants to occupational therapy must apply through OTCAS at <https://portal.OTCAS.org>. Clinical Laboratory Sciences and applicants to Respiratory Care apply through AHCAS at <https://portal.ahcas.org>.

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 policies 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 Health Sciences 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 Academic and Transfer Advising Services <http://www.stonybrook.edu/commcms/advising/>. 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 [http://www.stonybrook.edu/commcms/hsstudents/admissions/info\\_sessions.html](http://www.stonybrook.edu/commcms/hsstudents/admissions/info_sessions.html). The Health Sciences 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 Health Sciences Office of Student Services. [http://www.stonybrook.edu/commcms/registrar/calendars/academic\\_calendars](http://www.stonybrook.edu/commcms/registrar/calendars/academic_calendars)

### Graduate Health Professions Offerings

Stony Brook's Health Sciences Schools offer the following graduate programs: the School of Medicine's M.D., M.D./M.P.H., M.D./M.B.A., M.D./M.A., and M.D./Ph.D. programs; the School of Dental Medicine's D.D.S., combined D.D.S./Ph.D., D.D.S./M.S. and concurrent D.D.S./M.S., D.D.S./M.B.A and D.D.S./M.P.H programs; the School of Health Technology and Management's Physician Assistant program (M.S.), Health Care Management Advanced Certificate, Occupational Therapy (M.S.), Health and Rehabilitation Ph.D., 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. and M.S. in Nutrition are also offered as well as the Advanced Certificates in Health Communication and Health Education and Promotion. 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 Academic and Transfer Advising Services 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 the School of Dental Medicine require completion of specific courses prior to application as listed below:

School of Dental Medicine Requirements at Stony Brook University:

1. Biology: 2 semesters with labs
2. General Chemistry: 2 semesters with labs
3. Organic Chemistry: 2 semesters with labs
4. Physics: 2 semesters with labs

5. English: 2 semesters writing intensive
6. Biochemistry: 1 semester
7. Calculus I and Calculus II or  
Calculus I and Statistics

Admissions requirements for the School of Medicine require completion of specific courses prior to matriculation as listed below:

School of Medicine Requirements at Stony Brook University:

1. Biology: 2 semesters with lab, one of which should include a course in cell biology or genetics
2. Chemistry: minimum of 4 semesters including coursework in general and organic chemistry and a course in biochemistry. A minimum of 3 semesters of lab is required.
3. English/Writing: 1 semester
4. Physics: 1 semester with lab
5. Social Science/Humanities: 1 semester of either psychology, sociology, logic or ethics, anthropology, or philosophy
6. Statistics: 1 semester

Advanced Placement (AP) credit will be considered for a course in which the applicant achieved a score of 4 or 5. AP credit not to exceed one course in a specific discipline.

### 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 and Engineering Scholars for Dental Medicine

Stony Brook University offers two integrated eight-year programs for students interested in attending dental school following their undergraduate degrees. The Scholars for Dental Medicine program (SFDM) offers selected students in the Honors College an opportunity to complete a combined B.S. or B.A./D.D.S. course of study while participating in pre-dental school classes and activities. The Engineering Scholars for Dental Medicine (ESFDM) similarly offers students in the College of Engineering and Applied Sciences a combined B.E./D.D.S. course of study.

Students accepted into either program are reserved a seat in Stony Brook University's [School of Dental Medicine](#) upon graduation provided they complete all applicable program requirements.

### 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 Transfer Advising Services Center.

### Scholars for Medicine

Stony Brook University offers an integrated eight-year program for students interested in attending medical school following their undergraduate degree. The Scholars for Medicine (SFM) track offers selected students in the Honors College, WISE Program or University Scholars Program an opportunity to complete a combined Bachelor's/MD course of study while participating in pre-medical classes and activities. Students accepted into any of these tracks are reserved a seat in Stony Brook University's School of Medicine upon graduation provided they complete all applicable program requirements.

*Scholars for Medicine track requirements:*

- Complete the Honors program of study.
- Complete all required pre-medical courses.
- Maintain a minimum 3.2 science GPA & 3.4 cumulative GPA (3.2 cumulative GPA for students pursuing a BE in the College of Engineering and Applied Sciences).
- Successfully complete the MCAT (minimum score determined by the School of Medicine, Committee on Admissions).

Applicants to all Scholars for Medicine tracks are notified in March whether they have been recommended for review by the School of Medicine Admissions Committee. If recommended for review, applicants are then notified within a couple of weeks as to whether they will be offered an interview. Final decisions are typically made prior to April 1.

Admission to Scholars for Medicine is highly competitive, and based on a variety of factors including high school academic record, standardized test scores, strength of curriculum, honors and awards, leadership skills, extracurricular achievements, and unique individual talents. Successful applicants to the program (the middle 50th percentile ranges) have historically had 98-99 high school GPAs and 1490-1590 SAT (Critical Reading + Math) composites. ACT exam scores are now considered in lieu SAT scores. Candidates must have documentation of U.S. citizenship or permanent residency in the United States.

For more information, please visit <http://www.stonybrook.edu/undergraduate-admissions/academics/honors/>

### 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 Academic and Transfer Advising Services.

Declaring an area of interest is not the same as declaring a major and does not assure acceptance into the Health Sciences programs. Most forms of financial aid require that the student have an officially declared major in order to be considered for eligibility.

### 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.

### Officers of Administration

**Samuel L. Stanley Jr., M.D.**, President

See [University Council](#) for a listing of Council members who serve as the senior leadership group for the University (includes all Deans and Vice Presidents).

See also [Board of Trustees](#) and [Members of the Council](#).

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## The Campus

- Our Campus
- The Campus & the Community
- Stony Brook Manhattan
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- Research & Technology Park
- Staller Center for the Arts
- Charles B Wang Center
- Stony Brook Union
- Student Activities Center
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## 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 partnerships 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 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 Glaat Kosher 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/rte> 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
  - Academic Success and Tutoring Center

- 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
- 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
- Technology Services
- 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) [Academic Success and Tutoring Center](#)

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.

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**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.) and Stony Brook Curriculum (SBC) 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  
[www.sunysb.edu/ceas](http://www.sunysb.edu/ceas)  
Office hours: Monday through Friday, 8:30 a.m. - 5:00 p.m.  
Advising Hours: Monday through Friday, 10 a.m. - 4:00 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  
Website: <https://llrc.stonybrook.edu/>

### 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 is located in the Mathematics Building, Room S-240A. For Center hours, 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 and Major Decision Making is designed for second-semester freshmen and sophomores, and introduces students to theories of career development and the relationship between choice of major, academic planning, and career options. Examines steps in the career decision-making process: self-assessment (skills, interests, values, and personality preferences) and career exploration. 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 focuses on a systematic approach to the career planning process, including goal setting, professional communication, job market trends, and career research strategies. Analyzes the value of extracurricular service and leadership experiences, and how to convey this value through written and oral presentation. Examines components of successful transition to the workplace. At the end of the course, students develop their written assignments into a portfolio useful for job and internship applications.

### **Career Communities**

Career Communities connect students, employers, faculty, and staff through common career interests and industries, and offer access to customized programming, job/internship listings, and coaching. Students are welcome to join as many as they wish! Joining a Community provides access to:

- Streamlined emails with handpicked jobs and internships
- Programs tailored to the student's interests
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- Individual appointments with the community career counselor(s)

Career Communities can be joined via Handshake.

### **Handshake**

Handshake is the Career Center's comprehensive online database for ALL types of opportunities: campus jobs, other part- and full-time jobs, service projects, volunteer service positions, and paid, for-credit, and volunteer internships. In Handshake, students can post their resumes, access thousands of employers, sign up to attend Career Center events, meet hundreds of Stony Brook alumni and friends through the Career Advisors Network, view sample resumes and cover letters, and more!

Students can log in with NetID and password at [stonybrook.joinhandshake.com](http://stonybrook.joinhandshake.com).

### **Internships and Co-ops**

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. 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 the cooperating agency or organization. Internship credit courses are available in most academic departments, and EXT 288 and EXT 488 are available through the Career Center. Students can receive up to 12 internship credits from any course or courses, with the exception of EXT 288 from which students may earn up to 3 credits. In addition, co-ops, highly structured experiences that integrate classroom studies with work in a field related to a student's academic or career goals, are also available.

### **Community Service**

The Career Center has developed partnerships with hundreds of nonprofit agencies, which offer you [volunteer opportunities](#) on and off campus, no matter how much or how little time you have to devote. Opportunities are available on Handshake and on our dedicated Community Service & Service Learning website.

### **Job Search Preparation**

The Career Center's services include individual and group advisement (by appointment or drop-in), workshops, and special events, all designed to assist students in identifying job leads, writing targeted resumes and cover letters, networking with alumni and employers, and interviewing effectively. Staff members also routinely visit classrooms, student organizations, and academic departments when requested.

### **Access to Employers**

In addition to online postings on Handshake, every semester the Career Center offers multiple Job & Internship Fairs where students can meet company representatives, gather information and submit resumes. The On-Campus Recruiting program brings employers to Stony Brook to conduct interviews for full-time, part-time, and internship positions. Information sessions are held on campus by organizations who want students to get to know them and the opportunities they offer, and employer site visits and job shadowing allow students into the organizations' spaces. Other events bring alumni and other professionals to campus to share their experiences and provide advice to job seekers. The Career Advisors Network (CAN), accessible through Handshake, offers connections with alumni and friends who have volunteered to make themselves available for mentoring, advice, and/or informational interviews. Lastly, the Career Center often has information about career events held off campus that are open to our students.

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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>

### 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 9 a.m. to 5 p.m. During intersession, summer, and spring break CAPS is open Monday through Friday from 8 a.m. to 4 p.m. During these hours, students can call or just walk in to our main location and ask to speak to a counselor. After regular business hours, students can also call CAPS to speak with a licensed mental health counselor.

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 CAPS (631-632-6720) and will be connected to an after-hours counselor.

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 offer a wide range of services and resources to help you achieve your academic goals. While we have a rich print collection, our digital resources and other online research tools give you 24/7 access. Make Stony Brook University Libraries an essential partner to your academic success! For more details about our services and resources, please visit our website: <http://library.stonybrook.edu/>

## Off-Campus Housing

Off-Campus Housing is a service provided by Commuter Student Services 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 [stonybrook.edu/offcampusliving](http://stonybrook.edu/offcampusliving) 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.

The Off-Campus Housing Office is located on the second floor of the Student Activities Center, Room 225.

## 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 intercession 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.

### **Technology 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.

### **Getting Connected**

Your **NetID** 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), wifi, library databases, MySBFiles (central file storage), and MySite (virtual workspace). For more information about services accessible through your NetID, please visit [netid.stonybrook.edu](http://netid.stonybrook.edu).

Stony Brook University uses **Google Mail**. All students are required to use their Google mail for all coursework, University business, and communication from the University. Other services provided by Google Apps include unlimited Google Drive storage, Google Calendar, Google Hangouts, Google Sites, and more. For more information, visit [google.stonybrook.edu](http://google.stonybrook.edu).

To connect to the CampusWifi, visit: [wolfienet.stonybrook.edu](http://wolfienet.stonybrook.edu) or use Eduroam (a Wifi service that lets you connect at other campuses that participate): <https://it.stonybrook.edu/services/eduroam>

### Software /Hardware:

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. For more information, visit: <http://www.software.stonybrook.edu>.

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 [hardware.stonybrook.edu](http://hardware.stonybrook.edu).

Students who require assistance with their personal computers should contact DoIT's Service Desk at (631) 632-9800, or by submitting a service ticket at [service.stonybrook.edu](http://service.stonybrook.edu).

### Facilities/Computer Labs/Printing

Public computer labs at Stony Brook are called SINC (Students In Need of Computers) Sites and are located throughout the campus. There are more than 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 in the SINC sites. For more information, visit: [sincsites.stonybrook.edu](http://sincsites.stonybrook.edu) or call (631) 632-9602.

The Division of Campus Residences offers **Residential Computing Centers** for students. These computer labs are available in each residential quad. For more information, contact Campus Residences at (631) 632-6966.

### 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 or SBC), 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
- A.P. (Advanced Placement) Credit
- Placement Tests
- 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.

### 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. Each academic department determines the minimum test score required to receive equivalency for a Stony Brook course. The table lists AP exams, the relevant scores, and Stony Brook equivalency and applicability to degree requirements.

**Note: Stony Brook accepts up to 30 credits by examination in partial fulfillment of the bachelor's degree.**

Subject	AP Exam	Score	SBU Equivalent	Credits	DEC & Skill	SBC
Art	Art History	4 or 5	ARH 202, 204	6	G	ARTS
	Art History	3	none	3	G	ARTS
	Studio (drawing)	4 or 5	ARS 154	3	G	ARTS
	Studio (drawing)	3	none	3	G	ARTS
	Studio (2D or 3D)	3,4 or 5	none	3	G	ARTS
Biology	Biology	3,4 or 5	none	3	E	SNW
Calculus	AB	4 or 5	MAT 131, placement 7	4	Skill 1, C	QPS
	BC	4 or 5	MAT 131, 132 placement 9	8	Skill 1, C	QPS
	AB or BC	3	none	3	Skill 1	none
Chemistry	Chemistry	4 or 5	CHE 131 (waiver of CHE 133)	4	E	SNW
	Chemistry	3	none	3	E	SNW
Chinese	Language & Culture	3,4 or 5	CHI 212	3	Skill 3	LANG, GLO, HUM
Computer Science	A	3	CSE 101	3	none	TECH
	A	4 or 5	CSE 114; waiver of CSE 101	4	none	TECH
Computer Science	Principles	3, 4 or 5	CSE 101	3	none	TECH
Economics	Macro	3,4 or 5	none	3	F	SBS

	Micro	3	none	3	F	SBS
	Micro	4 or 5	ECO 108	3	F	SBS
English	Language/Comp	3,4 or 5	WRT 101	3	Skill 2; 1st crs, A	Partially satisfies WRT
	Literature/Comp	3,4 or 5	EGL 192; waiver of WRT 101	3	Skill 2; 1st crs, A	HUM, partially satisfies WRT
Environmental Science	Environmental Science	3,4 or 5	SBC 111	3	E	SNW
French	Language & Culture	5	FRN 212	3	Skill 3	LANG, GLO, HUM
	Language & Culture	3 or 4	FRN 211	3	Skill 3	LANG, GLO
German	Language & Culture	5	GER 212	3	Skill 3	LANG, GLO, HUM
	Language & Culture	3 or 4	GER 211	3	Skill 3	LANG, GLO
Government & Politics	Comparative Govt	4 or 5	POL 103	3	F	SBS
	Comparative Govt	3	none	3	F	SBS
	US Govt & Politics	4 or 5	POL 102	3	Skill 4. F	SBS, USA
	US Govt & Politics	3	none	3	Skill 4. F	SBS, USA
History	European	4 or 5	HIS 101, 102	6	F	SBS, GLO
	European	3	none	3	F	SBS, GLO
	US	4 or 5	HIS 103, 104	6	Skill 4, F	SBS, USA
	US	3	none	3	Skill 4, F	SBS, USA
	World	3,4 or 5	none	3	F	SBS, GLO
Human Geography	Human Geography	3,4 or 5	SBC 116	3	F	SBS
Italian	Language & Culture	5	ITL 212	3	Skill 3	LANG, GLO, HUM
	Language & Culture	3 or 4	ITL 211	3	Skill 3	LANG, GLO
Japanese	Language & Culture	3,4 or 5	JPN 212	3	Skill 3	LANG, GLO, HUM
Latin	Latin	3,4 or 5	LAT 251	3	Skill 3	LANG, HFA+
Music Theory	Music Theory	3,4 or 5	MUS 119	3	G	ARTS
Physics	1	3,4 or 5	none	3	E	SNW
	2	3,4 or 5	none	3	E	SNW
	B	3,4 or 5	none	3	E	SNW
	C: Mechanics	4 or 5	PHY 125	4	E	SNW
	C: Mechanics	3	none	2	none	none
	C: Electrical & Magnetic	4 or 5	PHY 127	3	E	SNW
	C: Electrical & Magnetic	3	none	2	none	none
Psychology	Psychology	4 or 5	PSY 103	3	F	SBS, CER
	Psychology	3	none	3	F	SBS

Spanish	Language & Culture	5	SPN 212	3	Skill 3	LANG, GLO, HUM
	Language & Culture	3 or 4	SPN 211	3	Skill 3	LANG, GLO
	Literature & Culture	3,4 or 5	none	3	Skill 3, G	LANG, GLO
Statistics	Statistics	3,4 or 5	AMS 102	3	Skill 1, C	QPS

### Placement Tests

The university offers placement tests that evaluate the level of preparation of each student in mathematics, writing and foreign language. The score on the examinations are used to place the student in appropriate courses that best match his or her skills. The exams are used only for registration purposes, and carry no credit value. The preliminary score becomes invalid after two semesters. Each exam tests the student's skills at the time the test is taken, and students are advised to study beforehand. Preliminary versions of the examinations are available, and all incoming students, including transfers, should take the preliminary placement examinations.

- Foreign Language Placement
- Math Placement
- Writing Placement

### Foreign Language Placement

Foreign Placement Exam Score	Placement into...	DEC & Skill	SBC
1	Language 111		
2	Language 112		LANG_PART
3	Language 211	Skill 3	LANG
4	Language 212	Skill 3	LANG, GLO
5	See Department	Skill 3	LANG, GLO

### Math Placement

Math Placement Exam Score	Placement into...	DEC & Skill	SBC
1	MAP 101		
2	MAP 103		
2+	MAT 118 or Statistics	Skill 1	
3	MAT 118, MAT 123, or Statistics	Skill 1	
4	MAT 125	Skill 1	
5	MAT 131 or MAT 141 or AMS 151	Skill 1	
6	MAT 126	Skill 1, DEC C	QPS
7	MAT 132 or MAT 142 or MAT 171 or AMS 161	Skill 1, DEC C	QPS
8	MAT 127 or MAT 132 or MAT 171 or MAT 142 or AMS 161	Skill 1, DEC C	QPS
9	Beyond 100-level calculus	Skill 1, DEC C	QPS

### Writing Placement

*See chart below for additional information.*

Every student must demonstrate a certain level of writing proficiency to graduate from Stony Brook University by completing a writing sequence culminating in the WRT 102 Intermediate Writing Workshop. Depending on individual student preparation, students will enroll initially into writing courses in the Program in Academic English (WAE 190, WAE 192, WAE 194) or in the Program in Writing and Rhetoric (WRT 101, WRT 102). Final placement is verified and adjusted as needed during the first week of classes. Details of the policy are below.

New freshmen and transfer students who have not transferred an equivalent course from another collegiate institution will be assigned to a writing course appropriate to their level of preparation based on the criteria discussed in detail below. **If any one of the criteria below places you into WRT 102, then you are not required to complete the Online Writing Placement Diagnostic.**

***AP Scores for Writing Placement***

Students who have received AP scores in English Language/Composition or English Literature/Composition with a score of 3 or higher will be placed into WRT 102. See <http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/admissions/apcredit.php> for more information.

***Transfer Course Equivalence***

Students who have transfer college credit in English Composition from a regionally accredited institution with a grade of C or higher can determine transfer equivalency information by visiting Stony Brook's transfer equivalency page [here](#).

***SAT Scores for Writing Placement*****SAT Scores (administered beginning March 2016)**

Students with an Evidence-Based Reading and Writing score of 580 or higher will be placed into WRT 102. Faculty from the Program in Writing and Rhetoric and Program in Academic English will review the online writing placement diagnostic of students with a combined Evidence-Based Reading and Writing score below 580 to determine placement into the appropriate writing course.

**SAT Scores (last administered January 2016)**

Students with a combined Critical Reading and Writing score of 1050 or higher will be placed into WRT 102. Faculty from the Program in Writing and Rhetoric and Program in Academic English will review the online writing placement diagnostic of students with a combined Critical Reading and Writing score below 1050 to determine placement into the appropriate writing course.

***ACT Scores for Writing Placement*****ACT Scores (administered beginning September 2015)**

Students with an English Language Arts score of 23 or higher will be placed into WRT 102. Faculty from the Program in Writing and Rhetoric and Program in Academic English will review the online writing placement diagnostic of students with an English Language Arts score below 23 to determine placement into the appropriate writing course.

**ACT Scores (last administered June 2015)**

Students with a combined English and Writing score of 24 or higher will be placed into WRT 102. Faculty from the Program in Writing and Rhetoric and Program in Academic English will review the online writing placement diagnostic of students with a combined English and Writing score below 24 to determine placement into the appropriate writing course.

***Online Writing Placement Diagnostic***

Beginning in March 2017, all students matriculating Summer 2017 or later who have not satisfied the SBU writing requirement (WRT 102) or who have not been placed into WRT 102 through one of the established mechanisms listed above will take an online writing placement diagnostic. Students will read excerpts from source texts and respond to a writing prompt. This 30-60 minute online writing diagnostic will be made available to students as described below. Failure to complete the online writing diagnostic could impact a student's ability to register for a writing course and to make degree progress.

***Freshmen Students***

Freshmen students who need to complete the online writing placement diagnostic will be contacted by the Writing Program via email in early May. The online writing placement diagnostic needs to be completed no later than June 28th.

***Transfer Students***

Transfer students who determine they need to complete the online writing placement diagnostic should email [WritingProgram@stonybrook.edu](mailto:WritingProgram@stonybrook.edu) to request access to the diagnostic. Please plan for a two (2) business day response time. New transfer students must complete the diagnostic at least one week before their orientation.

***Onsite Writing Placement Essay—International Student Orientation ONLY***

Students attending international student orientation in late August will take an onsite writing placement exam during orientation and do not need to complete the online writing diagnostic. This 30-60 minute essay exam will be administered to these students on campus during this orientation.

***Final Placement***

In the first week of WRT and WAE class, faculty may ask students to complete a writing diagnostic to determine if the students' current writing placement is appropriate. When necessary, faculty evaluation could require students to change their writing course. Advisors are available to assist students with schedule changes if needed.

Test or Course	Score	Action	Placement into...
SAT	580 or higher	Waived from WRT 101	WRT 102

<b>Evidence-Based Reading and Writing (administered beginning March 2016)</b>			
<b>SAT Evidence-Based Reading and Writing (administered beginning March 2016)</b>	Below 580	Online writing diagnostic evaluated for placement  Students attending international student orientation will take an onsite writing placement exam	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
<b>SAT Combined Critical Reading and Writing (last administered January 2016)</b>	1050 or higher	Waived from WRT 101	WRT 102
<b>SAT Combined Critical Reading and Writing (last administered January 2016)</b>	Below 1050	Online writing diagnostic evaluated for placement  Students attending international student orientation will take an onsite writing placement exam	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
<b>ACT English Language Arts (administered beginning September 2015)</b>	23 or higher	Waived from WRT 101	WRT 102
<b>ACT English Language Arts (administered beginning September 2015)</b>	Below 23	Online writing diagnostic evaluated for placement  Students attending international student orientation will take an onsite writing placement exam	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
<b>ACT Combined English and Writing (last administered June 2015)</b>	24 or higher	Waived from WRT 101	WRT 102
<b>ACT Combined English and Writing (last administered June 2015)</b>	Below 24	Online writing diagnostic evaluated for placement  Students attending international student orientation will take an onsite writing placement exam	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
<b>AP English Language/ Composition</b>	3 or higher	Waived from WRT 101	WRT 102
<b>AP English Literature/ Composition</b>	3 or higher	Waived from WRT 101	WRT 102
<b>Transfer Credit English Composition (course equivalent to WRT 101)</b>	C or higher	Waived from WRT 101	WRT 102
<b>Transfer Credit English Composition (course equivalent to WRT 102)</b>	C or higher	Waived from WRT 101 and WRT 102	WRT completed

### 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.
- 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.

- [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](#)
- [Correspondence/Online High School Program of Study](#)

### 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.

### **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 <https://www.cs.stonybrook.edu/students/Undergraduate-Studies/HonorsProgram>.

### **Women in Science and Engineering (WISE) Honors**

The WISE Honors program offers educational and professional science, technology, engineering and mathematics (STEM) opportunities for undergraduate female students at the university by facilitating individual, institutional, and social change. The main goals of the program are to: (1) provide academic support; (2) promote professional development; (3) facilitate research opportunities; (4) establish and maintain community outreach; (5) encourage global collaboration; and (6) enact inclusive strategies. The four-year curriculum is designed to promote academics, research, service and leadership. All students admitted to the WISE Honors Program receive scholarship support. Visit [stonybrook.edu/wise](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 final high school transcripts and SAT or ACT scores must also be submitted directly from the testing agency. SAT code: 2548; ACT code: 2952. Note: only students with strong secondary school credentials will be considered for admission.

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.

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

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: : Majors within the College of Engineering & Applied Sciences are highly competitive. Successful transfer applicants in these majors will, in addition to our regular admission criteria, typically have earned outstanding grades in all college courses, including calculus, physics and advanced science and math courses.

- 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, 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.

\*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](#)
- [International Students](#)

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 passed with a letter grade of C or higher 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 with a grade of C or higher 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 including test credits. All official transcripts from all colleges and universities attended must be submitted by August 15 if the student enters the University in the fall semester or by January 15 if the student enters the University in the spring semester.

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 August 15 if the student enters the University in the fall semester or by January 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 Academic and Transfer Advising Services 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. WRT 102 may not be transferred to the University from an international school.
  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 Academic and Transfer Advising Services 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 Academic and Transfer Advising Services 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 and Skill 3 or the Learning Objectives SNW, SBS, HUM, and LANG in the Stony Brook Curriculum. Students who receive credit for both parts of the Foreign Language CLEP Exam will also fulfill GLO. 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.

Each EOP/AIM student is assigned to a professional counselor who provides academic advising and encourages academic achievement. 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.

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.

#### **Eligibility**

To be eligible for consideration, applicants must meet the following criteria:

- 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 legislated income guidelines. In selecting students for the program, priority is given to applicants from historically disadvantaged backgrounds. If in the year prior to enrollment your family income falls within EOP guidelines due to unemployment, separation, divorce or death of a parent, etc., you may still not qualify for EOP if you are not from a historically disadvantaged background.
- Be a U.S. citizen or a permanent resident.
- Have received a New York State high school diploma or its equivalent.
- Meet the Economic Eligibility Requirements described at <http://www.stonybrook.edu/eopaim/eligibility.shtml>

#### **Freshman Academic Guidelines**

Eligible students will have completed three years of high school science and three years of sequential math. Admitted students typically have at least: an ACT score of 19 or an SAT math/critical reading score of 900 (with a minimum of 450 in both critical reading and math), and a GPA of 80 or B. As part of the EOP admission process, your high school record and test scores will be reviewed, as well as information about clubs, hobbies, jobs and any other experiences which made an impact on your education. This information will help college counselors evaluate your potential for success in a college program.

#### **Transfer Academic Guidelines**

A 2.5 grade point average AND a minimum of 18-24 academic credits at another accredited institution. Transfer students are eligible for admission provided they have been enrolled in EOP, College Discovery, HEOP (Higher Education Opportunity Program), SEEK (Search for Education, Elevation and Knowledge) or a similar academic and financial support program at their previous college. Transfer students with more than 56 credits must indicate a major on their application.

#### **Economic Eligibility Requirements**

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

#### **Applying**

Applications for EOP/AIM are accepted for the fall semester only. Offered to full-time students, EOP/AIM accepts students who qualify both academically and financially for the program. In selecting students for the program, priority is given to applicants from historically disadvantaged backgrounds. Applicants are encouraged to apply early, as there is limited space in the program.

#### **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, the applicant will be billed for the fee.

#### **Additional Admission Information for International Students**

Early completion of the application is crucial. International applicants should keep in mind the following priority deadlines for completed applications: for the fall semester the deadline is January 15; for the spring semester, it is November 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)
- 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>

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

In order to be considered for Non-Degree study, all prospective students must first complete this [Online Non-Degree Inquiry Form](#) and submit it by the deadline indicated below:

- Fall Admission: August 19<sup>th</sup>
- Spring Admission: January 15<sup>th</sup>

If students are eligible, they will receive an email with the Non Degree Application and instructions on how to apply.

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

#### 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.

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 transfer the Stony Brook credits to 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.

For Summer Sessions tuition and registration information, please visit: <http://www.stonybrook.edu/summer-sessions/>

To request information about Summer Sessions, please visit our Web site at <http://www.stonybrook.edu/summer-sessions/> 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
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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. TAP is administered by the office of the Registrar (see <http://www.stonybrook.edu/commcms/registrar/tap/tap.html>).
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 information, consult the meal plan website at [stonybrook.edu/mealplan](http://stonybrook.edu/mealplan), or call or visit the Meal Plan Office, 157 East Side Dining, (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 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. Note that the Tuition Assistance Program (TAP) Grant is administered by the office of the Registrar. See <http://www.stonybrook.edu/commcms/registrar/tap/tap.html> for more information.

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.

To remain in compliance with federal regulations involving financial aid for our students, Stony Brook University must determine if a student maintains eligibility for "Title IV Financial Aid." Such eligibility is determined in part by a student's attendance in class. More information and instructions on how to submit this information may be found at this link: <http://www.stonybrook.edu/commcms/registrar/policies/tracking.html>

## 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., passing score on the [Test Assessing Secondary Completion-TASC](#)), 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://www.stonybrook.edu/commcms/fsa/employment/ssr>.

### 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 Progress Report
- Change of Address
- Registering for Classes
- Late Registration
- Add/Drop Period
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- First-Week Attendance
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- Grading and the Grading System
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- 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
- Degrees Awarded Posthumously

### 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 Progress Report

The Degree Progress Report (available through Stony Brook's Academic Records System-SOLAR), at <http://www.stonybrook.edu/solar> evaluates and reports a 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. Note that students should consult the major and minor departments to help plan a course schedule that fulfills the requirements for the major or minor.

### 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 except under specific circumstances. See also policies on final examinations, religious absences, or university sponsored events.**

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.

To remain in compliance with federal regulations involving financial aid for our students, Stony Brook University must determine if a student maintains eligibility for “Title IV Financial Aid.” Such eligibility is determined in part by a student’s attendance in class. More information and instructions on how to submit this information may be found at this link: <http://www.stonybrook.edu/commcms/registrar/policies/tracking.html>

### 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 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, 231 Engineering.

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 from classes based upon the deadline dates as noted on the University calendar on the Registrar's Office website.

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 20 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/commcms/registrar/registration/exams.html>.

**Taking Time Off**

Fall 2017-Spring 2018

## Withdrawal from the University

### Cancellation of enrollment prior to the start of the semester

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. All students must contact the office of [Counseling and Psychological Services \(CAPS\)](#) before enrolling for any future semesters.

### Transfer to another 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 Signature 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 the end of the add/drop period 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. Students may submit a petition and relevant documentation for a waiver of this one semester waiting period. More details are available at [www.stonybrook.edu/petitions](http://www.stonybrook.edu/petitions).

### 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 an academic advisor in the College of Engineering & Applied Sciences Undergraduate Student Office. 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. Effective fall 2014, students who rematriculate at the University will satisfy the Stony Brook Curriculum (SBC) Requirement in effect at the time of rematriculation. Based upon consultation with an academic advisor, a student who had previously followed the Diversified Education Curriculum (DEC) may make a written request for an academic exception to continue to follow DEC. This request must be submitted to the appropriate office prior to the first day of classes of the student's return to Stony Brook (CEAS Undergraduate Student Office for CEAS majors, or Undergraduate Academic Affairs for all other majors).

5. Educational Opportunity Program students must obtain clearance for re-admission from the EOP/AIM Office and meet with their AIM counselor.

6. Prior to registering for classes, all foreign students returning to the University must obtain a visa clearance from International Services.

7. 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 academic advisor.

See also: policy on taking time off (rematriculation) above.

### 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 and Stony Brook 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 that a grade of P will NOT satisfy most prerequisites and requirements at Stony Brook.

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).
- Course grades of P or NC do not satisfy Diversified Education Curriculum (DEC) requirements, Stony Brook Curriculum (SBC) learning objectives, or major or minor requirements.
  - Courses graded P may be used to satisfy the university upper-division credit requirement.
  - 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" and "Courses without GPNC Option."

#### No Record (NR)

Students are responsible either for completing the required work in or withdrawing from every course for which they have been registered. If an instructor finds that a student appears on the final grade roster for a course but has no record of that student's ever having attended, the instructor will assign a report of NR (No Record). An NR may not be assigned for any other reason. If the student was actually in the class, the student must ask the instructor to correct the record by submitting a grade to replace the NR to the appropriate Committee on Academic Standing and Appeals. If the student was not actually in the class and receives a report of NR, the student must petition the appropriate Committee on Academic Standing and Appeals for a retroactive withdrawal from the course. Grades of NR are converted on a student's transcript to one of the following grades: N/F for letter-graded courses, N/U for courses graded A-C/U or S/U, or N/C for courses taken under the Pass/No Credit option. The grade of N/F will be treated as a failure for the purposes of academic standing and will be averaged as an F when the student's g.p.a. is computed.

#### Q Grade

A grade of Q is assigned to a student found guilty of academic dishonesty. The Q remains on the transcript and is computed in the g.p.a. as a grade of F. Students who have a single finding of dishonesty may have the Q replaced by a letter grade determined by the instructor after satisfactory completion of a non-credit seminar addressing issues of academic dishonesty unless the applicable academic judiciary committee determines otherwise. Rescinded Q grades may be reinstated if there is a new finding of academic dishonesty.

#### Registered (R)

Some courses, chiefly senior honors projects numbered 495-496, are designated year-long courses. The final grade and credits for the course are assigned only after completion of both semesters. Instructors submit a report of R (Registered) at the end of the first semester. A final grade and credits for the combined semesters' work are recorded at the end of the second semester. An R will also be given in certain courses where the final grade will be delayed because the coursework was done at a location remote from the campus. For the purposes of academic standing an R is treated as if it were a P.

#### Incomplete (I)

If circumstances beyond the student's control inhibit the student's ability to complete the work for a course on time, the student is responsible for informing the instructor of the circumstances immediately. At the discretion of the instructor, a temporary report of I (Incomplete) may be assigned, signifying that the student has been granted additional time to complete the requirements for the course. After granting an I, the instructor will set a date for completion of the requirements. That date will be no later than November 1 for courses begun the preceding spring semester or summer session and no later than March 15 for courses begun the preceding fall semester.

Students may not complete coursework for which an Incomplete was assigned by auditing or registering again for a subsequent offering of the course. If the instructor determines that circumstances merit it, the instructor may request an extension of the original Incomplete by written notification to the Registrar. This extended deadline will be no later than the last day of classes of the semester following the one in which the course was taken. Longer extensions for extraordinary reasons must be approved by petition to the appropriate academic office. If the work is not satisfactorily completed by the applicable or extended deadline, the final grade of I/F, U, or NC, as appropriate, will be assigned. The grade of I/F will be averaged as F when computing the grade point average (g.p.a.) or determining other measures of the student's academic standing.

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 G/P/NC option

The following courses do not offer the G/P/NC option.

Course	Title	Grading
AAS 444	Experiential Learning	Sat/Unsat
AAS 458	Speak Effectively Before/Aud	Sat/Unsat
AAS 459	Write Effectively	Sat/Unsat
AAS 475	Undergrad Teaching Practicum I	Sat/Unsat

AAS 476	Undergrad Teachng Practicum II	Sat/Unsat
AAS 488	Internship	Sat/Unsat
ACC 314	Federal Income Taxation II	A-F Ugrd
ACC 315	Accounting for Small Bus Entrp	A-F Ugrd
ACC 400	External Auditing	A-F Ugrd
ACH 101	Introduction to Stony Brook	Sat/Unsat
ACH 102	Arts, Culture and Humanities	A-F Ugrd
ACH 275	College Fellows Seminar	Sat/Unsat
ACH 276	College Fellows Practicum	Sat/Unsat
ACH 475	UGC Teaching Practicum	Sat/Unsat
ACH 488	UGC Internship	Sat/Unsat
ADV 101	Advising 101: Transfer Seminar	Sat/Unsat
ADV 201	Preparing for Medical School	Sat/Unsat
ADV 202	Academic Success Seminar	ABC/U
ADV 475	Undergraduate Teaching Practic	Sat/Unsat
ADV 476	Undergraduate Teaching Practic	Sat/Unsat
ADV 488	Acad. Peer Advisor Internship	Sat/Unsat
AFH 444	Experiential Learning	Sat/Unsat
AFH 475	Undergrad Teachng Practicum I	Sat/Unsat
AFH 476	Undergrad Teachng Practicum II	Sat/Unsat
AFS 283	Community Service	Sat/Unsat
AFS 444	Experiential Learning	Sat/Unsat
AFS 459	Write Effectively	Sat/Unsat
AFS 475	Undergrad Teachng Practicum I	Sat/Unsat
AFS 476	Undergrad Teachng Practicum II	Sat/Unsat
AFS 488	Internship	Sat/Unsat
AIM 102	Expository Writing	Remedial
AIM 104	Lit Analysis, Critical Reasoni	ABC/U
AMR 444	Experiential Learning	Sat/Unsat
AMR 458	Speak Effectively Before/Aud	Sat/Unsat
AMR 475	Undergrad Teachng Practicum I	Sat/Unsat
AMR 476	Undergrad Teachng Practicum II	Sat/Unsat
AMR 488	Internship	Sat/Unsat
AMS 300	Writing in Applied Mathematics	Sat/Unsat
AMS 475	Undergrad Teachng Practicum	A-F Ugrd
AMS 476	Undergrad Teaching Practicum	A-F Ugrd
ANP 444	Experiential Learning	Sat/Unsat
ANP 459	Write Effectively in ANP	Sat/Unsat
ANP 475	Undergrad Teachng Practicum I	Sat/Unsat
ANP 476	Undergrad Teachng Practicum II	Sat/Unsat
ANP 488	Internship in Biologica Anthro	Sat/Unsat
ANT 444	Experiential Learning	Sat/Unsat
ANT 458	Speak Effectively Before an Au	Sat/Unsat
ANT 459	Write Effectively	Sat/Unsat
ANT 475	Undergrad Teachng Practicum I	Sat/Unsat
ANT 476	Undergrad Teachng Practicum II	Sat/Unsat

<b>ANT 488</b>	Internship	Sat/Unsat
<b>ARH 444</b>	Experiential Learning	Sat/Unsat
<b>ARH 459</b>	Write Effectively in Art Histo	Sat/Unsat
<b>ARH 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>ARH 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>ARH 488</b>	Internship	Sat/Unsat
<b>ARS 299</b>	Studio Management Workshop	Sat/Unsat
<b>ARS 444</b>	Experiential Learning	Sat/Unsat
<b>ARS 459</b>	Write Effectively/Studio Art	Sat/Unsat
<b>ARS 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>ARS 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>ARS 488</b>	Internship	Sat/Unsat
<b>AST 444</b>	Experiential Learning	Sat/Unsat
<b>AST 459</b>	Write Effectively in Astronomy	Sat/Unsat
<b>AST 475</b>	Teaching Practicum in Astronom	Sat/Unsat
<b>AST 487</b>	Senior Research in Astronomy	Sat/Unsat
<b>ATM 444</b>	Experiential Learning	Sat/Unsat
<b>ATM 459</b>	Write Effectively in Atmospher	Sat/Unsat
<b>ATM 488</b>	Internship	Sat/Unsat
<b>BCP 400</b>	Writing in Pharmacology	Sat/Unsat
<b>BCP 444</b>	Experiential Learning	Sat/Unsat
<b>BCP 475</b>	Undergrad Teaching Pract Pharm	Sat/Unsat
<b>BCP 488</b>	Internship	Sat/Unsat
<b>BIO 444</b>	Experiential Learning	Sat/Unsat
<b>BIO 446</b>	Readings in Neurobio & Physiol	Sat/Unsat
<b>BIO 447</b>	Readings in Molec Cell Dev Bio	Sat/Unsat
<b>BIO 449</b>	Readings in Ecology & Evolutn	Sat/Unsat
<b>BIO 458</b>	Speak Effectively Before/Aud	Sat/Unsat
<b>BIO 459</b>	Write Effectively	Sat/Unsat
<b>BIO 475</b>	Teachng Pract. College Bio I	Sat/Unsat
<b>BIO 476</b>	Teachng Pract. College Bio II	Sat/Unsat
<b>BIO 484</b>	Research in Biology & Society	Sat/Unsat
<b>BIO 486</b>	Rsrch in Neurobiology & Physio	Sat/Unsat
<b>BIO 487</b>	Rsrch in Molec Cell & Dev Bio	Sat/Unsat
<b>BIO 488</b>	Internship in Biological Scien	Sat/Unsat
<b>BIO 489</b>	Rsrch in Ecology & Evolution	Sat/Unsat
<b>BME 120</b>	BME Programming Fundamentals	A-F Ugrd
<b>BME 213</b>	Studies in Nanotechnology	A-F Ugrd
<b>BME 260</b>	Stat and Dyn Bio Systems	A-F Ugrd
<b>BME 300</b>	Writing in Biomed Engrng	Sat/Unsat
<b>BME 311</b>	Bioimaging	A-F Ugrd
<b>BME 312</b>	LabVIEW Programming	A-F Ugrd
<b>BME 353</b>	Introduction to Biomaterials	A-F Ugrd
<b>BME 354</b>	Advanced Biomaterials	A-F Ugrd
<b>BME 371</b>	Biological Microfluidics	A-F Ugrd
<b>BME 400</b>	Research and Nanotech	A-F Ugrd

<b>BME 402</b>	Contemporary Biotechnology	A-F Ugrd
<b>BME 430</b>	Quant Human Physiology	A-F Ugrd
<b>BME 440</b>	Biomedical Engrng Design	A-F Ugrd
<b>BME 441</b>	Sr Design Proj in Biomed Eng	A-F Ugrd
<b>BME 475</b>	Undergrad Teaching Practicum	A-F Ugrd
<b>BME 488</b>	Biomedical Engrng Internship	Sat/Unsat
<b>BME 494</b>	Honors Seminar on Research	A-F Ugrd
<b>BME 495</b>	Honors Independent Research	A-F Ugrd
<b>BUS 112</b>	Intro to Business and Environ	A-F Ugrd
<b>BUS 294</b>	Principles of Management	A-F Ugrd
<b>BUS 300</b>	Writing for Business Mngmnt	Sat/Unsat
<b>BUS 349</b>	Prncpls of Marktng Sust Prods	A-F Ugrd
<b>BUS 364</b>	How to Build a Startup	A-F Ugrd
<b>BUS 368</b>	Marketing New Sustainable Prod	A-F Ugrd
<b>BUS 373</b>	Supply Chain and Envir Mgt	A-F Ugrd
<b>BUS 374</b>	Environmental Impact of Bus	A-F Ugrd
<b>BUS 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>BUS 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>BUS 488</b>	Internship	Sat/Unsat
<b>CCS 444</b>	Experiential Learning	Sat/Unsat
<b>CCS 458</b>	Speak Effectively/Audience	Sat/Unsat
<b>CCS 459</b>	Write Effectively in CCS	Sat/Unsat
<b>CCS 475</b>	Undergrad Teachng Practicum	Sat/Unsat
<b>CCS 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>CCS 488</b>	Internship	Sat/Unsat
<b>CDT 488</b>	Internship	Sat/Unsat
<b>CEF 347</b>	Intro to Special Education	A-F Ugrd
<b>CHE 125</b>	Chemistry Learning Strategies	ABC/U
<b>CHE 130</b>	Problem Solving in Generl Chem	Sat/Unsat
<b>CHE 385</b>	Tools of Chemistry	ABC/U
<b>CHE 386</b>	Professional Skills	Sat/Unsat
<b>CHE 459</b>	Write Effectively	Sat/Unsat
<b>CHE 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>CHE 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>CHE 477</b>	Undergrad Teaching Pract. III	Sat/Unsat
<b>CHE 488</b>	Internship	Sat/Unsat
<b>CHI 444</b>	Experiential Learning	Sat/Unsat
<b>CHI 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>CHI 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>CIV 210</b>	Land Surveying	A-F Ugrd
<b>CIV 300</b>	Technical Communication	A-F Ugrd
<b>CIV 305</b>	TRANSP SYS I	A-F Ugrd
<b>CIV 306</b>	TRANSP SYS II	A-F Ugrd
<b>CIV 310</b>	Structural Engineering	A-F Ugrd
<b>CIV 312</b>	Steel & Concrete Design	A-F Ugrd
<b>CIV 320</b>	WATER WASTE MGT	A-F Ugrd

CIV 330	Soil Mechanics	A-F Ugrd
CIV 340	CE Materials Lab	A-F Ugrd
CIV 341	Geotech Lab	A-F Ugrd
CIV 342	Water Environ Lab	A-F Ugrd
CIV 407	Transportation Economics	A-F Ugrd
CIV 410	PRIN FOUND ENG	A-F Ugrd
CIV 420	Hydraulics	A-F Ugrd
CIV 422	Coastal Engineering	A-F Ugrd
CIV 423	Coastal Design	A-F Ugrd
CIV 424	Stormwater Management & Design	A-F Ugrd
CIV 440	Senior Design I	A-F Ugrd
CIV 441	Senior Design II	A-F Ugrd
CIV 499	Independent Research	A-F Ugrd
CLL 444	Experiential Learning	Sat/Unsat
CLS 444	Experiential Learning	Sat/Unsat
CLS 475	Undergrad Teachng Practicum	Sat/Unsat
CLT 444	Experiential Learning	Sat/Unsat
CLT 458	Speak Effectively/Audience	Sat/Unsat
CLT 459	Write Effectively/Comp Lit	Sat/Unsat
CLT 475	Undergrad Teachng Practicum I	Sat/Unsat
CLT 476	Undergrad Teachng Practicum II	Sat/Unsat
CME 233	Ethics and Bus Prac for Eng	A-F Ugrd
CME 300	Writing in Chem & Molec Engrg	Sat/Unsat
CME 321	Intro to cGMP	A-F Ugrd
CME 330	Principles of Engg for CE	A-F Ugrd
CME 350	Comp EnTech	A-F Ugrd
CME 355	Chemical Process Safety	A-F Ugrd
CME 360	Nanomaterials and Applications	A-F Ugrd
CME 369	Polymer Engineering	A-F Ugrd
CME 372	Colloids, Micelles & Emul Sci	A-F Ugrd
CME 425	Intro to Catalysis	A-F Ugrd
CME 460	Nanosystems	A-F Ugrd
CME 475	Undergraduate Teaching Prac	A-F Ugrd
CME 480	Cell Bio for Chemical Eng	A-F Ugrd
CME 481	Advanced Cell Bio for CE	A-F Ugrd
CME 490	Prep Chem Eng Fund Eng Exam	Sat/Unsat
CME 491	Sust Ren Energy	A-F Ugrd
CSE 114	Computer Science I	A-F Ugrd
CSE 150	Fndtns Comp Sci: Honors	A-F Ugrd
CSE 160	Comp Sci A: Honors	A-F Ugrd
CSE 161	Lab for Comp Sci A: Honors	A-F Ugrd
CSE 214	Computer Science II	A-F Ugrd
CSE 215	Foundations of Comp Science	A-F Ugrd
CSE 219	Computer Science III	A-F Ugrd
CSE 220	Systems Fundamentals I	A-F Ugrd
CSE 260	Comp Sci B: Honors	A-F Ugrd

CSE 261	Lab for Comp Sci B: Honors	A-F Ugrd
CSE 300	Technical Communications	A-F Ugrd
CSE 303	Intro to Theory of Computation	A-F Ugrd
CSE 304	Compiler Design	A-F Ugrd
CSE 305	Principles of Database Systems	A-F Ugrd
CSE 306	Operating Systems	A-F Ugrd
CSE 307	Principles of Progr Languages	A-F Ugrd
CSE 308	Software Engineering	A-F Ugrd
CSE 310	Computer Networks	A-F Ugrd
CSE 311	Systems Administration	A-F Ugrd
CSE 312	Legal Issues in Info Systems	A-F Ugrd
CSE 320	Systems Fundamentals II	A-F Ugrd
CSE 323	Human-Computer Interaction	A-F Ugrd
CSE 327	Computer Vision	A-F Ugrd
CSE 328	Fundamentals of Comp Graphics	A-F Ugrd
CSE 331	Computer Security Fundamentals	A-F Ugrd
CSE 332	Introduction to Visualization	A-F Ugrd
CSE 333	User Interface Development	A-F Ugrd
CSE 334	Intro to Multimedia Systems	A-F Ugrd
CSE 336	Internet Programming	A-F Ugrd
CSE 337	Scripting Languages	A-F Ugrd
CSE 346	Computer Communications	A-F Ugrd
CSE 350	Theory of Computation: Honors	A-F Ugrd
CSE 352	Artificial Intelligence	A-F Ugrd
CSE 353	Machine Learning	A-F Ugrd
CSE 364	Advanced Multimedia Techniques	A-F Ugrd
CSE 366	Intro to Virtual Reality	A-F Ugrd
CSE 370	Wireless and Mobile Networking	A-F Ugrd
CSE 371	Logic	A-F Ugrd
CSE 377	Intro to Medical Imaging	A-F Ugrd
CSE 378	Intro to Robotics	A-F Ugrd
CSE 380	Cmptr Game Prgmmng	A-F Ugrd
CSE 381	Advanced Game Programming	A-F Ugrd
CSE 390	Topics in Computer Science	A-F Ugrd
CSE 391	Topics in Computer Science	A-F Ugrd
CSE 392	Topics in Computer Science	A-F Ugrd
CSE 393	Topics in Computer Science	A-F Ugrd
CSE 394	Topics in Computer Science	A-F Ugrd
CSE 408	Network Security	A-F Ugrd
CSE 409	Computer System Security	A-F Ugrd
CSE 475	Undergrad Teaching Practicum	A-F Ugrd
CSE 487	Research in Computer Science	A-F Ugrd
CSE 488	Internship in Computer Science	Sat/Unsat
CSE 495	Sr Honors Research Project I	A-F Ugrd
CSE 496	Sr Honors Research Project II	A-F Ugrd
CWL 444	Experiential Learning	Sat/Unsat

DAN 444	Experiential Learning	Sat/Unsat
DAN 475	Undergrad Teachng Practicum I	Sat/Unsat
DAN 476	Undergrad Teachng Practicum II	Sat/Unsat
DAN 488	Internship	Sat/Unsat
DIA 444	Experiential Learning	Sat/Unsat
EBH 444	Experiential Learning	Sat/Unsat
EBH 447	Readings/HumanEvolutionary Bio	Sat/Unsat
EBH 458	Speak Effectively Before an Au	Sat/Unsat
EBH 459	Write Effectively in EBH	Sat/Unsat
EBH 475	Undergrad Teaching Practicum I	Sat/Unsat
EBH 476	UndergradTeaching Practicum II	Sat/Unsat
EBH 487	Research/Human EvolutionaryBio	Sat/Unsat
EBH 488	Internship in Human Evol Bio	Sat/Unsat
ECO 444	Experiential Learning	Sat/Unsat
ECO 459	Write Effectively in Economics	Sat/Unsat
ECO 475	Undergrad Teachng Practicum I	Sat/Unsat
ECO 476	Undergrad Teachng Practicum II	Sat/Unsat
ECO 488	Internship in Economics	Sat/Unsat
EDP 444	Experiential Learning	Sat/Unsat
EDP 487	Research in EDP	Sat/Unsat
EDP 488	Internship in EDP	Sat/Unsat
EEO 124	C Prog for EE	A-F Ugrd
EEO 218	Digital Logic Design	A-F Ugrd
EEO 219	Digital Logic Design Lab	A-F Ugrd
EEO 224	OOP for Elec & Comp Eng	A-F Ugrd
EEO 271	Electrical Circuit Analysis I	A-F Ugrd
EEO 300	Tech Comm EE Eng	A-F Ugrd
EEO 301	Signals and Systems	A-F Ugrd
EEO 302	Eng Ethics Soc Impact	A-F Ugrd
EEO 303	Digital Signal Processing	A-F Ugrd
EEO 304	Elec Instr Op Amps	A-F Ugrd
EEO 311	Electronics Circuits II	A-F Ugrd
EEO 314	Mos Transistor Modeling	A-F Ugrd
EEO 315	Electronics Circuits I	A-F Ugrd
EEO 316	Int Elect Dev Circ	A-F Ugrd
EEO 323	Electromagnetics	A-F Ugrd
EEO 331	Intro to Semiconductor Devices	A-F Ugrd
EEO 340	Nanotechnology, Engg, and Sci	A-F Ugrd
EEO 346	Computer Communications	A-F Ugrd
EEO 352	Electronics Laboratory I	A-F Ugrd
EEO 353	Electronics Laboratory II	A-F Ugrd
EEO 363	Fiber Optic Communications	A-F Ugrd
EEO 366	Mixed Signal Systems on Chip	A-F Ugrd
EEO 401	RF/Microwave Circuits	A-F Ugrd
EEO 415	Intro to Microelecmecc Sys	A-F Ugrd
EEO 425	Elec Mach and Energy Conv	A-F Ugrd

EEO 440	Engineering Design I	A-F Ugrd
EEO 441	Engineering Design II	A-F Ugrd
EEO 470	REN DSTRBTD GEN & STOR	A-F Ugrd
EEO 482	Power Sys Engg I	A-F Ugrd
EEO 488	Internship in EE	A-F Ugrd
EGL 444	Experiential Learning	Sat/Unsat
EGL 449	Field Experience, Grades 7-12	Sat/Unsat
EGL 450	Field Experience, Grades 7-12	Sat/Unsat
EGL 451	Supvsd Tchng Eng Grade 7-9	Sat/Unsat
EGL 452	Supvsd Tchng Eng Grade 10-12	Sat/Unsat
EGL 458	Speak Effectively Before/Aud	Sat/Unsat
EGL 475	Undergrad Teachng Practicum I	Sat/Unsat
EGL 476	Undergrad Teachng Practicum II	Sat/Unsat
EGL 488	Internship	Sat/Unsat
EHI 444	Experiential Learning	Sat/Unsat
EHI 487	Research/Ecosystems&Human Impa	Sat/Unsat
EHI 488	Internship in EHI	Sat/Unsat
EHM 444	Experiential Learning	Sat/Unsat
EHM 459	Write Effectively in EHM	Sat/Unsat
EHM 487	Research/Environmental Human	Sat/Unsat
EHM 488	Internship/Environmental Hum	Sat/Unsat
ENS 447	Readings in Environmental Sci	Sat/Unsat
ENS 459	Write Effectively in ENS	Sat/Unsat
ENS 488	Internship in Envir Studies	Sat/Unsat
ENV 405	Field Camp	Sat/Unsat
ENV 444	Experiential Learning	Sat/Unsat
ENV 447	Readings in Environmental Sci	Sat/Unsat
ENV 487	Research in Environmental Sci	Sat/Unsat
ENV 488	Internship in Coastal Environ	Sat/Unsat
ESE 124	Computer Tech for Elect Dsgn I	A-F Ugrd
ESE 201	Engg & Tech Entrepreneurship	A-F Ugrd
ESE 211	Electronics Laboratory A	A-F Ugrd
ESE 218	Digital Systems Design	A-F Ugrd
ESE 224	Cmptr Tehnq for Electr Dsgn II	A-F Ugrd
ESE 231	Intro to Semiconductor Devices	A-F Ugrd
ESE 271	Electrical Circuit Analysis I	A-F Ugrd
ESE 290	Transitional Study	A-F Ugrd
ESE 300	Tech Commun for EE/CE	A-F Ugrd
ESE 301	Eng Ethics and Soc Impact	A-F Ugrd
ESE 304	Apps of Operational Amplifiers	A-F Ugrd
ESE 305	Deterministic Signals & Systems	A-F Ugrd
ESE 306	Random Signals & Systems	A-F Ugrd
ESE 311	Analog Integrated Circuits	A-F Ugrd
ESE 313	Introduction to Photovoltaics	A-F Ugrd
ESE 314	Electronics Laboratory B	A-F Ugrd
ESE 315	Control System Design	A-F Ugrd

ESE 319	Electromag and T Lines	A-F Ugrd
ESE 324	Electronics Laboratory C	A-F Ugrd
ESE 325	Modern Sensors	A-F Ugrd
ESE 330	Integrated Electronics	A-F Ugrd
ESE 333	Real-Time Operating Systems	A-F Ugrd
ESE 337	Digital Signal Process: Theory	A-F Ugrd
ESE 340	Basic Communication Theory	A-F Ugrd
ESE 341	Int Wrks Cellu Commu	A-F Ugrd
ESE 342	Digital Communications Systems	A-F Ugrd
ESE 343	Mobile Cloud Computing	A-F Ugrd
ESE 344	Software Techniques for Engrns	A-F Ugrd
ESE 345	Computer Architecture	A-F Ugrd
ESE 346	Computer Communications	A-F Ugrd
ESE 347	Digital Signal Process: Implem	A-F Ugrd
ESE 350	Electrical Power Systems	A-F Ugrd
ESE 352	Electromech Energy Converters	A-F Ugrd
ESE 355	VLSI System Design	A-F Ugrd
ESE 356	Digi Sys Specifica & Modeling	A-F Ugrd
ESE 358	Computer Vision	A-F Ugrd
ESE 360	Network Security Engineering	A-F Ugrd
ESE 363	Fiber Optic Communications	A-F Ugrd
ESE 366	Mixed Signal Systems on Chip	A-F Ugrd
ESE 372	Electronics	A-F Ugrd
ESE 373	RF Electr for Wireless Commun	A-F Ugrd
ESE 380	Embedded Microproc Syst Des I	A-F Ugrd
ESE 381	Embedded Microproc Syst Des II	A-F Ugrd
ESE 382	Digital Des Using VHDL & PLDs	A-F Ugrd
ESE 440	Engineering Design I	A-F Ugrd
ESE 441	Engineering Design II	A-F Ugrd
ESE 475	Undergrad Teaching Practicum	A-F Ugrd
ESE 476	Instructional Lab Practicum	A-F Ugrd
ESE 488	Internship Electr/Comp Engrng	A-F Ugrd
ESE 494	Honors Seminar on Research	A-F Ugrd
ESE 495	Honors Research Project	A-F Ugrd
ESE 499	Research in Electrical Science	A-F Ugrd
ESG 300	Writing in Engineering Science	Sat/Unsat
ESG 375	Fund. of Professional Engg	A-F Ugrd
ESG 420	Fluid Flow, Ht & Mass Transprt	A-F Ugrd
WAE 190	Intermediate Composition	A-F Ugrd
WAE 192	High Intermediate Writing	A-F Ugrd
WAE 194	Advanced Composition	A-F Ugrd
WAE 195	Acad English Skills for US Res	A-F Ugrd
ESM 213	Studies in Nanotechnology	A-F Ugrd
ESM 378	Materials Chemistry	A-F Ugrd
ESM 400	Research and Nanotech	A-F Ugrd
ESM 475	Undergrad Teaching Practicum	A-F Ugrd

ESM 486	Innovation in Engineering	A-F Ugrd
EST 213	Studies in Nanotechnology	A-F Ugrd
EST 306	Cloud Computing Applications	A-F Ugrd
EST 310	Design of Computer Games	A-F Ugrd
EST 323	Human-Computer Interaction	A-F Ugrd
EST 341	Waste Treatment Technologies	A-F Ugrd
EST 355	Preventing Weapon	A-F Ugrd
EST 356	Nuclear Nonprolif	A-F Ugrd
EST 361	Tech. of Mass Destruction	A-F Ugrd
EST 364	How to Build a Startup	A-F Ugrd
EST 388	Specialt Topics in TSM	A-F Ugrd
EST 389	Special Topics in TSM	A-F Ugrd
EST 400	Research and Nanotech	A-F Ugrd
EUR 444	Experiential Learning	Sat/Unsat
EUR 458	Speak Effectively Before/Aud	Sat/Unsat
EUR 459	Write Effectively in European	Sat/Unsat
EUR 475	Ugrad Teaching Practicum I	Sat/Unsat
EUR 476	Ugrad Teaching Practicum II	Sat/Unsat
EUR 488	Internship	Sat/Unsat
EXT 288	Internship	Sat/Unsat
EXT 488	Internship	Sat/Unsat
FLA 449	Field Experience, Grades 7-12	Sat/Unsat
FLA 450	Field Experience, Grades 7-12	Sat/Unsat
FLA 451	Suprvsd Teaching: Grades 7-9	Sat/Unsat
FLA 452	Suprvsd Teaching: Grades 10-12	Sat/Unsat
FRN 444	Experiential Learning	Sat/Unsat
FRN 459	Write Effectively/French	Sat/Unsat
FRN 475	Undergrad Teaching Practicum I	Sat/Unsat
FRN 476	Undergrad Teach Practicum II	Sat/Unsat
GEO 287	Introductory Rsrch in Geology	Sat/Unsat
GEO 444	Experiential Learning	Sat/Unsat
GEO 458	Speak Effectively Before/Aud	Sat/Unsat
GEO 459	Write Effectively in Geology	Sat/Unsat
GEO 475	Undergrad Teachng Practicum I	Sat/Unsat
GEO 476	Undergrad Teachng Practicum II	Sat/Unsat
GEO 488	Internship	Sat/Unsat
GER 444	Experiential Learning	Sat/Unsat
GER 459	Write Effectively in German	Sat/Unsat
GER 475	Undergrad Teaching Practicum I	Sat/Unsat
GER 476	Undergrad Teach Practicum II	Sat/Unsat
GER 488	Internship	Sat/Unsat
GLS 101	Introduction to Stony Brook	Sat/Unsat
GLS 102	Global Studies	A-F Ugrd
GLS 275	College Fellows Seminar	Sat/Unsat
GLS 276	College Fellows Practicum	Sat/Unsat
GLS 475	UGC Teaching Practicum	Sat/Unsat

GLS 488	UGC Internship	Sat/Unsat
GSS 475	Undergraduate Teaching Practic	Sat/Unsat
GSS 487	Geospatial Science Research	Sat/Unsat
GSS 488	Geospatial Science Internship	Sat/Unsat
HAD 210	INTRO CLIN LAB SCIEN	A-F Ugrd
HAL 210	Emergency Care/Athlet Injuries	A-F Ugrd
HAL 300	Kinesiology	A-F Ugrd
HAL 375	Supplement Use Sport Perform	A-F Ugrd
HAL 376	Introduction to Nutrition	A-F Ugrd
HAN 200	Anat & Phys Health Science I	A-F Ugrd
HAN 202	Anat & Phys Health Science II	A-F Ugrd
HAN 251	Resrch Methods Health Science	A-F Ugrd
HAN 312	Human Anat, Hlth, Medical Lang	A-F Ugrd
HAS 190	INT TO HLTH PROFSSNS	A-F Ugrd
HAS 300	ISSUES IN HLTH CARE	A-F Ugrd
HAS 332	Management Concepts	A-F Ugrd
HAS 335	MEDICAL ETHICS	A-F Ugrd
HAS 350	INTRO TO STATISTICS	A-F Ugrd
HAS 351	RESEARCH LIT/DESIGN	A-F Ugrd
HAS 363	COMPUTER LITERACY	A-F Ugrd
HAS 391	READNGS IN HEALTH	A-F Ugrd
HAS 399	ALLIED HLTH:IND STDY	A-F Ugrd
HAS 490	Research Tutorial	A-F Ugrd
HAT 210	Intro to Respiratory Care	A-F Ugrd
HBA 398	Resrch Proj AnatomicalSciences	Sat/Unsat
HBH 398	RESRCH PR:PHARMACLGY	A-F Ugrd
HBP 393	Special Topics Pathology Lit	A-F Ugrd
HBP 398	RSCH PROJ: PATHOLOGY	A-F Ugrd
HBW 475	Undergrad Teachng Practicum I	Sat/Unsat
HBW 476	Undergrad Teachng Practicum II	Sat/Unsat
HBY 390	Topics in Physiology	A-F Ugrd
HBY 393	SP T:PHYSIO/BIOPHSCS	A-F Ugrd
HBY 394	SP T:PHYSIO/BIOPHSCS	A-F Ugrd
HBY 398	RSCH:Physio and Biophysics	A-F Ugrd
HBY 399	RSCH:Physio and Biophysics	A-F Ugrd
HDG 299	Introd to Research Gen Den	Sat/Unsat
HDG 399	Supervised Rsrch Gen Den	Sat/Unsat
HDG 499	Independent Rsrch Gen Den	Graded-Gr
HDH 301	DENT HEALTH READINGS	A-F Ugrd
HDO 320	Research: Oral Biology Path	A-F Ugrd
HDO 321	Oral Biology Research II	A-F Ugrd
HDO 322	Summer Research: Oral Biology	A-F Ugrd
HDO 420	Oral Biology Research III	A-F Ugrd
HDO 421	Oral Biology Research IV	A-F Ugrd
HDO 422	Summer Rsch Oral Biology Path	A-F Ugrd
HDP 320	PERIODONTAL RESEARCH	A-F Ugrd

HDP 321	PERIODONTAL RESEARCH	A-F Ugrd
HDP 322	PERIODONTAL RESEARCH	A-F Ugrd
HDP 420	PERIODONTAL RESEARCH	Sat/Unsat
HDP 421	PERIODONTAL RESEARCH	Sat/Unsat
HDP 422	PERIODONTAL RESEARCH	Sat/Unsat
HDV 101	Introduction to Stony Brook	Sat/Unsat
HDV 102	Human Development	A-F Ugrd
HDV 275	College Fellows Seminar	Sat/Unsat
HDV 276	College Fellows Practicum	Sat/Unsat
HDV 475	UGC Teaching Practicum	Sat/Unsat
HDV 488	UGC Internship	Sat/Unsat
HIS 444	Experiential Learning	Sat/Unsat
HIS 459	Write Effectively in History	Sat/Unsat
HIS 475	Undergrad Teaching Practicum	Sat/Unsat
HIS 488	Internship	Sat/Unsat
HNI 290	Introduction to Nursing	A-F Ugrd
HNI 389	Cultural Immersion: Undergrad	Graded-Gr
HON 101	Introduction to Stony Brook	Sat/Unsat
HON 475	Honors College Teaching Practi	Sat/Unsat
HSQ 270	Emgrcy Response, CPR, Safety	A-F Ugrd
HSQ 271	Instructor of CPR	A-F Ugrd
HSQ 272	Instructor of First Aid	A-F Ugrd
HSQ 325	Instr of Adapted Aquatics I	A-F Ugrd
HSQ 326	Instr of Adapted Aquatics II	A-F Ugrd
HSQ 329	Fieldwork in Adapted Aqu Instr	A-F Ugrd
HSQ 475	Adapted Aquatics Teaching Pra	SF
HSQ 476	Adapted Aquatics Tchng Prt II	SF
HUF 475	Teaching Practicum I	Sat/Unsat
HUI 475	Teaching Practicum I	Sat/Unsat
HUI 476	Teaching Practicum II	Sat/Unsat
HUR 475	Teaching Practicum I	Sat/Unsat
HUR 476	Teaching Practicum II	Sat/Unsat
HWC 210	INTRO TO SOCIAL WORK	A-F Ugrd
HWC 317	Issues in Death and Dying	A-F Ugrd
HWC 344	Overview of Substance Abuse	A-F Ugrd
HWC 349	Overvw Soc Wrk Spec Population	A-F Ugrd
HWC 351	Law and Social Change	A-F Ugrd
HWC 361	Impl Racism for Social Welfare	A-F Ugrd
HWC 362	Impl Child Abuse Maltreatment	A-F Ugrd
HWC 363	Homelessness, Poltcs & PubHlth	A-F Ugrd
HWC 364	Impact of Sexual Assault	A-F Ugrd
HWC 369	Youth and Violence	A-F Ugrd
HWC 375	Child Welfare: An Overview	A-F Ugrd
HWC 379	Special Topics Social Welfare	A-F Ugrd
HWC 380	Overview of Family Violence	A-F Ugrd
HWC 390	HIV/AIDS	A-F Ugrd

HWC 395	Independent Study	A-F Ugrd
HWC 399	Maintenance of Matriculation	SF
IAP 488	Internship	Sat/Unsat
IEC 102	INTENS EGL LO-INTER	Progress
IEC 103	Intensive Intermediate EGL	Progress
IEC 104	Intensive High Intermed EGL	Progress
ISE 215	Foundations of Comp Science	A-F Ugrd
ISE 218	Fundamentals of IT	A-F Ugrd
ISE 300	Technical Communications	A-F Ugrd
ISE 305	Database Design and Practice	A-F Ugrd
ISE 311	Systems Administration	A-F Ugrd
ISE 312	Legal Issues in Info Systems	A-F Ugrd
ISE 315	Database Transaction Proc Syst	A-F Ugrd
ISE 316	Introduction to Networking	A-F Ugrd
ISE 317	Computer Networking II	A-F Ugrd
ISE 320	Information Management	A-F Ugrd
ISE 321	Network Administration	A-F Ugrd
ISE 323	Human-Computer Interaction	A-F Ugrd
ISE 331	Computer Security	A-F Ugrd
ISE 332	Introduction to Visualization	A-F Ugrd
ISE 333	User Interface Development	A-F Ugrd
ISE 334	Intro to Multimedia Systems	A-F Ugrd
ISE 337	Scripting Languages	A-F Ugrd
ISE 340	Design of Computer Games	A-F Ugrd
ISE 364	Advanced Multimedia Techniques	A-F Ugrd
ISE 377	Intro to Medical Imaging	A-F Ugrd
ISE 378	Intro to Robotics	A-F Ugrd
ISE 390	Topics in Information Systems	A-F Ugrd
ISE 391	Topics in Information Systems	A-F Ugrd
ISE 392	Topics in Information Systems	A-F Ugrd
ISE 475	Undergrad Teaching Practicum	A-F Ugrd
ISE 487	Rsrch in Information Systems	A-F Ugrd
ISE 488	Information Systems Internship	Sat/Unsat
ITL 444	Experiential Learning	Sat/Unsat
ITL 459	Write Effectively in Italian	Sat/Unsat
ITL 475	Undergrad Teachng Practicum I	Sat/Unsat
ITL 476	Undergrad Teachng Practicum II	Sat/Unsat
ITL 488	Internship	Sat/Unsat
ITS 101	Introduction to Stony Brook	Sat/Unsat
ITS 102	Topics in Info & Tech Studies	A-F Ugrd
ITS 275	College Fellows Seminar	Sat/Unsat
ITS 276	College Fellows Practicum	Sat/Unsat
ITS 475	UGC Teaching Practicum	Sat/Unsat
ITS 488	UGC Internship	Sat/Unsat
JPN 444	Experiential Learning	Sat/Unsat
JPN 475	Undergrad Teachng Practicum I	Sat/Unsat

JPN 476	Undergrad Teachng Practicum II	Sat/Unsat
JPN 488	Internship	Sat/Unsat
JRN 111	Grammar and Editing Lab	Sat/Unsat
JRN 288	Campus Media Workshop	Sat/Unsat
JRN 444	Experiential Learning	Sat/Unsat
JRN 475	Teaching Practicum I	Sat/Unsat
JRN 476	Teaching Practicum II	Sat/Unsat
JRN 487	Independent Study	Sat/Unsat
JRN 488	Internship	Sat/Unsat
JRN 489	Specialized Internship	Sat/Unsat
KOR 444	Experiential Learning	Sat/Unsat
KOR 475	Undergrad Teachng Practicum I	Sat/Unsat
KOR 476	Undergrad Teachng Practicum II	Sat/Unsat
KOR 488	Internship	Sat/Unsat
LAC 488	Internship	Sat/Unsat
LAN 475	Practicum in Lang Teaching I	Sat/Unsat
LAN 476	Practicum in Lang Teaching II	Sat/Unsat
LAT 475	Undergrad Teaching Practicum	Sat/Unsat
LCR 488	Intern: Commnty Servic Learnng	Sat/Unsat
LDS 101	Introduction to Stony Brook	Sat/Unsat
LDS 102	Leadership and Service	A-F Ugrd
LDS 275	College Fellows Seminar	Sat/Unsat
LDS 276	College Fellows Practicum	Sat/Unsat
LDS 475	UGC Teaching Practicum	Sat/Unsat
LDS 488	UGC Internship	Sat/Unsat
LHD 307	Lab HIV Reduc in Campus Contxt	Sat/Unsat
LHD 308	Lab HIV Reduc in Campus Contxt	Sat/Unsat
LHD 475	Undergrad Teachng Practicum I	Sat/Unsat
LHD 476	Undergrad Teachng Practicum II	Sat/Unsat
LHD 488	Internship	Sat/Unsat
LHW 488	Internship in Health & Wellnes	Sat/Unsat
LIA 488	Internship in Arts Management	Sat/Unsat
LIN 444	Experiential Learning	Sat/Unsat
LIN 449	Field Experience, Grades N-12	Sat/Unsat
LIN 450	Field Experience, Grades N-12	Sat/Unsat
LIN 451	Sup Teaching ESL Grades N-6	Sat/Unsat
LIN 452	Sup Teaching ESL Grades 7-12	Sat/Unsat
LIN 475	Undergrad Teachng Practicum I	Sat/Unsat
LIN 476	Undergrad Teachng Practicum II	Sat/Unsat
LIN 488	Internship	Sat/Unsat
LSE 475	Undergrad Teaching Practicum	Sat/Unsat
MAE 451	Sup Teaching Grades 7-9	Sat/Unsat
MAE 452	Sup Teaching Grades 10-12	Sat/Unsat
MAP 101	Fundamentals of Arithm & Algeb	Remedial
MAP 103	Proficiency Algebra	DEVCRSES
MAR 447	Readings in Marine Science	Sat/Unsat

MAR 458	Speak Effectively Before/Aud	Sat/Unsat
MAR 459	Write Effectively	Sat/Unsat
MAR 475	Undergrad Teaching Practicum	Sat/Unsat
MAR 488	Internship	Sat/Unsat
MAT 160	Mathematical Problems & Games	Sat/Unsat
MAT 371	Logic	A-F Ugrd
MAT 444	Experiential Learning	Sat/Unsat
MAT 458	Speak Effectively Before/Aud	Sat/Unsat
MAT 459	Write Effectively	Sat/Unsat
MAT 475	Undergrad Teaching Practicum	Sat/Unsat
MEC 101	Freshman Design Innovation	A-F Ugrd
MEC 102	Engrg Computg & Prob Solvg	A-F Ugrd
MEC 203	Eng Graphics and CAD	A-F Ugrd
MEC 213	Studies in Nanotechnology	A-F Ugrd
MEC 214	Probability and Statistics	A-F Ugrd
MEC 220	Practical Electeronics MechEng	A-F Ugrd
MEC 225	Fund of Machining Practices	A-F Ugrd
MEC 260	Engineering Statics	A-F Ugrd
MEC 262	Engineering Dynamics	A-F Ugrd
MEC 300	Tech Commun in Mech Engrng	Sat/Unsat
MEC 301	Thermodynamics	A-F Ugrd
MEC 305	Heat and Mass Transfer	A-F Ugrd
MEC 310	Introduction to Machine Design	A-F Ugrd
MEC 316	Mech Engrng Lab I	A-F Ugrd
MEC 317	Mechanical Engineering Lab II	A-F Ugrd
MEC 320	Num Methods Eng Des Anal	A-F Ugrd
MEC 325	Manufacturing Processes	A-F Ugrd
MEC 363	Mechanics of Solids	A-F Ugrd
MEC 364	Intro to Fluid Mechanics	A-F Ugrd
MEC 393	Engineering Fluid Mechanics	A-F Ugrd
MEC 398	Thermodynamics II	A-F Ugrd
MEC 400	Research and Nanotech	A-F Ugrd
MEC 402	Mechanical Vibrations	A-F Ugrd
MEC 410	Design of Machine Elmnt	A-F Ugrd
MEC 411	Control Syst Analysis & Design	A-F Ugrd
MEC 422	Thermal System Design	A-F Ugrd
MEC 423	Internal Combustion Engines	A-F Ugrd
MEC 440	Mechanical Engrng Design I	A-F Ugrd
MEC 441	Mechanical Engrng Design II	A-F Ugrd
MEC 442	Intro Experim Stress Analysis	A-F Ugrd
MEC 450	Mechatronics	A-F Ugrd
MEC 455	Applied Stress Analysis	A-F Ugrd
MEC 456	Intro Engineering Composites	A-F Ugrd
MEC 457	Engin Composites Fabr & Char	A-F Ugrd
MEC 464	Fundamentals of Aerodynamics	A-F Ugrd
MEC 465	Aerospace Propulsion	A-F Ugrd

MEC 470	Introduction to Tribology	A-F Ugrd
MEC 475	Undergrad Teaching Practicum	A-F Ugrd
MEC 488	Mechanical Engrng Internship	Sat/Unsat
MEC 491	Topics in Mechanical Engrng	A-F Ugrd
MEC 492	Topics in Mechanical Engrng	A-F Ugrd
MEC 495	Professional Engineering Semin	Sat/Unsat
MEC 499	Research in Mechanical Engrng	A-F Ugrd
MUS 444	Experiential Learning	Sat/Unsat
MUS 459	Write Effectively	Sat/Unsat
MUS 475	Undergrad Teachng Practicum I	Sat/Unsat
MUS 476	Undergrad Teachng Practicum II	Sat/Unsat
MUS 488	Internship	Sat/Unsat
MVL 475	Undergrad Teachng Practicum I	Sat/Unsat
MVL 476	Undergrad Teachng Practicum II	Sat/Unsat
PHI 444	Experiential Learning	Sat/Unsat
PHI 458	Speak Effectively Before/Aud	Sat/Unsat
PHI 459	Write Effectively/Philosophy	Sat/Unsat
PHI 475	Undergrad Teaching Practicum I	Sat/Unsat
PHI 476	Undergrad Teaching Practicum II	Sat/Unsat
PHY 100	Physics Head Start	Sat/Unsat
PHY 444	Experiential Learning	Sat/Unsat
PHY 459	Write Effectively in Physics	Sat/Unsat
PHY 475	Undergrad Teaching Practicum	Sat/Unsat
POL 287	Intro Rsrch in Political Sci	Sat/Unsat
POL 444	Experiential Learning	Sat/Unsat
POL 458	Speak Effectively Before/Aud	Sat/Unsat
POL 459	Write Effectively	Sat/Unsat
POL 475	Undergrad Teaching Practicum I	Sat/Unsat
POL 476	Undergrad Teaching Practicum II	Sat/Unsat
POL 488	Internship	Sat/Unsat
POL 489	Washingtn or Albany Internship	Sat/Unsat
PSY 273	Supervised Rsrch in Psychology	Sat/Unsat
PSY 283	Applications & Community Serve	Sat/Unsat
PSY 285	Infant-Preschool Dev Practicum	Sat/Unsat
PSY 444	Experiential Learning	Sat/Unsat
PSY 459	Write Effectively/Psychology	Sat/Unsat
PSY 475	Undergrad Teaching Practicum I	Sat/Unsat
PSY 476	Undergrad Teaching Practicum II	Sat/Unsat
PSY 488	Internship	Sat/Unsat
RLS 444	Experiential Learning	Sat/Unsat
RLS 459	Write Effectively in RLS	Sat/Unsat
RLS 475	Undergrad Teaching Practicum	Sat/Unsat
RUS 444	Experiential Learning	Sat/Unsat
RUS 475	Undergrad Teaching Practicum I	Sat/Unsat
RUS 476	Undergrad Teach Practicum II	Sat/Unsat
SBC 475	Undergrad Teaching Practicum	Sat/Unsat

<b>SBC 476</b>	Undergrad Teaching Practicum I	Sat/Unsat
<b>SBU 101</b>	Introduction to Stony Brook	Sat/Unsat
<b>SBU 301</b>	Global Issues	Sat/Unsat
<b>SCH 101</b>	Introduction to Stony Brook	Sat/Unsat
<b>SCH 275</b>	Scholars Fellows Seminar	Sat/Unsat
<b>SCH 276</b>	Scholars Fellows Practicum	Sat/Unsat
<b>SCH 475</b>	Scholars Teaching Practicum	Sat/Unsat
<b>SCH 488</b>	University Scholars Internship	Sat/Unsat
<b>SCI 449</b>	Field Experience, Grades 7-12	Sat/Unsat
<b>SCI 450</b>	Field Experience, Grades 7-12	Sat/Unsat
<b>SCI 451</b>	Sup Teaching Sci: Grade 7-9	Sat/Unsat
<b>SCI 452</b>	Sup Teaching Sci: Grade 10-12	Sat/Unsat
<b>SLN 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>SLN 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>SOC 444</b>	Experiential Learning	Sat/Unsat
<b>SOC 459</b>	Write Effectively in Sociology	Sat/Unsat
<b>SOC 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>SOC 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>SOC 488</b>	Internship	Sat/Unsat
<b>SPN 444</b>	Experiential Learning	Sat/Unsat
<b>SPN 459</b>	Write Effectively in Spanish	Sat/Unsat
<b>SPN 475</b>	Undergrad Teaching Practicum	Sat/Unsat
<b>SSE 449</b>	Field Experience, Grades 7-12	Sat/Unsat
<b>SSE 450</b>	Field Experience, Grades 7-12	Sat/Unsat
<b>SSE 451</b>	Suprvsd Teaching Grades 7-9	Sat/Unsat
<b>SSE 452</b>	Suprvsd Teaching Grades 10-12	Sat/Unsat
<b>SSE 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>SSE 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>SSO 101</b>	Introduction to Stony Brook	Sat/Unsat
<b>SSO 102</b>	Science and Society	A-F Ugrd
<b>SSO 275</b>	College Fellows Seminar	Sat/Unsat
<b>SSO 276</b>	College Fellows Practicum	Sat/Unsat
<b>SSO 475</b>	UGC Teaching Practicum	Sat/Unsat
<b>SSO 488</b>	UGC Internship	Sat/Unsat
<b>SUS 444</b>	Experiential Learning	Sat/Unsat
<b>SUS 487</b>	Research in Sustainability Stu	Sat/Unsat
<b>SUS 488</b>	Internship in Sustainability	Sat/Unsat
<b>THR 298</b>	Student Media Leadership	Sat/Unsat
<b>THR 444</b>	Experiential Learning	Sat/Unsat
<b>THR 459</b>	Write Effectively in THR	Sat/Unsat
<b>THR 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>THR 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>THR 488</b>	Internship	Sat/Unsat
<b>WRT 101</b>	Introductory Writing Workshop	ABC/U
<b>WRT 102</b>	Intermediate Writing Workshop	ABC/U
<b>WRT 444</b>	Experiential Learning	Sat/Unsat

<b>WRT 488</b>	Internship	Sat/Unsat
<b>WSE 488</b>	WISE Internship	Sat/Unsat
<b>WST 287</b>	Research in Women's Studies	Sat/Unsat
<b>WST 444</b>	Experiential Learning	Sat/Unsat
<b>WST 458</b>	Speak Effectively/Audience	Sat/Unsat
<b>WST 459</b>	Write Effectively in WST	Sat/Unsat
<b>WST 475</b>	Undergrad Teachng Practicum I	Sat/Unsat
<b>WST 476</b>	Undergrad Teachng Practicum II	Sat/Unsat
<b>WST 488</b>	Internship	Sat/Unsat

## 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 Course Designators

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.

#### 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.

#### 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.

#### Course Placement

Stony Brook University does not accept local LOTE Regents scores for credit, placement, or as a means of satisfying general education requirements.

Foreign language departments at Stony Brook offer language placement exams so that students with a background in a foreign language may place out of the general education foreign language requirement.

#### 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.
4. If a student has scored a grade on a test or examination that awards equivalency for a specific Stony Brook course, the Stony Brook course may not be taken without permission as the university repeat rules apply. Students may not receive credit for an exam or test that awards a course equivalency in addition to receiving credit for the Stony Brook course.

### Retaking Courses

1. First time takers of courses have priority in registration. Students who wish to retake a course (second attempt) may begin retake registration on or about August 15 for fall classes and on or about January 15 for spring classes, pending an open seat. The second attempts for winter and summer classes are permitted during the open enrollment date noted on the Registrar’s Office academic calendar.
2. Seats in high demand fall and spring classes, noted as High Demand/Controlled Access (HD/CA) courses, are reserved for first time takers and new students through the end of the orientation registration period. Therefore, there is no guarantee of a seat in the case of a second or more attempt. Students who wish to retake HD/CA courses should consider doing so in the summer and winter sessions, if possible.  
HD/CA courses:  
AMS 102, AMS 110, AMS 151, AMS 161, AMS 310  
ANP 300  
BIO 201, BIO 202, BIO 203, BIO 204, BIO 205, BIO 207, BIO 315, BIO 358  
CHE 129/CHE 131, CHE 132, CHE 133, CHE 152, CHE 321, CHE 322, CHE 331, CHE 332, CHE 326  
CSE 114  
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 125, PHY 126, PHY 127, PHY 133, PHY 134  
POL 201  
PSY 201, PSY 310  
SOC 202
3. 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 (note that a grade of 'W' does count as a grade; see [http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/records\\_registration/grading\\_system.php](http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/records_registration/grading_system.php)).
4. 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.
5. Students who retake a course may not exercise the G/P/NC option for that course.
6. Students who wish 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.
7. Academic departments and general academic advising units may deny or deregister a student’s second or more attempt of a class(es) under certain circumstances, including:
  1. Not making sufficient major entry and/or major progress.
  2. Earning below a 2.0 cumulative GPA.
  3. Retaking two or more courses in the same semester.
  4. Retaking a course after earning a C or better on the first attempt.
8. Students seeking to take courses at other institutions should review course equivalencies at [www.stonybrook.edu/transfer](http://www.stonybrook.edu/transfer). If a course is not already included on this list, students should seek pre-approval from the relevant department at Stony Brook and file a Transfer Course Evaluation Form with Academic and Transfer Advising Services.

### 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

Stony Brook's general education curriculum (the Diversified Education Curriculum-D.E.C. and Stony Brook Curriculum-SBC), is outlined in the section on Graduation Requirements. Transferred courses must carry at least 3 semester hours of credit to be applicable to any D.E.C. category or Entry Skill or SBC category.

College of Arts and Sciences, College of Business, School of Marine and Atmospheric Sciences, School of Journalism

1. All D.E.C. categories, Entry Skills or SBC learning objectives may be met either through a specified examination, through courses taken at Stony Brook, or through transfer of equivalent courses, unless specified otherwise. Satisfaction of these requirements will be evaluated at the time of matriculation.
2. All students may satisfy D.E.C. categories and SBC learning objectives by transferring from regionally accredited colleges and universities coursework that meets the criteria of the category. Survey and introductory courses will not satisfy D.E.C. categories I, J, and K or SBC learning objectives STEM+, SBS+, HFA+, or EXP+.
3. D.E.C. 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. SBC learning objectives GLO and SBC learning objective EXP+ may be satisfied by transfer of six credits of approved college-level study abroad.
4. A course evaluated to be equivalent to a Stony Brook course will satisfy the D.E.C. or SBC learning objective of the Stony Brook course.

Note: Students may transfer credits to satisfy the D.E.C. category A or SBC learning objective WRT only with approved courses completed *prior* to matriculation at Stony Brook. Course work taken at institutions other than Stony Brook after matriculation will not apply to DEC A or SBC WRT.

College of Engineering and Applied Sciences

1. All D.E.C. categories, Entry Skills or SBC learning objectives may be met either through a specified examination, through courses taken at Stony Brook, or through transfer of equivalent courses, unless specified otherwise. Satisfaction of these requirements will be evaluated at the time of matriculation.
2. All students may satisfy appropriate D.E.C. categories and SBC learning objectives by transferring from regionally accredited colleges and universities coursework that meets the criteria of the category. Survey and introductory courses will not satisfy D.E.C. categories I, J, and K or SBC learning objectives STEM+, SBS+, HFA+, or EXP+. (Candidates for the B.E. degree are not required to complete D.E.C. category K.)
3. D.E.C. 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. SBC learning objectives GLO and SBC learning objective EXP+ may be satisfied by transfer of six credits of approved college-level study abroad.
4. A course evaluated to be equivalent to a Stony Brook course will satisfy the D.E.C. or SBC learning objective of the Stony Brook course.

Note: Students may transfer credits to satisfy the D.E.C. category A or SBC learning objective WRT only with approved courses completed *prior* to matriculation at Stony Brook. Course work taken at institutions other than Stony Brook after matriculation will not apply to DEC A or SBC WRT.

SUNY General Education Requirements and Stony Brook Equivalents

All students must satisfy Stony Brook's Entry Skills and Diversified Education Curriculum (D.E.C.) requirements or Stony Brook Curriculum (SBC) learning objectives, based on date of matriculation. (see link for more information) Skill and D.E.C. requirements, and SBC learning outcomes may be satisfied by transfer as noted above. Students with transfer credits from another SUNY college or university and who have satisfied specific SUNY general education requirement may be able to apply these courses toward Stony Brook's Skill and D.E.C. requirements, or the SBC learning objectives.

The following two charts detail *typical* equivalent Stony Brook categories for courses or credits transferred to Stony Brook from another SUNY institution completed with a grade of C or higher, with some exceptions. These charts do not indicate exact equivalencies between the DEC and SBC and are subject to Stony Brook transfer policies. SUNY allows campuses to have requirements that exceed the SUNY GER.

Click [here for a chart](#) detailing *Diversified Education Curriculum* categories for courses or credits transferred *from* another SUNY institution *to* Stony Brook.

Click [here for a chart](#) detailing *Stony Brook Curriculum* learning objectives for courses or credits transferred *from* another SUNY institution *to* Stony Brook.

Back to:

- Records and Registration
- The Stony Brook Curriculum (SBC)
- The Diversified Education Curriculum (D.E.C.)

## 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 C or higher in any course taken. Students should use our viewable chart when looking for classes to take at other Universities. If a class that you wish to enroll in is not found in our viewable chart, you will need to fill out a Transfer Course Evaluation form and have the course evaluated. The viewable chart is available at [http://www.stonybrook.edu/commcms/advising/\\_transferinfo/course\\_eqiv.html](http://www.stonybrook.edu/commcms/advising/_transferinfo/course_eqiv.html). All courses chosen must be applicable to your degree requirements. Forms for securing prior approval are available in the Undergraduate Academic and Transfer Advising Services 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 Academic and Transfer Advising Services 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 unless the course has already been evaluated and is in the transfer viewable chart.

#### Summer and Winter Study Elsewhere

To ensure that courses will be fully acceptable for transfer credit, students planning to take summer or winter courses elsewhere should discuss their plans in advance with both the appropriate departmental academic advisor and the Academic and Transfer Advising Services Office. If the student plans to transfer courses that are not on our viewable chart, 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 Academic and Transfer Advising Services 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.

To ensure the quality of external academic programs from which we accept credit, including meeting the University standard number of contact hours per course, students will be limited to taking a maximum of 4 credits collectively from all approved institutions during the Winter Session.

For Summer Sessions, students will be allowed to complete 18 credits collectively from all approved institutions but no more than 9 credits in a single Summer Session.

## 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, IB, Regents College Examinations, and Stony Brook's own Challenge Program (see below). Credit by examination may not be used to satisfy Diversified Education Curriculum requirements or Stony Brook Curriculum learning objectives except as follows: They may be used to satisfy one course in each of D.E.C. categories E, F, and G, and AP credit may be used to satisfy the first course of category A and category C. AP credit can be used to satisfy many SBC learning objectives. See the AP credit chart in this Bulletin. 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 a faculty or staff member in the Language Learning Resource Center, certifying eligibility before making payment or scheduling an exam. For more information, visit [www.stonybrook.edu/llrc](http://www.stonybrook.edu/llrc).

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.
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, or credited through examination.
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, Japanese, or Korean Teacher Preparation Program: Students enrolled in the CHI, JPN, or KOR Teacher Preparation Program may earn up to twenty-one (21) Challenge Exam credits. They are exempt from items 4, 7 and 8 noted above, but are not permitted to enroll in CHI 111, JPN 111, or KOR 111 if they receive Challenge Exam credit for any CHI, JPN, or KOR 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>. 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>.

### Disciplinary Action Notation on Transcript

A record of disciplinary action shall be placed on a student's academic transcript in the following cases:

1. All cases in which the sanction imposed is expulsion or suspension from the University (this includes but is not limited to cases in which a student is found responsible for an act of violence that meets the reporting requirements found in the Clery Act at 20 U.S.C. § 1092 (f) (1)(F)(i)(I)-(VIII) (referred to below as Clery conduct)). A notation will be placed which states, "suspended [or expelled] after a finding of responsibility for a code of conduct violation". Further, if a Respondent withdraws (officially or unofficially) from the University while Clery conduct charges are pending and fails to complete the disciplinary process, a notation will be placed which states, "withdrew with conduct charges pending";
2. An academic dishonesty determination; or
3. When a sanction that is imposed is not completed by the student. In this instance, in addition to an academic transcript notation, an administrative 'block' will be placed on the student's academic record. The transcript notation and the block will be removed upon the completion of the sanction.

Five (5) years after the conclusion of the suspension, or in the case of a sanction imposed and not completed five (5) years from the date that the sanction was due, the Vice President for Student Affairs (or designee), will consider written requests to remove the transcript notation. A transcript notation that a student "withdrew with conduct charges pending" may only be removed by completing the disciplinary process.

Transcript notations of expulsions and academic dishonesty are permanent and requests for removal will not be heard. However, if at any time a finding of responsibility is vacated for any reason, the resulting transcript notation shall be removed.

### 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.

Diplomas take 4-6 weeks to receive after the degree has been completed and posted to the record.

### Degrees Awarded Posthumously

Upon request, the University may award a degree posthumously. Any such request requires the following for consideration:

1. The parent, legal guardian, partner, relative or legal equivalent must provide a written request to the University Registrar.
2. The student must have been enrolled and in good disciplinary and academic standing at the time of passing.
3. The student must have completed at least 90% of degree requirements.
4. The Chair of the major department must provide a letter of recommendation in support of the request.

The appropriate Vice Provost will have final authority for the approval and awarding of a posthumous degree.

### Degree Requirements

- Overview - Degree Requirements
  - One or more Majors
  - General Degree Requirements
  - General Education
    - Stony Brook Curriculum (SBC) Requirement
      - Learning Objectives and Outcomes
      - SBC in relation to SUNY General Education Requirements
      - Related Links
    - Diversified Education Curriculum (D.E.C.) Requirement
      - Entry Skills
      - Requirements for Majors in CAS, CoB, SoMAS, and School of Journalism
      - Requirements for Majors in CEAS
      - D.E.C. in relation to SUNY General Education Requirements
      - Related Links

### 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.

### Academic Major

All students are required to declare and complete the requirements of an academic major prior to receiving a degree.

- Index of Majors and Minors
- Declaration and Change of Major
- Restricted Majors
- Double Majors
- Double Degrees

Overview-Degree Requirements << Degree Requirements >> General Degree Requirements

### 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 conferral of a degree is conditional 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 in Stony Brook courses.

#### 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 overseas academic programs may count towards residency under the following circumstances:
  - SBU sponsored programs led by SBU faculty offering existing SBU coursework count towards residency.
  - SBU sponsored programs at SBU partner universities overseas (for which students register for FSY 249) may be counted toward residency, pending approval from the Office of Undergraduate Education.
  - Programs sponsored by SUNY institutions other than SBU (for which students register for FSY 249) may be counted toward residency, pending approval from the Office of Undergraduate Education.
  - Programs sponsored by entities outside the SUNY system 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 upper-division 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 section.

If a student completes a lower-division course at Stony Brook that exempts the student from an upper-division course, the student may not receive upper-division credit toward the university upper-division requirement for completing the lower-division course.

### General Education Requirements

All students must complete General education requirements by completing either the Diversified Education Curriculum or the Stony Brook Curriculum, as defined below.

The following groups of students will complete the general education requirements as defined by the Stony Brook Curriculum, commonly referred to as SBC.

- Freshmen who matriculate in the Fall of 2014 or later
- Transfer students who matriculate in the Spring of 2015 or later
- All students matriculating at SUNY Korea
- Students who rematriculate in the Fall of 2014 or later

*Students who are not in the above groups will complete the D.E.C. D.E.C. requirements for each student are published in the Bulletin that was current as of the first semester of matriculation (or rematriculation).*

### 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 Bulletin.

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 Bulletin.

### General Education Requirements: Stony Brook Curriculum

The Stony Brook Curriculum includes both breadth and depth of study (provided by both the SBC learning objectives and the major requirements), as well as ensuring skills necessary for life-long learning. The SBC categories and learning objectives are described in detail in a designated section of this Bulletin.

#### D.E.C. Upper-Division Writing Requirement/SBC Write Effectively within One's Discipline (WRTD)

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.

For students following the Diversified Education Curriculum, 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.

For students following the Stony Brook Curriculum, the SBC objective 'Writing Effectively within One's Discipline' (WRTD) fulfills the upper division writing requirement.

#### 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.

#### General Education

All students must complete General education requirements by completing either the Diversified Education Curriculum or the Stony Brook Curriculum.

The following groups of students will complete the general education requirements as defined by the Stony Brook Curriculum, commonly referred to as SBC.

- Freshmen who matriculate in the Fall of 2014 or later
- Transfer students who matriculate in the Spring of 2015 or later
- All students matriculating at SUNY Korea
- Students who rematriculate in the Fall of 2014 or later

*Students who are not in the above groups will complete the D.E.C. D.E.C. requirements for each student are published in the Bulletin that was current as of the first semester of matriculation (or rematriculation).*

#### The Stony Brook Curriculum (SBC) Requirement

The following groups of students will complete the general education requirements as defined by the Stony Brook Curriculum, commonly referred to as SBC.

- Freshmen who matriculate in the Fall of 2014 or later
- Transfer students who matriculate in the Spring of 2015 or later
- Students who matriculate in the School of Nursing Fall 2015 or later
- Students who matriculate in the School of Social Welfare Fall 2015 or later
- Students who matriculate in the Athletic Training major, Respiratory Care major, or Clinical Laboratory Sciences major in the Summer of 2016 or later
- All students matriculating at SUNY Korea
- Students who rematriculate in the Fall of 2014 or later

*Students who are not in the above groups will complete the D.E.C. D.E.C. requirements for each student are published in the bulletin that was current as of matriculation (or rematriculation).*

The Stony Brook Curriculum includes both breadth and depth of study (provided by both the SBC learning objectives and the major requirements), as well as ensuring skills necessary for life-long learning. The SBC learning objectives are described in detail in a designated section of this Bulletin and are organized into four categories:

- Demonstrate Versatility
- Explore Interconnectedness
- Pursue Deeper Understanding
- Prepare for Life-Long Learning

The course section in this Bulletin includes information specifying the SBC learning objectives that each course satisfies, if any. Courses may simultaneously satisfy multiple graduation requirements, including but not limited to the SBC, the major, the minor and others.

Note on Courses Satisfying SBC learning objectives:

- A student's general education record may not be changed retroactively. The University may change the SBC category or learning objectives 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.
- For a number of semesters, the student population at Stony Brook University will include students who are pursuing either the Diversified Education Curriculum OR the Stony Brook Curriculum. Therefore, enrollment in a given course may include students pursuing either D.E.C. or SBC. To facilitate degree progress of both groups of students, a course may satisfy D.E.C., SBC or both. However, the DEC category of a course is not always equivalent to the SBC learning objectives. A course satisfies only the categories in D.E.C. or SBC as approved by the Stony Brook faculty.
- In order to satisfy the SBC learning objectives, a passing letter grade or a grade of S must be earned in the corresponding course. Recorded grades of P, NC, U or F will not satisfy SBC learning objectives. LANG, WRT, and QPS learning objectives must be passed with a grade of C or higher.
- The inclusion of an SBC abbreviation indicates whether a course is approved to satisfy one or more sets of SBC learning objectives. If an SBC abbreviation does not appear with the course entry in the Bulletin, that course may not be used to satisfy any SBC learning objectives.
- College courses taken while the student was in high school will be evaluated for applicability to SBC learning objectives.
- Transferred courses must carry at least three semester hours of credit to be applicable to any learning objective.

### The Stony Brook Curriculum (SBC)

The Stony Brook Curriculum includes both breadth and depth of study, and ensures that students will learn skills necessary for life-long learning. Use the course search to search for courses that complete SBC learning objectives.

Through the general education curriculum, students will:

**DEMONSTRATE VERSATILITY** by showing proficiency in each of ten fundamental learning objectives:

- Explore and Understand the Fine and Performing Arts (ARTS)
- Engage Global Issues (GLO)
- Address Problems using Critical Analysis and the Methods of the Humanities (HUM)
- Communicate in a Human Language Other than English (LANG) (see Note)
- Master Quantitative Problem Solving (QPS)
- Understand, Observe, and Analyze Human Behavior and the Structure and Functioning of Society (SBS)
- Study the Natural World (SNW)
- Understand Technology (TECH)
- Understand the Political, Economic, Social, and Cultural History of the United States (USA)
- Write Effectively in English (WRT)

Note: CEAS majors, the Athletic Training major, the Respiratory Care major, and the Clinical Laboratory Sciences major are exempt from the LANG learning objective. Students enrolled in the major in Social Work are exempt from the LANG learning objective, but are required to enroll in and pass with a letter grade of C or higher the first semester of an elementary foreign language course numbered 111, or satisfy through alternate methods (see Communicate in a Human Language Other than English--LANG).

**EXPLORE INTERCONNECTEDNESS** by completing a course that examines significant relationships between Science or Technology and the Arts, Humanities, or Social Sciences (STAS).

**PURSUE DEEPER UNDERSTANDING** by completing advanced studies in *three of four* distinct areas of knowledge. A "+" sign in the abbreviations for these learning objectives signifies that most courses in this category will be relatively advanced courses at the 200- to 400-level. These learning objectives are:

- Experiential Learning (EXP+)
- Humanities and Fine Arts (HFA+)
- Social and Behavioral Sciences (SBS+)
- Science, Technology, Engineering, and Mathematics (STEM+)

**PREPARE FOR LIFE-LONG LEARNING** by taking (in most cases) courses which may also satisfy other SBC, major or other degree requirements.

- Practice and Respect Critical and Ethical Reasoning (CER)
- Evaluate and Synthesize Researched Information (ESI)
- Speak Effectively before an Audience (SPK)
- Write Effectively within One's Discipline (WRTD)

Students may reduce the number of courses needed to achieve the Stony Brook Curriculum learning objectives through university certified AP credit, courses certified in more than one area, challenge exams, on-campus placement tests, course waivers, and faculty-designed themed

course clusters. In accordance with SUNY policy, at a minimum, students must complete at least 30 credits of General Education awarded by an institution of higher education. In order to satisfy the SBC learning objectives, a passing letter grade or a grade of S must be earned in the corresponding course. Recorded grades of P, NC, U or F will not satisfy SBC learning objectives. LANG, WRT, and QPS learning objectives must be passed with a grade of C or higher.

A detailed list of the courses and activities that fulfill these objectives may be found in the university undergraduate Bulletin. Many of the above requirements may be fulfilled as part of a student's major or minor. For more information on the Stony Brook Curriculum in relation to SUNY General Education Requirements, see link.

### **Stony Brook Curriculum in relation to SUNY General Education Requirements**

The links below give a detailed overview of how the Stony Brook Curriculum relates to the SUNY General Education Requirements, and how SUNY General Education Requirements completed at other SUNY institutions relate to the Stony Brook Curriculum learning outcomes.

- Students transferring credits from Stony Brook to other SUNY campuses
- Students transferring credits from other SUNY campuses to Stony Brook

### **Related Links**

- Advanced placement
- Transfer Policies
- Transfer Applicants

### **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 indicated under the course description. Courses that satisfy the major can also be used to satisfy the appropriate D.E.C. category.

Students who matriculated at the university in the Spring semester of 2014 or earlier, and transfer students who matriculated in the Fall of 2014 or earlier, follow the Diversified Education Curriculum (D.E.C.). Other students will follow the Stony Brook Curriculum (SBC).

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 DEC designation is given within the course entry in the Bulletin, 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.
- 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.

### Entry Skills

As part of the Diversified Education Curriculum (D.E.C.), 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 prior to Fall 2011;
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 at least two years of formal language study 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 certified as Skill 3;
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 a course certified as Skill 4 (see <http://sb.cc.stonybrook.edu/bulletin/current/search/>)
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

#### **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 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. 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 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. 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

**Diversified Education Curriculum in relation to SUNY General Education Requirements**

The links below give a detailed overview of how the Diversified Education Curriculum relates to the SUNY General Education Requirements, and how SUNY General Education Requirements completed at other SUNY institutions relate to the Diversified Education Curriculum.

- Students transferring credits from Stony Brook to other SUNY campuses
- Students transferring credits from other SUNY campuses to Stony Brook

**Related Links**

- Advanced placement
- Transfer Policies
- Transfer Applicants

**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.

## Class Standing

A student's class standing is based on the number of credits earned before the beginning of each semester, as follows:

U1 Freshman	0-23 credits
U2 Sophomore	24-56 credits
U3 Junior	57-84 credits
U4 Senior	85 credits or more

## 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 -> suspended	Suspension	Advising/Petition required

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		
	Conditional Reinstatement	Contract required
Not meeting conditions of conditional reinstatement contract	Dismissal	

## Integrity

### Committees on Academic Standing and Appeals (CASA)

Undergraduate students with a declared major or area of interest 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. CEAS programs include applied mathematics and statistics, biomedical engineering, chemical and molecular engineering, civil 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-nursing GNS, excluding those with an area of interest in a CEAS program) 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 G/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 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

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 Academic and Transfer Advising Services 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. Instructors must be present for the complete duration of examinations.
- 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.
- 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. Grades shall be submitted in accordance to university policy #P207 <http://www.stonybrook.edu/policy/policies.shtml?ID=207>
- 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.
- A written syllabus that clearly defines the content, course requirements and the learning objective(s) and outcomes 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:
  - Explicit Learning objectives to specify student expectations
    - For courses that satisfy the Stony Brook Curriculum and/or the Diversified Education Curriculum, the syllabus learning outcomes must incorporate the specific learning outcomes that have been approved for that course by the faculty.
  - instructor office hours
  - the specific basis for calculating the final grade
  - information about examination dates and times
  - the class policy on make-up exams, which must be consistent with university policy on Student Participation in University Sponsored Events, the policy on Final Exams and the New York State Education Law regarding Equivalent Opportunity and Religious Absences.

- a detailed course description from the Bulletin. Instructors may expand on the Bulletin description but not reduce or modify the Bulletin description.
- a tentative schedule of required readings and/or assignments.
- required course materials and textbooks
- the Provost's statements on Disability Support Services (DSS), Academic Integrity, and Critical Incident Management. See details below.

#### Required Syllabi Statements

The University Senate has authorized that the following required statements appear in all teaching syllabi on the Stony Brook Campus. This information is also located on the [Provost's website](#).

#### ***Disability Support Services (DSS) Statement:***

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

*[In addition, this statement on emergency evacuation is often included, but not required:*

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities> ]

#### ***Academic Integrity Statement:***

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. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at [http://www.stonybrook.edu/commcms/academic\\_integrity/index.html](http://www.stonybrook.edu/commcms/academic_integrity/index.html)

#### ***Critical Incident Management Statement:***

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

#### **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, enrollment status, participation in officially recognized activities, dates of attendance and date of graduation, and degrees and awards received.

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
- Restricted Majors
- Double Majors
- Double Degrees
- Second Bachelor's Degree Program
- SBC Integrated Course Clusters

### 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. Students planning to pursue a major in the College of Engineering and Applied Sciences (CEAS) should consult with an advisor in the CEAS Undergraduate Student Office.

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, the general education requirement, and electives.

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, Civil 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 Majors

Most majors in the Health Sciences 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 four programs that students can declare as a major beginning in freshman year: clinical laboratory sciences, respiratory care, athletic training, 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 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. To achieve

clarity for faculty, students, and staff as students progress through their undergraduate career, this policy addresses a common student question: Which major and minor requirements apply to me?

**Students will be responsible for fulfilling the requirements as published in the official undergraduate Bulletin for the semester and year in which the student declares the major or minor.** This semester and year is referred to as the 'requirement term' corresponding to the requirements needed for the major or minor and is noted on the student record. See *Selecting an Academic Program and About Academic Policies* in this Bulletin.

Students may declare most majors upon application to the University or during their undergraduate studies. Students who declare a major at the point of application must consult with the department or program director during their first semester of matriculation. Students who declare or change a major or minor once enrolled at the University must confer with the department or program director to obtain a signature on the major/minor declaration form. Note that some majors are restricted; see restricted majors in this Bulletin. An area of interest (AOI) is not considered a declared major.

A student may have one particular requirement term (i.e., the semester and year) noted on the student record for a first major or minor, and a different requirement term noted on the student record for a second major or minor, depending on when the student declared each.

Students who return after taking time off may be assigned a new matriculation date depending on the length of absence and the degree program. In this case, students 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 *Taking Time Off* in this Bulletin.

Special circumstances may provide justification for a student to change a program requirement term to a semester and year other than those defined above (for example, if a student has been pursuing a major or minor in practice, but has not yet declared the major or minor; or if the requirements of a major or minor change and the student proposes to follow the new requirements). Students requesting a change in their requirement term must receive documented approval from the department or program director. The details of an approved exception or modification must be transmitted by the academic department to the Registrar.

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.

Students seeking substitutions or modifications of specific major or minor requirements must receive approval from the undergraduate program director.

### 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.

### 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. 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.

### 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.

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. requirements or SBC learning objectives for the College of Engineering and Applied Sciences are required.

Note 2: Students in the School of Nursing and the School of Social Welfare are not permitted to pursue a double major – only double degrees are permitted. Students in the School of Health Technology and Management may choose to pursue a double major, but the HTM major must be listed as the primary major. Written approval from the Dean of the Health Sciences' School in which the student is enrolled and the west campus department or program is required.

### **Double Majors for Students in the College of Arts and Sciences, the College of Business, Health Sciences Schools, the School of Marine and Atmospheric Sciences, the School of Journalism, and the College of Engineering and Applied Sciences\***

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 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.

\*Additional majors will be considered upon the approval of the respective colleges

\*\*Students with double majors seeking an exception to the policy to change their priority (first major) must appeal to the Division of Undergraduate Education for students majoring within CAS, SOMAS, SOJ, COB; and to the College of Engineering and Applied Sciences Undergraduate Student Office for students majoring within CEA. No exceptions are granted for students in the Health Sciences Schools.

## 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 student completes the requirements noted below. See paragraphs at the end of this section for additional restrictions. Notation of the successful completion of both degrees is made on the student's record and appears on all transcripts made from that record.

### Double Degree Options:

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 or SBC learning objectives 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, polysomnographic technology, 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 Education.

### Double Degree Requirements:

1. Certification of completion of each major or program by the appropriate department or school
2. Completion of University graduation requirements
3. Completion of general education requirements of each college as appropriate
4. Minimum GPA and minimum unduplicated coursework as required for each major and degree
5. Completion of 144 credits

### Requirements within the minimum 144 credits for double degrees with the Health Sciences programs:

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 Health Sciences program 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. 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.

Students pursuing a Second Bachelors degree who matriculated prior to Spring 2015 are required to fulfill D.E.C. categories H, I, J, and K through coursework taken at Stony Brook University under the Second Bachelors degree program. Prior DEC H, I, J, and K courses taken at Stony Brook University do not count toward the Second Bachelors degree program.

Second Bachelor's degree students who matriculated Spring 2015 or later are not required to satisfy SBC learning objectives outside of the requirements described above.

### **Stony Brook Curriculum Integrated Course Clusters**

SBC Integrated Course Clusters enable students to develop another area of specialization without the full depth of an academic major or academic minor. A Stony Brook Curriculum Integrated Course Cluster is a specified sequence or concurrently scheduled set of three to five courses that are linked by a central theme and work together to give students an integrated understanding of the topic from various perspectives.

#### **Overview**

All SBC Integrated Course Clusters must be certified by the faculty certification committee. The certification process shall consider the collection of learning outcomes provided by the course list against the collection of learning outcomes from the skill areas it is proposed to address. A course cluster shall satisfy a maximum average of two Stony Brook Curriculum learning objectives per course in the approved cluster. Although not required, a course cluster should ideally culminate in a capstone experience specifically designed to synthesize the learning into a cross-disciplinary topic. In many cases, the courses of the cluster may be taken individually, although students who take them as a group should reap the greatest benefit. Courses may be certified to meet certain SBC objectives individually, with additional objectives fulfilled upon completion of the entire cluster.

Student participation in an SBC Integrated Course Cluster is optional for most major programs and includes completing the required sequence or concurrent set of courses, as well as consultation with the faculty coordinator of the SBC Cluster initially and as work in the Cluster proceeds.

Some themed clusters may have limited availability, specialized prerequisites or admission requirements, or may be integrated into major or minor requirements.

Descriptions of SBC Integrated Course Clusters, along with their requirements, are published among the alphabetical listings of Approved Majors, Minors, and Programs. Cluster entries include the name and academic affiliation of the coordinator and additional information such as office location, phone number, and e-mail and Web addresses where available. For more information, consult the relevant Cluster coordinator or the appropriate academic advisor.

To ensure proper notation on the transcript and for proper allocation of financial aid (e.g., the NYS Tuition Assistance Program), students must declare an SBC Integrated Course cluster by submitting the appropriate form to the Registrar's Office. 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 an SBC Integrated Course Cluster officially; the signature of the SBC ICC coordinator is required. Although clusters are not noted on diplomas, completion of an SBC Integrated Course Cluster is noted on the student transcript.

### **Special Academic Opportunities**

- Accelerated Bachelor's and Master's Degrees
- Graduate Courses
- The Honors College
- Independent Study
- International Academic Programs
- Internship Program
- Internship and Job Opportunities for Students in CEAS
- National Student Exchange
- Post-Baccalaureate Pre-Health Program
- Scholars for Medicine/Scholars for Dental Medicine
- Undergraduate College Academies
- Undergraduate Research and Creative Activities Program (URECA)
- Undergraduate Teaching Assistantships
- University Scholars
- Women in Science and Engineering (WISE) Honors Program

### **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.

#### **College of Arts and Sciences Accelerated Degree Programs**

Several accelerated degree programs are available through the College of Arts and Sciences. Please consult with department advisors for eligibility and specific program requirements:

Biochemistry, B.S./Chemistry, M.S.  
Chemistry, B.S./M.S.  
Engineering Chemistry, B.S./Chemistry, M.S.  
Engineering Chemistry, B.S./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.

#### **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 Mathematics and Statistics, B.S./M.S.  
Applied Math and Statistics, B.S./M.P.H.  
Biomedical Engineering, B.E./M.S.  
Computer Engineering, B.E./M.S.  
Computer Science, B.S./M.S.  
Electrical Engineering, B.E./M.S.  
Engineering Science, B.E./Materials Science, M.S.  
Mechanical Engineering, B.E./M.S.  
Technological Systems Management, B.S./M.S.

#### **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.

## 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: Anne Moyer  
 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, one of the most selective academic programs 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 critical writing score of at least a 600, and record of advanced or college-level coursework. Demonstrated interests and talents in multidisciplinary activities and 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

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 HON 101 along with three 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. In addition to completing the Honors College Curriculum, Honors College students must fulfill the Stony Brook Curriculum general education learning objectives of WRT, QPS, LANG, SNW, TECH, and USA as outlined in the requirements for the College or academic unit in which they are enrolled. (SBC learning objectives for HUM, SBS, CER, ARTS, STAS, GLO, ESI, SPK, WRTD, and EXP+ are satisfied through completion of the Honors College Curriculum as detailed in A.).

Honors College students must also complete advanced studies in at least two of the three distinct areas of knowledge in SBC learning objectives of STEM+, SBS+, and HFA+. (These courses may overlap with major requirements). These courses must be passed with a grade of C or higher, and each course must be at least 3 credits.

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 last day of classes 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 LANG learning objectives 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: Pending

Office: E-1340 Melville Library

Phone: (631) 632-7030

Web site: <http://www.stonybrook.edu/studyabroad>

The office of International Academic Programs offers undergraduates the chance to study overseas while earning credits toward their degree. Programs are available for the academic year, semester, summer session, or winter intersession. Courses are available in English, although on

some programs proficiency in a foreign language is required. Students can take advantage of this opportunity as individual participants in an exchange at a foreign university, or as a group member of a Study Abroad program under the supervision of a Stony Brook faculty member.

### **Program Selection and Eligibility**

Students from all disciplines are encouraged to look at programs offered by Stony Brook University and at programs administered by other SUNY campuses. Details are available from the office of International Academic Programs.

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.

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. Please check the Study Abroad website for program-specific dates.

### **Course Load, Credits, and Grading**

Students typically earn between 12 and 18 credits per semester of overseas study and 4 to 9 credits during summer/intersession programs. Prior to participation students should determine the applicability of courses and credits to Stony Brook degree and major requirements, in consultation with their major department and the office of International Academic Programs.

### **Handshake**

Handshake is the Career Center's comprehensive online database for ALL types of experiential learning opportunities: campus jobs, other part- and full-time jobs, service projects, volunteer service positions, and paid, for-credit, and volunteer internships. In Handshake, students can post their resumes, access thousands of employers, sign up to attend Career Center events, meet hundreds of Stony Brook alumni and friends through the Career Advisors Network, view sample resumes and cover letters, and more!

Students can log in with NetID and password at [stonybrook.joinhandshake.com](http://stonybrook.joinhandshake.com). Handshake is also available as an iPhone app (Android version coming soon!)

### **Internships for Academic Credit**

The Career Center's EXT Internship Program is open to undergraduate students in the College of Arts and Sciences, College of Business, College of Engineering and Applied Sciences, School of Health Technology & Management, School of Journalism, School of Marine and Atmospheric Sciences, Sustainability Programs, and Undergraduate Colleges, enrolled at Stony Brook Manhattan, Stony Brook Southampton and the main Stony Brook campus.

An academic internship is a form of experiential education that integrates knowledge and theory learned in the classroom with practical application and skill development in a professional setting. An integral component of the experience that distinguishes it from other types of work is one or more forms of structured and deliberate reflection based on pre-determined learning objectives.

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 the cooperating agency or organization. Students may receive a total of no more than 12 internship credits from any course or courses, with the exception of EXT 288 from which students may earn up to 3 credits; EXT 288 is not repeatable. 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:

- A minimum overall GPA of 2.5 and completion of at least one semester at Stony Brook University; only matriculated SBU students may enroll in EXT.
- For EXT 288: Completion of WRT 102 or equivalent.
- For EXT 488: Completion of 57 credits prior to start of internship with at least U3 standing.
- Identification of a faculty sponsor, who will determine the credit value of the internship.

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 performance evaluations written by site supervisors, and other career-related assignments.

Any Stony Brook faculty member may sponsor an intern. However, students should confer with the undergraduate directors of their majors before starting internships.

Internship Manager: Urszula Zalewski  
Office: W-0550 Melville Library  
Phone: (631) 632-6810  
E-mail address: Urszula.Zalewski@stonybrook.edu  
Website: <http://www.stonybrook.edu/career>

## Internship and Job Opportunities for Students in the College of Engineering and Applied Sciences

An academic internship is a form of experiential education that integrates knowledge and theory learned in the classroom with practical application and skill development in a professional setting. Students earn academic credit, or there is some other connection to a degree-granting, educational institution. This work/learning arrangement is overseen by a faculty or staff member of an educational institution and by a designated employee of an organization. The internship is usually the length or equivalent of an academic term, may be part-time or full-time, paid or unpaid. An integral component of the experience that distinguishes it from other types of work is one or more forms of structured and deliberate reflection contained within learning agendas or objectives. Find out more using the following internship resources.

For specific CEAS internship postings please visit the CEAS blackboard page, [CEAS Facebook Page](#), the CEAS Undergraduate Student Office, or the [Career Center](#) at the base of the Zebra Path. To search for internships and other job opportunities, you should also register with Handshake.

Both the Undergraduate Student Office in CEAS and the Career Center offer resume review services. Please visit the Undergraduate Student Office in room 231 of the Engineering Building for more information.

## 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/prehealth/>

## 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 Honors Program, University Scholars, 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 Honors Program, or University Scholars. Eligibility criteria are: nomination of high school seniors by one of the three programs listed above; 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 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. For more information, please go to: <https://www.stonybrook.edu/undergraduate-admissions/academics/honors/>

### **Scholars for Dental Medicine and Engineering Scholars for Dental Medicine**

Stony Brook University offers two integrated eight-year programs for students interested in attending dental school following their undergraduate degrees. The Scholars for Dental Medicine program (SFDM) offers selected students in the Honors College an opportunity to complete a combined B.S. or B.A./D.D.S. course of study while participating in pre-dental school classes and activities. The Engineering Scholars for Dental Medicine (ESFDM) similarly offers students in the College of Engineering and Applied Sciences a combined B.E./D.D.S. course of study. Students accepted into either program are reserved a seat in Stony Brook University's School of Dental Medicine upon graduation provided they complete all applicable program requirements.

### **Undergraduate College Academies**

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>

Undergraduate College Academies integrate the student's residence hall experience with academic concerns and enrich both aspects of the college education. Stony Brook offers several Undergraduate College Academies: 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 Undergraduate College Academy buildings, as well as commuting students, may also participate in Undergraduate College Academy programs and take the minors. For minor requirements, see the specific listings in the Approved Majors, Minors, and Programs chapter.

#### **Community Service Undergraduate College Academies**

The Community Service Undergraduate College Academies, 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 Undergraduate College Academy, 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 Undergraduate College Academy, 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 Undergraduate College Academy, 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 Undergraduate College Academy, 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.

### **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.

### **Faculty Guidelines Regarding Undergraduate Teaching Assistants (TAs)**

The specifics of engaging undergraduate students in the teaching of courses is left to the discretion of the Deans of the Colleges and Schools, their faculty designees, and individual course instructors. Undergraduate Teaching Assistants have traditionally completed the courses in which they assist; as such they bring first-hand knowledge of the course from the student perspective, along with a degree of energy and enthusiasm. The establishment of a minimum overall and course GPA should be considered for undergraduate TAs. Serving as a TA is a powerful experiential learning opportunity.

Utilization of undergraduate TAs places additional responsibilities on the faculty. The teaching assignment must be tightly specified and guided by the course director. The relevant academic unit has an obligation to provide central oversight and to administer guidelines for the use of undergraduate TAs in its courses.

For all these reasons, the following guidelines are provided to assist faculty in the oversight of undergraduate students in the teaching mission:

- Faculty should have some knowledge of the students beyond their class performance. The course instructor should interview the prospective student; perhaps even having them give a "mock" classroom presentation or other relevant activity to ensure that the student will be effective as a teaching assistant.
- Faculty are encouraged to work with undergraduate TAs ahead of time to identify any potential peer conflicts. The course instructor should review the class roster with undergraduate TAs well in advance of the start of the semester to identify students who may present a conflict situation and address that thoroughly. In some cases, this may require the recusal of an undergraduate TA in work involving a particular student with whom they have a direct conflict-of-interest.

- Department (and relevant academic unit) leadership and faculty are all responsible to ensure that undergraduate TAs are aware of University policies on the maintenance of confidentiality, privacy protections, and professional standards concerning the use of grading records, grade reports, and related performance metrics for enrolled students with whom they work.
- Faculty should work with the students ahead of time to identify any schedule conflicts. Undergraduate TAs should obtain their course schedules and syllabi as far in advance of the start of the course as possible. Course instructors should work with the students to compare the teaching schedule with other courses to determine areas of difficulty, and attempt to resolve all scheduling issues prior to the start of classes.
- Course instructors are expected to provide all appropriate course-specific training for all undergraduate TAs.
- Faculty members are responsible for and should maintain oversight of course material prepared by undergraduate TAs. This includes material for lectures or recitations, test questions, homework questions, answer keys, or other related material.
- Best practice dictates that faculty must maintain frequent and reliable communication with all undergraduate TAs.
- Faculty must monitor undergraduate TA instructional performance. This may be done by periodically attending classes or other sessions led by the undergraduate TA, and by sampling the grading work the undergraduate TAs execute.
- The department (or relevant academic unit) is responsible to provide general oversight of the utilization of undergraduate TAs, serve as a resource for instructors seeking guidance with respect to the use of undergraduate TAs, provide timely reports to the unit leadership on all undergraduate TA issues, and provide undergraduate TAs a confidential resource to discuss any challenges or concerns in their work with individual faculty members.
- The department (or relevant academic unit) should obtain and evaluate feedback from the undergraduate TAs and graders on the quality of their teaching or grading experience for the semester. Best practice is to immediately obtain some feedback in the first few weeks of the semester to ensure a smooth start to instruction and to avoid any potential (and significant) difficulties.

### University Scholars Program

Web site: [www.stonybrook.edu/uscholars](http://www.stonybrook.edu/uscholars)

The University Scholars Program is a vibrant community of high-achieving students at Stony Brook. This program allows students to make connections with our world class faculty, participate in numerous activities, and obtain leadership and research opportunities on campus. The purpose is to create a community of learners focused around our three pillars of leadership, scholarship and service.

University Scholars is a four year program and is made up of some of the campus' most active student and community leaders. Students admitted into this program are among the top 9% of the incoming class academically. The Program is by invitation only.

Freshmen residing on-campus have the option of living with other Scholars in their Quad and enroll in a Scholars-only section of their First Year Seminar course to help foster a greater sense of community. All Scholars are eligible to attend special symposia and field trips, obtain special academic advising throughout their career at Stony Brook, participate in the Scholars Council, partake in a variety of outreach activities, and obtain priority registration for classes.

In addition to all the benefits noted above, new Scholars can also request a Peer Mentor (an upperclassman who has been a member of the Scholars Program for at least one full academic year) to assist them with the transition from high school to college and help them navigate Stony Brook's campus. Students in the Scholars Program are also eligible to receive individual tutoring from other Scholars in a number of subject areas that span Stony Brook's academic curriculum.

Scholars are committed to being active and engaged members not only of Stony Brook University, but of the community-at-large as well, and participate in a number of outreach initiatives. Last October, Scholars students hosted a Pumpkin Painting Evening to benefit the Stony Brook Pediatric Cancer Center. A "Toys for Tots" Masquerade Charity Ball was hosted in December, and last Spring a fundraiser was held to raise money for the families impacted by the Sandy Hook Elementary School shooting.

In order to maintain a place in the University Scholars Program, and the privileges that come along with membership, students must meet all of the criteria below during their time at Stony Brook:

1. Receive an "S" (Satisfactory) grade in their SCH 101 course
2. Have a minimum cumulative GPA of 3.0;
3. Not be found guilty of Academic Dishonesty;
4. Meet the minimum "for-credit" event requirement each semester (freshmen must attend 2 each semester, upperclassmen must attend 1 each semester);
5. Must be cleared through Community Standards to ensure that no policies contained in the University's Code of Conduct were violated.

Students in the University Scholars Program have been the recipients of several prestigious awards recently. Seven of our students have received the SUNY Chancellor's Award for Student Excellence (three in 2012 and four in 2013), 11 received Undergraduate Recognition Awards for

Academic Excellence in 2013, four were recipients of the Provost's Award for Academic Excellence, and one student recently received a Goldwater Scholarship. Nine Scholars were Student Ambassadors for Stony Brook University last year, 41 were inducted into the Phi Beta Kappa Honor Society, and approximately ten percent of our students participate in the Undergraduate Research and Creative Activity (URECA) event each Spring.

For more information on the Program, please visit our website at [uaa.stonybrook.edu/university-scholars](http://uaa.stonybrook.edu/university-scholars)

## Women in Science and Engineering (WISE) Honors

Office: Engineering Building, room 220

Phone: (631) 632-6947

E-mail: [ceas\\_wise@stonybrook.edu](mailto:ceas_wise@stonybrook.edu)

Website: [stonybrook.edu/wise](http://stonybrook.edu/wise)

The WISE Honors program offers educational and professional science, technology, engineering and mathematics (STEM) opportunities for undergraduate female students at the university by facilitating individual, institutional, and social change. The main goals of the program are to: (1) provide academic excellence; (2) promote professional development; (3) facilitate research opportunities; (4) establish and maintain community outreach; (5) encourage global collaboration; and (6) enact inclusive strategies. The four-year curriculum is designed to promote academics, research, service and leadership.

### Acceptance

WISE Honors program admissions are based on both quantitative and qualitative criteria. Applicants must have a demonstrated aptitude and interest in science, technology, mathematics, and/or engineering (STEM) as evidenced by factors such as mathematics and/or science courses in high school, above-average grades, research or other relevant experience, above-average scores on the quantitative parts of the SAT or ACT examination or an SAT science or mathematics achievement test. Incoming successful applicants have historically had 95-99 high school GPAs, 1350-1480 SAT (critical reading and math) composite scores, and 30-34 ACT composite scores. Strong applicants should have demonstrated interest in the WISE mission as shown by extracurricular activities, service and leadership.

Transfer students, first-year students and sophomores not initially enrolled in WISE Honors can apply for admission into the program. Acceptance will be based on quantitative (a minimum of 3.2 cumulative GPA) and qualitative (STEM major, personal statement and letters of recommendation from faculty) criteria.

### Curriculum

The core of the WISE Honors program curriculum emphasizes not only academic excellence in STEM, but service and leadership with a deep and rigorous research and career focus.

#### 1. Course Sequence

A WISE Honors student should take the course sequence (or their equivalents) described in the following table:

	Fall	Spring	Any semester	Focus	
<b>First year</b>	ITS 101 (1c)	WSE 105 (1c)		<i>Academics</i>	<i>Research and career</i>
<b>Second year</b>	WSE 201 (3c) (offered both semesters)	WSE 380 (3c) (offered both semesters)		<i>Academics</i>	
<b>Third year</b>	WSE 381 (1c) (offered both semesters)		WSE Practicum (total 4 credits)	<i>Service</i>	
<b>Fourth year</b>	WSE 401 (1c) (offered both semesters)		WSE 475, WSE 477, WSE 487, WSE 488	<i>Leadership</i>	
	WSE 495 (3c)	WSE 496 (3c)		<i>Thesis or Design Project</i>	

- Students will take ITS 101 and WSE 105 in the first year.
- WSE Practicum for a total of 4 credits can be taken at the same time or after WSE 381. This can be accomplished by taking WSE Practicum courses (WSE 475/477/487/488). Students need to take at least two different Practicum courses and can repeat up to a maximum of 3 times (6 credits). Courses under a different designator may be considered in lieu of WSE Practicum. Students are encouraged to consult with the WISE advisor prior to enrollment.
- Students who enter the WISE program after the first semester of their first year will follow a modified course program according to the time spent in College. For example, those entering as sophomores must take ITS 101 and WSE 105 or substitute equivalent courses.

- Every WISE student must submit a letter of intent containing a detailed description of the student's intended senior thesis or design project in WSE 495/496. The letter of intent must be submitted to the WISE Honors program for approval no later than three days before the add/drop deadline in the semester the student enrolls in WSE 495/496. A progress report must be submitted at the end of the first semester of work. An appropriate thesis must be submitted at the end of the second semester and an oral report must be made at the annual WISE Symposium. The grade on the senior thesis or project design must be B or higher. These rules apply to students doing their theses or projects under the WSE designator or under a departmental designator. Students must obtain WISE program approval for registration under a designator other than WSE.

The WISE Honors Program will fulfill the Stony Brook Curriculum (SBC) general education requirements through the courses listed below:

- WSE 105/201 = GLO
- WSE 201 = HUM
- WSE 380 = TECH
- WSE 381 = SBS
- WSE 401 = STAS
- WSE 495/496 = ESI, EXP+, CER, SPK and WRTD

In addition, students must fulfill the following general education requirements:

- Explore and Understand the Fine and Performing Arts (ARTS)
- Master Quantitative Problem Solving (QPS)
- Study the Natural World (SNW)
- Understand the Political, Social and Cultural History of the United States (USA)
- Write Effectively in English (WRT)

WISE Honors students must complete advanced studies in two of the three distinct areas of knowledge:

- Humanities and Fine Arts (HFA+)
- Social and Behavioral Sciences (SBS+)
- Science, Technology, Engineering and Mathematics (STEM+)

Students who transfer out of the WISE Honors Program must complete all remaining general education requirements for graduation.

B. Requirements to have WISE Honors transcript notation:

- Pass all of the courses of the WISE Honors curriculum with a B or higher grade including a Senior Thesis or Design Project
- Maintain a cumulative GPA of at least 3.0
- Not be found guilty of academic dishonesty

Students who receive a grade of B- or lower in a WISE Honors course (those with the WSE designator) may request to repeat the course toward WISE Honors requirements.

## 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 based on the merits of their academic achievement. 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. Please visit the scholarship section of the financial aid website to read detailed information about our scholarships.

## Women in Science and Engineering (WISE) Honors

WISE Honors scholarships are awarded to students based on the merits of their academic achievement. For further information, students may contact the WISE office at (631) 632-6947 or visit their Web site at [stonybrook.edu/wise](http://stonybrook.edu/wise)

## 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; Weing 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](mailto: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.

**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 Kondoroussis 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 Kondoroussis 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**

Phi Beta Kappa is the nation's oldest academic honor society. Since 1776, the organization has been devoted to fostering the liberal ideal in education and encouraging the spirit of critical inquiry. To found a Phi Beta Kappa chapter, campuses participate in a three-year process with extensive analysis. Each institution must demonstrate that it provides students with the educational opportunities that fulfill the organization's vision for undergraduate education. Of the many colleges and universities in the United States, only about 10% have been awarded Phi Beta Kappa chapters. Stony Brook's chapter dates back to 1974.

Admission is by election, based on the breadth and balance of a student's college record as well as superior academic performance. By the rules of the national organization, chapters are allowed to elect no more than 10% of a graduating class. From each graduating class, 90% will be elected as seniors and 10% as juniors. Because student achievement varies from year to year, there is also some variability in the level of achievement that allows the chapter to elect students. However, most recently, the minimum cumulative GPA for seniors was 3.64 and the minimum for juniors was 3.95. To be elected, a student must have completed 60 credits at Stony Brook (excluding transfer, AP, or other test credits). Seniors may only be elected when they have applied for graduation. They must have completed their graduation requirements or be enrolled in courses that will enable them to complete those requirements. To be elected as a junior, a student must have completed 15 upper division credits at Stony Brook in content courses (e.g., teaching assistant and research credits do not count toward the requirement). In addition, students who have been found guilty of academic dishonesty are not eligible for Phi Beta Kappa.

The national organization provides a number of stipulations that guide elections for each chapter. Because Phi Beta Kappa stipulations focus on the liberal arts, the committee evaluates students who have enrolled in the College of Arts and Sciences, the School of Marine and Atmospheric Sciences, as well as select majors from the College of Engineering and Applied Sciences (i.e., AMS and Computer Science). Two additional stipulations require particular emphasis:

1. "Weight shall be given to the breadth and depth of study in the liberal arts and sciences, taking into account the number, variety, and level of courses taken outside the requirements of the major, and the proportion of the candidate's overall program those courses constitute. Consideration shall also be given to the number of elective courses taken above the introductory, or general education, level."

Completion of the College of Arts and Sciences DEC satisfies this stipulation.

Students pursuing the Stony Brook Curriculum (SBC) must complete specific additional requirements to meet Phi Beta Kappa's stipulation for breadth and depth. Students must complete:

1. 9 credits in QPS, SNW, or STEM+.
2. 9 credits in ARTS, HUM, or HFA+.
3. 6 credits in SBS or SBS+.

**No course may be counted twice toward these requirements.** For example, a course that is double certified as ARTS and HUM would only count as three credits toward the requirement. Students may transfer in coursework to cover some of the requirements, but must complete at least ONE course at Stony Brook in each of the a, b, and c groups noted above. For example, a student may transfer in a QPS course and SNW course, but then must complete at least one QPS, SNW, or STEM+ course at Stony Brook.

2. “Candidates shall have demonstrated, by successful work in high school or college, or in the two together, a knowledge of a second or non-native language at least minimally appropriate for a liberal education. In no case shall this mean less than the completion of the intermediate college level in a second, or non-native, language or its equivalent.”

The university’s language requirement (Skill 3 or LANG) only confirms basic-level competence in a second language. Ordinary high school course work does not satisfy the Phi Beta Kappa requirement.

To satisfy this requirement through coursework, students must complete either a Stony Brook 201 course or a 211/212 sequence (or comparable courses at another institution). Students may also have earned an AP or other standardized test score that indicates this level of achievement (as indicated by Stony Brook’s transfer rules for different languages). It is also possible for students to demonstrate mastery by taking a placement or challenge exam, if they believe they could meet the 211/212 standard. (That is, they need to earn a score that would place them out of these courses). Finally, students may be fluent in another language as a consequence of personal experience (but, note that they must be able to speak, read, and write the language).

To begin the election process, the members of the Phi Beta Kappa selection committee (which involves faculty and staff who were themselves elected to Phi Beta Kappa) request records from the university.

Students who are elected to Phi Beta Kappa will receive an e-mail from the Secretary of the Chapter. The Chapter elects students before each university graduation (May, August, and December). If students’ records provide evidence that they meet all the stipulations, they will receive a message that directly offers them membership. If students’ records provide evidence that they meet all stipulations except the language requirement, they will receive a message asking them to provide information about their language achievement. Under those circumstances, the chapter works with students to assess their language ability.

For more information, please feel free to contact the Secretary of Stony Brook’s Phi Beta Kappa chapter, Professor Richard Gerrig, richard.gerrig@stonybrook.edu.

#### **Sigma Beta**

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**

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**

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**

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>

#### **Other Honor Societies**

Various disciplines have their own honor societies. Those with chapters at Stony Brook include Alpha Eta Mu Beta (Biomedical Engineering), 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), Gamma Kappa Alpha (Italian), 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).

Please note: Honor Society membership is not notated on a student's official academic record.

#### **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. 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.

Please note that for the Honors Baccalaureate Ceremony, the distinction is an estimated calculation based on a student's cumulative grade point average and credits, based on the preceding completed term.

**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.

Fall 2017-Spring 2018

**Accounting (ACC)****Minor in Accounting****College of Business**

Dean: Manuel London  
Associate Dean: Dmytro Holod  
Director of Undergraduate Studies: Richard Laskowski  
Office of Student Services: 109 Harriman Hall  
Phone: (631) 632-7171  
E-mail: cobadvising@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. 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:

- ACC 210 Financial Accounting
- ACC 214 Managerial Cost Analysis and Applications
- ACC 310 Intermediate Accounting I
- ACC 311 Federal Income Taxation I
- ACC 313 Intermediate Accounting II
- ACC 314 Federal Income Taxation II
- ACC 400 External Auditing
- BUS 325 Legal Environment of Business

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.stonybrook.edu/commcms/business/people/ft.html>

*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: Christina Ozelis  
Office: Sports Complex, Room E-030  
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.

**Note: the minor in Adapted Aquatics is not accepting applications at this time. Please contact Peter.Angelo@stonybrook.edu for further information.**

**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: Tracey Walters

Director of Undergraduate Studies: Shimelis Gulema

Assistant to the Chair: Ann Berrios

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

Office: S-249 Social and Behavioral Sciences

Phone: (631) 632-7470

Web address: <http://www.stonybrook.edu/commcms/africana-studies/>

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**

The Africana Studies Department is an interdisciplinary unit that focuses on the histories, sociology, philosophy, literatures, politics, anthropology, religions, and experiences of people of African heritage within a global context. Our faculty facilitates social commitment, promote sensitivity to the civil rights of all people, and teach responsibility to community.

The major in Africana Studies provides students with a thorough background in the historical, political, social, and economic conditions of people of African descent. The major is designed to explore issues within the black international communities of Africa, the United States, the Caribbean, and Europe from both historical and contemporary perspectives. Particular attention is focused on political concepts, cultural developments, literary manifestations, and social theories. 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.

Africana Studies offers our majors and minors excellent preparation for graduate and professional schools in such disciplines and professions as 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, cultural studies, 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 382/EGL 382/WST 382 Black Women's Literature
- AFH 385/HUF 385 French Caribbean Literature
- AFH 391 Topics in Africana Studies
- AFH 423 Africana Literature in French

**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/WST 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.

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 Director of Undergraduate Studies is necessary when taking courses outside of the department for major credit).

5. Writing within the Discipline

Africana Studies Majors are required to enroll in AFS 459 Effective Writing in Africana Studies, taken in conjunction with an upper-division AFS or AFH course. AFS 459 teaches the skills and techniques of effective academic writing. Students must inform the instructor of the course in advance of their plan to co-register for AFS 459 to satisfy the Africana Studies WRTD requirement. Students must earn a grade of 'S' in AFS 459 to satisfy the WRTD requirement. AFS 459 also satisfies the Stony Brook Curriculum learning objective WRTD.

**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.
6. Students can earn credit (S/U) by enrolling in AFS 283 (Community Service with the BlackWorld newspaper option). AFS 283 may not be used to fulfill major requirements.

**Africana Studies 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 research project proposal to a faculty sponsor and the Director of Undergraduate Studies, indicating the merit of the proposed project. The faculty sponsor must submit to the Department 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 committee deems that the honors project has been completed successfully, honors are conferred by the Department.

### 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, African American, and Caribbean 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

### OR

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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
AFS 101	3
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
AFS 102	4
SBC	3
SBC	3
Elective	3
Total	16

#### SOPHOMORE

FALL	Credits
Course from Area A	3

SBC	3
SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
Course from Area A	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

## JUNIOR

FALL	Credits
AFH 447 or AFS 447 or AFH 487 or AFS 487	3
Course from Area B	3
Course in related discipline*	3
Course from Area C	3
SBC	3
Total	15

SPRING	Credits
Course from Area B	3
Course in related discipline*	3
Course from Area C	3
Upper-division elective	3
SBC	3
Total	15

## SENIOR

FALL	Credits
Course from Area D	3
Course in related discipline*	3
SBC	3
SBC	3
SBC	3
AFS 459	0

Total	15
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SPRING	Credits
Course from Area D	3
Course in related discipline*	3
SBC	3
Elective	3
Elective	3
Total	15

\*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.*

Fall 2017-Spring 2018

**American Studies (AMR)****Interdisciplinary Major and Minor in American Studies****College of Arts and Sciences**

Director of Undergraduate Studies: Peter Carravetta

Office: Humanities 1149

Phone: (631) 632-7440

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 271 United States Latino Literature and Culture
- 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 261 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. AMR 301 also satisfies the Stony Brook Curriculum learning objective WRTD. 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. Students who do not fulfill the WRTD requirement in AMR 301 should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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 for the Major in American Studies

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
AMR 101	3
Elementary foreign language	3-4
SBC	3
Elective	3
Total	16-17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
AMR 102	4
Elementary foreign language	3-4
SBC	3
SBC	3
Total	16-17

#### SOPHOMORE

FALL	Credits
Intermediate foreign language	3
SBC	3
SBC	3
SBC	3
Elective	3

Total	15
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SPRING	Credits
Intermediate foreign language	3
Concentration requirement	3
SBC	3
SBC	3
Elective	3
Total	15

## JUNIOR

FALL	Credits
AMR 301	3
Upper-division concentration	3
Upper-division SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
Upper-division concentration	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Elective	3
Total	15

## SENIOR

FALL	Credits
AMR 401	3
Upper-division concentration	3
Upper-division SBC	3
Upper-division SBC	3
Elective	3
Total	15

SPRING	Credits
Upper-division elective	3
Upper-division concentration	3

Upper-division SBC	3
Upper-division elective	3
Elective	3
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.*

Fall 2017-Spring 2018

**Anthropology (ANT)****Major and Minor in Anthropology****Department of Anthropology, College of Arts and Sciences**

Chairperson: David Hicks

Director of Undergraduate Studies: Elisabeth Hildebrand

E-mail: AnthropologyDUS@stonybrook.edu

Assistant to the Chair: Megan Alberti

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Phone: (631) 632-7620

Web: <http://www.stonybrook.edu/anthro>

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) not including the course used to fulfill the seminar requirement. 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 or human evolutionary biology at the 200 level or higher (All applicable courses are listed below under the Biological Anthropology subfield)

2. One course in archaeology at the 200 level or higher (See Archaeology subfield list below)
3. One course in cultural anthropology at the 200 level or higher (See Cultural Anthropology subfield list below)

### III. Elective courses:

- Five additional anthropology or human evolutionary biology courses. These must be at the 200 level or higher. Any course on the subfield lists may qualify, as well as ANT 208, ANT 215, ANT 410, ANP/ANT 447, and ANP/ANT 487. Note: ANP/ANT 447 and 487 can only be counted once (each up to a maximum of 3 credits).
- One course with anthropologically-relevant content from another department may be substituted with approval of the Anthropology Director of Undergraduate Studies

IV. One 400-level seminar chosen from ANP 403, ANP 404, ANP 405, ANP 406, ANP 410, ANT 401, ANT 402, ANT 405, ANT 410, ANT 415, ANT 417, ANT 418, ANT 419, EBH 401, or EBH 405.

### B. Upper-Division Writing Requirement

To complete the Writing Requirement, students must register for the 0-credit ANP 459 or ANT 459, and submit one or more papers from a 300--level or higher ANP/ANT/EBH course (selected from the subfield courses listed below or ANT 410) with an evaluation of S (Satisfactory). In the Anthropology Main Office, pick up the Writing Requirement Submission Cover Sheet, which lists criteria for the Writing Requirement, and a list of "Writing Intensive" courses with written assignments designed to fulfill these criteria. Plan ahead so the Writing Intensive course fits your schedule and interests, and obtain the Cover Sheet as the course begins. When your paper is complete, submit the blank Cover Sheet with the completed paper(s) to the instructor of the course for which it was written. If the course instructor gives approval, submit the completed Cover Sheet and graded paper to the Director of Undergraduate Studies. The DUS will evaluate the paper and give an S or U grade for ANP 459 or ANT 459. This review is separate from the evaluation by the original course instructor and has no effect on the original course grade.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

### Subfields of Study

The following courses qualify for the Biological Anthropology subfield:

- ANP 201 Human Evolution
- ANP 220 Controversies in Human Biology and Behavior
- ANP 250 Forensic Anthropology
- ANP 300 Human Anatomy
- ANP 304 Ecology: Linking People and Nature (with emphasis on the Turkana Basin)
- ANP 305 Earth & Life Through Time: Vertebrate Paleontology & Paleoecology (emphasis on the Turkana Basin)
- ANP 306 Human Evolution (and evidence from the Turkana Basin)
- ANP 307 Comparing Ecosystems in Madagascar
- ANP 308 Paleoanthropological Field Methods in the Turkana Basin
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 321 Primate Evolution
- ANP 326 Lemurs of Madagascar
- ANP 350 Methods in Studying Primates
- ANP 360 Primate Conservation
- ANP 391 Topics in Biological Anthropology
- ANP 403 Seminar in Biological Anthropology
- ANP 404 Human Osteology
- ANP 405 Human Evolution in the Headlines
- ANP 406 Pseudoscience and Anthropology
- ANP 410 Comparative Primate Anatomy
- EBH 200 The Evolution of Human Behavior
- EBH 204 Research Skills
- EBH 230 Computer-Based Biostatistics
- EBH 316 The Evolution of the Human Brain
- EBH 325 Evolution of Sex
- EBH 331 Hormones and Behavior
- EBH 359 Behavioral Ecology
- EBH 362 Evolution of Social Complexity

The following courses qualify for the Archaeology subfield:

- ANT 207 From Cavemen to Vikings: The Prehistoric Archaeology of Europe
- ANT 210 Sunken Cities and Pirates: The World of Underwater Archaeology

- ANT 268 Archaeology of Human Origins
- ANT 270 Great Archaeological Discoveries
- ANT 290 Science & Technology in Ancient Society
- ANT 307 Prehistoric Archaeology of Africa (with emphasis on the Turkana Basin)
- ANT 320 Historical Archaeology
- ANT 321 Archaeological Field Methods
- ANT 353 Archaeological Analysis and Interpretation
- ANT 355 Ancient African Civilizations
- ANT 357 The Agricultural Revolution
- ANT 358 Ways to Civilization
- ANT 359 The Archaeology of Food
- ANT 360 Ancient Mesopotamia
- ANT 362 Long Island Archaeology
- ANT 363 Approaches to Archaeology
- ANT 371 Ancient China
- ANT 373 Archaeology of Human Dispersals
- ANT 377 Animal Tool Use
- ANT 385 Prehistoric Peoples of the Americas
- ANT 393 Topics in Archaeology
- ANT 394 Topics in Archaeology
- ANT 402 Problems in Archaeology
- ANT 415 Ethnoarchaeology
- ANT 417 Primitive Technology
- ANT 418 Lithic Technology
- ANT 419 Zooarchaeology

The following courses qualify for the Cultural Anthropology subfield

- ANT 200 Contemporary and Historical Perspectives on Insular Southeast Asia
- ANT 201 Peoples of South America
- ANT 203 Native Peoples of North America
- ANT 205 Ancient Japanese Civilization
- ANT 230 Peoples of the World
- ANT 250 African Peoples & Cultures
- ANT 252 Personality and Culture
- ANT 260 How We Eat
- ANT 305 Culture and Language of Madagascar
- ANT 310 Ethnography
- ANT 311 Immersion in Another Culture
- ANT 350 Medical Anthropology
- ANT 351 Comparative Religion
- ANT 354 Family, Kinship and Marriage
- ANT 367 Male and Female
- ANT 372 Family, Kinship and Marriage in China
- ANT 379 Ethnicity and Ecology in China
- ANT 380 Race and Ethnicity in Latin America and the Caribbean
- ANT 381 Applied Anthropology
- ANT 390 Topics in Social and Cultural Anthropology
- ANT 391 Topics in Social and Cultural Anthropology
- ANT 395 Religions of the Caribbean
- ANT 401 Problems in Social and Cultural Anthropology
- ANT 405 Cultural Ecology

#### 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 courses, two subfield, and three 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 ANT minor requires 21 credits. Students majoring in Human Evolutionary Biology (EBH) may have a maximum of nine credits of overlap between EBH major coursework and ANT minor coursework; thus, completion of the Anthropology minor requires an additional 12 credits of coursework beyond the EBH major.

#### 1. Two introductory courses chosen from the following:

- ANT 102 Introduction to Cultural Anthropology
- ANT 104 Introduction to Archaeology
- ANP 120 Introduction to Biological Anthropology

#### 2. Subfield courses:

Two additional courses must be chosen from two different subfields. (See "Subfields of Study" below for lists for Biological Anthropology, Archaeology, and Cultural Anthropology courses.)

#### 3. Three elective courses:

Elective courses may be drawn from any of the subfield courses listed below, plus ANT 215, ANT 410, ANP/ANT 447, and ANP/ANT 487.

#### Subfields of Study

The following courses qualify for the Biological Anthropology subfield:

- ANP 201 Human Evolution
- ANP 220 Controversies in Human Biology and Behavior
- ANP 250 Forensic Anthropology
- ANP 300 Human Anatomy
- ANP 304 Ecology: Linking People and Nature (with emphasis on the Turkana Basin)
- ANP 305 Earth & Life Through Time: Vertebrate Paleontology & Paleocology (emphasis on the Turkana Basin)
- ANP 306 Human Evolution (and evidence from the Turkana Basin)
- ANP 307 Comparing Ecosystems in Madagascar
- ANP 308 Paleoanthropological Field Methods in the Turkana Basin
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 321 Primate Evolution
- ANP 326 Lemurs of Madagascar
- ANP 350 Methods in Studying Primates
- ANP 360 Primate Conservation
- ANP 391 Topics in Biological Anthropology
- ANP 403 Seminar in Biological Anthropology
- ANP 404 Human Osteology
- ANP 405 Human Evolution in the Headlines
- ANP 406 Pseudoscience and Anthropology
- ANP 410 Comparative Primate Anatomy
- EBH 200 The Evolution of Human Behavior
- EBH 204 Research Skills
- EBH 230 Computer-Based Biostatistics

- EBH 316 The Evolution of the Human Brain
- EBH 325 Evolution of Sex
- EBH 331 Hormones and Behavior
- EBH 359 Behavioral Ecology
- EBH 362 Evolution of Social Complexity

The following courses qualify for the Archaeology subfield:

- ANT 207 From Cavemen to Vikings: The Prehistoric Archaeology of Europe
- ANT 210 Sunken Cities and Pirates: The World of Underwater Archaeology
- ANT 268 Archaeology of Human Origins
- ANT 270 Great Archaeological Discoveries
- ANT 290 Science & Technology in Ancient Society
- ANT 307 Prehistoric Archaeology of Africa (with emphasis on the Turkana Basin)
- ANT 320 Historical Archaeology
- ANT 321 Archaeological Field Methods
- ANT 353 Archaeological Analysis and Interpretation
- ANT 355 Ancient African Civilizations
- ANT 357 The Agricultural Revolution
- ANT 358 Ways to Civilization
- ANT 359 The Archaeology of Food
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- ANT 362 Long Island Archaeology
- ANT 363 Approaches to Archaeology
- ANT 371 Ancient China
- ANT 373 Archaeology of Human Dispersals
- ANT 377 Animal Tool Use
- ANT 385 Prehistoric Peoples of the Americas
- ANT 393 Topics in Archaeology
- ANT 394 Topics in Archaeology
- ANT 402 Problems in Archaeology
- ANT 415 Ethnoarchaeology
- ANT 417 Primitive Technology
- ANT 418 Lithic Technology
- ANT 419 Zooarchaeology

The following courses qualify for the Cultural Anthropology subfield

- ANT 200 Contemporary and Historical Perspectives on Insular Southeast Asia
- ANT 201 Peoples of South America
- ANT 203 Native Peoples of North America
- ANT 205 Ancient Japanese Civilization
- ANT 230 Peoples of the World
- ANT 250 African Peoples & Cultures
- ANT 252 Personality and Culture
- ANT 260 How We Eat
- ANT 305 Culture and Language of Madagascar
- ANT 310 Ethnography
- ANT 311 Immersion in Another Culture
- ANT 350 Medical Anthropology
- ANT 351 Comparative Religion
- ANT 354 Family, Kinship and Marriage
- ANT 367 Male and Female
- ANT 372 Family, Kinship and Marriage in China
- ANT 379 Ethnicity and Ecology in China
- ANT 380 Race and Ethnicity in Latin America and the Caribbean
- ANT 381 Applied Anthropology
- ANT 390 Topics in Social and Cultural Anthropology
- ANT 391 Topics in Social and Cultural Anthropology
- ANT 395 Religions of the Caribbean
- ANT 401 Problems in Social and Cultural Anthropology
- ANT 405 Cultural Ecology

**Sample Course Sequence for the Major in Anthropology**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
ANT 102	3
SBC	3
SBC	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
ANP 120	3
SBC	3
SBC	3
Elective	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
Subfield course 1	3
Subfield course 2	3
SBC	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
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ANT 104	3
Subfield course 3	3
SBC	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ANT 417	3
ANP 201	4
ANT 371	3
Upper-division elective	3
Elective	3
Total	16

<b>SPRING</b>	<b>Credits</b>
ANT 357	3
ANP 300	3
ANT 381	3
Upper-division elective	3
Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division elective	3
Upper-division elective	3
Elective	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Upper-division elective	3
SBC	3
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: Joseph Mitchell

Undergraduate Program Director: Esther Arkin

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

Undergraduate Program Coordinator: Cathy Arrighetta

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 or AMS 261 or MAT 203 or MAT 205 with a GPA of 2.5 or better in these courses.

Requirements for the Major

The major in Applied Mathematics and Statistics leads to the Bachelor of Science degree. Completion of the major requires approximately 46 credits.

**Study Within the Area of the Major**

1. Required courses in Applied Math and Statistics

- 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. One of the following courses

- CSE 101 Introduction to Computers
- CSE 110 Introduction to Computer Science
- CSE 114 Computer Science I
- CSE 130 Introduction to Programming in C
- ESG 111 C Programming for Engineering

3. 27 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) Either AMS 315 or AMS 361 or MAT 303 or MAT 305 must be taken.
- (d) 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.

#### 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 315, AMS 316, AMS 394, AMS 412, 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102	3
AMS 151 (QPS)	3
SBC	3
SBC	3
Total	13

SPRING	Credits
First Year Seminar 102	1
AMS 161	3
CSE 101 (TECH)	3
SBC	3
SBC	3
Elective	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
AMS 210 (STEM+)	3
AMS 261 (STEM+)	4
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
AMS 301 (STEM+)	3
AMS 310 (STEM+)	3
SBC	3
Elective	3
Elective	3
<b>Total</b>	<b>15</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
AMS 3xx (SBS+)	3
AMS 315 (ESI, CER)	3
Elective	3
Elective	3
Elective	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
AMS 3xx	3
AMS 3xx	3
Elective	3
Elective	3
Elective	3
<b>Total</b>	<b>15</b>

**SENIOR**

<b>FALL</b>	<b>Credits</b>
AMS 3xx	3
AMS 3xx (WRTD)	3
Elective	3
Elective	3
Elective	3
AMS 300 (WRTD, SPK)	1

Total	16
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SPRING	Credits
AMS 4xx (EXP+)	3
Elective	3
Total	15

## Notes:

\*\* Consult the department for appropriate courses.

- The following AMS courses satisfy SBS+: AMS 316, 335, 341, and 342
- The following AMS courses satisfy EXP+: AMS 333, 394, 412, 475, and 487
- The following AMS courses satisfy ESI and CER: AMS 315, 394, and 412
- The following AMS courses satisfy WRTD: AMS 300, 318, and 333

**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: Barbara Frank

Director of Undergraduate Studies: Stephanie Dinkins

Assistant to the Chair: Laura Sisti

Office: 2224 Staller Center for the Arts Phone: (631) 632-7250

Web address: <http://art.stonybrook.edu/undergraduate-programs/#crit>

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 practice 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 at the introductory level, and may then choose whether to specialize in a certain area, or continue to explore more broadly across different fields and perspectives, from ancient to modern and contemporary, including American, European, Asian and African expressive traditions, including traditional fields of painting, sculpture and architecture, as well as digital technologies, photography and film. We also provide exposure to museum, gallery and curatorial studies through coursework and internships.

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, and then choose to concentrate on specialized tracks in drawing, painting and printmaking; photography, digital and electronic media; or ceramics and sculpture. In addition, majors are expected to acquire a sound foundation in art history and criticism with an emphasis on modernism.

Department of Art graduates who go on to work in the discipline usually acquire some postgraduate training, that 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 independent 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, among other career paths.

**Degree Requirements - Art History and Criticism****Requirements for the Major in Art History and Criticism (ARH)**

The major in Art History and Criticism (ARH) provides students with the tools to explore how the world has been seen, imagined and constructed in visual images, objects and environments. As we examine how we shape our objects and images, we also look at how we are in turn shaped by them. The major spans a broad spectrum of histories, cultural situations, and methodologies, with a particular focus on modern and contemporary art in a global context, and in relationship with media, technology and material culture. Art history classes allow students to engage not only a wide range of practices--such as painting, sculpture, public memorial, photography, moving images, sound, and computational media---but also diverse worldviews from the Ancient Worlds to Italian Renaissance, from 19th-20th century Europe and Americas to present-day East Asia, from New York to West Africa. Our students acquire a historical understanding of intellectual and social issues that shape our own time, and develop skills of observation, interpretation, and communication that will allow them to become active contributors, critics, and creators. Many of our graduates take positions at art institutions or other arts-related businesses and nonprofits, but they also succeed in many other fields that value astute perception and advanced fluency in written, verbal, and visual expression.

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. Transfer students must complete a minimum of 12 credits in section II and III at Stony Brook. In planning coursework, please note that enrollment in any course is contingent on requirements stated in the bulletin, and that upper-level courses often coordinate with specific lower-level prerequisites.

1. Required (3 credits):

- ARH 206 Modern Art

2. Foundations (9 credits):

Choose three courses from the following two categories, with at least one course selected from each category:

- Arts in Historical and Cultural Perspective
  - ARH 201 Arts of Africa
  - ARH 202 Arts of the Ancient World
  - ARH 203 Arts of Asia
  - ARH 204 Arts in the Age of Exploration
  - ARH 205 Introduction to Architecture
  - ARH 209 Arts of the United States
- Contemporary Media, Art, Culture and Technology
  - ARH 106 Art and Science
  - ARH 207 Digital Media: History and Theory
  - ARH 208 History of Photography
  - ARH 210 Modern Art and the Moving Image
  - CCS 101 Introduction to Cinema & Cultural Studies

3. Advanced (15 credits):

- ARH 300 Greek Art and Architecture
- ARH 301 Roman Art and Architecture
- ARH 302 Ancient Egyptian Art
- ARH 306 Italian Renaissance Art
- ARH 308 Writing About Art
- ARH 315 Art of Spain and Colonial Latin America
- ARH 316 Italian Baroque Art
- ARH 317 Islamic Art
- ARH 322 American Art Since 1947
- ARH 323 History and Methods of Art History
- ARH 325 Ancient Middle Eastern Art
- ARH 326 Arts of Ancient Mesoamerica
- ARH 328 Exhibiting Africa
- ARH 329 Arts of the African Diaspora
- ARH 330 Public Art and Urban Design in New York City
- ARH 333 Arts for the Public
- ARH 334 Performance Art I: The European Avant-Garde
- ARH 336 The Computer and the Arts
- ARH 344 Performance Art II: World War II to the Present
- ARH 346 Art and Politics in the Age of Revolution
- ARH 347 Avant-Garde Art: Realism, Impressionism, Post-Impressionism
- ARH 348 Contemporary Art
- ARH 350 Museum Studies
- ARH 355 Modern and Contemporary Korean Art
- ARH 390 Topics in European Art
- ARH 391 Topics in Global Art
- ARH 392 Topics in Modern Art
- ARH 393 Topics in Middle Eastern Art
- ARH 394 Topics in Asian Art
- ARH 395 Topics in Visual Culture
- ARH 396 Topics in American Art
- ARH 397 Topics in Photography
- ARH 398 Topics in Film and Video Art

4. Required (3 credits):

- ARH 400 Seminar in Art History and Criticism

5. Electives (9 credits)

Any additional ARH or ARS courses, including those listed above and:

- ARH 475 Undergraduate Teaching Practicum I
- ARH 476 Undergraduate Teaching Practicum II
- ARH 485 Projects in Art History and Criticism in New York City
- ARH 487 Independent Reading and Research in Art
- ARH 488 Internship
- ARH 495 Senior Honors Project in Art History and Criticism
- Courses from other departments with approval of the Undergraduate Program Director.

## 6. Upper-Division Writing Requirement:

ARH 400 or any ARH course certified WRTD. The university requires that students demonstrate adequate writing skills in their major. Students should consult with the department advisor to ensure that their plan for completing the Upper-Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper-Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

**Requirements for the Minor in Art History (ARH)**

With the minor in Art History, the student may choose from broad array of foundation courses before moving on to advanced courses. 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 twelve credits must be in upper-division courses. Art History transfer students must take at least 6 upper division ARH credits for the minor at Stony Brook.

## 1. Three 100- and/or 200-level ARH courses selected from the following (9 credits):

- ARH 106 Art and Science
- ARH 201 Arts of Africa
- ARH 202 Arts of the Ancient World
- ARH 203 Arts of Asia
- ARH 204 Arts in the Age of Exploration
- ARH 205 Introduction to Architecture
- ARH 206 Modern Art
- ARH 207 Digital Media/History/Theory
- ARH 208 History of Photography
- ARH 209 Arts of the United States
- ARH 210 Modern Art and the Moving Image

2. Four 300-level and/or 400-level ARH courses selected from the following (12 credits): ARH 300, ARH 301, ARH 302, ARH 306, ARH 308, ARH 315, ARH 316, ARH 317, ARH 322, ARH 323, ARH 325, ARH 326, ARH 328, ARH 329, ARH 330, ARH 333, ARH 334, ARH 336, ARH 344, ARH 346, ARH 347, ARH 348, ARH 350, ARH 355, ARH 390, ARH 391, ARH 392, ARH 393, ARH 394, ARH 395, ARH 396, ARH 397, ARH 398

**Sample Course Sequence for the Major in Art History**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
ARH 202	3
SBC	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
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First Year Seminar 102	1
WRT 102	3
ARH 204	3
ARH 206	3
ARS 154 or ARS 205	3
SBC	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
ARH 208 or ARH 209	3
ARH 201 or ARH 203	3
Language	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARH 300-level	3
ARH 300-level	3
Language	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ARH 300-level	3
ARH 300-level	3
Language or ARS	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARH 300-level	3
ARH 300-level	3
Language or elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
ARH 300-level	3
ARH 400-level	3
ARH 308	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARH 300-level	3
ARH 400-level	3
Upper-division SBC	3
Upper-division SBC	3
Upper-division elective	3
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: Barbara Frank

Director of Undergraduate Studies: Stephanie Dinkins

Assistant to the Chair: Laura Sisti

Office: 2224 Staller Center for the Arts Phone: (631) 632-7250

Web address: <http://art.stonybrook.edu/undergraduate-programs/#studio>

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 practice 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 at the introductory level, and may then choose whether to specialize in a certain area, or continue to explore more broadly across different fields and perspectives, from ancient to modern and contemporary, including American, European, Asian and African expressive traditions, including traditional fields of painting, sculpture and architecture, as well as digital technologies, photography and film. We also provide exposure to museum, gallery and curatorial studies through coursework and internships.

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, and then choose to concentrate on specialized tracks in drawing, painting and printmaking; photography, digital and electronic media; or ceramics and sculpture. In addition, majors are expected to acquire a sound foundation in art history and criticism with an emphasis on modernism.

Department of Art graduates who go on to work in the discipline usually acquire some postgraduate training, that 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 independent 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, among other career paths.

**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. Studio Art transfer students must take at least 18 upper division ARS credits for the major at Stony Brook.

1. Choose two of the following foundation courses:

- ARS 154 Foundations of Drawing
- ARS 205 Foundations: Idea and Form
- ARS 225 Introductory Electronic Media

2. Area of Concentration (18 credits) including a minimum of four upper-division studio classes in one of the following (may include ARS 420, ARS 487, ARS 491, ARS 492, ARS 495 when appropriate):

- Painting, Drawing, and Printmaking: ARS 255, ARS 274, ARS 350, ARS 351, ARS 352, ARS 359, ARS 374, ARS 375, ARS 452, ARS 471, ARS 472
- Electronic Media and Photography: CDT 208, ARS 281, CDT 317, CDT 318, ARS 325, ARS 326, ARS 327, ARS 328, ARS 329, CDT 341, ARS 381, ARS 382, ARS 425, CDT 450, ARS 481, ARS 482
- Sculpture and Ceramic Sculpture: ARS 256, ARS 264, ARS 364, ARS 365, ARS 366, ARS 465, ARS 466

3. Electives: Seven additional studio classes

- Chosen from any of the above areas of concentration. May include ARS 105, ARS 420, ARS 475, ARS 476, ARS 487, ARS 488, ARS 491, ARS 492, ARS 495.

## 4. Art History and Criticism courses including:

- ARH 206 Modern Art
- Three other ARH classes

## 5. Upper-Division Writing/WRTD Requirement:

- Students must demonstrate acceptable writing skills in the discipline before they graduate. This can be achieved by completing a course designated as WRTD, such as ARH 308, ARS 308, or ARS 459 (in conjunction with any 300- or 400- level ARS course).

Note: Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

**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. 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**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
ARS 154	3
ARH 202 or ARH 204	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
ARS 225	3

ARH 206	3
SBC	3
SBC	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
ARH 322	3
ARH 324	3
ARS 255	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARS 350	3
ARS 351	3
ARS 352	3
CDT 317	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ARS 364	3
ARS 366	3
ARS 381	3
ARS 326	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARS 318	3
ARS 325	3
ARS 327	3
SBC	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division ARS	6
SBC	3

SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division ARS	6
Electives in other department or internship	6
SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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: Agnes He

Director of Undergraduate Studies: Nerissa Balce

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)

**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 118 Introduction to Asian Studies
- 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 an area of focus, including at least nine credits from upper-division courses. Students are encouraged to construct their own analytic focus within the major in consultation with the Director of Undergraduate Studies. Some sample areas of focus include Asian diaspora, contemporary Asia, intellectual history, language and communication, literature and art.

#### 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
- 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 344 Acquisition of Asian Languages
- AAS 385 Translation Studies of Asian Languages
- 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 register for the 0-credit AAS 459, and 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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 & 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, Japanese, and Korean 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 118 Introduction to Asian Studies
- 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
Elementary Asian language I	4
Core courses: 1st course	3
SBC	3
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
Elementary Asian language II	4
Core courses: 2nd course	3
SBC	3
SBC	3
Total	17

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
Intermediate Asian language I	3
Core courses: 3rd course	3
SBC	3
SBC	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Intermediate Asian language II	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
Concentration: 1st course	3
Concentration: 2nd course	3
SBC	3
Elective	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Concentration: 3rd course	3
Concentration: 4th course	3
SBC	3
Elective	3

Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
AAS 401	3
Concentration: 5th course	3
One upper-division elective in AAS	3
Elective	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
One upper-division elective in AAS	3
Elective	3
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: Axel Drees

Director of Undergraduate Studies: Robert McCarthy

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 205 or higher (except AST 248, AST 301, 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

C. Eight credits of astronomy-related courses that complement an astronomy major's education are required. The intent is to add courses, especially in other quantitative sciences, which prepare the student for successful employment in research, education or industry. Any course beyond those required for the astronomy major that is required by the student's minor, second major or master's degree (for students in a combined degree program) is automatically included in the list of related courses. Additional related courses are listed under the related courses for the physics major. Any course at the 300-level or above on this list may be used. In addition any physics course at the 300-level or above not required for the astronomy major may also be used.

**D. Mathematics Requirements:**

1. MAT 131, MAT 132 Calculus I, II (See Note 2 below). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.

2. One of the following: MAT 203 Calculus III with Applications or MAT 205 Calculus III or AMS 261 Applied Calculus III or MAT 307 Multivariable Calculus with Linear Algebra
3. One of the following: MAT 303 Calculus IV with Applications or MAT 305 Calculus IV or AMS 361 Applied Calculus IV: Differential Equations or MAT 308 Differential Equations with Linear Algebra

#### E. Upper-Division Writing Requirement:

Students are certified as satisfying the upper-division writing requirement by registering for the 0-credit AST 459 and completing writing projects within their major. 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. Papers should be written in the form of a journal article. All papers must consist of an abstract, introduction, main content, and references. References should be cited throughout the text. Any figures should be numbered and have an appropriate caption. If you are using a lab report for the basis of this requirement, you should expand upon the introduction and describe the connection to topical scientific research.

A typical length should be 10 pages (double spaced, 11-point font) plus references, preferably written in LaTeX.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### Notes:

1. The following physics courses are alternatives to PHY 131/PHY 133 + labs PHY 132/PHY 134 (collectively called the PHY 131-Sequence): PHY 125, 126, 127, with labs PHY 133 and 134 (collectively called the PHY 125-Sequence) or PHY 141/133 and 142/134 (Collectively called the PHY 141-Sequence).
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 or AST 389.
4. PHY 131/PHY 133 Classical Physics I or PHY 141/133 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
AST 100	1

PHY 131/PHY 133 or PHY 141/PHY 133	4
MAT 131 or MAT 141	4
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
PHY 132/PHY 134 or PHY 142/PHY 134	4
MAT 132 or MAT 142	4
SBC	3
SBC	3
Total	18

## SOPHOMORE

FALL	Credits
PHY 251/PHY 252	4
MAT 203 or MAT 307 or AMS 261	3-4
AST 205	3
PHY 277	3
Upper-division SBC	3
Total	16-17

SPRING	Credits
PHY 306	3
MAT 303 or MAT 308 or AMS 361	3-4
AST 200	1
AST 203	4
Upper-division SBC	3
Total	14-15

## JUNIOR

FALL	Credits
AST 341 or AST 443*	3-4
MAT elective	3
PHY 301	3
PHY 303	3
SBC	3
Total	15-16

SPRING	Credits
AST 347 or AST 346*	3
PHY 308	3

PHY 300	3
Upper-division elective	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
AST 443 or AST 341*	3-4
Upper-division SBC	3
SBC	3
SBC	3
SBC	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
AST 346 or AST 347*	3
Upper-division SBC	3
Upper-division Elective	3
SBC	3
SBC	3
Total	15

\*AST 341 and AST 443 are offered in alternate fall semesters. AST 346 and AST 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 Chair: Kathryn Koshansky

Assistant to the Program Chair: Patricia Volz

Office: G-33 Indoor Sports Complex

Phone: (631) 632-2837

Email: Patricia.Volz@stonybrook.edu

Web Address: <http://healthtechnology.stonybrookmedicine.edu/programs/at>

**Athletic Training**

The Stony Brook University (SBU) Athletic Training Program (ATP), offered by the School of Health Technology and Management (SHTM), is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

The program is designed for students interested in becoming an Athletic Trainer (AT). Athletic Trainers are healthcare professionals who collaborate with physicians to optimize activity and participation of patients and clients. As member of the sports medicine team Athletic Trainers specialize in the prevention, clinical diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities. Athletic Training is recognized by the American Medical Association (AMA) as a healthcare profession.

Athletic trainers' work settings can include high schools, colleges, universities, professional sports teams, hospitals, rehabilitation clinics, physicians' offices, corporate and industrial institutions, the military, and the performing arts.

The student's comprehensive professional preparation is directed toward the development of specified competencies in the following content areas: Evidence-Based Practice, Prevention and Health Promotion, Clinical Examination and Diagnosis, Acute Care of Injury and Illness, Therapeutic Interventions, Psychological Strategies and Referral, Healthcare Administration, and Professional Development and Responsibility. Formal instruction involves teaching of required subject matter in structured classroom, clinical, and laboratory environments. All students are required to fulfill their clinical education requirements under the direct supervision of a preceptor. Clinical education provides the student with authentic, real-time opportunities to practice and integrate athletic training knowledge, skills, and clinical abilities, including decision-making and professional behaviors required of the profession in order to develop proficiency as an Athletic Trainer.

The curriculum prepares students for the Board of Certification (BOC) examination. Upon passing this examination, an individual may apply for certification by the New York State Education Department Office of Professions. In addition to the baccalaureate degree, the school's Certificate of Professional Achievement in Athletic Training is awarded upon satisfactory completion of all required course work.

**Note: the Athletic Training Program is not accepting applications at this time. Please see <https://healthtechnology.stonybrookmedicine.edu/programs/at/chairletter> for further information.**  
**Pre-Application Requirements for the major in Athletic Training**

60 credits with a minimum 2.5 GPA, satisfaction of Stony Brook Curriculum outcomes, and the following Stony Brook courses or transfer equivalents:

- WRT 102 English composition (WRT)
- 3 credits of (ARTS)
- 3 credits of (HUM)
- 3 credits of introductory (SBS) social & behavioral sciences (PSY 103 Introduction to Psychology with a minimum grade of "C")
- 3 credits of intermediate or higher level (200-400) of social and behavioral sciences (SBS+)

The following courses require a minimum grade of "C":

- PSY 103 Introduction to Psychology (SBS)
- CHE 131 General Chemistry IB (SNW)
- CHE 133 General Chemistry Laboratory I (SNW)
- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology (STEM+)
- BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I
- PHY 121 Physics for the Life Sciences I/Lab (SNW)
- or PHY 113/115 Physics of Sport/Lab (SNW)
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology (STEM+)
- or HAN 202 Human Anatomy and Physiology for Health Science II (STEM+)
- MAT 125 Calculus A (QPS)
- AMS 102, AMS 110 or PSY 201 Statistics (QPS)
- HAN 312 Medical Terminology and Human Anatomy

- HAL 376 Introduction to Nutrition
- HAL 375 Supplement Use in Sports

The following courses require a minimum grade of “B”:

- HAL 210 Emergency Care of Athletic Injuries (CER)
- HAL 300 Kinesiology
- HAN 200 Human Anatomy and Physiology for Health Science I (SNW)  
or ANP 300 Human Anatomy (STEM+)
- HAL 205 Introduction to Athletic Training (GLO, CER)

In addition, students must have the following

- Certification in healthcare provider Cardiopulmonary Resuscitation (CPR)
- 50 observational hours with an athletic trainer

Stony Brook freshmen have the opportunity to declare athletic training as a lower division major by making an appointment with the program department chair. Students successfully completing the lower division component of the major are automatically advanced to the upper division professional program. Freshmen accepted into the lower division major must successfully complete 60 credits and program specific prerequisites by the end of the sophomore year, pass HAL 205 with a grade of “B+” or better, obtain a cumulative GPA of 2.75 and \*science GPA of 2.5, and meet the academic standards above.

For more information, please visit <http://healthtechnology.stonybrookmedicine.edu/programs/at/admissions/requirements>

### Sample Course Sequence for the Major in Athletic Training

A course planning guide for this major may be found here.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
HAL 205	3
PSY 103 (SBS)	3
CHE 131 (SNW)	4
CHE 133 (SNW)	1
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
HAL 210	3
BIO 202 (STEM+)	3
MAT 125 (QPS)	3
PSY 201 or AMS 102 or AMS 110 Statistics (QPS)	3
Humanities (HUM)	3

Total	19
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**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
HAN 200 (SNW) or ANP 300 (STEM+)	4
PHY 113/PHY 115 or PHY 121/PHY 123	4
BIO 204	2
HAL 376	2
Social and Behavioral Sciences (SBS+)	3
Total	15

<b>SPRING</b>	<b>Credits</b>
HAN 202 or BIO 203 (STEM+)	4
HAL 300	4
HAN 312	3
HAL 375	2
Arts elective (ARTS)	3
Total	16

*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)**

Dean and Director: R. Larry Swanson

Director of Undergraduate Studies: Kamaziama Lwiza

Assistant to the Director: Christina Ozelis

Coordinator of Atmospheric Studies Program: Brian A. Colle

Education Office: 105 Endeavour Hall

Phone: (631) 632-9404

E-mail: [somas@stonybrook.edu](mailto:somas@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 issues and processes related to climate.

Completion of the major requires approximately 65 credits. Of these, no more than one course (4 credits) with a grade lower than C can be credited to the major.

The core courses for both tracks are as follows:

**A. Required Courses in Mathematics, Chemistry, Physics, and Computer Science**

1. AMS 102 Elements of Statistics or AMS 201 Linear Algebra
2. MAT 131 and MAT 132 Calculus I and II (See note below). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
3. MAT 203 Calculus III with Applications or AMS 261 Applied Calculus III
4. CHE 131 General Chemistry I (Note: CHE 152 may be substituted for CHE 131)
5. PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 Classical Physics A, B, and C with labs or PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I and II with labs or PHY 141/PHY 133, PHY 142/PHY 134 Classical Physics I and II: Honors
6. 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:

- 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
- One of the following courses: ARM 365 Tropical Meteorology or ATM 383 Doppler Weather Radar

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 Climate Track:

- ATM 201 Introduction to Climate and Climate Change
- ATM 305 Global Climate Change
- ATM 320 Spatial Data Analysis Using Matlab
- GEO 313 Understanding Water Resources for the 21st Century
- One of the following courses: 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. Experiential Learning Courses (1-3 credits):

- ATM 447 Senior Tutorial in Atmospheric Sciences
- One of the following: ATM 487 Senior Research or ARM 488 Internship

D. Upper-Division Writing Requirement:

The advanced writing component of the major in ATM requires registration in the 0-credit MAR 459 and approval of either a term paper or a laboratory report written for MAR 334, ATM 347 or ATM 397 at Stony Brook (or for Readings or Research courses). Completion of MAR 459 with a grade of S will result in approval of the WRTD requirement.

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 grade the material and assign a grade for the appropriate section of MAR 459. Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### **Bachelor of Science Degree in Atmospheric and Oceanic Sciences/Master of Science Degree in Atmospheric and Oceanic Sciences**

Students interested in this program, intended to prepare students for professional employment or graduate school in the field of atmospheric and oceanic sciences, may apply for admission at the end of the junior year. Students in this combined B.S./M.S. program may complete both degrees in 10 semesters plus two summers (although the exact timing will depend on the student's progress on the research thesis). Entry in the combined B.S./M.S. program is contingent upon a student identifying a thesis advisor, so students should seek out research experience in the laboratories of prospective advisor prior to the end of their junior year. During the fourth year, students take a mixture of undergraduate and graduate courses (6-12 credits). After the 8<sup>th</sup> semester (during the summer), students begin M.S. level research. During the fifth year, students complete the remaining graduate requirements for the M.S., likely needing the following summer to complete the research project. The two to four 500-level MAR courses taken during the senior year may be counted toward required or elective requirements of the undergraduate Marine Science major. Please visit the SoMAS website <http://somas.stonybrook.edu/> for further information on the Marine Sciences programs.

#### **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)

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 131	4
SBC	3
PHY 131/133 or PHY 141	4
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
MAT 132	4
SBC	3
PHY 132/134 or PHY 142	4
Total	15

#### SOPHOMORE

FALL	Credits
ATM 205	3
MAT 203 or AMS 261	4
PHY 277 or ESG 111 or CSE 130	3
CHE 131	4
SBC	3

Total	17
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SPRING	Credits
ATM 247	3
PHY 251 or ATM 320	3
AMS 102 or AMS 201	4
SBC	3
SBC	3
Total	16

## JUNIOR

FALL	Credits
ATM 345	3
MAT 303 or AMS 361	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ATM 346	3
ATM 348	3
SBC	3
Upper-division elective	3
Elective	3
Total	15

## SENIOR

FALL	Credits
ATM 347	3
MAR 334	3
Upper-division elective	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ATM 397	3
MAR 350	2
Upper-division SBC	3
ATM 365 or ATM 383	3
ATM 447 or ATM 487 or ATM 488	3
Elective	3

Total	17
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**Sample Course Sequence for the Major in Atmospheric and Oceanic Sciences (Oceanography Track)**  
**A course planning guide for this major may be found here.**

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
MAT 131	4
SBC	3
PHY 131/133 or PHY 141	4
Total	15

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
MAT 132	4
SBC	3
PHY 132/134 or PHY 142	4
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
ATM 205	3
MAT 203 or AMS 261	4
PHY 277 or ESG 111 or CSE 130	3
CHE 131	4
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
ATM 247	3
ATM 320	4
AMS 102 or AMS 201	3
SBC	3
SBC	3
Total	16

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ATM 345	3
ATM 201	3
SBC	3

SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ATM 305	3
ATM 348	3
MAR 340 or ENS 301	3
Upper-division elective	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
MAR 334	3
GEO 313	3
Upper-division SBC	3
Upper-division SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ATM 397	3
MAR 350	2
ATM 447 or ATM 487 or ATM 488	3
Upper-division elective	3
SBC	3
Elective	3
Total	17

*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**

Chairperson: Aaron Neiman

Assistant to the Chair: Carol Juliano

Director of Undergraduate Studies: Bernadette Holdener

Email: [bernadette.holdener@stonybrook.edu](mailto:bernadette.holdener@stonybrook.edu)

Office: 450 Life Sciences Building

Phone: (631) 632-8550

Web address: <http://www.stonybrook.edu/commcms/biochem/>

Minors of particular interest to students majoring in Biochemistry: Biomaterials (BES), Bioengineering (BNG), Chemistry (CHE), Health and Wellness (LHW), Science and Engineering (LSE)

**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 BIO 362) and must complete at least a minimum of nine additional credits at Stony Brook in required upper-division Biology courses (BIO 310, BIO 311, BIO 320, or BIO 365) and/or approved upper-division Biology elective courses.

## A. 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 152 Molecular Science I
2. CHE 133, CHE 134 General Chemistry Laboratory or CHE 154 Molecular Science Laboratory I
3. CHE 321, CHE 322 Organic Chemistry I, II or CHE 331, 332 Molecular Science II and III (See Note 1)
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 AMS 151 and AMS 161 or level 9 on mathematics placement examination. If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
7. PHY 121, PHY 122 Physics for the Life Sciences and Labs or PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 Classical Physics A, B, C and labs or or PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141/PHY 133, PHY 142/PHY 134 Classical Physics I, II: Honors and labs

## 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 or BIO 207 Fundamentals of Scientific Inquiry in the Biological Sciences II or IIB

## C. Advanced Courses in Biology

1. EBH 302 Human Genetics or BIO 320 General Genetics or BIO 321 Ecological Genetics (see Note 3)
2. BIO 310 Cell Biology
3. BIO 361, BIO 362 Biochemistry I,II (see Note 1)

4. One of the following laboratories: BIO 365 Biochemistry Laboratory (fall only) or BIO 311 Techniques in Molecular and Cellular Biology (see Note 2)
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.
  - AMS 333 Mathematical Biology
  - BCP 401 Principles of Pharmacology
  - BCP 402 Advanced Pharmacology
  - BIO 304 Genomics
  - BIO 311 Techniques in Molecular and Cellular Biology or BIO 365 Biochemistry Laboratory (see Note 2)
  - BIO 312 Bioinformatics and Computational Biology
  - BIO 314 Cancer Biology
  - BIO 315 Microbiology
  - BIO 316 Molecular Immunology
  - BIO 317 Principles of Cellular Signaling
  - BIO 321 Introduction to Ecological Genetics and Genomics (see Note 3)
  - BIO 325 Animal Development
  - BIO 327 Developmental genetics lab
  - BIO 328 Mammalian Physiology
  - BIO 332 Computational Modeling
  - BIO 334 Principles of Neurobiology
  - BIO 335 Neurobiology Laboratory
  - BIO 337 Neurotransmission and Neuromodulation: Implications for Brain Function
  - BIO 338 From Synapse to Circuit: Self organization of the Brain
  - BIO 339 Molecular Development of the Nervous System
  - BIO 350 Darwinian Medicine
  - BIO 354 Evolution
  - BIO 358 Biology of Human Social and Sexual Behavior
  - BIO 364 Laboratory Techniques in Cancer Biology
  - BIO 367 Molecular Diversity Laboratory
  - BME 304 Genetic Engineering
  - CHE 346 Bio-molecular Structure and Activity
  - EBH 302 Human Genetics (formerly offered as BIO 302 Human Genetics)

Note 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.

Note 2. Neither BIO 311 nor BIO 365 can be used to satisfy both the upper division laboratory and an upper division elective requirements.

Note 3. BIO 321 or EBH 302 can be used to satisfy EITHER the upper division BIO elective or the Genetics requirement (not both).

#### D. Upper-Division Writing Requirement

The advanced writing component of the major in Biochemistry requires registration in the 0-credit BIO 459 and approval of either a BIO 311 or BIO 365 laboratory report, or a manuscript written for a readings or research course in biology or chemistry at Stony Brook. To obtain approval, the original graded writing sample and the writing requirement registration form, signed by both the student and instructor, should 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 writing sample.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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. Please visit the Chemistry website <http://stonybrook.edu/chemistry> for further information on the Chemistry graduate degree.

### Sample Course Sequence for the Major in Biochemistry

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131/CHE 133	5
MAT 125 or MAT 131	3-4
SBC	3
Total	15-16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
BIO 201 or BIO 202	3
CHE 132/CHE 134	5
MAT 126 or MAT 132	3-4
SBC	3
Total	18-19

#### SOPHOMORE

FALL	Credits
BIO 203	3
CHE 321	4
MAT 127 (if MAT 125, MAT 126, MAT 127 sequence taken)	3
BIO 204	2
SBC	3
Total	15

SPRING	Credits
BIO 201 or BIO 202	3
CHE 322	4
CHE 327	2
BIO 205 or BIO 207	2
SBC	3
Total	14

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
BIO 361*	3
BIO elective**** or BIO 365 or 311***	2-3
PHY 121	4
BIO 458	0
SBC	3
SBC	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
BIO 362*	3
BIO 320	3
PHY 122	4
BIO 459	0
SBC	3
BIO elective****	3
Total	16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CHE 301**	3
BIO 365 or BIO 311***	2-3
SBC or BIO elective****	3
SBC	3
SBC	3
Total	14-15

<b>SPRING</b>	<b>Credits</b>
BIO 310	3
CHE 312**	3
BIO elective****	3
SBC	3
SBC	3
Total	15

\*BIO 361 and 362 should be taken in sequence.

\*\*Physical Chemistry I (CHE 301) or Physical Chemistry (short course) (CHE 312) may be taken to fulfill the one semester Biochemistry Major physical chemistry requirement. 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**

Interim Chairperson: Stefan Judex

Undergraduate Program Director: Molly Frame

Undergraduate Program Coordinator: Jessica Kuhn

Office: Bioengineering 102

Phone: (631) 632-8371

E-mail: [bme\\_ug\\_program@stonybrook.edu](mailto:bme_ug_program@stonybrook.edu)

Web address: <http://www.bme.sunysb.edu/>

**Bioengineering (BNG)**

The Bioengineering minor is the same as the Biomedical Engineering Specialization track within the Biology major. The minor 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)**

To declare the minor in Bioengineering, students must complete PHY 131, PHY 132, PHY 133, and PHY 134 with grades of C or higher (Note: the following alternate physics sequences are acceptable: PHY 125, PHY 126, PHY 127, PHY 133 and PHY 134 or PHY 141, PHY 142, PHY 133 and PHY 134.).

All courses for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 21-23 credits as outlined below.

**A. Required Courses for each Track**

1. BME 100 Introduction to Biomedical Engineering
2. BME 120 Programming Fundamentals in Biomedical Engineering

**B. Specialization Tracks**

1. Biomaterials/Biomechanics
  1. MEC 260 Engineering Statics
  2. BME 303 Biomechanics
  3. Calculus III (AMS 261, MAT 203 or MAT 205)
  4. Either BME 353 Biomaterials or BME 381 Nanofabrication in Biomedical Applications
2. Bioelectricity
  1. ESE 271 Electrical Circuit Analysis I
  2. BME 301 Biophotonics
  3. Linear Algebra (AMS 210 or MAT 211)
  4. Either BME 311 Bioimaging or BME 313 Bioinstrumentation or BME 481 Biosensors
3. Molecular/Cellular
  1. BME 304 Genetic Engineering
  2. BME 381 Nanofabrication in Biomedical Applications
  3. PICK TWO: BME 404 Essentials of Tissue Engineering or BME 402 Contemporary Biotechnology or BME 371 Biological Microfluidics

**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), Writing (WRT)

**The Undergraduate Biology Program**

Director: John Peter Gergen

Assistant Director: Nancy Black

Advisors: Kira Schultheiss, Nicole Zinerco

Schedule advising appointments online at <https://bio.advising.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: Aaron Neiman

Assistant to the Chair: Carol Juliano

Web address: <http://www.stonybrook.edu/biochem>

**Department of Ecology and Evolution**

Chairperson: Robert Thacker

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, Interdisciplinary Biology, Neuroscience, 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. A double major in Biology and Human Evolutionary Biology requires a certain course combination in the Human Evolutionary Biology electives as specified in the requirements for the EBH major.

**Requirements for the Major in Biology (BIO)**

Completion of the major requires a minimum of 70 credits, including foundational courses in chemistry, mathematics and physics. All of these foundational courses in related fields must be taken for a letter grade; courses taken under the Pass/No Credit option will not count towards completion of the major. 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 completion of the core curriculum and a minimum of 20 credits of advanced courses in biology. A list of advanced courses in biology from other Departments that are accepted for Biology 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 and Research 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

- CHE 129/CHE 130, CHE 132 General Chemistry IA, II or CHE 131, CHE 132 General Chemistry IB, II or CHE 152 Molecular Science I
- CHE 133, CHE 134 General Chemistry Laboratory I, II, or CHE 154 Molecular Science Lab I
- CHE 321, CHE 322 Organic Chemistry I, IIA or CHE 321, CHE 326 Organic Chemistry I, IIB or CHE 331, 332 Molecular Science II and III
- CHE 327 Organic Chemistry Laboratory or CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques
- MAT 125, MAT 126 Calculus A, B or MAT 131, MAT 132 Calculus I, II or MAT 141, MAT 142 Analysis I, II or MAT 171 Accelerated Single Variable Calculus, or AMS 151, AMS 161 or level 8 or 9 on the Mathematics Placement Examination. If students do not place into MAT 125 or higher on the basis of the math placement examination, MAT 123 is a required course for the major.
- PHY 121, PHY 122 Physics for Life Sciences I, II with 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. If students select one of the Classical Physics options (PHY 125/PHY 126/PHY 127/PHY 133/PHY 134 or PHY 131/PHY 132/PHY 133/PHY 134 or PHY 141/PHY 142/PHY 133/PHY 134), then a mathematics course at the level of Calculus II (AMS 161, MAT 127, MAT 132, MAT 142, or MAT 171) is required for the major.
- BIO 211 Statistics and Data Analysis or AMS 110 Probability and Statistics in Life Sciences or AMS 310 Survey of Probability and Statistics, or EBH 230 Computer-based Biostatistics

### B. Core Courses in Biology

- BIO 201 Fundamental of Biology; Organisms to Ecosystems
- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
- 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 Biology 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 for a total of 20 advanced BIO credits. 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 Biology major. The 7 Specializations are: Developmental Genetics; Ecology and Evolution; Environmental Biology; Interdisciplinary Biology; Neuroscience; Quantitative Biology and Bioinformatics, and Bioengineering. There is also a special degree program for students who choose to double major in Biology and Clinical Laboratory Sciences. The requirements for each Specialization are provided after the list of Advanced BIO courses. A complete list of Advanced Courses from other Departments that are accepted for the Biology Major credit 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 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)
- BIO 368 Food Microbiology (Lecture)

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 315 Microbiology (Lecture)
- 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 366 Molecular Microbiology Laboratory (Lecture with Laboratory)
- 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 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 six courses:
  - BIO 310 Cell Biology
  - BIO 314 Cancer Biology
  - BIO 317 Principles of Cellular Signaling
  - BIO 339 Molecular Development of the Nervous System
  - BIO 354 Evolution
  - EBH 302 Human Genetics (previously cross-listed with BIO 302)
  - EBH 380 Genomics (previously cross-listed with BIO 304)
5. 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 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.
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 20 credits of 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 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.
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 20 credits of 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 including at least one 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.
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 20 credits of 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 20 credits of 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: Self-organization of the Brain
  - BIO 339 Molecular Development of the Nervous System
  - BCP 401 Principles of Pharmacology
  - EBH 316 Evolution of the Human Brain (previously listed as ANP 316)
4. Two additional advanced BIO lecture courses including at least one 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.
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 20 credits of 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 five 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
  - EBH 380 Genomics (previously cross-listed with BIO 304)
6. Two additional advanced BIO lecture 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. 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.
8. Additional advanced BIO lecture, laboratory, reading, or independent research courses, as needed, for a minimum of 20 credits of 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 wish to pursue this specialization must be accepted into the Bioengineering minor (BNG) by the College of Engineering and Applied Sciences. 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 two courses:
  - CSE 130 Introduction to Programming in C
  - 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 353 Biomaterials
  - 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. One of the following three courses:
  - BME 311 Bioimaging
  - BME 313 Bioinstrumentation
  - BME 481 Biosensors

*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)
- EBH 302 Human Genetics (Lecture, previously crosslisted with BIO 302)
- EBH 370 Advanced Human Genetics (Lecture with Laboratory, previously crosslisted with BIO 303)

##### Area II Neurobiology and Physiology

- ANP 316 The Evolution of the Human Brain (Lecture)
- BCP 401 Principles of Pharmacology (Lecture)
- BME 301 Bioelectricity (Lecture)
- BME 303 Biomechanics (Lecture)
- EBH 316 The Evolution of the Human Brain (Lecture, previously listed as ANP 316)
- NEU 517 Principles of Cell Signaling (Lecture)

##### Area III Organisms

- MAR 370 Marine Mammals (Lecture)
- MAR 375 Marine Mammal and Sea Turtle Rehabilitation (Lecture with Laboratory)
- MAR 376 Biology and Conservation of Sea Turtles (Lecture)
- MAR 377 Biology and Conservation of Seabirds (Lecture)
- MAR 380 Ichthyology (Lecture with Laboratory)

##### Area IV Ecology and Evolution

- ANP 304 Modern and Ancient Environments of Eastern Africa (Lecture with Laboratory)
- ANP 305 Vertebrate Paleontology of the Turkana Basin (Laboratory)
- ANP 306 Paleanthropological Discoveries of the Turkana Basin (Lecture with Laboratory)
- ANP 325 Primate Behavior (Lecture)
- ANP 350 Methods of Studying Primates (Lecture)
- ANP 391 Topics in Physical Anthropology (Lecture)
- EBH 359 Behavioral Ecology (Lecture) (formerly BIO 359) EBH 359 Behavioral Ecology (Lecture) (formerly BIO 359)
- EBH 380 Genomics (Lecture, previously cross-listed with BIO 304)
- EBH 381 Genomics Laboratory (Lecture with Laboratory, previously crosslisted with BIO 305)
- 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 386 Ecosystem Science for Fisheries Management
- MAR 388 Tropical Marine Ecology (Lecture with Laboratory)

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 registration in the 0-credit BIO 459 and 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 Program before resubmitting the paper or material from another biology course.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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/commcms/biology/advising/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, Human Evolutionary Biology, 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-designator 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 listed as equivalent to a Stony Brook course in the official Stony Brook Transfer Course Database maintained by Academic and Transfer Advising Services. Transfer students must take at least 15 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.

### Sample Course Sequence for the Major in Biology

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131	4
CHE 133	1
MAT 125	3
SBC	3
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132/CHE 134	5
BIO 201 or BIO 202	3
MAT 126	3
Total	15

#### SOPHOMORE

<b>FALL</b>	<b>Credits</b>
CHE 321	4
AMS 110 or BIO 211	3-4
BIO 203	3
BIO 204	2
SBC	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
CHE 322 or CHE 326	4
BIO 201 or BIO 202	3
BIO 205 or BIO 207	2
CHE 327	2
SBC	3
Total	14

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
Advanced BIO Lecture	3
PHY 121	4
SBC	2
SBC	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
PHY 122	4
Advanced BIO Lecture	3
Advanced BIO Lab	2
SBC	3
SBC	3
Total	15-16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Advanced BIO Lecture	3
Advanced BIO Lab	2-3
Upper-division Elective	3
SBC	3
SBC	3
Total	14-15

<b>SPRING</b>	<b>Credits</b>
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Advanced BIO Lecture	3
Advanced BIO Lecture	3
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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

Dept. Administrator/Assistant to Chair & Undergraduate Program Coordinator: Chandrani Roy

E-mail: Chandrani.Roy@stonybrook.edu

Office: 314 Engineering

Phone: (631) 632-8484

Web address: <http://www.matscieng.sunysb.edu>

**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 Biophotonics
- BME 303 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 Learning from Engineering Disaster

**Students Majoring in Engineering Science:**

1. ESM 335 Strength of Materials
2. ESM 353 Biomaterials: Manufacture, Properties, and Applications
3. ESG 332 Materials Science I: Structure and Properties of Materials
4. Three courses chosen from:

- BME 301 Biophotonics
- BME 303 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 Learning from Engineering Disaster

**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 Biophotonics
- BME 303 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 Learning from Engineering Disaster

*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**

Interim Chairperson: Stefan Judex  
Undergraduate Program Director: Mary Frame McMahon  
Undergraduate Program Coordinator: Jessica Kuhn

E-mail: [bme\\_ug\\_program@stonybrook.edu](mailto:bme_ug_program@stonybrook.edu)  
Phone: (631) 632-8371  
Web address: <http://www.bme.sunysb.edu>

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.

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### Program Educational Objectives

The undergraduate program in biomedical engineering has the following four specific program educational objectives:

- Our graduates will apply skills and insight gained from a curriculum integrating engineering and biology to biomedically related fields in sectors including academia, industry, medicine, law, and/or government.
- Our graduates will strive to become inspirational leaders who make socially and ethically responsible decisions that beneficially impact health and society from local communities to the global population.
- Our graduates will use scientific research and collaborations to develop biomedical technologies that can be translated into cost-effective clinical solutions to enhance diagnosis, prevention, and treatment of health issues.
- Our graduates will remain lifelong learners, continue to grow professionally and personally throughout their careers, and be partners to grow future generations of biomedical engineers.

Fall 2017-Spring 2018

## Student Outcomes

The students will demonstrate the following:

- 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

## 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 below B-;
3. Earned a cumulative GPA of 2.5 or greater at Stony Brook University and
4. 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 108 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 or CHE 152 Molecular Science I
- 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, PHY 133, PHY 134 Classical Physics I, II: Honors

### 3. Computers and Programming

- a. BME 120 Programming Fundamentals in Biomedical Engineering

### 4. Engineering

- a. MEC 203 Engineering Graphics and CAD
- b. ESE 271 Electrical Circuit Analysis I or BME 271 Introduction to Bio-electricity and Bio-photonics

### 5. Biomedical Engineering

- a. BME 100 Introduction to Biomedical Engineering
- b. BME 212 Laboratory Methods in Biomedical Engineering
- c. BME 260 Statics and Dynamics in Biological Systems
- d. BME 301 Biophotonics
- e. BME 303 Biomechanics
- f. BME 304 Genetic Engineering
- g. BME 305 Biofluids
- h. BME 440 Biomedical Engineering Design
- i. 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.

### Grading

All courses taken to satisfy 1 through 6 above must be taken for a letter grade. The grade point average for all required BME courses and all technical electives must be at least a 2.5. A grade of C or higher is required in the following courses: AMS 151, AMS 161 or equivalent; BIO 202; 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 311 Fundamentals of Macro to Molecular Bioimaging
- BME 313 Bioinstrumentation
- BME 353 Introduction to Biomaterials
- BME 354 Advanced Biomaterials
- BME 381 Nanofabrication in Biomedical Applications
- BME 404 Essentials of Tissue Engineering
- BME 420 Computational Biomechanics
- BME 430 Quantitative Human Physiology
- 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 430 Quantitative Human Physiology  
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 430 Quantitative Human Physiology  
 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

**Honors Program in Biomedical Engineering**

The purpose of the honors program in Biomedical 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 Biomedical 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 Biomedical 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 BME 494, a 1 credit seminar on research techniques, with a B or better during the junior year.
3. Completion of BME 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 a BME 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.

**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.

**Sample Course Sequence for the Major in Biomedical Engineering**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 102 (WRT)	3
BME 100 (TECH)	3
AMS 151 (QPS)	3

CHE 131 (SNW)	4
PHY 131/PHY 133 (SNW)	4
Total	18

SPRING	Credits
First Year Seminar 102	1
BME 120 or Computer Prog	3
AMS 161 (QPS)	3
CHE 132 (SNW)	4
PHY 132/134 (SNW)	4
MEC 203	3
Total	18

## SOPHOMORE

FALL	Credits
BME 212 or SBC course	3
BIO 202	3
AMS 261	4
BIO 204	2
AMS 210	3
Total	15

SPRING	Credits
BME 212 or SBC	3
BME 304 (STAS)	3
AMS 361	4
BME 260	3
SBC	3
Total	16

## JUNIOR

FALL	Credits
ESE 271 or BME 271	4
AMS 310	3
BME 300	0
BME 303 (STAS)	3
Technical Elective	3
Technical Elective	3
Total	16

SPRING	Credits
BME 301	3
BME 305	3

SBC	3
Technical Elective	3
Technical Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
BME 440*	3
Technical Elective	3
Technical Elective	3
Technical Elective	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
BME 441*	3
Technical Elective	3
Technical Elective	3
Technical Elective	3
SBC	3
Total	15

\*Note: This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*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 for the Business Program, Accounting Minor, and Entrepreneurship Minor: Dmytro Holod

Director of Undergraduate Studies: Richard Laskowski

Office of Student Services: 109 Harriman Hall

Phone: (631) 632-7171

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

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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 seven business functions: accounting, entrepreneurship, finance, international business, marketing, management and operations, and sustainable business. Majors have an opportunity to concentrate in one of these seven business functions. The knowledge gained in the specialization assists students in finding employment in that area of a business.

### 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, college course-work complete at other institutions) is 3.0 or higher. Applications must be submitted to the College of Business Office of Student Services in accordance with the Registrar's deadlines for processing major/minor declaration forms. Application forms are available on the College of Business website.

Requirements for the Major

The major in Business Management leads to the Bachelor of Science degree. Completion of the major requires 49 credits.

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
- ACC 210 Financial Accounting
- BUS 215 Introduction to Business Statistics (see Note)
- BUS 220 Introduction to Decision Sciences (see Note)
- BUS 301 Business Communications
- BUS 326 Organizational Behavior
- BUS 330 Principles of Finance or ECO 389 Corporate Finance
- BUS 346 Operations Management
- BUS 348 Principles of Marketing
- BUS 353 Entrepreneurship or BUS 383 Social Entrepreneurship or BUS 441 Business Strategy
- BUS 446 Ethics: Critical Thinking through Film or BUS 447 Business Ethics
- ECO 108 Introduction to Economics (see Note)

Note: MAT 122 Overview of Calculus with Applications satisfies DEC C/QPS and must be completed as a prerequisite for ECO 108, BUS 215 and BUS 220.

#### B. 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

- ACC 214 Managerial Cost Analysis and Applications
- ACC 310 Intermediate Accounting I
- ACC 311 Federal Income Taxation I

Note: 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.

b. Select one from the following:

- ACC 313 Intermediate Accounting II
- ACC 314 Federal Income Taxation II
- ACC 315 Accounting for the Small Business Entrepreneur
- ACC 400 External Auditing
- BUS 488 Internship

## 2. Entrepreneurship (Advisory prerequisite BUS 353 or BUS 383)

a. Required course

- BUS 337 Entrepreneurship Across Countries

b. Select one from the following:

- BUS 364 How to Build a Start-Up
- BUS 369 New Product Development
- BUS 488 Internship

c. Select one from the following:

- BUS 399 Intellectual Property Strategy
- BUS 401 Negotiation Workshop

d. Select one from the following:

- BUS 331 International Finance
- BUS 332 Entrepreneurial Finance
- BUS 336 Mergers and Acquisitions

## 3. Finance

a. Select four from the following:

- BUS 331 International Finance
- BUS 332 Entrepreneurial Finance
- BUS 336 Mergers and Acquisitions
- 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
- BUS 488 Internship

## 4. International Business

a. Select four from the following:

- BUS 331 International Finance
- BUS 337 Entrepreneurship Compared Across Countries
- BUS 362 Principles of International Marketing
- BUS 440 International Management
- BUS 488 Internship

## 5. Marketing

a. Required courses

- BUS 358 Marketing Research
- BUS 359 Consumer Behavior
- BUS 448 Marketing Strategy

b. Select one from the following:

- BUS 302 Social Media Marketing Strategy
- BUS 334 Consumer Advertising and Promotion
- BUS 335 Business Advertising and Promotion
- BUS 357 Principles of Sales
- BUS 360 Business Marketing
- BUS 361 Retail Management
- BUS 362 Principles of International Marketing
- BUS 363 Brand Management
- BUS 369 Marketing of New Products
- BUS 449 Marketing Client Project
- BUS 488 Internship

## 6. Management and Operations

a. Required course

- BUS 340 Information Systems in Management

b. Select three from the following:

- BUS 364 How to Build a Start-Up
- BUS 370 Lean Practices in Operations
- BUS 371 Supply Chain Management
- BUS 372 Quality Management
- BUS 393 Principles of Project Management
- BUS 488 Internship

## 7. 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
- BUS 488 Internship

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 301 contains the necessary writing components which satisfy the Upper Division Writing Requirement for the business major, and also satisfies the Stony Brook Curriculum learning objective WRTD.

### 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.

## Business Research Program

The Business Research Program (BCP) is for high achieving business majors who have an interest in conducting original research on a business topic. Conducting research is helpful for those considering a career in business research and who want to make novel theoretical and applied contributions to the area of business at a graduate (MBA) or doctoral level.

Academic research in business can take many forms. For example, some academic research in business stems from a review of the literature that results in a need to address open critical questions, followed by the statement of hypotheses, collection of data (field or lab data in a controlled study) to test the hypotheses, and conclusions that build or extend the theory. Other research in business may involve the development of new methods or the modification of existing methods to solve important business problems, or perhaps the application of existing methods to novel applications in business. Still other research may rely on analyses from several existing sources, such as financial and accounting databases.

Students who engage in research and write a thesis will graduate with honors, will attend the university honors baccalaureate, and will be designated as such graduation and on their diplomas.

Students in the BRP program work with a PhD faculty member. The business faculty member will serve as an advisor to assist with research design and implementation that is showcased at the Undergraduate Research & Creative Activities (URECA) Campus wide poster symposium.

**Eligible Students:**

This program requires an overall GPA of 3.3 or higher and students must have successfully completed BUS 115 Introduction to Business and WRT 102 Intermediate Writing Workshop (each with a grade of B or higher). To graduate with honors, students must complete requirements of the BRP program and have a cumulative GPA of 3.3 or better. Students' 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 program. Following at least one warning, such students will not be permitted to continue in the 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 program.

**Required Courses (each 3 credits):**

- BUS 380
- BUS 495
- BUS 496

**Acceptance:** Students must be recommended by a faculty member.

**Business Leaders Program**

This program is for high achieving business majors who aspire to be entrepreneurs or top executives in established organizations in business, government, or nonprofit sectors.

The students in the BLP program will receive a College of Business Leaders award (certificate) at the College of Business graduation ceremony.

Students in the BLP program partner with a corporate sponsor to design an experiential program for their senior year that promotes the synergies of what they learn in the classroom with the notion of applying these lessons in the context of the corporation with whom they are working. This capstone requires a well thought out project/plan with a reflection piece that is shared with the employer and the COB. Another option allows for students to complete a business plan working with a faculty member on an innovation or social entrepreneurship project. Creating a project that entails leadership on the Stony Brook University Campus requires the use of planning, organizing and orchestrating an idea from conception to a measurable end result. Therefore, this capstone will require a written implementation of a proposal incorporating research, analysis and an implementation plan.

Students in the program will be mentored by the director of the BLP program who will track their progress and arrange for group activities, including guest speakers, visits to organizations, and social action initiatives that represent leadership development opportunities.

**Eligible Students:**

This program requires an overall GPA of 3.3 or higher and students must have successfully completed BUS 115 Introduction to Business and WRT 102 Intermediate Writing Workshop (each with a grade of B or higher). 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 program.

**Required Courses (each 3 credits):**

- BUS 495
- BUS 496

**Acceptance**

Applicants must complete the BLP application which includes a 500-750 word essay. The deadline is March 15, however applications will be reviewed on a rolling basis, so you are encouraged to apply at any time prior to March 15.

**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 3.0 or higher. Applications must be submitted to the College of Business Office of Student Services in accordance with the Registrar's deadlines for processing major/minor declaration forms. Application forms are available on the College of Business website.

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): ACC 210; BUS 215; BUS 220; BUS 294; BUS 302; BUS 326; BUS 330; POL 319; BUS 331; BUS 332; BUS 333; BUS 336; BUS 337; BUS 340; BUS 346; BUS 348; BUS 351; BUS 353 or BUS 383; BUS 354; BUS 364; BUS 390; BUS 391; BUS 393; BUS 399; BUS 440; BUS 446; ECO 108

### Sample Course Sequence for the Major in Business Management

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102	3
MAT 122	3
BUS 115	3
HUM course	3
ARTS course	3
Total	16

SPRING	Credits
First Year Seminar 102	1
ECO 108	4
BUS 215	3
SNW course	3
LANG course	4
Total	15

#### SOPHOMORE

FALL	Credits
ACC 210	3
BUS 220	3
USA course	3
GLO course	3
STAS course	3
Total	15

SPRING	Credits
BUS 330	3
BUS 346	3
BUS 348	3
TECH course	3
EXP +, SBS +, or HFA + course	3
Total	15

#### JUNIOR

FALL	Credits
EXP +, SBS +, or HFA + course	3
Specialization course	3
BUS 301 (SPK, WRTD)	3
BUS 326	3
Upper-division elective	3
Total	15

SPRING	Credits
Specialization course	3
Specialization course	3
Elective	3
Elective	3
Upper-division elective (ESI)	3
Total	15

### SENIOR

FALL	Credits
BUS 441 or BUS 353 or BUS 383	3
Specialization course	3
Elective	3
Elective	3
Upper-division elective	3
Total	15

SPRING	Credits
BUS 447 (CER, WRTD, SPK) or BUS 446 (CER, WRTD, SPK)	3
Elective	3
Elective	3
Upper-division elective	3
Upper-division elective	3
Total	15

**NOTE:** Please be aware that it is the responsibility of the student to verify that all course prerequisites have been satisfied prior to registration for a specific course.

**This is only a suggested and not a required curriculum plan.** Students should make decisions and course selections based upon their specific needs and circumstances. Those students seeking additional guidance should consult their faculty advisor or contact the Office of Student Services, Room 109 Harriman Hall.

### BUS Faculty

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/business/people/ft.html>

*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 Director: Tadanori Koga

ADMINISTRATIVE ASSISTANT: Joann Toye

OFFICE: Engineering 208

PHONE: (631) 632-6269

E-MAIL: Tadanori.Koga@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 graduates from the program will assume positions in industry or research institutions that require knowledge of chemical engineering principles.
2. The graduates from the program will demonstrate leadership, teamwork, ethical conduct and effective communication skills.
3. The graduates of the program will be engaged in lifelong learning in order to meet the constantly emerging needs of the chemical engineering profession.
4. The graduates of the program will succeed in graduate programs in chemical engineering or related professions such as medicine, business and law.

**Student Outcomes**

The students will demonstrate the following:

- 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 100-level mathematics, physics and chemistry courses required by the major.
2. Students must have an overall GPA of 3.2 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. Transfer students must complete a minimum of one semester, carrying a full-time load with a minimum of 12 credits in residence at Stony Brook University. Transfer students who have completed, by way of transfer credit, all requirements in item 1., must demonstrate a grade of B or higher in CME 304.

### 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 three-course sequence at the 300 level or above (four courses if admitted prior to Fall 2012) 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 describing an original research project completed by the student which is defended at the end of the senior year. Students are encouraged to select original research projects which can be published in peer reviewed journals.

Completion of the major requires approximately 100 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  
CHE 133, CHE 134 General Chemistry Laboratory I, II  
CHE 321 Organic Chemistry I  
CHE 327 Organic Chemistry Laboratory or CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques

Note: The following alternate chemistry/organic chemistry course sequence may be substituted for CHE 131/CHE 132/CHE 321: CHE 152/CHE 331 with lab CHE 154

##### b. Physics

- ESG 281 Engineering Introduction to the Solid State  
PHY 131, PHY 132 Classical Physics I, II  
PHY 133, PHY 134 Classical Physics Laboratory I, II

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, PHY 133, PHY 134 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 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  
CME 440, CME 441 Process Engineering and Design I, II  
CME 480 Cellular Biology for Chemical Engineers or BIO 202 Fundamentals of Biology: Molecular and Cellular Biology

#### 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 (four for students admitted prior to Fall 2012) 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 (four for students admitted prior to Fall 2012) 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. 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 332 Materials Science I  
ESG 333 Materials Science II: Electronic Properties  
ESM 335 Strength of Materials  
ESM 336 Electronic Materials

#### B. Nanotechnology

CME 360 Nanomaterials and Applications  
CME 460 Nanomaterials: Synthesis, Processing and Characterization  
Students can select any one of the following courses (provided the course was not used to satisfy a core requirement):  
CME 425 Intro to Catalysis  
CME 427 Molecular modeling  
CME 369 Polymer Engineering  
CME 372 Colloids, emulsions, micelles

#### C. Polymer specialization

CME 369 Polymer Engineering  
CME 371 Biomedical Polymers  
CME 470 Polymer Synthesis  
Students may replace any one of the above by selecting any one of the following courses (provided the course was not used to satisfy a core requirement):  
CME 425 Intro to Catalysis  
CME 427 Molecular modeling

#### 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 (three for students admitted prior to Fall 2012) 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 three upper level courses (four for students admitted prior to fall 2012) 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102 (WRT)	3
AMS 151 (QPS)	3
CME 101	2
CHE 131, CHE 133 (SNW)	5
PHY 131, PHY 133	4
Total	18

SPRING	Credits
First Year Seminar 102	1
SBC	3
AMS 161	3
CHE 132, CHE 134	5
PHY 132, PHY 134	4
Total	16

#### SOPHOMORE

FALL	Credits
AMS 261	4
CHE 321 or CHE 331	4
CHE 383 or CHE 327	2
CME 304	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
AMS 361	4
CME 233	3
SBC	3
CME 312	3
CME 314	3
Total	16

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ESG 111	3
CME 310, CME 300	2, 0
CME 318	3
CME 322	3
ESG 281	3
Total	14

<b>SPRING</b>	<b>Credits</b>
CME 323	3
CME 320	3
CME 315	3
SBC	3
Specialization Course	3
Total	14

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CME 401	3
CME 410	2
CME 440*	3
CME 480	3
SBC	3
Specialization course	3
Total	17

<b>SPRING</b>	<b>Credits</b>
CME 420	2
CME 441*	3
CME 427	3
SBC	3
SBC	3
Specialization course	3

Total	17
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\*Note: This course partially satisfies the following: ESI, CER, SPK, WRD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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: Dale Drueckhammer

Student Affairs Coordinator: Katherine M. Hughes

Office: 104 Chemistry Phone: (631) 632-7886 E-mail: dale.drueckhammer@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 letter grade of C or higher, with the exception of three courses, for which the grade may be C-. P/NC grades are not acceptable in courses taken for the major. 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 152 Molecular Science I
2. CHE 133, CHE 134 General Chemistry Lab I, II or CHE 154 Molecular Science Laboratory I
3. CHE 301, CHE 302 Physical Chemistry I, II
4. CHE 303 Solution Chemistry Laboratory
5. CHE 321, CHE 322 Organic Chemistry I, IIB, or CHE 331, CHE 332 Molecular Science II, III
6. CHE 375 Inorganic Chemistry I
7. CHE 327 Organic Chemistry Laboratory or 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). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
10. MAT 211 Introduction to Linear Algebra or AMS 210 Applied 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 495/CHE 496 Senior Research
- Two electives chosen from: CHE 345/461, CHE 346/461, CHE 348/461, 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 345/461, CHE 346/461 (See note 4), CHE 348/461, CHE 376, CHE 378, or CHE 495/CHE 496
- BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
- CHE 346/461 (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 use CHE 303, CHE 304, or CHE 384 to satisfy the writing requirement for the Chemistry major (a satisfactory grade is required). These courses require several papers which are evaluated for cogency, clarity, and mechanics, and satisfy the university Stony Brook Curriculum WRTD learning objective.

## 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 361. 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 133, PHY 142/PHY 134 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 346/461 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 346/461 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 495-496. Students who elect the chemical physics or the marine and atmospheric chemistry option must complete CHE 346/461 and the laboratories CHE 384 and CHE 495-496. Students who elect the environmental chemistry option must complete CHE 346/461 and CHE 495-496.

#### 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 letter grade of C or higher, with the exception of three courses, for which the grade may be C-. P/NC grades are not acceptable in courses taken for the major. 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 151 Molecular Science I
2. CHE 133, CHE 134 General Chemistry Lab I, II or CHE 154 Molecular Science Laboratory I
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 322 Organic Chemistry I, IIB or CHE 331, CHE 332 Molecular Science II, III
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 use CHE 303, CHE 304, or CHE 384 to satisfy the writing requirement for the Chemistry major (a satisfactory grade is required). These courses require several papers which are evaluated for cogency, clarity, and mechanics, and satisfy the university Stony Brook Curriculum WRD learning objective.

#### 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 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 18-22 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 higher or S. P/NC grades are not acceptable in courses taken for the minor. 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 152

B. General Chemistry laboratory sequence

- CHE 133-134 or CHE 154

C. 12 credits of CHE 300-level courses or CHE research (CHE 487, CHE 495-496)

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, GRD 500 Responsible Conduct of Research and Scholarship, 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)**

A course planning guide for this major may be found here: [The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.](#)

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
MAT 131	4
CHE 131	4
CHE 133	1
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 132	4
SBC	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
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CHE 321	4
CHE 383	2
AMS 210 or MAT 211	3
PHY 131	4
SBC	3
Total	16

SPRING	Credits
CHE 326	4
CHE 384	3
CHE 385	1
PHY 132	4
SBC	3
Total	15

## JUNIOR

FALL	Credits
CHE 301	4
CHE 303	2
CHE 375	3
SBC	3
SBC	3
Total	15

SPRING	Credits
CHE 302	4
CHE 304	2
SBC	3
SBC	3
SBC	3
Total	15

## SENIOR

FALL	Credits
CHE 357	2
CHE 495	3
Upper-division SBC	3
SBC	3
SBC	3
SBC	3
Total	17

SPRING	Credits
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CHE 496	3
Upper-division CHE elective	3
Upper-division elective	3
SBC	3
SBC	3
Total	15

### Sample Course Sequence for the Major in Chemistry (B.A. Degree)

A course planning guide for this major may be found here.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 131	4
CHE 131	4
CHE 133	1
SBC	3
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 132	4
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
CHE 321	4
CHE 383	2
AMS 210 or MAT 211	3
PHY 131	4
SBC	3
Total	16

SPRING	Credits
CHE 326	4
CHE 384*	3
CHE 385	1

PHY 132	4
SBC	3
SBC	3
Total	18

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
CHE 301	4
CHE 303	2
SBC	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
CHE 302	4
CHE 304*	2
SBC	3
SBC	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CHE 375	3
Upper-division elective	3
Upper-division elective	3
Elective	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Upper-division SBC	3
Upper-division SBC	3
Elective	3
Elective	3
Elective	3
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 211 Intermediate Chinese I
- CHI 212 Intermediate Chinese II
- CHI 220 Intermediate Chinese for Heritage Speakers
- CHI 311 Advanced Chinese I
- CHI 312 Advanced Chinese II
- CHI 320 Advanced Chinese for Heritage Speakers
- 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 Supervised Research in Chinese

\*Students may fulfill the above language requirement by either taking Chinese courses offered by the Department of Asian and Asian American Studies on SBU campus or department approved study-abroad courses overseas. Students should consult with the Director of China Studies before studying abroad.

3. Three of the following elective courses: (9 credits)

- AAS 300 Intellectual History of East Asia
- AAS 307 Women in US-Asian Relations
- AAS 310 America's Wars in Asia
- AAS 319 Arts of China
- AAS 339 Contemporary China: History, Politics, Diplomacy since 1949
- 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)
- AAS 487 Supervised Research in AAS (when topic is appropriate)
- ARH 318 History of Chinese Painting
- 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 378 Philosophical Topics in Asian-American History (appropriate topic)
- 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)**

**Department of Cultural Studies and Comparative Literature, College of Arts and Sciences**

Chair: Robert Harvey

Undergraduate Program Director: Andrea Fedi

Assistant to the Chair: Mary Moran-Luba

Office: Humanities 1055

Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cscl/>

**Cinema and Cultural Studies (CCS)**

Using a cultural studies approach to cinema and its related media, Cinema and Cultural Studies courses are designed to investigate the cultural mechanisms through which a society's ways of knowing, value systems, and collective identities are generated, disseminated, challenged, and reinvented.

Requirements for the Major in Cinema and Cultural Studies

**Note: The major in Cinema and Cultural Studies has been suspended, effective Fall 2017. Students may not declare the major in Cinema and Cultural Studies after Fall 2017.**

**The minor in Cinema and Cultural Studies has been suspended, effective Spring 2018. Students may not declare the minor in Cinema and Cultural Studies after Spring 2018.**

The interdisciplinary major in Cinema and Cultural Studies leads to the Bachelor or Arts degree.

The following courses are required and must be taken for a letter grade. *No more than 6 credits of S/U grading may be applied to the major.*

Completion of the major requires 39 credits.

## A. Core Courses

- CCS 101 Introduction to Cinema & Cultural Studies
- CCS 301 Cinema and Media Theory
- CCS 401 Senior Seminar in Cinema & Cultural Studies

## B. Lower-Division Courses

Choose two of the following courses:

- CCS 200 Media History
- CCS 202 Film Genres
- CCS 203 Cinema History
- CCS 204 The Stony Brook Film Festival

## C. Upper-Division Elective Courses

Choose five courses from Group 1 and three courses from Group 2.

Group 1:

- CCS 311 Gender and Genre in Film
- CCS 312 Cinema and the Ancient World
- CCS 313 Television Studies
- CCS 381 Topics in Cinema Studies
- CCS 382 Topics in Media and Popular Culture
- CCS 383 Topics in Game Studies
- CCS 391 Topics in African Cinema and Cultural Studies
- CCS 392 Topics in European Cinema and Cultural Studies
- CCS 393 Topics in American Cinema and Cultural Studies
- CCS 394 Topics in Asian Cinema and Cultural Studies
- CCS 395 Topics in Digital Technology and Culture
- CCS 475 Undergraduate Teaching Practicum (I)
- CCS 476 Undergraduate Teaching Practicum (II)
- CCS 487 Independent Research
- CCS 488 Internship
- CCS 495 Senior Honors Project

Group 2:

- AFS 410 Computers and Third World Social Issues

- AFS 463 Blacks and Mass Media
- ARH 336 The Computer and the Arts
- ARH 345 The Moving Image in 20th Century Art
- ARH 348 Contemporary Art
- ARH 397 Topics in the History and Theory of Photography
- ARH 398 Topics in Film and Video Art
- ARS/THR 318 Movie Making: Shoot, Edit, Score
- ARS 324 Intermediate Digital Art: Design
- ARS 326 Video Art: Narrative Forms
- ARS 327 Digital Arts: Web Design and Culture
- ARS 329 Video Art: Experimental Forms
- ARS 381 Color and Light Photography
- ARS 425 Advanced New Media Art
- ARS 481 Advanced Photography
- CDT 318 Interactive Performance, Media, and MIDI
- CDT 450 Topics in Computational Arts
- CLT 301 Theory of Literature
- CLT 335 Interdisciplinary Study of Film
- CLT 361 Literature and Society
- CLT 363 Literature and the Arts
- CSE/ISE 301 History of Computing
- EGL 390/3 Topics in Literary and Cultural Studies
- EGL 394 Topics in Literary and Cultural Studies of Science and Technology
- EST/ISE 340 Design of Computer Games
- MUS 300 Music, Technology, and Digital Culture
- MUS 340 Introduction to Music Technology
- MUS 437 Electronic Music
- PHI 364 Philosophy of Technology
- PHI 365 Philosophy and Computers
- SPN 420 Topics in Spanish and Latin American Cinema
- THR 325 Scriptwriting for Film and Television
- THR 403 Media: Theory and Criticism

#### D. Upper-Division Writing Requirement

All students are required to write a research paper of 15–20 pages for CCS 401, 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 401 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. CCS 401 also satisfies the Stony Brook Curriculum WRTD learning objective.

#### Notes:

1. Other relevant courses may be substituted for major requirements with permission of the undergraduate program director.
2. Most of the upper-division courses in Group 2 have lower-division course(s) as pre-requisites. Bear this in mind when planning the early stages of your major.

#### 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.

#### Minor

**The minor in Cinema and Cultural Studies has been suspended, effective Spring 2018. Students may not declare the minor in Cinema and Cultural Studies after Spring 2018.**

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. All courses offered to satisfy minor requirements must be passed with a grade of C or higher.

Completion of the minor requires 21 credits.

A. CCS 101 Introduction to Cinema & Cultural Studies

B. Two of the following courses:

- CCS 200 Media History
- CCS 202 Film Genres
- CCS 203 Cinema History
- CCS 204 The Stony Brook Film Festival

C. CCS 301 Theorizing Cinema and Culture

D. Choose two courses from Group 1 and one course from Group 2.

Group 1:

- CCS 311 Gender and Genre in Film
- CCS 312 Cinema and the Ancient World
- CCS 313 Television Studies
- CCS 381 Topics in Cinema Studies
- CCS 382 Topics in Media and Popular Culture
- CCS 383 Topics in Game Studies
- CCS 391 Topics in African Cinema and Cultural Studies
- CCS 392 Topics in European Cinema and Cultural Studies
- CCS 393 Topics in American Cinema and Cultural Studies
- CCS 394 Topics in Asian Cinema and Cultural Studies
- CCS 395 Topics in Digital Technology and Culture

Group 2:

- AFS 410 Computers and Third World Social Issues
- AFS 463 Blacks and Mass Media
- ARH 336 The Computer and the Arts
- ARH 345 The Moving Image in 20th Century Art
- ARH 348 Contemporary Art
- ARH 397 Topics in the History and Theory of Photography
- ARH 398 Topics in Film and Video Art
- ARS/THR 318 Movie Making: Shoot, Edit, Score
- ARS 324 Intermediate Digital Art: Design
- ARS 326 Video Art: Narrative Forms
- ARS 327 Digital Arts: Web Design and Culture
- ARS 329 Video Art: Experimental Forms
- ARS 381 Color and Light Photography
- ARS 425 Advanced New Media Art
- ARS 481 Advanced Photography
- CDT 318 Interactive Performance, Media, and MIDI
- CDT 450 Topics in Computational Arts
- CLT 301 Theory of Literature
- CLT 335 Interdisciplinary Study of Film
- CLT 361 Literature and Society
- CLT 363 Literature and the Arts
- CSE/ISE 301 History of Computing
- EGL 390/3 Topics in Literary and Cultural Studies
- EGL 394 Topics in Literary and Cultural Studies of Science and Technology
- EST/ISE 340 Design of Computer Games
- MUS 300 Music, Technology, and Digital Culture
- MUS 340 Introduction to Music Technology
- MUS 437 Electronic Music
- PHI 364 Philosophy of Technology
- PHI 365 Philosophy and Computers
- SPN 420 Topics in Spanish and Latin American Cinema
- THR 325 Scriptwriting for Film and Television
- THR 403 Media: Theory and Criticism

## Notes:

1. Most of the upper-division courses have some lower-division course(s) as pre-requisites. Bear this in mind in planning the early stages of your minor.

**Sample Course Sequence for the Major in Cinema and Cultural Studies**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
CCS 101	3
CCS 202	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CCS 205	3
SBC	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
CCS 206	3
CCS 325	3
CCS 396	3
SBC	3
SBC	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
CCS 201	3
CLT 391	3
Foreign Language Literature course	3
SBC	3
SBC	3
<b>Total</b>	<b>15</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
CCS 301	3
CCS 326	3
CCS 327	3
SBC	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
CCS 311	3
CLT 301	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CCS 488	3
CLT 487	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
CCS 401	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Elective	3
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 Civil Engineering, College of Engineering and Applied Sciences**

Chairperson: Harold Walker

Undergraduate Program Director: Harold Walker

Assistant to the Director: Erin Giuliano

Office: Computer Science 2434

Phone: (631) 632-8777

Email: [civil\\_engineering@stonybrook.edu](mailto:civil_engineering@stonybrook.edu)

Fax: (631) 632-8110

Web address: <http://www.stonybrook.edu/civil>

**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 or related field and pursue professional licensure.
2. Pursue advanced study if they so desire.
3. Assume leadership roles in their communities and/or professions.

**Student Outcomes**

The students will demonstrate the following:

- (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**

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, chemistry, and engineering courses required for the major, 2) earned a G.P.A. of 3.0 in all mathematics, physics, chemistry, and engineering courses applicable to major requirements with no more than one grade less than B-, 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 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 or MAT 307 Multivariable Calculus with Linear Algebra
- 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 152/154

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, PHY 133, PHY 134 Classical Physics I, II: Honors

c. A basic science elective to be selected from the following list of courses: GEO 102, The Earth; MAR 104, Oceanography; BIO 201, Fundamentals of Biology: From Organisms to Ecosystems; ATM 201, Introduction to Climate and Climate Change

## 3. Laboratories

- CIV 340 Civil Engineering Materials Laboratory
- CIV 341 Geotechnical Engineering Laboratory
- CIV 342 Civil Engineering Hydraulics Laboratory

## 4. Civil Engineering

- CIV 101 Introduction to Civil Engineering
- CIV 210 Land Surveying
- CIV 305 Transportation Systems Analysis I
- CIV 310 Structural Engineering
- CIV 320 Water Supply and Wastewater Treatment Design
- CIV 330 Introduction to Geotechnical Engineering
- CIV 410 Principles of Foundation Engineering
- CIV 420 Hydraulics

## 5. Mechanical Engineering

- MEC 102 Engineering Computing and Problem Solving II
- MEC 203 Engineering Graphics and CAD or SBC 354 Drawing for Design - CAD
- MEC 214 Probability and Statistics for Mechanical Engineers
- MEC 260 Engineering Statics
- MEC 262 Engineering Dynamics
- MEC 363 Mechanics of Solids
- MEC 364 Introduction to Fluid Mechanics

## 6. Technology and Society

- EST 393 Project Management

## 7. Engineering Design

- CIV 312 Design of Civil Engineering Structures
- CIV 440 Senior Design I
- CIV 441 Senior Design II

## 8. Writing and Oral Communication Requirement

- CIV 300 Technical Communication

## 9. Engineering Economics

- EST 392 Engineering and Manufacturing Economics

## 10. Engineering Ethics

- ESE 301 Engineering Ethics and Societal Impact or CME 233 Ethics and Business Practices for Engineers

## 11. Civil Engineering Specializations

The area of specialization, composed of four electives, must be declared in writing by the end of the junior year. The area of specialization is selected in consultation with a faculty advisor.

The four areas of specialization are transportation engineering, geotechnical engineering, water resources and environmental engineering, and structural engineering and construction materials.

## Areas of Specialization

Each area of specialization requires a minimum of two electives from this list. An additional two electives may be taken from any of the specializations.

### Transportation Engineering

- CIV 306 Transportation Systems Analysis II
- CIV 407 Transportation Economics (required for the Transportation Engineering Specialization)
- EDP 302 The Built Environment
- EDP 307 Theories and Design of Urban Settlements
- GSS 313 GIS Design and Application I and GSS 314: GIS Laboratory [co-requisites] – only counts as one
- GSS 325 GIS Design & Applications II

### Geotechnical Engineering

- GEO 318 Engineering Geology and Coastal Processes
- GEO 347 Remote Sensing
- MEC 320 Numerical Methods in Engineering Design and Analysis
- MEC 442 Introduction to Experimental Stress Analysis
- MEC 455 Applied Stress Analysis

### Water Resources and Environmental Engineering

- CIV 422 Introduction to Coastal Engineering
- CIV 423 Coastal Engineering Planning and Design
- CIV 424 Stormwater Management and Design
- ENV 310 Sustainability and Renewable Energy - Costa Rica
- ESM 212 Introduction to Environmental Materials Engineering
- GEO 315 Groundwater Hydrology
- GEO 347 Remote Sensing
- MEC 393 Engineering Fluid Mechanics

### Structural Engineering and Construction Materials

- CIV 414 Advanced Construction Materials
- CIV 436 Pre-stressed Concrete
- EDP 302 The Built Environment II
- EDP 305 Risk Assessment and Sustainable Development
- EDP 307 Theories and Design of Urban Settlements
- ESG 332 Materials Science I: Structure and Properties of Materials
- ESM 325 Diffraction Techniques and Structure of Solids
- MEC 320 Numerical Methods in Engineering Design and Analysis
- MEC 402 Mechanical Vibrations
- MEC 411 Control System Analysis and Design
- 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, 363, 364, CIV 210, 305, 310, 312, 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, AMS 151 or MAT 131 or MAT 125 or MAT 141, MEC 260, MEC 262 and CIV 440 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 102 (WRT)	3
AMS 151 (QPS)	3
PHY 131/133 (SNW)	4
CIV 101	3
Basic Science Elective	3
<b>Total</b>	<b>17</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
AMS 161	3
PHY 132/134	4
MEC 102	2
CHE 131	4
SBC course	3
<b>Total</b>	<b>17</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
AMS 261	4
CHE 132/133	5
MEC 260	3
EST 392 (SBS)	3
MEC 214	1
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
AMS 361	4
MEC 262	3
MEC 363	3
MEC 203 or SBC 354	3
CHE 134	1
SBC course	3
<b>Total</b>	<b>17</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
MEC 364	3
CIV 210	1

CIV 305	3
CIV 310 (TECH)	3
CIV 340	2
ESE 301 (STAS)	3
Total	15

SPRING	Credits
EST 393	3
CIV 300	1
CIV 312	3
CIV 320	3
CIV 330	3
CIV 341	2
Total	15

## SENIOR

FALL	Credits
CIV 440*	3
CIV 410	3
CIV 420	3
CIV 342	1
Specialization course	3
Specialization course	3
Total	16

SPRING	Credits
CIV 441*	3
SBC course	3
SBC course	3
Specialization course	3
Specialization course	3
Total	15

\* Note: This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

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**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.*

Fall 2017-Spring 2018

**Classical Civilization (CLS)****Minor in Classical Civilization****Department of European Languages, Literatures, and Cultures; College of Arts and Sciences**

Chairperson: Luigi Fontanella

CLS Program Coordinator: Giuseppe Gazzola

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-6546

Web address: <http://www.stonybrook.edu/commcms/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:

CLL 215 Classical Mythology  
CLS 225 The Classical Tradition  
CLS 447 Independent Study  
EGL 260 Mythology in Literature

## Group IV:

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

Assistant to the Chair: Catherine Gropper

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/programs/clinical>

### 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.

The Stony Brook University Clinical Laboratory Sciences is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600N River Rd., Suite 720, Rosemont, IL, 60018-5119. The Clinical Laboratory Sciences Program is also an education program approved by the New York State Department of Education.

### Clinical Laboratory Sciences

Stony Brook freshmen have the opportunity to declare clinical laboratory sciences as a lower division major by making an appointment to come to an information session. Students successfully completing the lower division major are automatically advanced to the upper division professional program. Freshmen accepted into the lower division major must complete all prerequisites with a grade of C or better by the end of the sophomore year, pass HAD 210 - Introduction to Clinical Laboratory Sciences with a grade of A- or better, and achieve both a minimum cumulative grade point average (GPA) of 2.5.

All students, except freshman declared majors, must submit an on-line application with the Allied Health Centralized Application Service (AHCAS) by the deadline (March 1) followed by a Stony Brook Supplement application by the deadline (March 15) to be considered for admission into the upper division professional program. Students can get information about the application process at: <http://healthtechnology.stonybrookmedicine.edu/programs/clinical/clnsite>

### Pre-Application Requirements for the Major in Clinical Laboratory Sciences

1. 3 credits of English composition
2. 3 credits of humanities
3. 3 credits of arts
4. 3 credits of Level 1 social and behavioral
5. 3 credits of Level 2 social and behavioral
6. 12 credits of chemistry with labs (including one course in organic chemistry)
7. 8 credits of biology with labs (See Note 1)
8. 3 credits of general microbiology
9. 3 credits of statistics
10. 3 credits of math

#### 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 A- or higher.
4. Graduates are eligible to take the American Society for Clinical Pathology the National Board of Certification examination to become a registered medical laboratory scientist. Please visit [www.ascp.org](http://www.ascp.org) for further information, exam eligibility, and requirements. Graduation from the CLS program is NOT contingent on passing the ASCP National Board Examination.
5. Graduates will also need to apply to the New York State Department of Education to obtain a license to practice as a medical laboratory scientist in New York State. Please visit: [www.op.nysed.gov](http://www.op.nysed.gov) for further information.
6. For any additional information, please call 631-444-3925 or visit the Clinical Laboratory Sciences Program website at: <http://healthtechnology.stonybrookmedicine.edu/programs/clinical>

For more information, please visit <http://www.hsc.stonybrook.edu/shtm/index.cfm>

**Sample Course Sequence for the Major in Clinical Laboratory Sciences**

A course planning guide for this major may be found here.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
CHE 131 (SNW)	4
CHE 133	1
Humanities (HUM)	3
MAT 123 or MAT 125 (QPS)	3
Total	15

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CHE 132 (SNW)	4
CHE 134	1
MAT 125 or MAT 126 (QPS)	3
BIO 202 (STEM+)	3
GLO	3
Total	18

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
BIO 203 (STEM+)	3
BIO 204	2
Social and Behavioral Sciences -100 level (SBS)	3
CHE 321	4
HAD 210 – Introduction to CLS	1
Total	13

<b>SPRING</b>	<b>Credits</b>
ARTS	3
Social and Behavioral Sciences-200- to 400-level (SBS+)	3
AMS 102 or AMS 110 (QPS)	3
BIO 315 or HBM 320 Microbiology	3
Elective	3
Total	15

**Notes:**

- 1. Natural science courses (biology, chemistry, and organic) less than 10 years old are preferred.**
- 2. Prerequisites are required for some of the above courses that are above the required minimum to enter the Clinical Laboratory Sciences Program.**

**Prerequisites:**

- 1. All prerequisite courses must be completed with a grade of C or better.**
- 2. The minimum cumulative grade point average (GPA) for applicants is 2.5.**
- 3. Freshmen accepted into the lower division major must complete all prerequisites by the end of the sophomore year, pass HAD 210 – Introduction to CLS with a grade of A- or better, and meet the academic standards listed above.**

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017–Spring 2018

## Coastal Environmental Studies (COS)

### Major and Minor in Coastal Environmental Studies

Director: Katherine B. Aubrecht, Department of Chemistry and Sustainability Studies Program

Email: [katherine.aubrecht@stonybrook.edu](mailto:katherine.aubrecht@stonybrook.edu)

Program Office: W0511 Melville Library

Phone: 631.632.6404

Website: <http://www.stonybrook.edu/commcms/sustainability/majors/Coastalmajorpage.pcf.html>

#### Coastal Environmental Studies

The Coastal Environmental Studies minor 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.

### Requirements for the Major in Coastal Environmental Studies (COS)

The Bachelor of Science in Coastal Environmental Studies is designed to give students a solid foundation in science and environmental studies. It provides the skills, knowledge, and preparation for students to assess and address environmental problems. Students also will take courses in leadership skills and courses related to environmental policy and systems studies. This major prepares students for graduate study in environmental science, marine science, geoscience, environmental planning and related fields as well as for entry-level employment in the public, private, or non-profit sectors concerned with assessment, abatement, or regulation of a wide range of environmental problems.

Completion of the major requires 73 credits. All courses offered for the major must be passed with a letter grade of C or higher. Courses taken with the Pass/NC option may not be applied to the major.

#### Requirements for the Major in Coastal Environmental Studies

##### A. Required Foundation Courses for Major (35 credits)

- MAT 131/MAT 132 or MAT 125/MAT 126 or AMS 151/161. If students do not place into MAT 125 or MAT 131 or AMS 151 on the basis of the math placement examination, MAT 123 is a required course for the major.
- CHE 131/CHE 133 and CHE 132 (see Note 4)
- SBC 111 Introduction to Sustainability or ENS 101 Prospects for Planet Earth
- SBC 201 Systems and Models
- AMS 102 Elements of Statistics or AMS 110 Probability and Statistics in the Life Sciences
- BIO 201 Fundamentals of Biology
- BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences
- ENS 119/PHY 119 Physics for Environmental Studies (with lab) (see Note 3)
- SBC 201 Systems and Models
- One of the following courses: SBC 113 Physical Geography or GEO 102 The Earth

##### B. Career and Leadership Skills

- CSK 302 Technical Writing and Communication
- CSK 305 Collective Action and Advocacy or ENS 301 Contemporary Environmental Issues and Policies

##### C. Core Courses

- ATM 305 Global Atmospheric Change
- BIO 351 Ecology
- ENV 320 Chemistry for Environmental Scientists
- ENV 321 Chemistry for Environmental Scientists Laboratory
- GSS 313 GIS Design and Applications I
- GSS 314 GIS Design and Applications Laboratory

#### Students are required to select 9 credits from group A and 6 credits from group B.

Group A: Environmental Science Electives (choose 9 credits)

- BIO 352 Ecology Laboratory\*
- CHE 312 Physical Chemistry for the Life Sciences\*

- CHE 321 Organic Chemistry
- EHI 310 Restoration Ecology
- ENS 311/BIO 386 Ecosystem Ecology and the Global Environment
- ENV 310 Sustainability and Renewable Energy—Coasta Rica
- ENV 315/GEO 315 Groundwater Hydrology
- ENV 316 Coastal Zone Management
- ENV 340 Contemporary Topics in Environmental Science
- GEO 313 Understanding Water Resources for the 21st Century
- GSS 354 GIS for the Coastal Zone
- MAR 303 Long Island Marine Habitats
- MAR 304 Waves, Tides, and Beaches
- MAR 308 Environmental Instrumental Analysis\*
- MAR 315 Conservation Biology and Marine Biodiversity
- MAR 320 Limnology
- MAR 333 Coastal Oceanography
- MAR 336 Marine Pollution
- MAR 388 Tropical Marine Ecology

Group B: Environment, Society, and Policy (choose 6 credits)

- EDP 301 The Built Environment I\*
- EDP 305 Risk Assessment and Sustainable Development
- EDP 309 Planning: Policies and Regulations\*
- EHI 340 Ecological and Social Dimensions of Disease
- ENV 339 Economics of Coastal and Marine Ecosystems
- SBC 307 Environmental History of North America
- SBC 308 American Environmental Politics\*
- SBC 309 Global Environmental Politics
- SBC 311 Disasters and Society\*
- SBC 312 Environment, Society, and Health\*
- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- SBC 330 Extreme Events in Literature
- SUS 341 Environmental Treatises and Protocols
- SUS 342 Energy and Mineral Resources
- SUS 366 Philosophy of the Environment\*

\*These courses have additional prerequisites outside of the major

#### D. Systems Course (3 credits)

One Integrative, Collaborative Systems Project course:

- ENS 443 Environmental Problem Solving
- ENV 301 Sustainability of the Long Island Pine Barrens
- ENV 487 Research in Environmental Science (see Note 1)
- ENV 488 Internship (see Note 2)
- SBC 401 Integrative, Collaborative Systems Project

Note 1: ATM, ENS, MAR, or SUS 487 may, with permission, be substituted for ENV 487

Note 2: ATM, ENS, MAR, or SUS 488 may, with permission, be substituted for ENV 488

Note 3: 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

Note 4: CHE 129/130 may be substituted for CHE 131

#### 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 6 to 10 page long science based, with scientific references, papers from any 300-level or 400-level course in the major to the Director of the COS Undergraduate Program. Papers must receive a grade of B or higher and be submitted with the instructors grading comments.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their major.

## Requirements for the Minor in Coastal Environmental Studies (COS)

The Coastal Environmental Sciences minor is intended to provide a coherent foundation of scientific study on the physical processes and interactions of the coastal zone environment.

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program.

### Requirements for the Minor in Coastal Environmental Studies (COS):

- 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 or AMS 151
- 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
- MAR 333 Coastal Oceanography

Required two advanced elective courses chosen from the following, for a minimum of 6 credits:

- BIO 319 Landscape Ecology Laboratory
- 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
- GSS 354 GIS for the Coastal Zone
- 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 for the Major in Coastal Environmental Studies

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 125	3

ENS 101 or SBC 111	3
CHE 131/133	5
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SBC	3
MAT 126	3
CHE 132	4
Elective	3
Total	17

## SOPHOMORE

FALL	Credits
BIO 201/204	5
AMS 102	3
SBC	3
SBC	3
Total	14

SPRING	Credits
SBC 113	3
ENS 119	4
SBC 201	2
SBC	3
SBC	3
Total	15

## JUNIOR

FALL	Credits
ATM 305	3
BIO 351	3
ENV 320/ENV 321	4
SBC	3
Elective	3
Total	16

SPRING	Credits
CSK 305	3
GSS 313	3
GSS 314	1
Upper-division elective	3

Elective	3
SBC	3
Total	16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CSK 302	3
EHI 310 or Group A elective	3
SBC 309 or Group B elective	3
SBC course	3
Upper-division elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
SBC 401 or ENV 487 or ENV 488	3
GEO 313 or Group A elective	3
MAR 315 or Group A elective	3
SBC 325 or Group B elective	3
Upper-division elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Comparative Literature (CLT)

### Department of Cultural Studies and Comparative Literature, College of Arts and Sciences

Chair: Robert Harvey

Undergraduate Program Director: Andrea Fedi

Assistant to the Chair: Mary Moran-Luba

Office: Humanities 1055

Phone: (631) 632-7460

Web address: <http://www.stonybrook.edu/commcms/cscl/>

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 and Gender 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.

Requirements for the Major in Comparative Literature

**Note: The major in Comparative Literature has been suspended, effective Fall 2017. Students may not declare the major in Comparative Literature after Fall 2017.**

**The minor in Comparative Literature has been suspended, effective Spring 2018. Students may not declare the minor in Comparative Literature after Spring 2018.**

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 33 credits.

A. Five core courses:

1. Two introductory courses:

- • CLT 101
- • CLT 109 or CLT 121 or CLT 123

2. Theory Course / Upper-Division Writing Requirement:

- • CLT 301 (Note: For students whose first major is in Spanish Language and Literature, SPN 312 can be accepted for this requirement.)
- Upper-Division Writing Requirement:**

For all majors, the term paper for required course CLT 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. CLT 301 also satisfies the Stony Brook Curriculum learning outcome WRTD.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

3. 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.

4. Literature in the Original Language: at least one course from B (Area Electives) or C (Comparative Electives) below should fulfill this requirement for a course in literature in its original language (other than English).

B. Area Electives: three courses beyond the introductory level that explore literature of a specific regional or national area, chosen from the following:

AAS 320, AAS 321, AAS 322, AAS 326, AAS 327, AAS 332, CLL 215, CLS 225, CLT 220, CLT 235, CLT 266, CHI 412, CHI 421, CHI 422, EGL 200-level (except EGL 285 and EGL 286), EGL 300, EGL 302, EGL 304, EGL 306, EGL 310, EGL 312, EGL 314, EGL 316, EGL 318, EGL 320, EGL 321, EGL 322, EGL 340, EGL 342, EGL 344, EGL 345, EGL 346, EGL 347, EGL 348, EGL 349, EGL 350, EGL 352, EGL 354,

EGL 360, EGL 361, EGL 362, EGL 363, EGL 364, FRN 395, FRN 396, FRN 433, FRN 434, FRN 435, FRN 436, GER 344, GER 402, GER 404, HUG 321, HUI 331, ITL 395, ITL 396, ITL 431, ITL 432, ITL 434, ITL 435, JDH 261, LAT 251, LAT 252, MVL 241, SPN 312, SPN 395, SPN 396, SPN 397, SPN 398, SPN 445

Note: Most of the upper-division electives in other departments have prerequisites. Plan your program of study with this in mind and, if desired, consult the Director of Undergraduate Studies for help.

C. Comparative Electives: four upper-division courses, at least two from Group 1.

Group 1 (Literature): Courses that examine literature according to comparative methods (feminist and queer theories, colonialism, migration, or diaspora, race and ethnicity, cultural studies, etc.)

AAS 305/EGL 305, AAS 328, AAS 331, AAS 473, AFH 329/HUF 318, AFH 330, AFH 368, AFH 379/PHI 379, AFH 385/HUF 385, AFH 390, AFH 391, AFH 417, CLT 330, CLT 334, CLT 361, CLT 362, CLT 363, CLT 371/PHI 371, CLT 391, CLT 392, CLT 393, CLT 394, EGL 333, EGL 367, EGL 368, EGL 369, EGL 371, EGL 372, EGL 373, EGL 374, EGL 375, EGL 376, EGL 377, EGL 378, EGL 379, EGL 389/AST 389, EGL 390, EGL 391, EGL 392, EGL 393, EGL 394, EGL 395, EGL 397, EGL 398, EGL 399, FRN 423/AFH 423, FRN 438, HUR 341, PHI 371, PHI 380, SPN 405, SPN 410, SPN 415, SPN 435, WST 315/CLL 315, WST 372, WST 382/EGL 382/AFH 382, WST 390, WST 391

Group 2 (Other Forms of Cultural Production): Courses that explore other forms of cultural production (cinema, visual art, music, performance, etc.).

AMR 390, AMR 395, AMR 397, ARH 315, ARH 322, ARH 324, ARH 329, ARH 330, ARH 333, ARH 336, ARH 344, ARH 345, ARH 346, ARH 347, CCS 301, CCS 311, CCS 312, CCS 313, CCS 324/MUS 324, CCS 325, CCS 383, CCS 390, CCS 391, CCS 392, CCS 393, CCS 394, CCS 395, CCS 396, CCS 397, CDT 317, CDT 318, CDT 341, CLT 335, HUI 338, MUS 300, MUS 307, MUS 308, MUS 310, MUS 311, MUS 314, MUS 320, SPN 405, SPN 420, THR 312, THR 313, THR 315, THR 316, THR 334, THR 344, THR 354, THR 403

Note: Most of the upper-division electives in other departments have prerequisites. Plan your program of study with this in mind and, if needed, consult the Director of Undergraduate Studies for help.

#### Honors Program

Students who have maintained a grade point average of 3.50 in the major and 3.00 overall may seek a degree in Comparative Literature with honors.

Honors students must use CLT 495 to fulfill their senior project requirement.

The honors program requires **one** of the following options in addition to the requirements of the major.

- A second course in literature in the original language used for Requirement 4, Literature in the Original Language.
- Study of a language other than that used for Requirement 4 through the intermediate level.
- Fulfillment of the requirements for the minor in a cognate discipline (to be approved by the major advisor; minors in language or literature recommended).

#### Requirements for the Minor

The minor in Comparative Literature has been suspended, effective Spring 2018. Students may not declare the minor in Comparative Literature after Spring 2018.

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 18 credits.

#### A. Three core courses:

- CLT 101
- CLT 301 (Note: For students whose first major is in Spanish Language and Literature, SPN 312 can be accepted towards this requirement)
- Literature in the original language: at least at least one course from B (Area Electives) or C (Comparative Electives) below should fulfill this requirement for a course in literature in its original language (other than English).

B. Area Electives: two courses beyond the introductory level that explore literature of a specific regional or national area, chosen from the following:

AAS 320, AAS 321, AAS 322, AAS 326, AAS 327, AAS 332, CLL 215, CLS 225, CLT 220, CLT 235, CLT 266, CHI 412, CHI 421, CHI 422, EGL 200-level (except EGL 285 and EGL 286), EGL 300, EGL 302, EGL 304, EGL 306, EGL 310, EGL 312, EGL 314, EGL 316, EGL 318, EGL 320, EGL 321, EGL 322, EGL 340, EGL 342, EGL 344, EGL 345, EGL 346, EGL 347, EGL 348, EGL 349, EGL 350, EGL 352, EGL 354, EGL 360, EGL 361, EGL 362, EGL 363, EGL 364, FRN 395, FRN 396, FRN 433, FRN 434, FRN 435, FRN 436, GER 344, GER 402, GER 404, HUG 321, HUI 331, ITL 395, ITL 396, ITL 431, ITL 432, ITL 434, ITL 435, JDH 261, LAT 251, LAT 252, MVL 241, SPN 312, SPN 395, SPN 396, SPN 397, SPN 398, SPN 445

Note: Most of the upper-division electives in other departments have prerequisites. Plan your program of study with this in mind and, if needed, consult the Director of Undergraduate Studies for help.

C. Comparative Electives: two upper-division courses, at least one from Group 1.

Group 1 (Literature): Courses that examine literature according to comparative methods (feminist and queer theories, colonialism, migration, or diaspora, race and ethnicity, cultural studies, etc.)

AAS 305/EGL 305, AAS 328, AAS 331, AAS 473, AFH 329/HUF 318, AFH 330, AFH 368, AFH 379/PHI 379, AFH 385/HUF 385, AFH 390, AFH 391, AFH 417, CLT 330, CLT 334, CLT 361, CLT 362, CLT 363, CLT 371/PHI 371, CLT 391, CLT 392, CLT 393, CLT 394, EGL 333, EGL 367, EGL 368, EGL 369, EGL 371, EGL 372, EGL 373, EGL 374, EGL 375, EGL 376, EGL 377, EGL 378, EGL 379, EGL 389/AST 389, EGL 390, EGL 391, EGL 392, EGL 393, EGL 394, EGL 395, EGL 397, EGL 398, EGL 399, FRN 423/AFH 423, FRN 438, HUR 341, PHI 371, PHI 380, SPN 405, SPN 410, SPN 415, SPN 435, WST 315/CLL 315, WST 372, WST 382/EGL 382/AFH 382, WST 390, WST 391

Group 2 (Other Forms of Cultural Production): Courses that explore other forms of cultural production (cinema, visual art, music, performance, etc.).

AMR 390, AMR 395, AMR 397, ARH 315, ARH 322, ARH 324, ARH 329, ARH 330, ARH 333, ARH 336, ARH 344, ARH 345, ARH 346, ARH 347, CCS 301, CCS 311, CCS 312, CCS 313, CCS 324/MUS 324, CCS 325, CCS 383, CCS 390, CCS 391, CCS 392, CCS 393, CCS 394, CCS 395, CCS 396, CCS 397, CDT 317, CDT 318, CDT 341, CLT 335, HUI 338, MUS 300, MUS 307, MUS 308, MUS 310, MUS 311, MUS 314, MUS 320, SPN 405, SPN 420, THR 312, THR 313, THR 315, THR 316, THR 334, THR 344, THR 354, THR 403

Note: Most of the upper-division electives in other departments have prerequisites. Plan your program of study with this in mind and, if needed, consult the Director of Undergraduate Studies for help.

### Sample Course Sequence for the Major in Comparative Literature

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CLT 101	3
SBC	3
Elective	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CLT 109	3
SBC	3
SBC	3
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
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CLL 215	3
CLS 225	3
CLT 220	3
SBC	3
Elective	3
Total	15

SPRING	Credits
CLT 266	3
Foreign Language Literature course	3
SBC	3
SBC	3
SBC	3
Total	15

## JUNIOR

FALL	Credits
CLT 301	3
CLL 315	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	15

SPRING	Credits
CLT 330	3
CLT 361	3
CLT 334	3
Upper-division elective	3
Elective	3
Total	15

## SENIOR

FALL	Credits
CLT 487	3
CLT 362	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division elective	3

Upper-division elective	3
Upper-division elective	3
SBC	3
Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Computer Engineering (ECE)****Major in Computer Engineering****Department of Electrical and Computer Engineering, College of Engineering and Applied Sciences**

Chairperson: Petar Djuri#

Undergraduate Program Director: Ridha Kamoua

Undergraduate Program Coordinator: Cathryn Mooney

Office: 267 Light Engineering  
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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)

**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, 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, PHY 133, PHY 134 is accepted in lieu of PHY 131/PHY 133, PHY 132/PHY 134 (Students are advised to take PHY 127 before PHY 126).

#### 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

Six different courses must be taken from the following:

- One course from: ESE 330 or ESE 356 or ESE 366 or ESE 355 or ESE 381
- One course from: ESE 304 or ESE 347 or CSE 219 or ESE 343
- Two courses from: CSE 376, ESE 343, 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 343, 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

#### 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 301, ESE 440, ESE 441, 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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102 (WRT)	3
AMS 151 or MAT 131 (QPS)	3-4
PHY 131/133 (SNW)	4
ESE 123 (TECH)	4
Total	15-16

SPRING	Credits
First Year Seminar 102	1
AMS 161 or MAT 132 (QPS)	3-4
PHY 132/134	4
ESE 124	3
ESE 218	4
Total	15-16

#### SOPHOMORE

FALL	Credits
AMS 361 or MAT 303	4
ESE 380	4
ESE 271	4
ESE 224	3
SBC	3
Total	18

SPRING	Credits
AMS 210 or MAT 211	3

ESE 372	4
ESE 382	4
CSE 114	4
ESE 211	2
Total	17

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
CSE 214	3
AMS 301	3
ESE 305	3
ESE 345	3
SBC	3
ESE Elective <sup>1</sup>	3
Total	18

<b>SPRING</b>	<b>Credits</b>
ESE Elective <sup>2</sup>	3
ESE 306	4
ESE 300	3
ESE 333 (or CSE 306)	3
ESE 301 (STAS)	3
Total	16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
ESE 440*	3
ESE Elective <sup>3</sup>	3
ESE Elective <sup>4</sup>	3
Math elective	4
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
ESE 441*	3
ESE Elective <sup>3</sup>	3
ESE Elective <sup>4</sup>	3
SBC	3
SBC	3
Total	15

Elective list 1: One course from: ESE 330 or ESE 355 or ESE 356 or ESE 366 or ESE 381

Elective list 2: One course from: ESE 304 or ESE 343 or ESE 347 or CSE 219

Elective list 3: Two courses from: CSE 376, ESE 343, 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 343, 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, BIO 202 & BIO 204, BIO 203 & BIO 205, ESG 198, PHY 251 & PHY 252, AMS 261

\*Note: This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Computer Science (CSE)****Major and Minor in Computer Science****Department of Computer Science, College of Engineering and Applied Sciences**

Interim Chairperson: Samir Das

Undergraduate Program Director: Leo Bachmair

Undergraduate Advisors: Kevin McDonnell, Jennifer Wong

Undergraduate Secretary: Diane Cerullo

Office: 101 New Computer Science Building

Phone: (631) 632-8470

E-mail: [Leo.Bachmair@stonybrook.edu](mailto:Leo.Bachmair@stonybrook.edu) or [Diane.Cerullo@stonybrook.edu](mailto:Diane.Cerullo@stonybrook.edu)

Website: <http://www.cs.stonybrook.edu>

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:

- Establish themselves as practicing professionals or engage in advanced study and
- Advance professionally through organized training or self-learning.

**Student Outcomes**

The students will demonstrate the following:

- a. An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline;
- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- c. An ability to design, implement, and evaluate, a computer-based system, process, component or program to meet desired needs;
- d. An ability to function effectively on teams to accomplish a common goal;
- e. An understanding of professional, ethical, legal, security and social issues and responsibilities.
- f. An ability to communicate effectively with a range of audiences;
- g. An ability to analyze the local and global impact of computing on individuals, organizations, and society;
- h. Recognition of the need for and an ability to engage in continuing professional development;
- i. An ability to use current techniques, skills, and tools necessary for computing practice;
- j. 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;
- k. 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.

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 may be accepted directly into the Computer Science major upon admission to the University. Currently enrolled students and transfer students may apply for acceptance to the major after completing at least ten credits of required CSE courses, including CSE 114 and CSE 215, with grades of B- or higher and a grade point average of 3.20 or higher in these courses. Only one of these courses may be repeated. Transfer students who have completed equivalent courses at another school with grades of B- or higher need not retake these courses, but should keep in mind that grades do not transfer and grade point averages are calculated on the basis of courses completed at Stony Brook. Students must have completed course evaluations for all transferred courses that are to be used to meet requirements of the major. Priority is given to students with a cumulative grade point average of 3.00 or higher.

### Requirements for the Major

The major in Computer Science leads to the Bachelor of Science degree. Completion of the major requires approximately 80 credits. At least 24 credits from items 1 to 3 below, and at least 18 credits from items 2 and 3, must be completed at Stony Brook.

#### 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 Systems Fundamentals I

Note: Students in the CSE Honors Program may substitute CSE 160, CSE 161 and CSE 260, CSE 261 Computer Science A, B: Honors with labs 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 or CSE 385 Analysis of Algorithms: Honors
- CSE 308 Software Engineering
- CSE 320 Systems Fundamentals II
- 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. At least one of the following natural science lecture/laboratory combinations:

BIO 201/204 or BIO 202/204 or BIO 203/204 or CHE 131/133 or CHE 152/154 or PHY 126/133 or PHY 127/133 or PHY 131/133 or PHY 141/133

8. Additional natural science courses selected from above and the following list:

AST 203, AST 205, CHE 132, CHE 321, CHE 322, CHE 331, CHE 332, GEO 102, GEO 103, GEO 112, GEO 113, PHY 125, PHY 132, PHY 134, PHY 142, PHY 251, PHY 252

Note: The courses selected in 7 and 8 must carry at least 12 credits.

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 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 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 Factor

\*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. The project may not be applied towards the requirements of another specialization.

### 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 five 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 331 Computer Security Fundamentals  
 CSE 334 Introduction to Multimedia Systems  
 CSE 337 Scripting Languages  
 CSE 352 Artificial Intelligence  
 CSE 355 Computational Geometry  
 CSE 364 Advanced Multimedia Techniques  
 CSE 375 Concurrency  
 CSE 376 Advanced Programming in UNIX/C

### 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. The project may not be applied towards the requirements of another specialization.

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 Computer Security

The specialization in Computer Security prepares students for a career as a security engineer, threat analyst, or security researcher. The courses under this specialization are taught by the computer science faculty affiliated with the National Security Institute. The specialization covers the fundamentals of security, while also exposing the student to some of the latest developments. 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 331 Computer Security Fundamentals
- d. CSE 360 Software Security, CSE 361 Web Security, CSE 362 Mobile Security, or CSE 363 Offensive 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 360 Software Security, CSE 361 Web Security, CSE 362 Mobile Security, or CSE 363 Offensive Security  
 CSE 375 Concurrency  
 CSE 376 Advanced Systems Programming in UNIX/C  
 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 computer security. The project may not be applied towards the requirements of another specialization.

### Specialization in Systems Software Development

The specialization in systems software development prepares students for a career in software applications development or systems software development. 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 Computer Networks or CSE 346 Computer Communications
- b. CSE 306 Operating Systems or CSE 376 Advanced Systems Programming in Unix/C
- c. CSE 331 Computer Security Fundamentals
- d. CSE 311 Systems Administration or CSE 337 Scripting Languages

#### 2. Two electives from the following:

CSE 304 Compiler Design  
 CSE 305 Principles of Database Systems  
 CSE 306 Operating Systems  
 CSE 311 Systems Administration  
 CSE 336 Internet Programming  
 CSE 337 Scripting Languages  
 CSE 360 Software Security, CSE 361 Web Security, CSE 362 Mobile Security, or CSE 363 Offensive Security  
 CSE 370 Wireless and Mobile Networking  
 CSE 376 Advanced Systems Programming in UNIX/C  
 Special topics courses in systems software development

#### 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 systems software development. The project may not be applied towards the requirements of another specialization.

### 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 Systems Fundamentals I
  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 312, CSE 475, CSE 487, CSE 488). Note: CSE 301 can not be used as a technical elective for the minor.
- 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

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CSE 101 (TECH)	3
AMS 151 (QPS)	3
Natural Science (SNW)	4
Total	14

SPRING	Credits
First Year Seminar 102	1
WRT 102 (WRT)	3
AMS 161	3
Natural Science	4
CSE 114 (TECH)	4
Total	15

#### SOPHOMORE

FALL	Credits
CSE 214	3
CSE 215	3
SBC	3
Natural Science	4
SBC	3
Total	16

SPRING	Credits
CSE 219	4
CSE 220	3

AMS 210	3
SBC	3
SBC	3
Total	16

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
CSE 300 (SPK & WRTD)	3
CSE 320	3
CSE 303	3
AMS 301	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
CSE 312 (STAS, CER, ESI)	3
CSE 305 or CSE 306	3
CSE 373	3
Elective	3
AMS 310	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CSE 308	3
CSE advanced course	3
CSE technical elective	3
Elective	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
CSE advanced course	3
CSE technical elective	3
CSE technical elective	3
Elective	3
Elective	3
Total	15

Notes:

- SBC refers to the following (five) categories: HUM, SBS, ARTS, USA, GLO
- Students may satisfy the Pursue Deeper Understanding and Prepare for Life-Long Learning categories of the SBC by completing CSE 300 and one of the following course clusters:
  - CSE 305, 308
  - CSE 306, 308

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

## Creative Writing and Literature (CWL)

### Minor in Creative Writing and Literature

Undergraduate Program Director: Megan McAndrew

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Office: Humanities 1076

Phone: (631) 632-1133

### Creative Writing

A minor in creative writing at Stony Brook offers a 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 optional 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 may take all of their courses on main campus or, when it is offered, up to five courses in a single semester through a Semester by the Sea residency at the Southampton campus. For more information about which courses are being offered at both campuses, download the Course Schedule at <http://www.stonybrook.edu/southampton/mfa/cwl/academics.html>. CWL 450, the capstone project, is offered only in the Semester by the Sea format, and so students completing coursework on main campus should plan to take an extra writing workshop instead.

Students should take the prerequisite CWL 202 Introduction to Creative Writing prior to enrolling in the Semester by the Sea. The remaining requirements may also be taken as stand-alone courses in fall, spring and summer terms.

#### 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)

Students may repeat a workshop as the topic changes.

- 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, 550 (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 or one Additional Writing Workshop at the 300 or graduate level (3 credits)\*

- CWL 450 Senior Project
- CWL 300, 305, 310, 315, 320, 325 or graduate-level CWL 510, 520, 530, 540, 550  
In consultation with the director, a creative writing workshop, preferably at the graduate level, that builds on a project begun in a previous workshop. e.g., CWL 510 "Advancing the Novel."

\*Note: Workshop courses taken to satisfy requirement B may not be used to also satisfy requirement D.

**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.*

Fall 2017-Spring 2018

**Digital Arts (DIA)****Minor in Digital Arts****Department of Art, College of Arts and Sciences**

Program Advisor: Stephanie Dinkins

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WEB ADDRESS: <http://art.stonybrook.edu/undergraduate-programs/#digital>

**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), Engineering, 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. Nine or more credits for the minor must be upper division.

To earn a Digital Arts Minor students must take:

- one Core course (category A)
- one Foundations course (category B)
- one Intermediate Production course (category C)
- one additional Production course (chosen from categories C or D)
- one Theory and Culture course (chosen from category E)
- two additional elective courses (chosen from categories C, D, or E)

**A. Core Courses:**

- ARS 225 Introductory Digital Art
- CDT 208 Introduction to Digital Media Technology

**B. Foundations:**

- ARS 205 Foundations in Visual Arts: Idea and Form
- ARH 207 Technologies of Representation
- CCS 101 Images and Texts: Understanding Culture

**C. Intermediate Production Courses:**

- ARS 324 Digital Art: Design
- ARS 325 Digital Art: Print
- ARS 326 Moving Image: Narrative Video
- ARS 327 Digital Art: Web Art and Culture
- ARS 328 Moving Image: Animation
- ARS 329 Moving Image: Experimental Forms
- ARS 425 Advanced New Media Art
- CDT 317 Interactive Media, Performance, and Installation
- CDT 318 Movies: Shoot, Score, Edit
- CDT 341 Sound Design
- MUS 340 Introduction to Music Technologies

**D. Other Production Courses:**

- ARS 281 Introductory Photography

- ARS 381 Color and Light Photography
- ARS 481 Advanced Photography
- ARS 390/ARS 491/ARS 492 Topics (approved topics only)
- ARS 487 Advanced Directed Projects in Studio
- ARS 488/MUS 488/THR 488/CCS 488/CSE 488/ISE 488 Internship (approved internships only)
- CSE 102/ISE 102 Introduction to Web Design and Programming
- CSE 114 Computer Science I
- CSE 214 Computer Science 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
- ESE 123 Introduction to Electrical and Computer Engineering
- ESE 124 Computer Techniques for Electronic Design
- EST 205 Introduction to Technological Design I
- ISE 108 Introduction to Programming
- ISE 208 Programming II
- ISE 332 Introduction to Visualization
- ISE 340/EST310 Design of Computer Games
- MUS 344 Introduction to Audio Engineering

E. Theory and Culture Courses:

- ARH 208 History of Photography
- ARH 308 Writing About Art (approved topics only)
- ARH 322 American Art Since 1947
- ARH 333 Arts for the Public
- ARH 336 Computers and the Arts
- ARH 344 Performance Art II: World War II to the Present
- ARH 345 The Moving Image in 20th century Art
- ARH 348 Contemporary Art
- ARH 400 Topics in Art History and Criticism (approved topics only)
- ARH 490 Senior Seminar: Topics in Art History, Museum Studies and Criticism (approved topics only)
- CCS 301 Theorizing Cinema and Culture
- CCS 311 Gender and Film
- CCS 313 Television Studies
- CCS 390 Topics in Latin American Cinema and Cultural Studies
- CCS 391 Contemporary African Cinema and Cultural Studies
- CCS 392 Topics in Contemporary American Cinema and Cultural Studies
- CCS 393 Topics in Contemporary European Cinema and Cultural Studies
- CCS 394 Topics in Contemporary Asian Cinema and Cultural Studies
- CCS 395 Digital Cultural Studies
- CCS 396/DIA 396 Video and Computer Game History
- CCS 397/DIA 397 Video and Computer Game Culture
- CCS 401 Senior Seminar in Cinema and Cultural Studies
- CSE 301 History of Computing
- ESE 201 Engineering and Technology Entrepreneurship
- ESG 100 Introduction to Engineering Science
- EST 310/ISE 310 Design of Computer Games
- MUS 300 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 internship (488) may be applied to the minor.
2. No more than three credits from ARS 487 may be applied to the minor.
3. Pre-approval for appropriate 487 projects and 488 internships is required.
4. Pre-approval for topics courses is required (ARS 390, ARS 491, ARS 492, ARH 308, ARH 400, ARH 490).

*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: Daniel Davis

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 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). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
2. PHY 121 Physics for Life Sciences with lab or PHY 131/PHY 133 Classical Physics I and lab or PHY 141 Classical Physics I: Honors
3. Any two of the following groups:
  1. PHY 122 Physics for Life Sciences with lab (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
  2. CHE 131 (129), CHE 132 General Chemistry I, II or CHE 141, CHE 142 Honors Chemistry I, II (See Note 3)
  3. 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 and speaking requirement

Before graduation all students in the Earth and Space Sciences track must register concurrently for the 1-credit GEO 496 and GEO 497 courses along with a 300-400 level GEO course. Completion of GEO 496 and 497 with a grade of 'S' will satisfy the writing and speaking requirements.

**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**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131	4

GEO 102	3
GEO 112	1
SBC	3
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
MAT 131	4
GEO 103	3
GEO 113	1
Total	16

## SOPHOMORE

FALL	Credits
MAT 132	4
PHY 121 or PHY 131/PHY 133	4
SBC	3
SBC	3
Total	14

SPRING	Credits
PHY 122 or PHY 132/PHY 134	4
GEO/AST/ATM Elective	3
SBC	3
SBC	3
Upper-division SBC	3
Total	16

## JUNIOR

FALL	Credits
ATM 205	3
Upper-division Concentration elective	3
AST 101	3
AST 112	1
BIO 201	3
Upper-division SBC	3
Total	16

SPRING	Credits
Upper-division Concentration elective	3

GEO/AST/ATM Elective	4
BIO 204	2
SBC	3
Upper-division SBC	3
Upper-division SBC	
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division Concentration elective	3
Upper-division GEO, AST, or ATM elective	3
GEO 458	0
SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Upper-division Concentration elective	3
GEO/AST/ATM Elective	3
GEO 459	0
Upper-division elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	18

*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: Juan Carlos Conesa

Assistant to the Chair: Domenica Tafuro

Director of Undergraduate Studies: Hugo Bebutez-Silva

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)

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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 41 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
- ECO 320 Mathematical Statistics
- ECO 321 Econometrics

3. Five additional courses in economics at the 300 level and above. Each of these must be taken for a minimum of three credits.

4. One additional course, either in economics or from a list of pre-approved electives in other departments, that carries 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 Precalculus

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 registering for the 0-credit ECO 459 and obtaining a satisfactory evaluation of their writing from the faculty instructor of any upper-division ECO course except ECO 320 in which 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 should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
MAT 122 or MAT 123 or AMS 151	3
SBC	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
MAT	3-4
ECO 108	4
SBC	3
SBC	3
<b>Total</b>	<b>17-18</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
ECO 303	4
ECO 320	4
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>167</b>

<b>SPRING</b>	<b>Credits</b>
ECO 305	4
ECO 321	4
SBC	3
Upper-division elective	3
Elective	3
<b>Total</b>	<b>17</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division ECO	3
Upper-division ECO	3

Upper-division elective	4
SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division ECO	3
ECO elective or other approved course	3
Upper-division elective	3
SBC	3
SBC	3
Total	15

## SENIOR

FALL	Credits
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
Upper-division ECO	3
ECO elective or other approved course	3
Upper-division elective	3
Elective	3
Elective	3
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. Sharon Pochron

Email: Sharon.pochron@stonybrook.edu

Program Office: W0511 Melville Library

Phone: 631.632.9404

Website: <http://www.stonybrook.edu/commcms/sustainability/majors/Ecosystemsmajorpage.pcf.html>

**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 125 or MAT 131 Calculus or AMS 151. If students do not place into MAT 125 or 131 or AMS 151 on the basis of the math placement examination, MAT 123 is a required course for the major.
- ECO 108 Introduction to Economics
- GSS 313 GIS Design and Application I and GSS 314 GIS Laboratory
- SBC 111 Introduction to Sustainability
- SBC 113 Physical Geography
- CHE/ENV 115 Chemistry, Life, and Environment (Note: CHE 129, 131, 141, or 152 may be substituted for CHE/ENV 115)
- SBC 201 Systems and Models
- ANP 120 Introduction to Physical Anthropology
- SBC 204 Population Studies
- BIO 201 and BIO 204 Fundamentals of Biology: Organisms to Ecosystems and lab

## B. Career and Leadership Skills (6 credits)

- CSK 302 Technical Writing and Communication
- CSK 305 Collective Action and Advocacy

## C. Core Courses (12 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 307, 326, 391, and 350 are offered in Madagascar)

## Group I:

- ANP 307 Comparing Ecosystems in Madagascar

- ANP 326 Lemurs of Madagascar
- ANP 350 Field Methods in Primatology and Field Biology
- ANP 391 Ecosystem Diversity and Evolution
- BIO 319 Landscape Ecology Laboratory
- BIO 352 Ecology Laboratory
- BIO 353 Marine Ecology
- GEO 313 Understanding Water Resources for the 21st Century
- GSS 313/GSS 314 Design and Application I with GIS Lab
- 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
- EHI 350 Design and Implement a Research Project in Ecotoxicology
- EHI 351 Conduct and Communicate a Research Project in Ecotoxicology
- ENV 310 Sustainability and Renewable Energy - Costa Rica
- ENV 340 Contemporary Topics in Environmental Science

## Group II:

- AFS 374/SBC 374 Environment and Development in African History
- EHM 314 Civilizations and Collapse
- EHM 316 Cuba and Sustainability
- ENS 311 Ecosystem Ecology and Global Environment
- SBC 203 Interpretation & Critical Analysis
- SBC 206 Economics and Sustainability
- SBC 309 Global Environmental Politics
- SUS 341 Environmental Treatises and Protocols
- SBC 307 Environmental History of North America
- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- 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
- SUS 303 Demographic Change and Sustainability
- EDP 309 Planning: Policies and Regulations
- SUS 366 Philosophy of the Environment
- 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:

- ENV 301 Sustainability of the Long Island Pine Barrens
- SBC 401 Integrative, Collaborative Systems Project
- ANP 487 Independent Research in Biological Anthropology
- ANT 487 Independent Study 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 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 **with letter grades of no lower than a B** from any 300-level or 400-level course in the major to the director of the EHI Undergraduate Program.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Note:

All 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.

### Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their 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.

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program.

### 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 19 to 20 credits. Students electing this minor should arrange a meeting with the EHI director to develop a course plan and complete the necessary forms.

#### 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 minimum of three advanced courses chosen from the following:

- ANP 307 Comparing Ecosystems in Madagascar\*
- ANP 326 Lemurs of Madagascar\*
- ANP 350 Methods in Studying Primates\*
- ANP 391 Ecosystem Diversity and Evolution\*
- BIO 319 Landscape Ecology Laboratory
- BIO 336 Conservation Biology
- BIO 351 Ecology
- BIO 352 Ecology Laboratory
- BIO 353 Marine Ecology
- EHI 310 Restoration Ecology
- EHI 311 Ecosystem-Based Management
- EHI 322 Human Ecology
- EHI 326 Conservation Genetics
- EHI 342 Materials in Human and Natural World
- EHI 343 Sustainable Natural Resources
- EHI 350 Design and Implement a Research Project in Ecotoxicology
- EHI 351 Conduct and Communicate a Research Project in Ecotoxicology
- ENV 301 Sustainability of the Long Island Pine Barrens
- ENV 304 Global Environmental Change
- ENV 310 Sustainability and Renewable Energy - Costa Rica
- ENV 340 Contemporary Topics in Environmental Science
- GEO 313 Understanding Water Resources for the 21st Century
- 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

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SBC 111	3
MAT 125 or MAT 131	3-4
SBC 113	3
CSK 102	1
Total	14-15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CSK 104	1
ENV 115	3
SBC 205	1
SBC 116	3
POL 102	3
Total	15

#### SOPHOMORE

FALL	Credits
SBC 201	1
ANP 120	4
BIO 201/BIO 204	5
CSK Elective	1
SBC	3
Total	14

SPRING	Credits
ENV 304	3
Foreign Language or elective	3-4
ECO 108	4
SBC 204	3
SBC 203	3
Total	16-17

#### JUNIOR

FALL	Credits
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EHI 326	3
Group II #1 SBC 309	3
CSK 302	3
EHM 201	3
SBC	3
Total	15

SPRING	Credits
BIO 351	3
Group I #1 ENV 340	3
Group I #2 300-level elective	3
EHI 322	3
Elective	3
Total	15

## SENIOR

FALL	Credits
Group I #3 EHI 310	3
Group I #4 EHI 311	3
SBC 401	3
Internship/Research	3
Elective	3
Total	15

SPRING	Credits
GSS 313/GSS 314	4
Elective	3
Elective	3
EHI 487	6
Total	16

*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

**Distributed Teacher and Leader Education (D-TALE) program, accredited by NCATE, National Council for Accreditation of Teacher Education**

**D-TALE is administered by the School of Professional Development**

DEAN: Ken Lindblom

INTERIM UNIVERSITY TEACHER CERTIFICATION OFFICER: Rachael Lee, (631) 632-7055

OFFICE MANAGER: Linda Varga, (631) 632-7049

Phone: See [contact information for program directors](#)

E-MAIL: See [contact information for program directors](#)

Web address: <http://www.stonybrook.edu/dtale>

Secondary Education and Teacher Certification Programs in English; Foreign Languages (Chinese, French, German, Italian, Japanese, Korean, 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, Korean, 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, Harassment, Bullying and Discrimination Prevention and Intervention (DASA-Dignity for All Students Act), 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 with grades of "C" or better. 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. Requisites for Oral Language Proficiency in English for applicants whose native language is other than English may be found in the PEP *Guide to Teacher Education*.
6. Students should maintain a cumulative g.p.a. of 3.00 to remain in good standing. At the discretion of the program director, 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. Exceptions to the requirements above, and also to those specified for each individual teacher preparation program, are at the discretion of the respective program directors.

New York State requires all teacher candidates who are applying for initial certification to pass several standardized tests. 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, as well as a three-hour Autism Recognition, Referral and Control seminar offered through the Cody Center, and a six-hour seminar in Harassment, Bullying and Discrimination Prevention and Intervention (DASA-Dignity for All Students Act). 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 Languages, Literatures, and Cultures

This program prepares students to be teachers of Chinese, French, German, Italian, Japanese, Korean, 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 or FLA 440 Foreign Language Acquisition Research
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. overall. Exceptions are at the discretion of the program director.
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 who wish 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.

#### Chinese, Japanese, or Korean Secondary Teacher Education Program

Students who wish to prepare for certification as secondary school teachers of Chinese, Japanese, Korean, 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 3.00. Exceptions are at the discretion of the program director.

## 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:

- a minimum cumulative g.p.a. of 3.00. Exceptions are at the discretion of the program director. • 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, specifically, in the 'MAE' courses listed above; • a minimum cumulative g.p.a. of 2.75 in all of the mathematics courses listed above, or by permission of the 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 3.00 or higher to qualify for student teaching. Exceptions are at the discretion of the program director.

### Teaching English to Speakers of Other Languages (TESOL) Pre-K-12 Teacher Education Program

INTERIM PROGRAM DIRECTOR: Annette Shideler, Ed.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 g.p.a. of 3.00 overall and 3.00 in the major. Exceptions are at the discretion of the program director. 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 3.00 overall g.p.a. and a 3.00 g.p.a. in the major in order to remain in the program. Exceptions are at the discretion of the program director.

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 3.00 overall g.p.a. Exceptions are at the discretion of the program director.
- 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.);	SSE 350	CEE 505	SSE 350	CEE 505	SSE 350	CEE 505

Educ. Theory & Pract. (Grad)						
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 EGL 441	CEE 588 CEE 593	FLA 339 FLA 340	FLA 505 FLA 506	MAE 311 MAE 302 MAE 447	MAE 510 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 or FLA 440	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, KOR, RUS, SPN €	FRN, GER, ITL, RUS, SPN €€	Mathematics & Applied Math and Statistics	MAT, AMS
1 Yr. of Language	*	*	*	*	*	*
Seminars in Child Abuse, Substance Abuse, Violence Prevention, & Harassment, Bullying and Discrimination (DASA)	#	#	#	#	#	#
NYSTCE — Standardized Exams	+	+	+	+	+	+

	Sciences	Sciences	Social Studies	Social Studies	TESOL	TESOL
<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	SCI 410	SCI 510	SSE 397	CEE 577	LIN 375	LIN 524
	SCI 420	SCI 520	SSE 398	CEE 578	LIN 378	LIN 529
Field Experience	SCI 449	SCI 549	SSE 449	CEF 548	LIN 449 @	LIN 579 @
	SCI 450	SCI 550	SSE 450	CEF 549	LIN 450 @	
Literacy Course (for new certifications)	LIN 344	LIN 544	LIN 344	LIN 544	LIN 344	LIN 532 LIN 541
Student Teaching	SCI 451	SCI 551	SSE 451	CEQ 581	LIN 451	LIN 581
	SCI 452	SCI 552	SSE 452	CEQ 582	LIN 452	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**
Seminars in Child Abuse, Substance Abuse, Violence Prevention, & Harassment, Bullying and Discrimination (DASA)	#	#	#	#	#	#
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). A minimum grade of "C" is required in each course to be considered valid for meeting certification program requirements.

\*\* Two years of a language other than English is required for TESOL and may include ASL. A minimum grade of "C" is required in each course to be considered valid for meeting certification program requirements.

# All teachers are required to submit evidence of completion of Child and Substance Abuse, and Violence Prevention Seminars. A six hour seminar in Harassment, Bullying and Discrimination Prevention and Intervention (DASA-Dignity for All Students Act) is also required, in addition to Fingerprint certification.

+ 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, Japanese, and Korean 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, 2011.

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.

For information about our five-year accelerated bachelor's/master's programs, please contact the program director for the certification program of your interest in order to obtain advisement on course requirements, and also visit the following link: [http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/special\\_academic\\_op/accelerated.php](http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/special_academic_op/accelerated.php)

*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: Petar Djuri#

Undergraduate Program Director: Ridha Kamoua

Undergraduate Program Coordinator: Cathryn Mooney

Office: 267 Light Engineering

Phone: (631) 632-8415

E-mail: postmaster@ece.sunysb.edu

Web address: [www.stonybrook.edu/commcms/electrical/](http://www.stonybrook.edu/commcms/electrical/)

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 or MAT 205 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, PHY 133, PHY 134 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, 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, 325, 345, 355, 366, 381, or 382)

##### 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 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

#### 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 301, ESE 337, ESE 372, ESE 440, ESE 441, AMS 151, AMS 161 (or MAT 131, MAT 132), PHY 131, PHY 132, PHY 133, PHY 134
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 121, ESE 124, ESE 201, ESE 300, ESE 301, ESE 324, ESE 440, ESE 441, ESE 475, ESE 476, ESE 488, or ESE 499 for credit toward the minor.

### Sample Course Sequence for the Major in Electrical Engineering, General Track

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### ----- ALL SPECIALIZATIONS -----

##### FRESHMAN

FALL	Credits
First Year Seminar 101	1
<b>WRT 102 (WRT)</b>	3
<b>AMS 151 or MAT 131 (QPS)</b>	3-4
<b>PHY 131/133 (SNW)</b>	4
ESE 123 (TECH)	4
Total	15-16

SPRING	Credits
--------	---------

First Year Seminar 102	1
AMS 161 or MAT 132 (QPS)	3-4
<b>PHY 132/134 (SNW)</b>	4
ESE 124	3
AMS 210	3
Total	14-15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
AMS 361 (or MAT 303)	4
<b>ESE 218</b>	4
<b>ESE 271</b>	4
ESE 305	3
ESE 224	3
Total	18

<b>SPRING</b>	<b>Credits</b>
AMS 261 (or MAT 203)	4
<b>ESE 372</b>	4
ESE 306	4
<b>ESE 231</b>	3
<b>ESE 211</b>	2
Total	17

**JUNIOR**

## ----- GENERAL TRACK -----

<b>FALL</b>	<b>Credits</b>
ESE 380	4
ESE 314	3
ESE 319	3
<b>ESE 337</b>	3
Math or Science Elective <sup>5</sup>	4
Total	17

<b>SPRING</b>	<b>Credits</b>
<b>ESE Elective</b> <sup>3</sup>	3
<b>ESE Elective</b> <sup>3</sup>	3
ESE 324	2
<b>ESE 300</b>	3
ESE 301 (STAS)	3
SBC	3
Total	17

## SENIOR

FALL	Credits
ESE 440*	3
<b>ESE Elective<sup>3</sup></b>	3
<b>Technical Elective<sup>4</sup></b>	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ESE 441*	3
<b>ESE Elective<sup>3</sup></b>	3
Technical elective <sup>4</sup>	3
SBC	3
SBC	3
Total	15

General, Microelectronics and telecommunications Specialization:

All courses in **bold** must be passed with a minimum grade of C.

- 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).
- 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.
- 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, 325, 345, 355, 366, or 382)  
Telecommunications -- Choice of two 300—level ESE electives that are not required, ESE 476 may also be used. (must be selected from ESE 346, 347, 360, or 363)
- Two courses selected from Appendix A.
- Math or science elective: One 4- credit course or two 3 – credit courses from CHE 131, BIO 202 & 204, BIO 203 & 205, ESG 198, PHY 251 & 252, AMS 301

\* Note: This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Energy Science, Technology and Policy (NRG)****Minor in Energy Science, Technology and Policy****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

E-mail: Chandrani.Roy@stonybrook.edu

Office: 314 Engineering

Phone: (631) 632-8484

Web address: <http://www.matscieng.sunysb.edu>**Energy Science, Technology and Policy (NRG)**

The Minor in Energy Science, Technology and Policy provides students with coursework intended to enhance their understanding of basic scientific concepts related to energy production, distribution and use, introduce them to basic engineering concepts in sustainable energy and a systems-based approach to energy technology, and enhance understanding of how to analyze energy policy decisions (including the impact of technical, economic and regulatory factors). Courses introduce students to emergent energy technologies (including the smart grid and future infrastructure systems), probabilistic risk assessment, and the dynamics of various energy markets, including understanding changing energy needs on a local to global scale. The Minor requires use of electronic portfolio to demonstrate attainment of learning objectives through course-based activities.

Admission to the minor: requires a minimum grade point average of 3.0 in the three introductory courses. Courses must be planned with in consultation with the Minor program advisor or director. Any course substitution must be approved in advance by the director of the Minor.

**Requirements for the minor in Energy Science, Technology and Policy (NRG)**

## 1. Introductory courses (required)

- CME 201 Sustainable Energy
- GEO 105 Energy Resources for the 21st Century
- ESG 201 Learning from Engineering Disaster

## 2. Technical electives (choose 3):

Science/Technology focused:

- ESE 350 Electrical Power Systems
- ESE 319 Electromagnetics and Transmission Line Theory
- ESE 352 Electromechanical Energy Converters
- EEO 323 Electromagnetics (**non-SBU students only**)
- EEO 470 Renewable Distributed Generation and Storage (**non-SBU students only**)
- EEO 482 Power Systems Engineering I (**non-SBU students only**)
- EEO 425 Electric Machinery and Energy Conversion (**non-SBU students only**)
- MEC 301 Thermodynamics
- MEC 305 Heat and Mass Transfer
- ESG 302 Thermodynamics of Materials (Note: cannot take both ESG 302 and MEC 301 for minor requirements)

Policy focused:

- ESM 486 Innovation and Entrepreneurship in Engineering
- EDP 301 The Built Environment I
- EHI 343 Sustainable Natural Resources
- MAR 336 Marine Pollution

## 3. ESM 488 Cooperative Industrial Practice (required)

Note: ESM 488 internship must be energy-related; also may substitute independent research course (499) if appropriate (and if approved by director of the minor).

**ACC Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/business/people/ft.html>

*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**

Director: Dale Drueckhammer, Chemistry  
E-mail: dale.drueckhammer@stonybrook.edu

Student Affairs Coordinator: Katherine Hughes

Office: 109 Chemistry Phone: (631) 632-7886  
E-mail: Katherine.Hughes@stonybrook.edu

**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)****Students Pursuing Stony Brook Curriculum (SBC) Requirements**

Students majoring in Engineering Chemistry must meet the SBC learning outcomes required of the College of Arts and Sciences, including completion of the LANG learning outcome.

**Students Pursuing Diversified Education Curriculum (D.E.C.) 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) If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
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 152 Molecular Science I

- CHE 133, CHE 134 General Chemistry Laboratory or CHE 154 Molecular Science Lab I (CHE 199 General Chemistry Laboratory for Engineers acceptable with permission)
- PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141/133, PHY 142/134 Classical Physics I, II: Honors or PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 Classical Physics A, B, C plus labs
- 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

- CHE 301, CHE 302 Physical Chemistry I, II
- CHE 303 Solution Chemistry Laboratory
- CHE 304 Chemical Instrumentation Laboratory
- CHE 321 Organic Chemistry I
- CHE 378 Materials Chemistry
- ESM 325 Diffraction Techniques and Structure of Solids
- ESG 332 Materials Science I: Structure and Properties of Materials
- ESG 333 Materials Science II: Electronic Properties

#### C. Upper-Division Writing Requirement

Each student majoring in Engineering Chemistry must take CHE 303 until a satisfactory grade is achieved. CHE 303 requires several papers which are evaluated for cogency, clarity, and mechanics, and satisfies the university Stony Brook Curriculum WRTD learning objective.

#### 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 or CHE 327, 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, GRD 500 Responsible Conduct of Research and Scholarship, 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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 131	4
CHE 131	4
CHE 133	1
SBC	3
Total	16

SPRING	Credits
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First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 132	4
ESG 111	3
Total	16

**SOPHOMORE**

FALL	Credits
CHE 301	4
CHE 303	2
AMS 261	3
PHY 131/PHY 133	4
SBC	3
Total	16

SPRING	Credits
CHE 302	4
AMS 361	3
PHY 132/PHY 134	4
SBC	3
SBC	3
Total	17

**JUNIOR**

FALL	Credits
CHE 321	4
ESG 281 or PHY 251/PHY 252	4
ESG 332	4
SBC	3
Total	15

SPRING	Credits
ESM 425	3
CHE 304	2
CHE 378	3
Upper-division SBC	3
SBC	3
Total	14

**SENIOR**

FALL	Credits
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ESG 333	4
CHE 495	3
Upper-division SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
SBC	3
SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

## Engineering Composites (ECS)

### Minor in Engineering Composites

#### Department of Mechanical Engineering, College of Engineering and Applied Sciences

Program Director: Thomas Cubaud  
Office: 113 Light Engineering Lab  
Phone: (631) 632-8310  
E-mail: Donna.Hanson@stonybrook.edu

## Engineering Composites (ECS)

The Department of Mechanical Engineering offers the minor in Engineering Composites to Mechanical Engineering students and non-Mechanical Engineering students who seek a strong education in the mechanical behavior of composite materials. This minor is intended for students with a strong background in engineering or physical science. Engineering composites are used widely in many industries including aerospace, civil, naval, medical, and automotive; examples can be seen in aircraft, yachts, motor vehicles, dental fillings and a wide range of military equipment. Engineering composites can be designed with high stiffness, high strength and light weight, making them efficient as structural load bearing components. They constitute an extremely broad and versatile class of materials that encompass a wide range of constituents, length scales and configurations. Examples include fiber reinforced polymer composites, metal matrix composites, particle reinforced composites, nano-reinforced composites. Composites are inherently more complex than monolithic engineering materials that students are used to (e.g. metals and ceramics). They are heterogeneous, anisotropic and predicting their mechanical behavior and failure is far more challenging than that of conventional structural materials. In comparison to conventional materials, designing with composites admits tremendous possibility, but requires specialized analysis methods. This minor will provide the students with the background as well as the analysis and design methods to provide a foundation for using engineering composites effectively. To fulfill this outcome, three main topics will be addressed: 1) Theoretical background, analysis and design; 2) Fabrication; and 3) Characterization. Students will learn how to fabricate composites, experimentally measure their relevant mechanical properties, and incorporate them into engineering designs. Students will gain invaluable insight into engineering composites, give them a competitive edge in an engineering market that is becoming increasingly dependent on engineering composites.

### Requirements for the minor in Engineering Composites

Completion of minor requires 18-21 credits from the following three required and 3-4 elective courses. Please note that all prerequisites must be satisfied in order to take these courses. 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 2.0 or higher is required for the six-seven courses that constitute the minor.

1. 3 Required Courses (9 credits):

- MEC 363 Mechanics of Solids
- MEC 456 Intro to Engineering Mechanics of Composites
- MEC 457 Engineering Composites Fabrication and Characterization

2. 3 Elective Courses from the following list (9 to 12 credits):

- MEC 455 Applied Stress Analysis
- MEC 442 Introduction to Experimental Stress Analysis
- ESG 302 Thermodynamics of Materials
- ESG 332 Materials Science I: Structure and Properties of Materials (Cannot be used by MEC, ESG, and CIV majors)
- ESM 335 Strength of Materials
- ESM 369 Polymer Engineering
- BME 353 Biomaterials or ESM 353 Biomaterials: Manufacture, Properties, and Applications

### ECS 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.*

**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

Dept. Administrator/Assistant to Chair & Undergraduate Program Coordinator: Chandrani Roy

E-mail: Chandrani.Roy@stonybrook.edu

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 biotechnology, manufacturing engineering, electronics engineering, materials science and engineering, civil engineering, 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; Energy Science, Technology and Policy; Manufacturing Engineering; Environmental Engineering; 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**

Graduates of the ESG program will:

- Meet or exceed expectations of employers in engineering or science-related disciplines or pursue advanced studies if so desired.
- Assume/undertake leadership roles in their communities and/or professions.

**Student Outcomes**

Students who graduate from the ESG program should possess the following skill sets:

- 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.

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, nanotechnology, 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 program in Engineering Science 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) a cumulative g.p.a. of 3.00, 2) earned a g.p.a. of 3.00 or above in all mathematics, physics, and chemistry 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 108 credits, in addition to any credits needed for Stony Brook Curriculum (SBC) and other University requirements.

#### A. Core

##### 1. Mathematics

- AMS 151, AMS 161; AMS 261 or MAT 203 or MAT 205; 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; CHE 131/133, CHE 132/134

#### 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, PHY 133, PHY 134 Classical Physics I, II: Honors
- The following alternate chemistry course sequence may be substituted for CHE 131/133, CHE 132/134: CHE 152 Molecular Science I and CHE 154 Molecular Science Laboratory I

##### 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; ESG 375; ESG 420; ESM 450; ESM 460; and the following seven courses:
- Materials Science and Engineering: ESG 302 or CME 304, ESG 332, ESG 333
- Electrical Engineering and Electronic Properties: ESE 271
- Mechanical Engineering and Properties: MEC 260, MEC 363, ESM 335
- Environmental Engineering: ESM 212

##### 5. Engineering Synthesis and Design

- ESG 316, ESG 440, ESG 441; ESM 455

## B. Engineering Specialization and Technical Electives

The area of specialization, composed of four technical electives, must be declared in writing by the end of the junior year. The area of specialization should be chosen in consultation with a faculty advisor to ensure a cohesive course sequence with depth at the upper level.

The eight areas of specialization are biotechnology, civil engineering, environmental engineering, electronics 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, AMS 261, AMS 361 or equivalents; PHY 131/133 and PHY 132/134 or equivalents; CHE 131/133 and CHE 132/134 or equivalents; ESG 100; MEC 260; ESG 302 or equivalents; ESG 312, ESG 332, ESG 440 and ESG 441.
2. Each of the four required technical electives offered by the college

### Areas of Specialization

Each area of specialization requires five 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 202 Fundamentals of Biology: Molecular and Cellular Biology
  - b. ESM 353 Biomaterials

2. Two courses from the following list:

- ESM 369 Polymers
- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
- BIO 328 Mammalian Physiology
- BIO 334 Principles of Neurobiology
- BME 304 Genetic Engineering
- BME 354 Advanced Biomaterials
- BME 381 Nanofabrication in Biomedical Applications
- BME 402 Contemporary Biotechnology
- BME 404 Essentials of Tissue Engineering
- BME 430 Engineering Approaches to Drug Delivery
- BME 481 Biosensors
- ESM 488 or ESM 499 (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 ONCE as a technical elective.

#### Civil Engineering

Civil engineering entails the study, research, and design of infrastructure or processes responding to societal needs for sustainable development, transportation, or energy production and delivery.

1. Three required courses:
  - a. GEO 102 The Earth
  - b. GEO 112 Physical Geology Laboratory
  - c. CIV 310 Structural Engineering

2. Two technical electives chosen from the following:

- ARH 205 Introduction to Architecture
- CIV 210 Land Surveying
- CIV 305 Transportation Systems Analysis I
- CIV 407 Transportation Economics
- CSE 391 Solid Modeling Special Topics (Solid Modeling topic only)
- MEC 442 Intro to Experimental Stress Analysis
- MEC 455 Applied Stress Analysis
- EST 330 Natural Disasters
- EST 392 Eng & Managerial Economics
- GEO 312 Structure & Prop of Materials
- ECO 373 Eco of Env & Natural Resources
- MAR 392 Waste Management Issues
- MAR 393 Waste Treatment Tech
- MEC 262 Dynamics
- ESM 488/489 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 ONCE as a technical elective.

Environmental Engineering

1. Two required courses:

- BIO 201 Fundamentals of Biology
- CHE 312 Physical Chemistry Short Course (or CHE 301 Physical Chemistry I)

2. Three technical electives chosen from:

- ATM 205 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
- ECO 373 Economics of Environment and Natural Resources
- ESG 301 Sustainability of the Long Island Pine Barrens
- 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
- GEO 309 Structural Geology
- GEO 312 Structure and Properties of Materials
- GEO 316 Geochemistry of Surficial Processes
- MAR 301 Environmental Microbiology
- MAR 308 Principles of Instrumental Analysis
- MAR 320 Limnology
- MAR 333 Coastal Oceanography
- MAR 336 Marine Pollution
- MAR 340 Environmental Problems and Solutions
- MAR 385 Principles of Fishery Biology and Management
- MAR 392 Waste Management Issues
- MAR 393 Waste Treatment Technologies
- MAR 394 Environmental Toxicology and Public Health

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits), or other departmental independent research may be used once as a technical elective, with permission of the program director.

Electronics Engineering

To achieve an area of specialization in electronics engineering students must fulfill the following requirements:

1. Two required courses:

- ESE 372 Electronics
- ESM 336 Electronic Materials

2. Two technical elective courses chosen from the following:

- ESE 218 Digital Systems Design
- ESE 304 Applications of Operational Amplifiers
- ESE 311 Analog Integrated Circuits
- ESE 315 Control System Design
- ESE 325 Modern Sensors
- ESE 330 Integrated Electronics
- ESM 488/499 See Notes below
- MEC 456 Introduction to Mechanics of Composites
- MEC 457 Engineering Composites Fabrication and Characterization

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 ONCE as a technical elective.

#### 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. Two required courses:

- ESM 336 Electronic Materials
- ESM 325 Diffraction Techniques and Structure of Solids

##### 2. Two technical elective courses chosen from the following:

- ESM 213 Introduction to Nanotechnology Studies
- ESM 353 Biomaterials: Manufacture, Properties, and Applications
- ESM 369 Polymer Engineering
- ESM 400 Nanotechnology and Research
- ESM 475 Undergraduate Teaching Practicum
- ESM 486 Innovation and Entrepreneurship in Engineering
- ESM 488/499 See Notes below.
- MEC 456 Introduction to Mechanics of Composites
- MEC 457 Engineering Composites Fabrication and Characterization

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 ONCE as a technical elective.

#### 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. Two required courses:

- MEC 262 Dynamics
- MEC 310 Machine Design

##### 2. Two technical elective courses chosen from the following:

- AMS 310 Survey of Probability and Statistics
- ESM 486 Innovation and Entrepreneurship in Engineering
- MEC 325 Manufacturing Processes
- MEC 410 Design of Machine Elements
- MEC 411 Control System Analysis and Design
- MEC 442 Introduction to Experimental Stress Analysis
- MEC 455 Applied Stress Analysis
- MEC 457 Engineering Composites Fabrication & Characterization
- ESM 488/499 See Notes below.

Note: Other upper level MEC coursework (completed with a grade of C or higher) may be counted as technical electives with permission of the ESG 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 may be used once as a technical elective with permission of the program director.

#### Nanoscale Engineering

The creation of functional materials and devices which involve 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.

1. Two required courses:

- ESM 213 Introduction to Nanotechnology Studies
- ESM 336 Electronic Materials

2. Two technical elective courses chosen from the following:

- 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 325 Diffraction Techniques and Structures of Solids
- ESM 353 Biomaterials: Manufacture, Properties, and Applications
- ESM 400 Nanotechnology and Research
- ESM 488 Cooperative Industrial Practice or ESM 499 Research in Materials Science (see Notes below)

Note: ESM 488 Cooperative Industrial Practice (3 credits) or ESM 499 Research in Materials Science (3-4 credits) or other departmental independent research may be used once as a technical elective with permission of the program director.

#### Engineering Management

Strong engineering skills alone are not sufficient to guarantee professional success in today's global economy. Industry requires that engineers also understand the business side of the organization, helping to ensure that products are quickly developed, brought to market and meet the ever increasing needs of the consumer. An Engineering Management specialization degree offered through the Department of Materials Science and Engineering will help prepare students to become effective leaders in the expanding global marketplace by equipping them with thorough technical as well as business skills. To achieve an area of specialization in engineering management, students must fulfill the following requirements:

1. Two required courses:

- EST 392 Engineering Economics
- EST 326 Management for Engineers

2. Two technical elective courses chosen from the following:

- AMS 310 Survey of Probability and Statistics
- BUS 210 Financial Accounting
- BUS 330 Principles of Finance
- BUS 340 Information Systems in Management
- BUS 348 Principles of Marketing
- EST 305 Applications Software for Information Management
- EST 327 Marketing for Engineers
- EST 391 Technology Assessment
- EST 393 Project Management
- ESM 486 Innovation and Entrepreneurship in Engineering
- ISE 330 Information Management

#### 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 460, 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

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102 (WRT)	3
ESG 100 (TECH)	3
AMS 151 (QPS)	3
PHY 131, 133 (SNW)	4
SBC	3
Total	17

SPRING	Credits
First Year Seminar 102	1
AMS 161	3
ESG 111	3
ESG 201 (STAS)	3
PHY 132, 134 (SNW)	4
SBC	3
Total	17

#### SOPHOMORE

FALL	Credits
AMS 261	4
CHE 131/133	5
ESG 281	3
ESE 271	4
Total	16

SPRING	Credits
AMS 361	4
CHE 132/134	5
ESG 302	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ESG 312	4
ESG 300	0
ESG 332	3
MEC 260	3
SBC	3
ESM 212	3
Total	16

<b>SPRING</b>	<b>Credits</b>
ESG 316	4
ESM 335	3
MEC 363	3
Technical Elective #	3
SBC	3
Total	16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
ESG 375	1
ESG 440*	3
ESM 450 (TECH)	3
ESG 420	3
Technical Elective #	3
ESG 333	3
Total	16

<b>SPRING</b>	<b>Credits</b>
ESM 460	3
ESM 455	3
ESG 441*	3
Technical Elective #	3
Technical Elective #	3
Total	15

\* Note: This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*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: Petar Djuri#

Program Director: Wendy Tang

Staff Assistant: Cathryn Mooney

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)**

The objective of the ETE minor is to expose engineering and non-engineering students to entrepreneurial skills relevant to technology and engineering. The ETE minor requires a total of 18 credit hours (6 courses) with no grades less than C. Students declare the minor after completion of courses in Categories A and B.

To apply for the ETE minor, please visit Carolyn Huggins, Rm 267 Light Engineering.

Requirements for the ETE minor:

A. Two courses from (6 credits):

- For engineering majors: two core engineering courses
- For non-engineering majors, two courses from:
  - EST 192: Introduction to Modern Engineering
  - EST 194: Patterns of Problem Solving (DEC C, QPS)
  - EST 202: Into to Science, Tech and Society Studies
  - LSE 320 Future Trends in Science and Engineering

B. One course from the following (3 credits):

1. ESE 201 Engineering and Technology Entrepreneurship
2. EST/BUS 364 How to Build a Start-Up (3 credits) (EXP+)
3. BUS 353 Entrepreneurship
4. BUS 383 Social Entrepreneurship

C. Two courses from the following choices (6 credits):

1. EST 326 Management for Engineers or BUS 346 Management and Operations
2. EST 327 Marketing for Engineers or BUS 348 Principles of Marketing
3. EST 391 Technology Assessment (DEC H, STAS)
4. EST 393 Project Management or BUS 393 Principles of Project Management
5. EST 304 Communication for Engineers and Scientists
6. CME 333 Business Economics for Engineers

D. One course from the following (3 credits):

1. ESE 301 Engineering Ethics and Societal Impact (DEC H, STAS)
2. EST 331 Professional Ethics and Intellectual Property
3. BUS 399 Intellectual Property Strategy

**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.*

Fall 2017-Spring 2018

**English (EGL)****Major and Minor in English****Department of English, College of Arts and Sciences**

Chairperson: Celia Marshik

Director of Undergraduate Studies: Susan Scheckel

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: 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. All courses used to fulfill the English major/minor requirements must be passed with a letter grade of C or higher.

Completion of the major requires 48 credits.

**A. Required Courses**

1. EGL 204 Literary Analysis and Argumentation
2. 4 Required Survey courses: Among the required survey courses, students must take at least one American and one British survey.
  1. One early literature survey course, either EGL 205 British Literature I or EGL 217 American Literature I.
  2. *Two* survey courses chosen from the following: EGL 205 (if not used above); EGL 206 British Literature II; EGL 217 (if not used above); EGL 218 American Literature II; EGL 224 20<sup>th</sup>-Century Literature in English; EGL 226 20<sup>th</sup>-Century American Literature; EGL 243 Shakespeare: The Major Works; EGL 260 World Mythology; EGL 274 African-American Literature
  3. EGL 207 History of the English Language
3. One EGL 200- or 300-level elective.
4. Upper Division Requirements (8 courses): Among the eight 300-level courses, students must take at least two pre-1800 and one satisfying the diversity requirement.
  1. EGL 301 Intensive Writing in the Discipline
  2. EGL 303 Genre or Media
  3. EGL 308 Single-Author
  4. EGL 309 Interdisciplinary Study of Literature
  5. EGL 311 Literary History and/or Critical Theory
  6. EGL 380 Senior Seminar

7. Two elective 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.
2. At least 9 credits of the 36 credits in EGL courses offered for the major in English must be earned in 300-level courses at Stony Brook.
3. Among the eight 300-level courses from among courses numbered 300-399, only one may be used from EGL 385, 386, or 387.

### **B. Required non-English Courses: Interdisciplinary Concentration**

Six credits (two courses) in one other department of the student's choosing (Foreign Language, History, Philosophy, Arts, etc.) above the 100 level.

**C. Upper-Division Writing Requirement:** Satisfactory completion of EGL 301 with a grade of C or better.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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.

Completion of the Honors program in English requires 45 credits.

### **A. Required Courses**

1. EGL 204 Literary Analysis and Argumentation
2. Four required survey courses: Among the required survey courses, students must take at least one American and one British survey.
  1. One early literature survey course, either EGL 205 British Literature I or EGL 217 American Literature I.
  2. Two survey courses chosen from the following: EGL 205 (if not used above); EGL 206 British Literature II; EGL 217 (if not used above); EGL 218 American Literature II; EGL 224 20<sup>th</sup> Century Literature in English; EGL 226 20<sup>th</sup>-Century American Literature; EGL 243 Shakespeare: The Major Works; EGL 260 World Mythology; EGL 274 African-American Literature
  3. EGL 207 The English Language
3. One EGL 200-level elective. Students may opt instead to take an additional 300-level elective.
4. Upper Division Requirements (9 courses): Among the upper-division courses, students must take at least two pre-1800 and one satisfying the diversity requirement.
  1. Fulfill the following categories:
    1. EGL 303 Genre or Media
    2. EGL 308 Single-Author
    3. EGL 309 Interdisciplinary Study of Literature
    4. EGL 311 Literary History and/or Critical Theory
  2. EGL 301 Intensive Writing in the Discipline
  3. EGL 491 Honors British Literature
  4. EGL 492 Honors American Literature
  5. EGL 494 Honors Research Practicum
  6. EGL 496 Honors Senior Thesis

### **B. Required non-English Courses: Interdisciplinary Concentration**

Six credits (two courses) in one other department of the student's choosing (Foreign Language, History, Philosophy, Arts, etc.) above the 100 level.

**C. Upper-Division Writing Requirement:** Satisfactory completion of EGL 301 with a grade of C or better.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must

complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## Notes:

1. All courses used to fulfill the English major/minor requirements must be passed with a letter grade of C or higher.
2. All 400-level English honors courses must be passed with a letter grade of B or higher for the student to graduate with Honors in English.
3. 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 Honors Program in English: EGL 440, EGL 441, EGL 449, EGL 450, EGL 451, EGL 452, EGL 454, EGL 475, EGL 476, EGL 488.

## 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 English courses
3. Two 300-level English courses
4. One English course at the 100-300 level

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**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SBC	3
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	16

## SOPHOMORE

FALL	Credits
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EGL 204	3
EGL 205 or EGL 217	3
EGL survey	3
Foreign language	4
SBC	3
Total	16

SPRING	Credits
EGL 207	3
EGL survey	3
EGL 200-level or 300-level elective	3
Foreign language or elective	4
Upper-division elective	3
Total	16

## JUNIOR

FALL	Credits
EGL 301	3
EGL 308	3
SBC elective	3
outside concentration elective	3
Upper-division elective	3
Total	15

SPRING	Credits
EGL 303	3
EGL 309	3
EGL 311	3
Elective	3
SBC	3
Total	15

## SENIOR

FALL	Credits
EGL 300-level elective	3
EGL 300-level elective	3
SBC	3
SBC	3
Upper-division Elective	3
Total	15

SPRING	Credits
EGL 380	3

SBC Elective	3
Elective	3
Elective	3
Upper-division Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Entrepreneurship (ENT)****Minor in Entrepreneurship  
College of Business**

Dean: Manuel London  
Interim Associate Dean: Dmytro Holod  
Director of Undergraduate Studies: Richard Laskowski  
Office of Student Services: 109 Harriman Hall  
Phone: (631) 632-7171  
E-mail: [cobadvising@stonybrook.edu](mailto:cobadvising@stonybrook.edu)  
Fax: (631) 632-8181  
Web address: <http://www.stonybrook.edu/business>

**Entrepreneurship (ENT)**

The Entrepreneurship minor teaches new venture creation and management in high tech, social service, and foreign markets. The minor offers an overview of creating a business, identifying products and markets, funding a start-up, and growing the business. Students in the minor will develop business plans and implement the best one. The minor is designed to appeal to students who are majoring in the Arts and Sciences or Engineering and have an interest in becoming entrepreneurs, joining start-up companies or becoming consultants for growing businesses.

**Requirements for the minor in Entrepreneurship**

Entrepreneurial undergraduates play a range of roles from technological innovators to social change agents and from changes agents to international adventurers. The minor is open to non-business majors. Students may apply at any time during their academic career. Students must have successfully completed a Statistics course prior to applying.

Completion of the minor requires 18 credits. **All courses must be taken for a letter grade and passed with a grade of C or higher.**

The following courses comprise the Entrepreneurship Minor:

Required courses:

- BUS 111 Introduction to Business
- BUS 330 Principles of Finance
- BUS 364 How to Build a Start-up

Choose one of the following:

- BUS 399 Intellectual Property Strategy
- BUS 401 Negotiation Workshop

Choose one of the following:

- BUS 331 International Finance
- BUS 332 Entrepreneurial Finance
- BUS 336 Mergers & Acquisitions

Choose one of the following:

- BUS 353 Entrepreneurship
- BUS 383 Social Entrepreneurship
- BUS 337 Entrepreneurship Across Countries

**ACC Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/business/people/ft.html>

*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

Email: [hquigleyjr@stonybrook.edu](mailto:hquigleyjr@stonybrook.edu)

Program Office: W0511 Melville Library

Phone: 631.632.9404

Website: <http://www.stonybrook.edu/commcms/sustainability/majors/EDPmajorpage.pcf.html>

**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 or AMS 151. If students do not place into MAT 125 or 131 or AMS 151 on the basis of the math placement examination, MAT 123 is a required course for the major.
- ECO 108 Introduction to Economics
- SBC 111 Introduction to Sustainability
- SBC 115 Introduction to Human Demography
- CHE/ENV 115 Chemistry, Life, Environment (Note: CHE 115, 129, 131, 141, or 152 may be substituted for CHE/ENV 115)
- 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 206 Economics and Sustainability

**B. Career Leadership Skills (6 credits)**

- CSK 302 Technical Writing and Communication
- CSK 305 Collective Action and Advocacy

**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  
*and one of the following courses:*
  - EDP 305 Risk Assessment and Sustainable Development
  - ENS 333 Environmental Law
  - SBC 308 American Environmental Politics
  - SBC 309 Global Environmental Politics

#### 5. Societal and Cultural Aspects (3 credits)

- AFS 374/SBC 374 Environment and Development in African History
- EHM 316 Cuba and Sustainability
- EHM 321 Utopia and Dystopia and the Environment in Literature and Culture
- EHM 322 Ecofeminism, Literature & Film
- EHM 325 Environmental Film, Media, Arts
- SUS 303 Demographic Change and Sustainability
- SBC 307 American Environmental History
- SBC 310 Migration, Development and Population Redistribution
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society and Health
- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- ENV 310 Sustainable and Renewable Energy in Costa Rica

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 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 **with letter grades of no lower than a B** from any 300-level or 400-level course in the major to the director of the EDP Undergraduate Program.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### Notes:

1. Internship with significant practical experience in planning and/or environmental design may be substituted for EDP 404 with permission of Undergraduate EDP Program Director.
2. All 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.

#### Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their 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)

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program. 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 308 American Environmental Politics
- SBC 309 Global Environmental Politics
- SUS 350 Contemporary Topics in Sustainability
- CSK 305 Collective Action and Advocacy
- ENV 310 Sustainable and Renewable Energy in Costa Rica

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**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SBC 111	3
MAT 125 or MAT 131	4
SBS 113/SBC 114	4
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CSK 102	1
SBC 117	3
ENV 115	3
SBC 205	1

POL 102	3
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
SBC 201	1
ECO 108	4
AMS 102	3
SBC 115	3
Foreign language or elective	4
Total	15

<b>SPRING</b>	<b>Credits</b>
SBC 200	3
SBC 354	3
Foreign language or elective	4
CSK 10x selection	1
SBC	3
Total	14

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
GSS 313 and GSS 314	5
Group 3: EDP 309	3
SBC 206	3
CSK 302	3
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
Group 3 Selection 2	3
EDP 307	3
Group 2: EDP 301	3
EDP 303	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Group 2: EDP 302	3
EDP 404*	3
Group 4 select 1	3
SBC	3

SBC	3
Total	15

SPRING	Credits
Internship/Research	6
Group 5 select 1	3
SBC	3
SBC	3
Total	15

\*Offered every other year; should be taken junior or senior year.

NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.

Fall 2017-Spring 2018

**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

Dept. Administrator/Assistant to Chair & Undergraduate Program Coordinator: Chandrani Roy

E-mail: Chandrani.Roy@stonybrook.edu

Office: 308 Engineering

Phone: (631) 632-8484

**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 and minor in Environmental Humanities**

Director: Dr. Heidi Hutner

Email: [Heidi.hutner@stonybrook.edu](mailto:Heidi.hutner@stonybrook.edu)

Program Office: W0511 Melville Library

Phone: 631.632.9404

Website: <http://www.stonybrook.edu/commcms/sustainability/majors/ENVhumanitiesmajor.pcf.html>

## 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
- GSS 105 Introduction to Maps and Mapping
- MAT 118 Mathematical Thinking or MAT 122 Overview of Calculus with Applications
- PHI 104 Moral Reasoning
- POL 102 Introduction to American Government
- SBC 111 Introduction to Sustainability
- SBC 203 Critical Analysis
- Two of the following:
  - SBC 113/114 Physical Geography
  - CHE/ENV 115 Chemistry, Environment and Life (Note: CHE 115, 129, 131, 141, or 152 may be substituted for CHE/ENV 115)
  - MAR 104 Oceanography
  - GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
  - BIO 201 Organisms to Ecosystems
  - EHM 118 Introduction to the Natural History of Long Island

## B. Career and Leadership Skills (6 credits)

- CSK 302 Technical Writing and Communication
- CSK 305 Collective Action and Advocacy

## 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**

- EHM 310 Beyond Eden: Contact Narratives, Origins and Sin
- EHM 321 Utopia and Dystopia and the Environment in Literature and Culture
- EHM 322 Ecofeminism, Literature & Film
- 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 350 Contemporary Topics in Sustainability\*
- SUS 366 Philosophy of the Environment

**Group B: Social Sciences**

- AFS 374/SBC 374 Environment and Development in African History
- 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
- EHM 316 Cuba and Sustainability
- EHM 386/HIS 386 The Maya
- ENS 333 Environmental Law
- ENV 304 Global Environmental Change
- ENV 310 Sustainability and Renewable Energy - Costa Rica
- HIS 215 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 303 Demographic Change and Sustainability
- SUS 341 Environmental Treaties and Protocols
- SUS 343 Age of the Anthropocene
- SUS 350 Contemporary Topics in 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
- EHM 320 Artists and Designers of the Environment and Ecosystems
- EHM 325 Environmental Film, Media, Arts
- 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
- SUS 350 Contemporary Topics in Sustainability\*

\*SUS 350 is a topics course, and may, with the director's approval, fulfill the elective upper-level requirement for Group A, B, or C.

With permission of the Program Director, a student may take EHM 487 Independent Study or EHM 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)

One course selected from the two choices below:

- SBC 401 Integrative, Collaborative Systems Project
- ENV 301 Sustainability of the Long Island Pine Barrens

### 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 five-page typed papers with a letter grade of B+ or better from any 300-level or 400-level course in the major to the director of the EHM Undergraduate Program.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

### Note:

All 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.

### Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study

abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their 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

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program. 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: 12 credits

- SBC 203 Critical Analysis
- SBC 111 Introduction to Sustainability Studies
- EHM 201 Ecoaesthetics in Art

One of the following courses:

- ANT 102 Introduction to Cultural Anthropology
- ANT 104 Introduction to Archaeology

#### 2. Required three advanced courses; one course selected from each of the following three groups: 9 credits.

##### Group A: Writing, Literature and Philosophy

- EHM 310 Beyond Eden: Contact Narratives, Origins and Sin
- EHM 321 Utopia and Dystopia and the Environment in Literature and Culture
- EHM 322 Ecofeminism, Literature & Film
- 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 366 Philosophy of 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
- ENV 310 Sustainability and Renewable Energy - Costa Rica
- 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 303 Demographic Change and Sustainability
- SUS 341 Environmental Treaties and Protocols

##### 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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SBC 111	3
MAT 122 or MAT 118	3
SBC 113, SBC 118, ENV 115, or MAR 194	3
CSK 100-level selection #1	1
Total	14

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CSK 100-level selection #2	1
ANT 102 or ANT 104	3
EHM 201	4
POL 102	3
Total	15

#### SOPHOMORE

FALL	Credits
SBC 203	3
CSK 100-level selection #3	1
SBC 116	3
SBC 104	3
EHM 118	4
Selection Core Courses Group C	3
Total	17

SPRING	Credits
Selection Core Courses Group A	3
Selection Core Courses Group B	3
Foreign Language or elective	3-4
Course Course Selection Group A-C #1	3
SBC	3

Total	15-16
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**JUNIOR**

<b>FALL</b>	<b>Credits</b>
Core Course Selection Group A-C #2	3
Core Course Selection Group A-C #3	3
Foreign Language or elective	3-4
SBC	3
SBC	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
Selection Core Courses Group B	3
Selection Core Courses Group C	3
Core Course Selection Group A-C #1	3
Foreign Language or elective	3-4
Elective	3
Total	15-16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Internship/Research Elective/Fieldwork	3
Core Course Selection Group A-C #6	3
Total	15

<b>SPRING</b>	<b>Credits</b>
SBC 401	3
Upper-division Elective	3
Upper-division Elective	3
Upper-division SBC	3
Upper-division SBC	3
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 Undergraduate College Academy Minor in Environmental Studies****School of Marine and Atmospheric Sciences (SoMAS)**

Director of Undergraduate Studies: Kamazima Lwiza Academic Advisor: Christina Ozelis Office: W0511 Melville Library

Phone: 631-632-9404

Web address: <http://www.somas.stonybrook.edu>

**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)****Environmental Studies (BA)**

The Bachelor of Arts in Environmental Studies major is designed to provide students with the analytical and communication skills and the broad background necessary to understand and address complex environmental issues. 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, 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 Bachelor of Arts in Environmental Studies prepares the student for further education and for 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 (BA) is administered by the School of Marine and Atmospheric Sciences. An Environmental Studies Academy and a minor, with a residential component, are also available. The Environmental Studies Academy, 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 ENS or COS minor in conjunction with the major.

Completion of the major requires approximately 62 credits. Of these, no more than one course (4 credits) with a grade lower than C can be credited to the major.

**Requirements for the Major in Environmental Studies**

Completion of the major requires approximately 62 credits.

**A. Foundation Courses**

- AMS 102 Statistics or equivalent (see Note 5)
- ANP 120 Introduction to Biological Anthropology
- 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 4)
- ECO 108 Introduction to Economics
- ENS 119 Physics for Environmental Studies or equivalent (see Note 1)

- MAT 125 or MAT 131 or MAT 141 or MAT 171 Calculus. If students do not place into MAT 125 or 131 or 141 or MAT 171 on the basis of the math placement examination, MAT 123 is a required course for the major.
- PHI 104 Moral Reasoning
- POL 102 Introduction to American Government

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

### B. Core Courses (17 credits)

- ATM 305 Global Atmospheric Change
- CSK 302 Technical Writing and Communication
- ENS 311 Ecosystem Ecology and Global Environment
- One of the following: MAR 340 Environmental Problems and Solutions **OR** Population, Technology, and Environment
- One of the following: ENS 301 Contemporary Environmental Issues and Policies **OR** CSK 305 Collective Action and Advocacy
- At least two credits from one of the following courses: ENS 443 Environmental Problem Solving, ENS 487 Independent Research, or ENS 488 Internship

### 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. 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 Marine Conservation
- BIO 336 Conservation Biology
- BIO 351 Ecology
- BIO 356 Applied Ecology and Conservation and Biology Lab

#### 2. Marine Science, Marine or Terrestrial Ecology

Four courses from the following:

Ecology themed:

- BIO 351 Ecology
- BIO 352 Ecology Lab\*
- BIO 353 Marine Ecology
- One of the following:
  - BIO 354 Evolution\*
  - BIO 385 Plant Ecology
  - BIO 356 Applied Ecology and Cons. Bio. Lab.\*
  - BIO 359 Behavioral Ecology\*
  - MAR 301 Environ. Microbio.\*
  - MAR 302 Marine Microbio. and Microbial Ecology\*
  - MAR 305 Experimental Marine Bio.
  - MAR 315 Marine Conservation
  - MAR 320 Limnology
  - MAR 349 Intro. to Bio. Oceanogr.\*
  - MAR 366 Plankton Ecology\*
  - MAR 370 Marine Mammals\*
  - MAR 375 Marine Mammal and Turtle Rehab.
  - MAR 380 Ichthyology
  - MAR 385 Princ. of Fishery Bio. and Management
  - MAR 386 Ecosystem Science for Fisheries Management
  - MAR 388 Tropical Marine Ecology

Marine Science themed:

- MAR 303 Long Island Marine Habitates
- MAR 304 Waves, Tides, and Beaches
- MAR 333 Coastal Oceanography

- MAR 334 Remote Sensing
- MAR 336 Marine Pollution
- MAR 346 Marine Sedimentology
- MAR 351 Intro. to Ocean Chem.\*
- MAR 352 Intro. to Physical Oceanogr.\*

### 3. Environmental Law, Waste Management, and Public Policy

Four courses from the following:

- EHM 325 Environmental Film, Media, Arts
- ENS/POL 333 Environ. Law
- GEO 313 Understanding Water Resources
- HIS 302 Environ. History in Global Perspective
- AAS/HIS 352 Environ. History of China
- HIS 365 Environ. History of N. America\*
- MAR 392 Waste Management Issues
- MAR 393 Waste Management Treatment Tech.
- MAR/BCP 394 Environ. Toxicology and Public Health
- PHI 364 Philosophy of Technology
- SUS 366 Philosophy of the Environ.
- PHI 375 Philosophy of Law
- POL 320 Constitutional Law and Politics: US
- POL 351 Social Surveys in Contemporary Society
- POL 359 Public Policy Analysis
- SBC 307 American Environmental History
- SBC 308 American Environmental Politics
- SBC 309 Global Environmental Politics
- SBC 321 Ecology and Evolution in American Literature
- SBC 325 Environmental Writing and the Media
- SBC 330 Extreme Events in Literature

\*These courses have additional prerequisites outside the major

#### D. 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.

#### E. Upper-Division Writing Requirement

The advanced writing component of the major in ENS requires registration in the 0-credit MAR 459 and approval of either a term paper or a laboratory report written for an advanced course in the ENS major at Stony Brook (including Readings and Research courses). ENS 311/BIO 386 or ENS 443 are preapproved for use with MAR 459 (or BIO 459 for BIO 386). For students in the Ecology or marine science track of the ENS major, successful completion of MAR 459 or BIO 459 in association with a marine science or ecology course will also be accepted. 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. For MAR 459 the course director will grade the material and assign a grade for the appropriate section of MAR 459. For BIO 459 instructions from the biology department should be followed. For students in other concentrations, consult with the undergraduate director about the appropriate approach to fulfilling the WRTD requirement.

Completion of MAR 459 with a grade of S will result in approval of the WRTD requirement. Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Notes:

1. 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.
2. 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.
3. 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.
4. CHE 129/130 may be substituted for CHE 131.
5. AMS 110, AMS 310, ECO 320, POL 201, PSY 201, or SOC 202 may be substituted for AMS 102.

#### 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.

### Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their major.

### Undergraduate College Academy Minor in Environmental Studies

The Environmental Studies Undergraduate College Academy, 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

All core courses must be taken at Stony Brook University. No more than two courses applied to the minor can count toward the student's major or other minor. No more than one elective course in the minor may be taken under the Pass/No Credit option; all other courses required for the minor must be passed with a letter grade of C or higher. (Note: The P/NC option carries financial implications. All students should check with their financial aid advisor before choosing this option.)

#### Declaration of the Minor

Each ENS minor is open to all undergraduate students and takes approximately 4 semesters (fall/spring) to complete and students are encouraged to declare before the start of their sophomore year but no later than the first semester of their junior year depending on target date of graduation. Students should consult with the Faculty Director as soon as possible and plan their course of study for fulfillment of their degree requirements. 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
- GSS 105 Introduction to Maps and Mapping
- MAR 101 Long Island Sound: Science and Use
- MAR 104 Oceanography
- SBC 111 Introduction to Sustainability Studies

#### 2. ENS 101 Prospects for Planet Earth

#### 3. ENS 301 Contemporary Environmental Issues and Policies

#### 4. ENS 443 Environmental Problem-Solving OR at least 3 credits of (i) ENS 487: Independent Research in Environmental Studies; or (ii) research in any SBU department; or (iii) ENS 488: Internship in Environmental Studies, approved by the faculty director.

#### 5. 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/GEO 353 Marine Ecology
- BIO 353/GEO 353 Marine Ecology
- CHE 310 Chemistry in Technology and the Environment
- EHM 315 Ethnographic Field Methods
- EHM 320 Artists and Designers of the Environment and Ecosystems
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 315 Groundwater Hydrology

- GSS 355 Remote Sensing GIS Data
- SBC 308 American Environmental Politics
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society, and Health
- SBC 325 Environmental Writing and the Media
- SUS 301 Environmental Ethics
- Any upper division ENS or MAR course

### Sample Course Sequence for the Major in Environmental Studies, BA

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
ENS 101 or SBC 111	3
MAT 125	3
CHE 131	4
CHE 133	1
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
ANP 120	3
PHI 104	3
SBC	3
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
BIO 201	3
BIO 204	2
ECO 108	4
SBC	3
SBC	3
Total	15

SPRING	Credits
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ENS 119	4
POL 102	3
AMS 102	3
SBC	3
Elective	3
Total	16

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ATM 305	3
MAR 340	3
ENS Concentration Course	3
SBC	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ENS 301 or CSK 305	3
ENS 311	3
ENS Concentration Course	3
Upper-division SBC	3
Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
CSK 302	3
ENS Concentration Course	3
Upper-division SBC	3
Upper-division elective	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ENS 443, ENS 487, or ENS 488	2
ENS Concentration Course	3
Upper-division elective	3
Total	17

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Ethnomusicology (ETH)****Minor in Ethnomusicology****Department of Music, College of Arts and Sciences**

Chairperson: Perry Goldstein

Director of Undergraduate Studies: Margaret Schedel

Ethnomusicology Faculty: Margarethe Adams, Benjamin Tausig

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts

Phone: (631) 632-7330

Email: margarethe.adams@stonybrook.edu

Web address: <http://www.stonybrook.edu/music>

**Ethnomusicology (ETH)**

The minor in Ethnomusicology is designed to provide undergraduates with knowledge about a range of ethnomusicology topics, methods, and theoretical perspectives, in conjunction with a related area of specialization in the social sciences. In addition to ethnomusicology classes, including survey courses and courses on specialized topics, students will take a combination of performance and social science classes on relevant subjects in other departments. The capstone course is MUS451, "Ethnographic Methods in Music," in which students conduct ethnographic research projects related to music. The minor in ethnomusicology is distinct from other existing music minors in that it offers training in fieldwork methods, an anthropological approach that does not rely heavily on the skills of analysis and performance that may be used in musicology, jazz studies, and the like. Moreover, it often emphasizes repertoire and practice from outside of Europe and the United States (our minor is especially strong in the musics of Asia). Ethnomusicology is the study of musical cultures, and entails a disciplinarily unique set of questions and methodologies, as well as objects.

**Requirements for Minor in Ethnomusicology**

Students are required to take a series of three ethnomusicology classes, two related classes in other departments, three performance classes, and a 400-level ethnography class (MUS 451 "Ethnographic Methods in Music"). Music majors must take an additional independent study.

Completion of the minor requires 21 credits.

Students should be advised to monitor their progress toward completing their upper division credit requirement. It is therefore suggested that students take at least three upper-division courses as part of their ethnomusicology minor.

**II. Ethnomusicology series (3 classes required; 9 credits)**

- MUS 105 Music Cultures of the World
- MUS 109 History of Rock
- MUS 311 Topics in Ethnomusicology

Students must take **one introductory course** (either MUS 105 or MUS 109), and **choose two** of the other courses. MUS 311 may be repeated with a different topic (i.e., "Music and Islam" and "Music of China"). Other ethnomusicology options possible with UGPD permission.

**II. Area Studies and Social Sciences (2 courses required; 6 credits)**

Students must **choose two** from the following list of courses (below) from other departments.

Petitions for other courses can be submitted to the UGPD.

- AAS 110 Appreciating Indian Music
- AAS 118 Introduction to Asian Studies
- AAS 211 Asian and Asian American Studies Topics in the Social Sciences
- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 280 Islam
- AAS 305 The Pacific, Travel & Empire
- AAS 351 Revolutionary China: Politics, Culture, and Power
- AAS/ANT 379 Ethnicity and Ecology in China
- AFH 339 Arts of the African Diaspora
- AFS 101 and AFS 102 Themes in Black Experience
- AFS 365 Introduction to African Society

- ANT 101/ANT 102 Introduction to Cultural Anthropology
- HUS 254 Latin America Today
- HUS 271 United States Latino Literature and Culture
- JDS 226 The Shaping of Modern Judaism
- SOC 247 Sociology of Gender
- WST 102 Introduction to Women's and Gender Studies in the Social Sciences
- WST 103 Women, Culture, and Difference
- WST 111 Introduction to Queer Studies in the Humanities
- WST 112 Introduction to Queer Studies in the Social Sciences
- WST 210 Contemporary Issues in Women's and Gender Studies
- WST 291 Introduction to Feminist Theory

### III. Performance/practice-based requirements (3 semesters required; 3 credits)

Option A

**3 semesters of Ethnomusicology ensemble** (such as MUS 235 Introduction to African Drumming or MUS 335 Advanced African Drumming)

Option B

**2 semesters of Ethnomusicology ensemble** (such as MUS 235 Introduction to African Drumming or MUS 335 Advanced African Drumming)

AND

**1 semester of composition/production class** (CDT 341 Sound Design)

Other performance/production options possible with UGPD permission.

1. **Seminar in Ethnography** (3 credits)

#### **MUS 451 "Ethnographic Methods in Music" (Required)**

Prerequisites: MUS 105 or 109, and junior or senior standing

If a Music major wants to also do a minor in Ethnomusicology he/she must undertake a relevant independent project under faculty supervision, taken as a 3 credit MUS 487 Independent Project.

*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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

E-mail: peter.carravetta@stonybrook.edu

Web address: <http://www.stonybrook.edu/commcms/eurolangs/>

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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Program: Timothy Westphalen

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.stonybrook.edu/eurolangs>

**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 45 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**

- Four courses in one European language, two at the 200-level, and two 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

- 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
- 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 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

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
- 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, all students in the major must register for the 0-credit EUR 459, and 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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 30 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

- Four courses in one European language, two at the 200-level, and two 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)

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
EUR 101	3
HIS 101	3
211-level language course	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3

EUR 201	3
HIS 102	3
MVL 141	3
212-level language course	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
HIS 235	3
HUI 216	3
MVL 241	3
SBC	3
311-level language course	3
Total	15

<b>SPRING</b>	<b>Credits</b>
HIS 236	3
HUF 216	3
HUI 235	3
SBC	3
312-level language course	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
EGL 304	3
PHI 304	3
Elective	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ARH 101	3
HIS 391	3
Elective	3
SBC	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
ARH 303	3

EUR 390	3
EGL 302	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ARH 304	3
EUR 401	3
EGL 340	3
Upper-division SBC	3
Upper-division SBC	3
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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Program: Prosper Sanou

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.stonybrook.edu/commcms/eurolangs/>

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, if taken prior to Fall 2011, is sufficient for the Stony Brook University foreign language competence requirement. While students who have met the Skill 3 requirement 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 36-42 credits for Concentration A (all in FRN or HUF) or 42-48 credits for Concentration B (30 credits of FRN and HUF, and 12 credits of a non-FRN discipline), depending on language placement. See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information. All students should consult with the Director of the French Program.

**A. Concentration in Language and Literature****1. Required courses:****a. Language courses:**

- FRN 211 French Comparisons and Connections

- FRN 212 French Cultures and Communities
- 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:

- FRN 211 French Comparisons and Connections
- FRN 212 French Cultures and Communities
- FRN 311 Conversation
- FRN 312 Composition
- FRN 313 French Vocabulary through Popular Culture
- FRN 395, FRN 396 Readings in French Literature: Analysis and Interpretation I, II
- FRN 411 Phonetics and Diction
- FRN 412 Stylistics
- One course in French literature numbered 300 or higher
- FRN 441 French Civilization or HUF 216 or HUF 219
- 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 register for the 0-credit FRN 459 and 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Notes:

1. Students whose language proficiency is such that they can be exempted from FRN 211, 212, 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 211, FRN 212, 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 21-27 credits, depending on language placement. See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information.

## A. Emphasis on Language

Required courses:

- FRN 211 French Comparisons and Connections
- FRN 212 French Cultures and Communities
- 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 211 French Comparisons and Connections
- FRN 212 French Cultures and Communities
- 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 or higher

## 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**

**A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
FRN 211	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
FRN 212	3
SBC	3
SBC	3
SBC	3

Total	16
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**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
FRN 311	3
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
FRN 312	3
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
FRN 395	3
FRN 411	3
One 300-level literature course	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
FRN 396	3
FRN 412	3
FRN 441 or one 300-level literature course	3
SBC	3
SBC	3
Upper-division SBC	3
Total	18

**SENIOR**

<b>FALL</b>	<b>Credits</b>
FRN 413 (or FRN 410)	3
One or two 300-level literature courses	3-6
Upper-division SBC	3

Elective	3
Elective	3
Total	15-18

<b>SPRING</b>	<b>Credits</b>
FRN 441	3
One 300-level literature course	3
SBC	3
Elective	3
Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Geology (GEO)****Major and Minor in Geology****Department of Geosciences, College of Arts and Sciences**

Chairperson: Daniel Davis

Director of Undergraduate Studies: Hanna Nekvasil

Major Advisor: A. Deanne Rogers

Email: [Deanne.Rogers@stonybrook.edu](mailto:Deanne.Rogers@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 19 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 63 to 66 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/GEO 366 Mineralogy and Mineralogy Laboratory
- GEO 309/GEO 369 Structural Geology and Structural Geology Laboratory
- GEO 403/463 Sedimentation and Stratigraphy and Sedimentation and Stratigraphy Laboratory
- GEO 407/467 Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory

**B. Required courses in the related sciences**

- AMS 151, AMS 161 Applied Calculus I,II or MAT 131, MAT 132 Calculus I, II (See Note 1 below). If students do not place into AMS 151 or MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
- CHE 131/CHE133, General Chemistry I and Laboratory, CHE 132 General Chemistry II
- PHY 131/PHY 133, Classical Physics I and Laboratory, or PHY 141/PHY 133, Honors Physics I and lab; PHY 132 Classical Physics II or PHY 142 Honors Physics II (Note: PHY 125/126/127 Classical Physics A/B/C and lab PHY 133 may be substituted for the PHY 131/132 with lab PHY 133 sequence)

- Either CHE 134 General Chemistry II Laboratory or PHY 134 Classical Physics II Laboratory

#### C. Related science electives

A set of upper-division science courses, totaling 19 credits, that has been approved by the department.

#### D. Upper-Division Writing and Speaking Requirement

Before graduation all students in the Geology major must register concurrently for the 1-credit GEO 496 and GEO497 courses along with a 300-400 level GEO course. Completion of GEO 496 with an S and GEO 497 with a C or higher will satisfy the writing and speaking requirements.

#### Notes:

1. The following alternate beginning calculus sequences may be substituted for AMS 151, AMS 161 or 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 or GSS 313/314 GIS Design and Application I and GIS Laboratory
- 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**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
CHE 131/133	5
GEO 102	3
GEO 112	1
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CHE 132/134	4(5)
AMS 151	3
GEO 103	3
GEO 113	1
Total	15(16)

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
AMS 161	3
PHY 131/PHY 133	4
SBC	3
SBC	3
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
GEO 306/366	4
PHY 132/PHY 134	3(4)
SBC	3
SBC	3
SBC	3
Total	16(17)

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
GEO 407/467	4
Upper-division science elective	3

SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
GEO 309/369	4
GEO 403/463	4
Upper-division Science Elective	3
Upper-division Science Elective	3
Total	14

## SENIOR

FALL	Credits
GEO 310	3
GEO 496	1
GEO 497	1
Upper-division Science Elective	3
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	17

SPRING	Credits
Upper-division Science Elective	3
Upper-division Science Elective	3
Upper-division Science Elective	3
Upper-division SBC	3
SBC	3
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. Sung Gheel Jang  
 Email: [Sunggheel.jang@stonybrook.edu](mailto:Sunggheel.jang@stonybrook.edu)  
 Program Office: W0516 Melville Library  
 Phone: 631.632.9404  
 Office: W0511 Melville Library  
 Website: <http://www.stonybrook.edu/commcms/gss/index.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.

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program.

**Core courses:**

- GSS 105 Introduction to Maps and Mapping
- GSS 313 GIS Design and Applications I or GSS 317 Geospatial Narratives
- GSS 314 GIS Laboratory (for students enrolling in GSS 313 Spring 2013 or later)

Select one of the following courses in Remote Sensing or GIS:

- GEO 347 Remote Sensing
- MAR 334 Remote Sensing of the Environment
- GSS 355 Remote Sensing GIS Data
- GSS 325 Design and Applications II (GIS)

**Elective courses (select 9 or more credits from the following):**

- GEO 347 Remote Sensing
- GSS 309 GIS and Cartography
- GSS 323 GIS Database and Design
- GSS 325 GIS Design and Applications II (if not taken above)
- GSS 326 GIS Project Management
- GSS 350 Applied Spatial Data Analysis
- GSS 354 Geospatial Science for the Coastal Zone
- GSS 355 Remote Sensing GIS Data
- GSS 390 Topic in Geospatial Science
- GSS 475 Undergraduate Teaching Practicum
- 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
- MAR 334 Remote Sensing of the Environment

Note 1: A maximum of three Remote Sensing credits from GSS 355, GEO 347 or MAR 334 may be applied to the minor.

Note 2: A maximum of three credits of GSS 487 Geospatial Science Research and/or GSS 488 Geospatial Science Internship may be applied to the minor.

Note 3: Only one of GSS 313 or GSS 317 may be applied toward the minor.

**GSS Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/gss/people.html>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**German Language (GER)****Major and Minor in German Language****Department of European Languages, Literatures, and Cultures, College of Arts and Sciences**

Chairperson: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Program: Robert Bloomer

Assistant to the Chair: Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

Web address: <http://www.stonybrook.edu/commcms/eurolangs/>

**German Language (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 (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 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.

Students not enrolled in the German Teacher Preparation program must complete a minor in Linguistics, History or another discipline approved by the German major advisor. The elective courses with the required minor should be pre-approved by with the German major advisor. Among the courses for the minor, 12 credits must be on the upper-division level in a discipline other than GER.

Students enrolled in the German Teacher Preparation Program must earn the equivalent of at least 33 (preferably 36) credits in GER content courses. To accomplish this, teacher preparation students should complete at least 13 (preferably at least 16) GER credits at one of the SUNY partner universities in Germany. These credits will substitute for GER 313, GER 438, and GER 439 and two HUG requirements above. Students should consult with the German advisor and the teacher education program advisor.

Completion of the major requires 47-48 credits.

**A. Required courses:**

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\* (see Note 2)
5. GER 439 History of German\* (see Note 3)
6. HUG 221 German Cinema since 1945\*
7. HUG 229 Germany Today\*

\*Students who are enrolled in the Teacher Preparation program or students who choose to participate in a Study Abroad program at one of the SUNY partner universities in Germany may use credits earned through study abroad to substitute for GER 313, GER 438, and GER 439 and two HUG requirements above (with permission of the German advisor).

**B. Second Discipline (choose one of the following options)**

- A minor in Linguistics, History or another discipline approved by the German major advisor. The elective courses selected for the required minor should be pre-approved by with the German major advisor. Among the courses for the minor, 12 credits must be on the upper-division level in a subject other than GER.
- or*
- A second major in an appropriate area (Linguistics, History or other discipline approved by the German advisor).

**Note 1:** The prerequisite for GER 211 is GER 101 or GER 112.

**Note 2:** Students who complete the LIN minor can request a waiver of GER 438 with permission from the German major advisor. Credits must be made up in other courses, chosen in consultation with the major advisor.

**Note 3:** Students who complete LIN 340 Historical Linguistics (prerequisite LIN 101 and 201) may request a waiver of GER 439 with permission from the German major advisor. Credits must be made up in other courses, chosen in consultation with the major advisor.

**C. Upper-Division Writing Requirement**

To demonstrate proficiency in writing in English, German majors must register for the 0-credit GER 459 and 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.  
Foreign Language Secondary Teacher Education Program

See <http://sb.cc.stonybrook.edu/bulletin/current/academicprograms/edu/degreesandrequirements.php> . Students enrolled in the German Teacher Preparation Program must earn the equivalent of at least 33 (preferably 36) credits in GER content courses. To accomplish this, teacher preparation students should complete at least 13 (preferably at least 16) GER credits at one of the SUNY partner universities in Germany. These credits will substitute for GER 313, GER 438, and GER 439 and two HUG requirements above. Students should consult with the German advisor and the teacher education program advisor.

**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 with minor in Linguistics**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
GER 111	4
Elective	3
LIN 101	3
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
GER 112	4
SBC	3
LIN 201	3
Total	14

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
GER 211	3
HUG 221	3
SBC	3
SBC	3
LIN 311	3
Total	15

<b>SPRING</b>	<b>Credits</b>
GER 212	3
HUG 229	3
SBC	3
SBC	3
LIN 345	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
GER 311	3
Elective	3
SBC	3
LIN 370	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
GER 312	3
GER 438	3
GER 438	3
Upper-division SBC	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
GER 439	3
GER 459	0
Elective	3
SBC	3
LIN 356	3
Upper-division elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Elective	3
SBC	3
Total	15

*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](mailto:Traci.Thompson@stonybrook.edu)

Web Address: <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

Minors or second majors of particular interest to students majoring in Health Science: Biology (BIO), Business Management (BUS), Chemistry (CHE), Computer Science (CSE), Economics (ECO), Environmental Studies (ENS), Health and Wellness (LHW), Information Systems (ISE), International Studies (INT), Leadership Development (LDR), Media Arts (MDA), 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, human development and disability studies, emergency and critical care, environmental health and safety, health care informatics, health care management, healthcare quality: coding and reimbursement, and public health. Clinical concentrations of study include anesthesia technology, medical dosimetry, 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)**

A course planning guide for this major may be found [here](#).

**Requirements for Enrollment in Senior-Year Courses in the Major in Health Sciences (HAN)**

While there is no formal application process, all students must complete the following requirements before advancing to the senior year curriculum. Note: the following requirements must be completed by the end of the spring semester prior to advancing to the fall senior year curriculum.

**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 or Stony Brook Curriculum with the exception of SPK, CER, TECH, WRTD, and ESI.
3. Completion of a minimum of 16 credits in the natural sciences with a grade of C or higher. 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 with a grade of C or higher. (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 and HAN 251 are required related elective courses.

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.

6. Those who have declared a second major or minor(s) must complete all required coursework for the major/minor(s) prior to advancing to senior year curriculum.

Note: 10 credits of computer science/information systems electives are strongly recommended as prerequisites for the Health Care Informatics concentration. CSE 110, CSE 114, and CSE 215 are strongly recommended.

Note: Courses graded with a G/P/NC or S/U grade basis may not be used to satisfy the Health Science Major requirements.

Note: Once a student has been advanced to the senior year curriculum (HAN) the G/P/NC grading option is no longer available.

For more information, please visit <http://healthtechnology.stonybrookmedicine.edu/programs/hs>.

**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 433 Statistics for Healthcare Management
3. HAN 434 Corporate Compliance and Regulation
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. 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 455 Health Literacy for Public Health Students
5. 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 465 Concepts and Case Studies in Health Informatics
4. HAN 466 Applied Healthcare Informatics
5. HAN 467 Utilization and Outcomes Research Methods

**E. Environmental Health and Safety**

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 Occupational Health and Safety Engineering
2. HAN 474 Industrial Hygiene

3. HAN 475 Fundamentals of Environmental Health
4. HAN 476 Hazardous Materials, Emergency Response, and Environmental Auditing
5. 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 Emergencies
3. HAN 471 Trauma and Trauma Systems
4. HAN 472 Emergency Response to Hazardous Materials and Terrorism
5. HAN 477 Medical Emergencies

#### G. Disability Studies and Human Development

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

A medical dosimetrist is a member of the radiation oncology team. Medical dosimetrists have the education and expertise necessary to generate radiation dose distributions and dose calculations for cancer patients in collaboration with the medical physicist and the radiation oncologist. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the Medical Dosimetrist Certification exam. Job opportunities may be found in cancer treatment centers, community hospitals, free-standing clinics and medical schools. (total length of program 4 + 1 = 5 years)

Note: 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.

The Medical Dosimetry program is accredited by the:

Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182  
Phone: 312.704.5300  
Email: mail@jrcert.org

1. HAN 402 Radiographic Anatomy and Pathology
2. HAN 482 Introduction to Pathology
3. HAN 486 Principles and Practices of Radiation Therapy
4. HAN 487 Introduction to Treatment Planning
5. HAN 490 Fundamentals of Medical Dosimetry and Contouring
6. HAN 492 Radiation Oncology/Medical Physics II

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

#### I. Nuclear Medicine Technology

This concentration was designed to educate students to meet a growing need for highly trained technologists who utilize rapidly developing technologies to image the distribution of radioactive agents in the body. Nuclear medicine is widely used for imaging bodies of patients with cardiac conditions and those with cancer. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the national registry examination. Job opportunities may be found in hospitals, physicians' offices and diagnostic laboratories. (total length of program 4 + 1 = 5 years)

Note: 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://healthtechnology.stonybrookmedicine.edu/programs/hs>

## J. Radiologic Technology

This concentration was developed to train students to meet the growing demand for technologists who image the body through the use of radiation equipment (X-ray technology). As a member of the radiological team, technologists capture images of bones, organs, and blood vessels as prescribed by physicians to assist in the diagnosis of diseases or injuries. After completion of this concentration, students continue on to the post-baccalaureate program in order to be eligible to take the national registry examination. Job opportunities may be found in hospitals, physicians' offices, urgent care clinics, diagnostic laboratories and industry. (total length of program 4 + 1 = 5 years)

Note: HAN395 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://healthtechnology.stonybrookmedicine.edu/programs/hs>

## K. Anesthesia Technology

This concentration allows students to function as an integral member of an anesthesia team in a surgical setting. After completion of this concentration, students can work as an assistant in the operating room and can continue on to the post-baccalaureate program in order to be eligible for the national certification examination. (total length of program 4 + 1 = 5 years)

1. HAN 434 Corporate Compliance and Regulation
2. HAN 481 Intro. to Anesthesia
3. HAN 483 Cardiopulmonary Physiology for Anesthesia Technology
4. HAN 485 Clinical Monitoring
5. HAN 489 Pharmacology for Anesthesia Technology

For admission requirements to the clinical concentrations, please refer to the SHTM Web site at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

## L. Healthcare Quality: Coding and Reimbursement

This concentration of study (AHIMA accreditation pending) is designed to develop the requisite knowledge, skills, and competencies required for entry level practice a medical coder. The concentration prepares student to take the nationally recognized Certified Coding Associate (CCA) credential, which distinguishes coders as possessing coding competencies across all settings, including hospitals (in-patient and ambulatory) and physician practices. Acceptance into this concentration is required prior to enrollment. For admission requirements to this concentration, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

Acceptance into this concentration is required prior to enrollment. For admission requirements to this concentration, please refer to the SHTM website at <http://healthtechnology.stonybrookmedicine.edu/programs/hs>

Note: HAN 424 Pathophysiology (3 credits) is required during the fall semester of the senior year as a prerequisite to acceptance into the concentration. In addition to the spring semester concentration coursework this concentration requires a 6 3 credit, full-time 6 week 45 hour practicum during summer session I. Curriculum subject to change, please check with department.

1. HAN 420 ICD-10-PCS for Coders
2. HAN 421 Advanced CPT Coding
3. HAN 422 Healthcare Reimbursement
4. HAN 409 Basic CPT Coding
5. HAN 410 ICD-10-CM for Coders
6. HAN 423 Coding Practicum

**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. Please visit the SHTM website <http://healthtechnology.stonybrookmedicine.edu/programs/hs> for more information.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Health and Wellness (LHW)****Undergraduate College Academy Minor in Health and Wellness**

Director of the Minor: Deborah Zelizer, PhD, LCSW  
 Office: GLS/HDV Center, Rm 119 or SHTM, Rm 418  
 Phone: (631) 444-6158  
 E-mail: Deborah.Zelizer@stonybrook.edu

**Health and Wellness (LHW)**

The Academy for Health and Wellness is part of the Undergraduate College of Human Development and offers a minor in Health and Wellness, designed to give students a foundation in the concepts of healthy living and to help students' select future studies/careers in the health professions. Through this program, which includes a carefully selected internship, students will be exposed to hands-on experience in the areas of health and/or wellness promotion, prevention, and/or education.

**Requirements for the Minor in Health and Wellness (LHW)****Declaration of the Minor**

The Health and Wellness minor is open to all undergraduate students and takes approximately 4 semesters (fall/spring) to complete. Students are encouraged to declare the Health and Wellness minor before the start of their sophomore year but no later than the first semester of their junior year depending on the target date of graduation. Students should consult with the director of the minor as soon as possible and plan their course of study for fulfillment of the requirements.

**General LHW Minor Requirements**

- Completion of the minor requires 19 credits.
- All core courses must be taken at Stony Brook University.
- No more than two courses applied toward the LHW minor can count towards the student's major or other minor(s).
- No more than one elective course in the minor may be taken under the Pass/No Credit option; all other courses required for the minor must be passed with the letter grade of C or better. (*NOTE: The P/NC option carries financial aid implications. All students should check with their financial aid advisor before choosing this option.*)

**Course Requirements for the Minor****1. Core Requirements (7 credits)**

- LHW 102 Introductory Seminar to Health Professions (1 credit) or HAS 190 Introduction to Health Professions (1 credit)
- LHW 301 Issues in Health and Wellness (3 credits)
- LHW 488 Internship: Experiential Learning in Health and Wellness (3 credits)

**2. Two courses chosen from the following:**

- ANT 215 Climate and Culture
- ANT 260 How We Eat
- 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
- BIO 208 Cell, Brain, Mind
- HAN 200 Human Anatomy and Physiology for Health Sciences I
- HAN 202 Human Anatomy and Physiology for Health Sciences II
- MEC 280 Pollution and Human Health
- PSY 103 Introduction to Psychology
- PSY 220 Developmental Psychology
- SOC 200 Medicine and Society
- SOC 204 Intimate Relationships

**3. Two courses chosen from the following:**

- ANP 300 Human Anatomy
- ANP 331 Hormones and Behavior
- ANT 350 Medical Anthropology
- ANT 367 Male and Female
- ANT 381 Applied Anthropology
- BCP 394/MAR 394 Environmental Toxicology and Public Health
- BIO 320 General Genetics
- BIO 328 Mammalian Physiology

- BIO 336 Conservation Biology
- BIO 350 Darwinian Medicine
- BIO 358 Biology and Human Social and Sexual Behavior
- BME 304 Genetic Engineering
- ECO 327 Health Economics
- HAN 312 Human Anatomy, Health, and Medical Language
- PSY 326 Children's Social and Emotional Development
- PSY 334 Autism and Intellectual Disability
- PSY 346 Health Psychology
- PSY 347 Psychology of Women
- PSY 348 or 349 Special Topics in Social Psychology (when related to health and wellness)
- PSY 356 Physiological Psychology
- SBC 312 Environment, Society, and Health
- SOC 339 Sociology of Alcoholism and Drug Abuse
- SOC 340/WST 340 Sociology of Human Reproduction
- SOC 371/WST 371 Gender and Work
- SOC 392 or 393 Special Topics (when topic is related to health and wellness)
- WRT 303 The Personal Essay
- WRT 304 Writing for Your Profession
- WRT 305 Writing for the Health Professions
- WST 392 Special Topics in Women and Science (when health/wellness-related)
- WST 394 Special Topics in Medicine, Reproduction, and Gender

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Health, Medicine, and Society (MHS)**

Minor in Health, Medicine, and Society

Department of Sociology, College of Arts and Sciences

Chairperson: Daniel Levy

Director of Undergraduate Studies: Cathy Marrone

Assistant to the Chair: Pat Bremer

Undergraduate Secretary: Sharon Worksman

Office: S-401 Social and Behavioral Sciences

Phone: (631) 632-7700

E-MAIL: Sharon.Worksman@stonybrook.edu Web address: <http://www.stonybrook.edu/sociology>

**Health, Medicine, and Social Change (MHS)**

The minor in Health, Medicine, and Social Change offers students a curriculum focusing on the cultural, political, and ethical constructs that drive health care policy and outcomes globally.

**Requirements for the Minor in Health, Medicine, and Society (MHS)**

Students may be Sociology Majors as well as choosing to “Minor” in Health, Medicine, and Society; however, no more than *three* classes from the major course list may apply to the 21 credit requirement for the minor.

All courses for the minor must be passed with a letter 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. At least three of the courses must be at the upper-division level.

**1. Three Core Courses (9 credits):**

- SOC 105 Introduction to Sociology
- SOC 200 Medical Sociology
- SOC 201 Research Methods

**2. Students are required to choose *two* of the following Sociology electives (6 credits):**

- SOC 248 Social Problems in a Global Perspective
- SOC 339 Sociology of Drugs and Alcoholism
- SOC 340 The Sociology of Human Reproduction
- SOC 337 Sociology of Deviance
- SOC 393 Special Topics in Health, Medicine, and Society\*

**3. Students are required to choose *two* courses from the following list (6 credits):\*\***

- AFS/HIS 368 Health and Disease in African History
- AFS/SBC 374 Environment and Development in African History
- AFS 381/WST 382 AIDS, Race, and Gender in the Black Community
- ANT 260 How We Eat
- BIO 350 Darwinian Medicine
- ECO 327 Health Economics
- HIS 237 Science, Technology and Medicine
- HIS 293 Disease in American History
- HIS 398 Topics in the History of Science, Medicine and Technology
- MEC 280 Pollution and Human Health
- PSY 346 Health Psychology
- WST 394 Special Topics in Medicine, Reproduction and Gender

\*Up to 6 credits of SOC 393 may be applied to the minor.

\*\*Substitutions may be permitted for other courses with medical components with permission of the Director of the minor.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Hellenic Studies (HLS)****Minor in Hellenic Studies****College of Arts and Sciences**

Director of the minor: Nikos Panou

E-mail: Nikolaos.Panou@stonybrook.edu

Phone: 631-632-7465

Office: 2118 Humanities, Stony Brook, NY

**Hellenic Studies**

The Minor in Hellenic Studies is an interdisciplinary program for students interested obtaining an understanding of Modern Greek language, culture, and society in relation to ancient Greek and Byzantine civilizations. The minor is organized around areas relevant to Hellenic Studies (of the student's choice).

**Requirements for the minor in Hellenic Studies**

The Minor in Hellenic Studies is an interdisciplinary program for students interested obtaining an understanding of Modern Greek language, culture, and society in relation to ancient Greek and Byzantine civilizations.

The minor is organized around areas relevant to Hellenic Studies (of the student's choice). 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. **Students wishing to pursue a minor in Hellenic Studies must develop a specific plan for its completion in consultation with the designated advisor.** An example of an acceptable distribution would be the following:

- A. Two 100-level courses
- B. Two 200-level courses
- C. Three 300-level courses, with option of substituting one 400-level course for one of the three 300-level courses

**Notes:**

If students do not have competency in Modern Greek language, they are **required** to successfully complete the Modern Greek language courses at the Intermediate level.

Students are **strongly encouraged** to participate in the Summer study abroad program in Greece.

**Course Offerings****Anthropology**

- ANT 296 Anthropology of the European Mediterranean

**Art History**

- ARH 202 Arts of the Ancient World
- ARH 300 Greek Art and Architecture
- ARH 301 Roman Art and Architecture
- ARH 370 Masterpieces of Western Art

**Cinema and Cultural Studies**

- CCS 312 Cinema and the Ancient World

**Classics of Literature**

- CLL 215 Classical Mythology
- CLL 315 Gender and Sexuality in Ancient Greek Literature

**Classics**

- CLS 113 Greek and Latin Literature in Translation
- CLS 225 The Classical Tradition
- CLS 447 Directed Readings in Classics

**English**

- EGL 260 Mythology in Literature

**European Studies**

- EUR 101 Foundations of European Culture

## Greek

- GRK 101 Intensive Elementary Modern Greek
- GRK 111 Elementary Ancient Greek I
- GRK 112 Elementary Ancient Greek II
- GRK 121 Elementary Modern Greek I
- GRK 122 Elementary Modern Greek II
- GRK 211 Intermediate Modern Greek I
- GRK 212 Intermediate Modern Greek II
- GRK 321 Advanced Modern Greek I
- GRK 322 Advanced Modern Greek II

## History

- HIS 101 European History: from Antiquity to Revolution
- HIS 105 The Ancient World
- HIS 201 The Ancient Near East
- HIS 202 Ancient Greece
- HIS 203 Ancient Rome
- HIS 225 The Formation of the Judaic Heritage
- HIS 319 Assyrians, Babylonians, and Hittites
- HIS 324 Lost Languages, Ancient Civilizations, and Decipherments

## Linguistics

- LIN 110 The Anatomy of English Words

## Mathematics

- MAT 336 History of Mathematics

## Medieval Studies

- MVL 241 Heroes and Warriors

## Philosophy

- PHI 101 Historical Introduction to Western Philosophy (I)
- PHI 104 Moral Reasoning (II)
- PHI 105 Politics and Society (II)
- PHI 110 Arts and Ideas (III)
- PHI 200 Introduction to Ancient Philosophy (I)
- PHI 300 Ancient Philosophy (I)
- PHI 367 Philosophy of War and Peace (III)
- PHI 372 Ethical Inquiry (II)

## Political Science

- POL 309 Politics in the European Union
- POL 350 Contemporary European Political Theory

## Religious Studies

- RLS 101 Western Religions
- RLS 301 Sources and Methods

## Theatre Arts

- THR 201 Theatre History I: Greeks to Moliere
- THR 315 European History and Drama: The Classical Era

## Women's Studies

- WST 315 Gender and Sexuality in Ancient Greek Literature

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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.*

Fall 2017-Spring 2018

**History (HIS)****Major and Minor in History****Department of History, College of Arts and Sciences**

Chairperson: Paul Gootenberg

Director of Undergraduate Studies: Janis Mimura

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.stonybrook.edu/commcms/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, and must co-register for the 0-credit HIS 459. 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
HIS 101 or HIS 103	3
SBC	3
SBC	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
HIS 102 or HIS 104	3
SBC	3
SBC	3
SBC	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
Primary Field Course #1 (200 level)	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
HIS 200-level outside primary field	3
Primary Field Course #2 (200 level)	3
Elective	3
SBC	3
SBC	3
Upper-division elective	3
Total	18

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
Primary Field Course #3 (300 level)	3
HIS 300-level outside primary field	3
Upper-division elective	3
HIS 301	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Primary Field course #4 (300 level)	3
HIS 301 writing seminar	3
Related discipline 300-level course	3
Upper-division SBC	3
Upper-division elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Primary Field course #5 (400-level special topics seminar)	3
HIS 300-level outside primary field	3
SBC	3
Elective	3
Elective	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
Related discipline course (300 or 400-level)	3
Upper-division SBC	3
Upper-division SBC	3
Elective	3
Elective	3
<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.*

**Human Evolutionary Biology (EBH)****Major in Human Evolutionary Biology****Departments of Anthropology and Ecology and Evolution, College of Arts and Sciences**

Director of Undergraduate Studies: Andreas Koenig

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

Office: S-517 Social & Behavioral Sciences Bldg

Assistant to the Director: Melissa Cohen

E-mail: [melissa.j.cohen@stonybrook.edu](mailto:melissa.j.cohen@stonybrook.edu)

Office: Life Sciences Building, Room 650

Phone: (631) 632-8604

Web address: <http://www.stonybrook.edu/commcms/anthropology/undergraduate/bs-human-evolutionary-biology>

Minors of particular interest to students majoring in Human Evolutionary Biology: Biology (BIO), China Studies (CNS), History (HIS), Japanese Studies (JNS), Judaic Studies (JDS), Korean Studies (KOR), Middle Eastern Studies (MES), Psychology (PSY)

**Department Information - Human Evolutionary Biology**

The major in Human Evolutionary Biology is offered jointly by the Departments of Anthropology and of Ecology and Evolution. It provides interdisciplinary training in the natural sciences and anthropology to examine how evolutionary forces shaped the human condition. Core courses provide a strong background in the natural sciences, mathematics, and statistics and an introduction to each of three subfields, which include human evolution and morphology, human and non-human primate genetics and genomics, and the evolutionary basis of behavior.

The subfield of human evolution and morphology aims at an understanding of the evolution of the human lineage and its precursors exploring the paleontological, morphological, and cultural transitions in our human ancestors. The emphasis of the human and non-human primate genetics and genomics track is to develop an understanding of the evolution of human variation exploring human genetic diversity and its underlying causes, as well as the phylogenetic relationships of human populations and primate relatives. This includes the basic genetics of humans, human population structure, prehistoric migration and genetic adaptation, and the comparative molecular evolution of the human genome and other primate genomes. The subfield of the evolutionary basis of behavior aims at an understanding of extant human and nonhuman primate behavior and psychology based on the principles of evolutionary theory. The field explores the variation in social systems and life histories and its underlying physiological mechanisms, ecological contexts, and evolutionary bases.

Majors are strongly encouraged to explore research opportunities, either in faculty laboratories or in field projects such as the Turkana Basin or Madagascar Field Schools. The major is suitable for students planning careers in the fields of medicine, dentistry, public health, allied health, biotechnology, and related academic fields such as biological anthropology, bioarchaeology, and evolutionary biology. Interested students should contact the director of the program for details.

**Requirements for the Major in Human Evolutionary Biology**

The major in Human Evolutionary Biology leads to the Bachelor of Science degree. Completion of the major requires a minimum of 60 credits. At least 21 credits must be upper division courses (300 level or higher). Students must complete a minimum of 31-32 credits in the Core Requirements (I., A-C) and a minimum of 28-29 credits in the Subfield Courses (II., A-C). Students can either sample broadly across all areas or focus on one of the three subfields. No more than 6-7 credits in the Subfields can be substituted from the area of Related Courses (II., D).

All major courses (including transfer credits) must be passed with a letter grade of C or higher. Courses with S/U grading and courses taken under the Pass/ No Credit option may not be used to satisfy major requirements. EBH 495 and 496 do not count toward the major requirements.

**I. Core Requirements**

Students must complete a minimum of 31 credits from three areas including Biology (A), Related Fields (B), and Major Subfields (C).

A. Biology and Scientific Skills (11-12 credits)

- 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 or EBH 204 Research Skills
- BIO 354 Evolution

#### B. Courses Required in Related Fields (11 credits)

- CHE 131 General Chemistry IB or CHE 152 Molecular Science I (or CHE 129 with CHE 130 and MAT 123)
- MAT 125 Calculus A or MAT 131 Calculus or MAT 141 Honors Calculus I or MAT 171 Accelerated Single Variable Calculus or level 8 or 9

on the Mathematics Placement Examination. If students do not place into MAT 125 or higher on the basis of the math placement examination, MAT 123

is a required course for the major and MAT 125 can be substituted with AMS 151.

- EBH 230 Computer-Based Biostatistics

#### C. Courses Required from Major Subfields (9 credits)

- EBH 200 Evolution of Human Behavior
- ANP 201 Human Evolution
- EBH 302 Human Genetics

## II. Subfield Courses

Students must complete a minimum of 28 credits in the Subfield Courses. Students may sample broadly across all subfields, taking classes from Sections A, B and C, or choose to specialize in only one of the three areas. BIO 205 (or BIO 207), EBH 391, EBH 401, EBH 447 (max. 2 credits), and EBH 487 (max. 3 credits) are not specific to one of the Subfields, but can be applied towards the major.

Courses in the Subfields may be supplemented by courses listed in section D (Related Courses), although only a maximum of 7 of these credits can be applied towards the major.

One of the classes in the Subfields must be a 400-level seminar chosen from ANP 404, ANP 405, ANP 406, ANP 410, ANT 417, ANT 418, ANT 419, ANT 420, EBH 401, or EBH 405.

All advanced Biology courses have one or more 200 level courses as a prerequisite. A grade of C or higher is required in each 200 level prerequisite in order to enroll in any 300 level Biology course.

Some of the courses in the Subfields may require additional prerequisites.

### A. Human evolution and morphology

Courses in subfield A:

- ANP 300 Human Anatomy
- ANP 321 Primate Evolution
- ANP 404 Human Osteology
- ANP 405 Human Evolution in the Headlines
- ANP 410 Comparative Primate Anatomy
- ANT 104 Introduction to Archaeology
- ANT 268 Archaeology of Human Origins
- ANT 290 Science and Technology in Ancient Society
- ANT 357 The Agricultural Revolution
- ANT 358 Ways to Civilization
- ANT 373 Archaeology of Human Dispersal
- ANT 417 Primitive Technology
- ANT 418 Lithic Technology
- ANT 419 Zooarchaeology
- BIO 208 Cell, Brain, Mind
- BIO 344 Chordate Zoology
- EBH 316 The Evolution of the Human Brain

### B. Human genetics and genomics

Courses in subfield B:

- BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
- BIO 312 Bioinformatics and Computation Biology
- BIO 320 General Genetics or BIO 321 Introduction to Ecological Genetics and Genomics

- BIO 325 Animal Development
- BIO 327 Developmental Genetics Laboratory
- BIO 350 Darwinian Medicine
- BIO 367 Molecular Diversity Lab
- EBH 370 Advanced Human Genetics
- EBH 380 Genomics
- EBH 381 Genomics Laboratory

### C. Evolutionary bases of behavior

Courses in subfield C:

- ANP 220 Controversies in Human Biology and Behavior
- ANT 377 Animal Tool Use
- BIO 328 Mammalian Physiology
- EBH 325 Evolution of Sex
- EBH 331 Hormones and Behavior
- EBH 359 Behavioral Ecology
- EBH 362 Evolution of Social Complexity
- EBH 405 Life History and Development
- PSY 356 Physiological Psychology
- PSY 357 Animal Learning

### D. Related courses

- ANP 304 Ecology: Linking People and Nature (with emphasis on the Turkana Basin)
- ANP 305 Earth and Life Through Time: Vertebrate Paleontology and Paleocology (with emphasis on the Turkana Basin)
- ANP 306 Human Evolution (and evidence from the Turkana Basin)
- ANP 307 Comparing Ecosystems in Madagascar
- ANP 308 Paleoanthropological Field Methods
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 326 Lemurs of Madagascar
- ANP 350 Methods Studying Primates
- ANP 360 Primate Conservation
- ANP 406 Pseudoscience and Anthropology
- ANT 215 Climate and Culture
- ANT 307 Prehistoric Archaeology of Africa (with emphasis on the Turkana Basin)
- ANT 321 Archaeological Field Methods
- ANT 410 Ethnobotany and Paleoethnobotany
- ANT 420 Environmental Analysis Using Remote Sensing and Geographic Information Systems
- BIO 351 Ecology
- BIO 352 Ecological Laboratory
- GEO 303 Sedimentary Geology and Geochronology (with emphasis on the Turkana Basin)

### E. Double major in Biology and Human Evolutionary Biology

For students electing a double major in Biology and Human Evolutionary Biology 12 credits (4 subfield courses) must be non-overlapping with Biology and chosen from subfields A and C:

- ANP 220 Controversies in Human Biology and Behavior
- ANP 300 Human Anatomy
- ANP 321 Primate Evolution
- ANP 404 Human Osteology
- ANP 405 Human Evolution in the Headlines
- ANP 410 Comparative Primate Anatomy
- ANT 104 Introduction to Archaeology
- ANT 268 Archaeology of Human Origins
- ANT 290 Science and Technology in Ancient Society
- ANT 357 The Agricultural Revolution
- ANT 358 Ways to Civilization
- ANT 373 Archaeology of Human Dispersal
- ANT 377 Animal Tool Use
- ANT 417 Primitive Technology
- ANT 418 Lithic Technology
- ANT 419 Zooarchaeology

- EBH 325 Evolution of Sex
- EBH 331 Hormones and Behavior
- EBH 362 Evolution of Social Complexity
- EBH 405 Life History and Development
- PSY 356 Physiological Psychology
- PSY 357 Animal Learning

### III. Upper-Division Writing Requirement

Human Evolutionary Biology students are required to either take one of the elective courses of the major satisfying the WRTD requirement or register for the 0-credit EBH 459 Write Effectively in Human Evolutionary Biology. EBH 459 has to be taken in conjunction with an upper-division elective course in the major (including Reading or Research courses). Students must inform the instructor of the course in advance of their plan to co-register for EBH 459 to satisfy the WRTD requirement. Students must earn a grade of 'S' in EBH 459 to satisfy the WRTD requirement. EBH 459 also satisfies the Stony Brook Curriculum learning objective WRTD. Students completing the DEC requirements may choose to submit a paper written for a 300-level or higher course (including Reading or Research courses) without registering for EBH 459. The paper must be of appropriate length and format and must have been deemed satisfactory by the instructor (graded C or higher). Students who wish to use a paper should present the necessary form to the course instructor and obtain signatures on the form and the paper. The form and the original paper must then be submitted to the director of the program. Students who wish to use this option must consult with the director of the program to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

### Honors Program in Human Evolutionary Biology

Graduation with honors in Human Evolutionary Biology requires both of the following:

1. A cumulative grade point average of 3.50 or higher in all courses for the major.
2. Completion of an honors thesis based on a one-year independent research project (EBH 495 and 496) under the direction of a faculty member written in the form of a scientific report (20 pages or more). The completed thesis must be approved by a thesis committee.

A student interested in becoming a candidate for honors should, after asking a faculty member to be a sponsor, submit a proposal indicating the topic and procedure of the planned research to the director of the program. The submission should include a supporting statement by the supervising faculty member and the names and approval of two faculty committee members, one of them from a department different from that of the research sponsor. This must ordinarily be done several weeks prior to the beginning of the student's senior year. The student must present a copy of the finished thesis to each member of the thesis committee for their approval at least 14 days before the date of graduation.

### Sample Course Sequence for the Major in Human Evolutionary Biology

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
BIO 201	3
MAT 125	3
CHE 131	4
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
BIO 202	3
ANP 201	3
SBC	3
SBC	3
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
BIO 204 or EBH 204	2-3
EBH 302	3
EBH 200	3
EBH 230	4
SBC	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
EBH subfield	3
EBH subfield	3
SBC	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
BIO 354	3
EBH subfield	3
EBH subfield	3

SBC	3
SBC	3
Total	15

SPRING	Credits
EBH subfield	3
EBH subfield	3
Elective	3
Elective	3
SBC	3
Total	15

## SENIOR

FALL	Credits
EBH subfield	3
EBH subfield	3
Elective	3
Elective	3
SBC	3
Total	15

SPRING	Credits
EBH subfield	3
EBH subfield	3
Elective	3
Elective	3
SBC	3
Total	15

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**EBH Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/ecoevo/people/index.html> and <http://www.stonybrook.edu/commcms/anthropology/faculty-and-staff/>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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

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**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**

Currently enrolled students may apply for acceptance to the major with a cumulative grade point average of 2.80 or higher and after the following conditions have been met:

1. The student has completed at least three required courses - CSE 114, Calculus I (AMS 151, MAT 125, MAT 131 or MAT 141), and WRT 102 with an average of 3.0 or higher and no grade below C.
2. The student does not currently hold a grade lower than C in any course required for the ISE major. If a student has taken a course multiple times, the highest grade is considered. In addition, this criterion does not apply for any course the student has not yet taken or has taken once with a grade of W or I.

Computer Science majors may switch to the Information Systems major provided they have maintained a cumulative grade point average of 2.80 or higher.

Students who transfer credit for any of the courses in criterion 1 must speak to the Undergraduate Program Director to determine courses needed for major entry.

**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**

- CSE 114 Computer Science I
- CSE 214 Computer Science II
- ISE 218 Fundamentals of Information Technology

**2. Upper Division Courses:**

- ISE 312 Legal, Social, and Ethical Issues in Information Systems
- ISE 305 Database Design and Practice

- ISE 316 Introduction to Networking or CSE 310 Computer Networks
- ISE 320 Information Management or BUS 340 Information Systems Management

### 3. Electives:

Four additional upper-division ISE courses. Note: ISE 475 may be considered among the ISE upper-division electives, but may only be counted once 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 161 Applied Calculus II or MAT 132 Calculus II or MAT 127 Calculus C or MAT 142 Honors Calculus II or CSE/ISE 215 Foundations of Computer Science
3. AMS 210 Applied Linear Algebra or MAT 211 Introduction to Linear Algebra
4. AMS 310 Survey of Probability and Statistics or ECO 320 Mathematical Statistics or AMS 110 Probability and Statistics in the Life Sciences

### 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:

#### Core Courses

- a. BUS 111 Introduction to Business for Non-Business Majors
- b. ECO 108 Introduction to Economics
- c. ACC 210 Financial Accounting

#### 1. One of the following:

- ACC 214 Managerial Accounting
- ESE 201 Engineering and Technology Entrepreneurship
- BUS 220 Introduction to Decision Sciences
- BUS 294 Principles of Management

#### 2. Two of the following:

- BUS 346 Management and Operations
- BUS 348 Principles of Marketing
- BUS 355 Investment Analysis
- BUS 356 Financial Engineering
- EST 305 Applications Software for Information Management
- EST 320 Communication Technology Systems
- EST 325 Technology in the Workplace
- EST 364 How to Build a Startup
- EST 392 Engineering for Managerial Economics
- EST 393 Project Management
- ECO 326 Industrial Organization
- ECO 345 Law and Economic Issues
- ECO 348 Analysis for Managerial Decision Making
- ECO 389 Corporate Finance
- POL 319 Business Law
- POL 359 Public Policy Analysis
- SOC 381 Sociology of Organizations

### Specialization in Digital Media

Students may take a specialization in Digital Media consisting of the following courses. Courses applied to the specialization may not be used toward requirements to satisfy the ISE major or minor.

1. Core Courses

- a. CDT 208 Introduction to Media Technology
- b. CSE 323/ISE 323 Human-Computer Interaction (see Note)

2. Two of the following:

- ARS205 Foundations: Idea and Form
- ARS210 Modern Art and the Moving Image
- ARS225 Introduction to Digital Art
- ARS281 Introductory Photography
- CCS101 Introduction to Cinema & Cultural Studies
- DIA207 Technologies of Representation
- ISE102 Introduction to Web Design and Programming
- ISE108 Introduction to Programming
- THR103 Theatre and Technology

3. Two of the following:

- ARS324 Intermediate Digital Art: Design
- ARS325 Intermediate Digital Arts: Print
- ARS326 Video Art: Narrative Forms
- ARS327 Digital Arts: Web Design and Culture
- ARS328 Digital Arts: Animation
- ARS329: Video Art: Experimental Forms
- CDT317 Interactive Media, Performance, and Installation
- CDT318 Movie Making: Shoot, Edit, Score
- CDT341 Sound Design
- CDT450 Topics in Computational Arts
- CSE333 User Interface Development
- ISE325/CSE325 Computer Science and Sculpture
- ISE334/CSE334 Introduction to Multimedia Systems
- ISE340/EST310 Design of Computer Games
- ISE364/CSE364 Advanced Multimedia Techniques
- ISE488 Internship
- DIA396 Video and Computer Game History
- DIA397 Video and Computer Game Culture

Note: If CSE 323/ISE 323 is being used to satisfy an ISE upper division requirement, any one course listed in the above upper-division category can be substituted for CSE 323/ISE 323.

**Specialization in Financial Information Systems**

Students may take a specialization in Financial Information Systems consisting of the following courses.

1. Two of the following:

- CSE 215 Foundations of Computer Science
- AMS 315 Data Analysis
- AMS 318 Financial Mathematics

2. Four of the following:

- ACC 210 Financial Accounting
- AMS 311 Probability Theory
- AMS 316 Introduction to Time Series Analysis
- AMS 320 Introduction to Quantitative Finance
- AMS 341 Operations Research I: Deterministic Models
- AMS 394 Statistical Laboratory
- AMS 441 Business Enterprise
- BUS 330 Principles of Finance
- BUS 331 International Finance
- BUS 355 Investment Analysis
- BUS 356 Financial Engineering
- ISE 323 Human-Computer Interaction
- ISE 331 Fundamentals of Computer Security

**Specialization in Health Informatics**

Students may take a specialization in Health Informatics consisting of the six courses.

## 1. Core Courses:

- HAN 200 Anatomy and Physiology I
- BIO 202 or BIO 203 Fundamentals of Biology

## 2. Four of the following:

- BCP 405 Pharmacology to Pharmacy: Practical Clinical Aspects for Non-Clinicians (Didactic)
- BIO 202 or BIO 203 Fundamentals of Biology
- BME 205 Clinical Challenges of the 21st Century
- CSE 337 Introduction to Medical Imaging
- ECO 327 Health Economics
- HAN 202 Anatomy and Physiology II
- ISE 305 Database Design and Practice
- PSY 103 Introduction to Psychology

**Specialization in System & Network Administration**

Students may take a specialization in System & Network Administration consisting of the following courses. Courses applied to the specialization may not be used toward requirements to satisfy the ISE major or minor.

1. ISE 311 System Administration
2. ISE 321 Network Administration
3. ISE 331 Computer Security or CSE 331 Computer Security Fundamentals
4. ISE 337 Scripting Languages or CSE 337 Scripting Languages
5. ISE 488 Internship or ISE 487 Research in Information Systems
6. CSE 370 Wireless and Mobile Networking or EST 393 Project Management or BUS 393 Principles of Project Management or BUS 346 Management and Operations or AMS 341 Operations Research I: Deterministic Models

**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 201 Technological Trends in Society or 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 364 How to Build a Startup
- 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 108 or CSE 101 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 108 Introduction to Programming or CSE 101 Introduction to Computers
2. CSE 114 Computer Science I
3. ISE 218 Fundamentals of Information Technology

4. Four electives totaling at least twelve credits. Electives must include nine credits of upper-division courses and at least nine credits of CSE or ISE courses. Approved courses include most ISE/CSE courses and other courses relevant to Information Systems. Consult with the ISE Undergraduate Program Director on the suitability of an elective course prior to registration.

Note: All courses above must be passed with a grade of C or higher

**Sample Course Sequence for the Major in Information Systems**  
**A course planning guide for this major may be found here.**

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
ISE 108 (TECH)	3
AMS 151 (QPS)	3
SBC	3
<b>Total</b>	<b>13</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102 (WRT)	3
CSE 114 (TECH)	4
SBC course	3
SBC course	3
SBC course	3
<b>Total</b>	<b>17</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
ISE 218	3
AMS 210 (STEM+)	3
CSE 214	3
SBC	3
Elective	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
ISE 215	3
ISE 320	3
Specialization course	3
Elective	3
SBC	3
<b>Total</b>	<b>15</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ISE 305	3
AMS 310 or ECO 320	3
Specialization course	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ISE 312 (STAS, CER, & ESI)	3
CSE 310	3
ISE Elective	3
Specialization course	3
Specialization course	3
SBC	3
Total	18

**SENIOR**

<b>FALL</b>	<b>Credits</b>
ISE 300 (SPK, WRTD)	3
ISE 301 (STAS)	3
ISE Elective	3
Specialization course	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
ISE Elective	3
ISE Elective	3
Specialization course	3
Elective	3
Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**International Studies (INT)****Undergraduate College Academy Minor in International Studies**

Director of the Minor: Georges Fouron

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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: Only with prior approval of the faculty director will study abroad be considered as a substitute for Requirement 3.

**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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Minor: Peter Carravetta

Assistant to the Chair: Elizabeth Tolson

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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Program: Irene Marchegiani

Assistant to the Chair: Elizabeth Tolson

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E-mail: irene.marchegiani@stonybrook.edu

Web address: <http://www.stonybrook.edu/commcms/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 36-42 credits for Concentration A and 42-48 credits for Concentration B, depending on language placement. See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information.

**A. Concentration in Language and Literature****1. Required courses:**

- ITL 211 Intermediate Italian I
- ITL 212 Intermediate Italian II
- ITL 311 Italian Conversation and Composition II
- ITL 312 Italian Conversation and Composition II
- ITL 395 Readings in Italian Literature I
- ITL 396 Readings in Italian Literature I
- 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 211 Intermediate Italian I
- ITL 212 Intermediate Italian II
- 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

- Four additional ITL or HUI courses chosen in consultation with the program coordinator, of which 4 must be numbered 300 or higher
- 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 register for the 0-credit ITL 459 and 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

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 211, 212, 311, and 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 22-27 credits, depending on language placement. See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information.

A. Emphasis on Language

- ITL 211 Intermediate Italian I
- ITL 212 Intermediate Italian II
- 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 211 Intermediate Italian I
- ITL 212 Intermediate Italian II
- 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)

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
ITL 201 or ITL 211	6 or 3
HUI or ITL elective	3
SBC	3
Total	13-16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
ITL 311 or ITL 212	3
SBC	3
SBC	3
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
ITL 395	3
HUI or ITL elective	3
SBC	3

SBC	3
SBC	3
Total	15

SPRING	Credits
ITL 396	3
ITL 411	3
ITL Upper-division elective	3
SBC	3
SBC	3
Total	15

**JUNIOR**

FALL	Credits
ITL 412	3
HUI or ITL Upper-division elective	3
SBC	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
ITL Upper-division elective	3
HUI or ITL Upper-division elective	3
Upper-division elective	3
Elective	3
Elective	3
Total	15

**SENIOR**

FALL	Credits
ITL 432	3
HUI or ITL Upper-division elective	3
ITL Upper-division Elective	3
ITL Upper-division Elective	3
Upper-division SBC	3
Total	15

SPRING	Credits
ITL 495 (Honors Project)	3
ITL Upper-division elective	3
SBC	3
SBC	3

Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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

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Phone: (631) 632-7690

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**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 or JPN 212 Intermediate Japanese I or II
2. Five of the following:

- AAS 216 Introduction to Japanese Studies
- AAS 237 Introduction to Japanese Literature
- 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
- 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: Perry Goldstein

Director of Undergraduate Studies: Peter Winkler

Undergraduate Secretary: Germaine Berry

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**Jazz Studies (JAZ)**

The minor in Jazz studies is designed to provide undergraduate students with a foundation in music theory and history that incorporates a jazz perspective in addition to the opportunity to perform in a jazz ensemble. It is particularly well-suited to students interested in developing their skills as jazz musicians while pursuing a broader education in music history and theory. Coursework includes an introduction to the study of music, courses in improvisation, music theory, the history of jazz, two semesters performing in a jazz ensemble, and a choice of courses on specialized topics, including American music, popular music, and musics of other western and non-western traditions.

**Requirements for Minor in Jazz Studies**

All courses offered for the minor in Jazz Studies 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 minor requires 21 credits.

The minor is designed for students who are interested in jazz but who do not seek training in more sophisticated aspects of music theory and musicianship.

**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

MUS 269 Introduction to African Drumming

MUS 270 Advanced African Drumming

Note: Students must audition to be accepted to MUS 189, MUS 264, and MUS 267.

If a Music major wants to also do a minor in Jazz he/she must undertake a relevant independent project under faculty supervision, taken as a 3 credit MUS 487 Independent Project.

*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

Assistant Dean of 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 and a combination of all three.

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 49 credits in journalism and either six courses in a multi-disciplinary concentration, of which at least three are upper-division courses, or a minor, or a second major. (The option to choose either a multi-disciplinary concentration or a minor is retroactive and open to all majors.) To satisfy all requirements, a student must earn a minimum of 124 credits to graduate with a degree in journalism, including a minimum of 72 credits outside of JRN-labeled courses.

Students must complete three developmental phases, with core requirements in each phase. In Phase I, The Fundamentals of Journalism, students will study basic skills and ethics, including news reporting and writing for print and broadcast. In Phase II, The Business of News, students will explore the changes sweeping the journalistic landscape and choose from a menu of upper-division reporting and writing courses. In Phase III, Entry Point into the Profession, students will take advanced courses in either a Visual/Web Track or a Text/Web Track. In addition, students will complete a senior project in their area of specialty and then adapt it for other media.

Note: Parts of this curriculum take effect in Fall 2013. Students who took JRN 110 before Fall 2013 will continue in that sequence.

### Core Course Requirement

To maximize students' knowledge in core areas of great importance to journalists, Journalism majors who matriculated Fall 2015 or later are required to complete the following courses. Higher-level courses in these disciplines may be substituted. (Students can substitute equivalent AP and Transfer courses.)

- POL 102 Introduction to American Government
- BUS 111 Introduction to Business for Non-Business Majors **OR** ECO 108 Intro to Economics (Note: Prerequisite for ECO 108 is MAT 122 or MAT 123 or higher-level calculus)
- MAT 118 or higher level MAT course or AMS 102 or higher level AMS course

### Grammar and Editing Lab

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 115. 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.

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: The Fundamentals of Journalism

All journalism students should see a departmental advisor. Unless approved by a JRN advisor, students must complete the following courses in this order:

- JRN 101 News Literacy
- JRN 105 The Mind of a Reporter
- JRN 108 The History and Future of the American Press
- JRN 111/JRN 115 Grammar and Editing Lab/News Reporting and Writing I
- JRN 205 News Reporting and Writing II
- JRN 215 Intro to Multimedia Skills
- JRN 220 Media Law

#### B. Phase II: Journalism 24/7

1. Students must complete the following courses, not necessarily in this order:

- JRN 301 The Business of News
- JRN 310 Multimedia Newsroom I/Visual
- JRN 320 Multimedia Newsroom II/Web
- JRN 340 Beat Reporting
- JRN 350 Journalistic Judgment and Ethics

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: Entry Point into the Profession

Students complete one of the following two tracks:

Visual/Web Track:

- JRN 370 Advanced Visual Reporting and Storytelling
  - JRN 371 Weekly Broadcast
  - JRN 385 Digital Academy
  - JRN 490 Senior Project
  - Advanced electives available to this group: JRN 364 or JRN 380 or JRN 381
- OR**

Text/Web Track:

- JRN 364 Advanced Reporting
- JRN 381 Web Presentation
- JRN 385 Digital Academy
- JRN 490 Senior Project
- Advanced electives available to this group: JRN 370 or 380

D. Experiential Requirement:

Students are required to successfully complete at least one experiential course. Choices include JRN 335, JRN 415, JRN 435, JRN 487, JRN 488, and others.

#### E. Required JRN Electives

Students are required to complete the major with elective journalism credits. Students may take any course for which they have the pre- and co-requisites.

#### F. Multi-Disciplinary Concentration or Minor

Majors must complete either six courses in a Multi-Disciplinary Concentration, of which at least three are upper-division courses, or a Minor. The option to choose either a Multi-Disciplinary Concentration or a Minor is retroactive and open to all majors. A concentration or minor is not required of dual majors.

A Minor is of the major's choosing. The Minor must be completed.

For the Multi-Disciplinary Concentration, majors must complete six courses, including three upper-division courses, in one of the following four multi-disciplinary concentrations. Students may substitute a course within a concentration or propose a new concentration with the permission of the undergraduate director. Specific multi-disciplinary concentrations and suggested courses are listed below. A concentration is not required of students who 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 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 toward D.E.C. or SBC categories, and students may choose and apply D.E.C. or SBC 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 (also as EST 102)
- ATM 237 Topics in World Climate/Atmosphere (Individual Topics need approval) (also as PHY 237-H)
- BIO 103 Intro to Biotech
- BIO 113 General Ecology
- BIO 115 E Evolution and Society
- BIO 201 Fundamentals of Biology Organisms to Ecosystems
- BIO 353 Marine Ecology
- BIO 358 Biology and Human Social and Sexual Behavior
- BIO 386 Ecosystem Ecology and the Global Environment (also as ENS 311)
- CHE 115 Chemistry, Life and Environment (also as ENV 115)
- ECO 373 Economics of Environment and Natural Resources

- ENS 101 Prospects for Earth
- ENS 301 Contemporary Environmental Issues and Policies
- ENS 311 Ecosystem Ecology and the Global Environment (also as BIO 386)
- ENS 312 Population, Technology and the Environment
- ENS 333 Environmental Law (also as POL 333)
- ENV 115 Chemistry, Life and Environment (also as CHE 115)
- EST 102 Weather and Climate (also as ATM 102)
- EST 201 Technological Trends in Society
- EST 291 Energy, Environment, and People
- 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 109 Life Through Time
- GEO 304 Energy, Mineral Resources & Environment
- GEO 305 Field Geology
- GEO 311 Geoscience and Global Concerns
- GEO 313 Understanding Water Resources for the 21st Century
- HIS 365 Environmental History of North America
- HIS 399 Topics in U.S. History (Individual Topics need approval)
- MAR 101 Long Island Sound Science and Use
- MAR 104 Oceanography
- MAR 340 Environmental Problems and Solutions
- PHI 366 Philosophy of the Environment
- PHY 113 Physics of Sports
- PHY 237 Topics in World Climate/Atmosphere (Individual Topics need approval) (also as ATM 237)
- POL 333 Environmental Law (also as ENS 333)
- SBC 111 Introduction to Sustainability Studies
- SOC 315 Sociology of Technology
- SOC 340 Sociology of Human Reproduction (also as WST 340)
- SOC 344 Environmental Sociology
- WST 340 Sociology of Human Reproduction (also as SOC 340)

### 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 102 Eastern Religions (also as RLS 102 )
- AAS 250 Language and Culture of Asian Americans (also as LIN 250)
- AAS 280 Islam (also as RLS 280)
- AAS 334 English in Asia
- AAS 338 Contemporary India History, Politics & Diplomacy (also as POL 338)
- AFH 382 Black Women's Literature of the African Diaspora (also as EGL 382 and WST 382)
- AFS 277 The Modern Color Line (also as HIS 277)
- AFS 310 American Attitudes Toward Race
- AFS 319 The Politics of Race
- AFS 325 The Civil Rights Movement (also as HIS 325)
- AFS 350 Black Women and Social Change A Cross-Cultural Perspective (also as WST 350)
- AFS 363 Blacks and Mass Media
- AFS 394 Black Nationalism in America
- AMR 102 Making American Identities
- AMR 301 Ethnicity and Race in American History
- ANT 203 Native Peoples of North America
- CLT 235 American Pluralism in Film and Literature
- ECO 316 U.S. Class Structure and Its Implications
- EGL 382 Black Women's Literature of the African Diaspora (also as AFH 382 and WST 382)
- EST 330 Natural Disasters Societal Impacts and Technological Solutions
- HIS 277 The Modern Color Line (also as AFS 277)
- HIS 325 Civil Rights Movement (also as AFS 325)
- HIS 362 Making Peace with the 60s
- HIS 368 Wealth and Inequality in the Modern Corporate Age

- HIS 373 History of Crime & Criminal Justice in U.S.
- HIS 396 Topics in U.S. History (Individual Topics need approval)
- HUI 336 Italian Americans and Ethnic Relations
- LIN 101 Intro to Linguistics
- LIN 200 Language in the United States
- LIN 250 Language and Culture of Asian Americans (also as AAS 250)
- PHI 105 Politics and Society
- PHI 383 Philosophical Issues of Race and Gender (III) (also as WST 383)
- POL 101 World Politics
- POL 102 Introduction to American Government
- POL 320 Constitutional Law and Politics United States
- POL 330 Gender Issues in the Law (also as WST 330)
- RLS 101 Western Religions
- RLS 102 Eastern Religions (also as AAS 102)
- RLS 280 Islam (also as AAS 280)
- SOC 105 Intro to Sociology
- SOC 204 Intimate Relationships
- SOC 243 Sociology of Youth
- SOC 247 Sociology of Gender (also as WST 247)
- SOC 248 Social Problems in Global Perspective
- SOC 302 American Society
- SOC 303 Social Inequality
- 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 340 Sociology of Human Reproduction
- SOC 348 Global Sociology
- SOC 378 War and the Military
- SOC 380 Social Psychology
- SOC 390 Special Topics (Individual Topics need approval)
- WST 102 Intro to Women's Studies in the Social Sciences
- WST 103 Women, Culture and Difference
- WST 247 Sociology of Gender (also as SOC 247)
- WST 310 Contemporary Feminist Issues
- WST 330 Gender Issues in the Law (also as POL 330)
- WST 335 Women at Work in 20th Century America
- WST 347 Women and Politics (also as POL 347)
- WST 350 Black Women and Social Change A Cross-Cultural Perspective (also as AFS 350)
- WST 382 Black Women's Literature of the African Diaspora (also as AFH 382 and EGL 382)
- WST 383 Philosophical Issues of Race and Gender (III) (also as PHI 383)
- WST 399 Topics in Gender and Sexuality (Individual Topics need 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.

- • ATM 102 Weather and Climate (also as EST 102 )
- AFS 325 Civil Rights Movement (also as HIS 325)
- AFS 339 Recent African American History (also as HIS 339)
- AMR 102 American Identities
- ATM 102 Weather and Climate (also as EST 102)
- ANT 310 Ethnography
- BUS 111 Intro to Business for Non business Majors
- BUS 348 Principles of Marketing
- ECO 108 Intro to Economics
- ECO 303 Intermediate Microeconomics Theory
- ECO 305 Intermediate Macroeconomics Theory
- ECO 316 U.S. Class Structure

- ECO 360 Money and Banking
- ENS 333 Environmental Law (also as POL 333)
- EST 102 Weather and Climate (also as ATM 102 )
- EST 201 Technological Trends in Society
- EST 330 Natural Disasters Societal Impacts
- GEO 105 Energy Resources for the 21st Century
- HIS 104 United States Since 1877
- HIS 325 Civil Rights Movement (also as AFS 325)
- HIS 333 Women in U.S. History (also as WST 333)
- HIS 339 Recent African American History (also as AFS 339)
- HIS 373 Crime and Criminal Justice
- HIS 378 War and the Military (also as SOC 378)
- HIS 396 Topics in U.S. History (Individual Topics need approval)
- HUI 236 Italian American Scene
- HUR 249 Russia Today
- LIN 200 Language in the United States
- MAR 340 Environmental Problems and Solutions
- PHI 105 Politics and Society
- PHY 113 Physics of Sports
- POL 101 World Politics
- 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 319 Business Law
- POL 320 Constitutional Law and Politics United States
- POL 322 The Presidency
- POL 323 U.S. Congress
- POL 324 American Political Parties & Pressure Groups
- POL 325 Civil Liberties and Civil Rights
- POL 327 Urban Politics
- POL 332 Politics of Criminal Due Process
- POL 333 Environmental Law (also as ENS 333)
- POL 336 U.S. Foreign Policy
- POL 346 Political Psychology
- POL 359 Public Policy Analysis
- POL 367 Mass Media in American Politics
- SOC 105 Introduction to Sociology
- SOC 200 Medicine and Society
- SOC 247 Sociology of Gender (also as WST 247)
- SOC 302 American Society
- SOC 336 Social Change
- SOC 337 Social Deviance
- SOC 338 Sociology of Crime
- SOC 340 Sociology of Human Reproduction (also as WST 340)
- SOC 378 War and the Military (also as HIS 378)
- SOC 386 State and Society in the Middle East
- WST 333 Women in U.S. History (also as HIS 333)
- WST 340 Sociology of Human Reproduction (also as SOC 340)
- WST 247 Sociology of Gender (also as SOC 247)

### 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 216 Introduction of Japanese Studies
- • AAS 250 Language and Culture of Asian Americans (also as LIN 250)
- • AAS 280 Islam (also as RLS 280)
- • AAS 372 Family, Marriage, Kinship – China (also as ANT 372)
- • AFH 339 Arts of the African Diaspora (also as ARH 329)

- AFH 390 Issues in Africana Studies (Individual Topics need approval)
- AFS 221 Modern African History (also as HIS 221)
- AFS 240 Issues in Caribbean Society
- AFS 319 The Politics of Race
- AFS 337 Politics of Africa (also as POL 337)
- AFS 346 Political and Social History of Africa (also as HIS 346)
- AFS 350 Black Women and Social Change A Cross-Cultural Perspective (also as WST 350)
- AFS 365 Introduction to African Society (also as SOC 365)
- AFS 375 Slavery
- AMR 101 Local and Global National Boundaries, World Systems
- ANT 250 African Peoples and Cultures
- ANT 372 Family, Marriage, Kinship – China (also as AAS 372)
- ARH 329 Arts of the African Diaspora (also as AFH 339)
- ATM 237 World Climate and Atmosphere (also as PHY 237)
- EST 330 Natural Disasters Societal Impacts
- EUR 101 Foundations of European Culture
- GEO 101 Environmental Geology
- GEO 311 Geoscience & Global Concerns
- HIS 102 Modern European History 1789-1945
- HIS 214 Modern Latin America (also as POL 214)
- HIS 221 Modern African History (also as AFS 221)
- HIS 227 Islamic Civilization
- HIS 281 Global History & Geography
- HIS 341 20th Century China
- HIS 346 Political and Social History of Africa (also as AFS 346)
- HIS 353 Postwar Japan
- HIS 378 War and the Military (also as SOC 378)
- HIS 393 Topics in Modern European History (Individual Topics need approval)
- HIS 397 U.S. Immigration & Ethnicity
- HUF 219 Modern France
- HUI 239 Modern Italy
- HUI 336 Italian Americans and Ethnic Relations
- HUI 338 Images of Italian Americans in Film
- HUR 249 Russia Today
- HUS 254 Latin America Today
- HUS 255 Modern Spain
- LIN 250 Language and Culture of Asian Americans (also as AAS 250)
- PHY 237 World Climate and Atmosphere (also as ATM 237)
- POL 101 World Politics
- POL 103 Intro to Comparative Politics
- POL 214 Modern Latin America (also as HIS 214)
- POL 309 Politics in the European Union
- POL 310 Immigration and Refugee Politics
- POL 311 Introduction to International Law
- POL 313 Problems / International Relations
- POL 336 U.S. Foreign Policy
- POL 337 Politics of Africa (also as AFS 337)
- POL 338 Contemporary India History, Politics, Diplomacy (also as AAS 338)
- POL 350 Contemporary European Political Theory
- POL 374 Global Issues in the United Nations (also as SOC 374)
- RLS 280 Islam (also as AAS 280)
- SOC 105 Intro to Sociology
- SOC 248 Social Problems in Global Perspectives
- SOC 348 Global Sociology
- SOC 364 Sociology of Latin America
- SOC 365 Intro to African Society (also as AFS 365)
- SOC 374 Global Issues in the UN (also as POL 374)
- SOC 378 War and the Military (also as HIS 378)
- SOC 386 State and Society in the Middle East
- WST 301 Histories of Feminism
- WST 350 Black Women and Social Change A Cross-Cultural Perspective (also as AFS 350)

#### G. 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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 six credits of elective journalism courses at 200 or above to complete the minor in Journalism.**

See a journalism advisor. Prerequisites will be enforced.

Note: Parts of this curriculum take effect in Fall 2013. Students who took JRN 110 before Fall 2013 will continue in that sequence.

#### Grammar and Editing Lab

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 115. 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.

Note: WRT 200 may be used as a substitute for JRN 111 in satisfying the major or minor requirements.

#### A. Courses required of all minors:

- JRN 101 or JRN 103 News Literacy
- JRN 108 The History and Future of the American Press
- JRN 105 News Reporting and Writing I
- JRN 115/111 News Reporting and Writing II/Grammar and Editing Lab

#### Elective choice A:

- JRN 390 Special Topics

*or:*

- SOC 330 Media and Society

*or:*

- POL 367 Mass Media in American Politics

And either Choice B or Choice C below:

#### Elective choice B:

- JRN 301 The Business of News
- JRN 215 Intro to Multimedia Skills

#### Elective choice C:

- JRN 215 Intro to Multimedia Skills
- JRN 220 Media Law

Minors are welcome to take additional courses beyond these, but should consult with the Undergraduate Director.

#### Sample Course Sequence for the Major in Journalism

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 102	3
JRN 101 or JRN 103	3
JRN 105	3
MAT (QPS)****	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
JRN 108	3
JRN 115 and JRN 111*	4
BUS 111 or ECO 108	3-4
SBC	3
Total	14-15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
JRN 210/JRN 211 or 205/215	3 or 4
JRN 220	2
Multidisciplinary concentration***	3
SBC	3
SBC	3
Total	14-15

<b>SPRING</b>	<b>Credits</b>
JRN 301	2
JRN 310**	3
Multidisciplinary concentration***	3
SBC	3
SBC	3
SBC	3
Total	17

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
JRN 320**	3
JRN 350	3
JRN 333, JRN 334, JRN 336, or JRN 337	3

Multidisciplinary concentration***	3
Elective	3
Total	15

SPRING	Credits
JRN 364 or JRN 370**	3
JRN 340	3
JRN Experiential (any late semester)	3
Multidisciplinary concentration***	3
Elective	3
Total	15

## SENIOR

FALL	Credits
JRN 371 or JRN 381**	3
JRN 385	1
Multidisciplinary concentration***	3
Elective	3
Elective	3
SBC	3
Total	16

SPRING	Credits
JRN 490	3
Multidisciplinary concentration***	3
Elective	3
Elective	3
SBC	3
Total	15

NOTE: The sample course sequence is meant to be used as a example. Please consult a Journalism advisor to help plan a course schedule.

Parts of this curriculum take effect in Fall 2013. Students who took JRN 110 before Fall 2013 will continue in that sequence.

\*Students are required to pass 111 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 minor or second major.

\*\*\*\*Choose from among the following: AMS 102, MAT 118 or any higher AMS or MAT course.

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

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 337 History of Korea or AAS 323 Language and Society in Korea
2. Five courses chosen from the following, including at least two upper-division (300 or 400 level) courses:

- KOR 111 Elementary Korean I
- KOR 112 Elementary Korean II
- KOR 120 Elementary Korean for Heritage Speakers
- KOR 211 Intermediate Korean I
- KOR 212 Intermediate Korean II
- KOR 220 Intermediate Korean for Heritage Speakers
- 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 411 Advanced Korean III
- KOR 412 Advanced Korean IV
- KOR 426 Structure of Korean
- AAS 217 Introduction to Korean Culture
- AAS 240 Confucianism and Daoism
- AAS 247 Modern Korean Through Visual Culture
- AAS 300 Intellectual History of East Asia
- AAS 321 Korean Literature
- AAS 323 Language and Society in Korea
- AAS 337 History of Korea
- 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 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: Eric Zolov, History

Administrative Assistant: Sarah Harrington

Office: N-335 Social and Behavioral Sciences

Phone: (631) 632-7517

E-mail: [lacs@stonybrook.edu](mailto:lacs@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. HUS 254 Latin America Today or HIS/POL 214 Modern Latin America
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 339/ARH 329 Arts of the African Diaspora

AFH 368/EGL 368 Caribbean and American Connections in Literature

AFH/HUF 385 French Caribbean Literature

ARH 326 Arts of Ancient Mesoamerica

ARH 329 Arts of the African Diaspora

EGL 368 Caribbean and American Connections in Literature

EGL 375 Literature in English in Relation to Other Disciplines

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

SUS/PHI 355 Environmental Philosophy

The following topics courses may also be used when the topic is appropriate:

EGL 372 Topics in Women and Lit.

HUS 261 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 335 Developing Economics  
EHM 316 Cuba & Sustainability  
HIS 213 Colonial Latin America  
HIS 214/POL 214 Modern Latin America  
HIS 216/POL 216 History of U.S.-Latin American Relations  
HIS 380 History of Cuba  
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  
WST 395 Topics in Global Feminism (when topic is appropriate)  
WST 398 Topics in Gender, Race, and Ethnicity (when topic is appropriate)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Leadership Development (LDR)****Undergraduate College Academy Minor in Leadership Development**

Faculty Director: Richard H. Morgan, Ph.D.

Office: Health Science Center 091-B

Email: richard.morgan@stonybrook.edu Phone: (631) 444-6926

**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. All core courses must be taken at Stony Brook University.
2. No more than two courses applied to the minor can count toward the student's major or other minor. Students cannot take more than two electives with the same designator.
3. No more than one elective course in the minor may be taken under the Pass/No Credit option; all other courses required for the minor must be passed with a letter grade of C or higher with the exception of MDA/THR 488, which is S/U. (Note: The P/NC option carries financial implications. All students should check with their financial aid advisor before choosing this option.)
4. All credits for the minor must be passed with a grade of C or higher.
5. Students in the College of Leadership and Service are strongly encouraged to consider the minor in Leadership Development, but it is not mandatory.
6. Students who are not residents of the LDS college are welcome to take the minor.
7. Students taking the LDR minor are expected to participate in LLC activities.

## Declaration of the Minor

The LDR minor is open to all undergraduate students and takes approximately 4 semesters (fall/spring) to complete and students are encouraged to declare before the start of their sophomore year but no later than the first semester of their junior year depending on target date of graduation. Students should consult with the Faculty Director as soon as possible and plan their course of study for fulfillment of their degree requirements.

## 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 Leadership Exploration and Practicum *or* LDR 488 Leadership Development Internship

2. 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.

- AAS 370 Intercultural Communication
- AFS 277/HIS 277 Modern Color Line
- AFS 325/HIS 325 Civil Right Movement
- AFS 350/WST 350 Black Women and Social Change
- 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
- LDR 488 Leadership Internship (if not used to fulfill core category)

- 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 105 Introduction to Sociology
- SOC 248 Social Problems in Global Perspective
- SOC 309 Social Conflicts and Movements
- SOC 336 Social Change
- SOC 380 Social Psychology
- WST 103 Women, Culture & Difference
- WST 291 Intro to Feminist Theory
- WST 301 Histories of Feminism
- 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.*

Fall 2017-Spring 2018

**Linguistics (LIN)****Major and Minor in Linguistics****Department of Linguistics, College of Arts and Sciences**

Chairperson: Richard Larson

Director of Undergraduate Studies: José Elías-Ulloa

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 39 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 301 Phonology
4. LIN 311 Syntax
5. LIN 431 The Structure of an Uncommonly Taught Language
6. Six additional linguistics courses, of which 5 must be upper-division (LIN 344 and LIN 454 may not be used as one of these courses; LIN 355 and/or LIN 356 may be taken up to two times for this requirement)
7. Two semesters of foreign language after completing Entry Skill 3/LANG, 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 two-credit course. LIN 300 also satisfies the Stony Brook Curriculum (SBC) learning objective WRTD.

**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 in Linguistics requires 20 credits.

1. LIN 101 Human Language
2. LIN 201 Phonetics
3. LIN 311 Syntax
4. Three additional linguistics courses, of which 2 must be upper-division (LIN 344 and LIN 454 may not be used as one of these courses; LIN 355 and/or 356 may be taken up to two times for this requirement)

## 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 GPA of 3.0 or higher. Prospective applicants must consult with the Undergraduate Director in Linguistics and the TESOL Certification Director 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 TESOL Certification Director by April 15 for Fall admission and by November 15 for Spring admission. Students must maintain a minimum GPA of 3.0 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.
- 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 311 Syntax
  - LIN 300 Writing in Linguistics
  - LIN 301 Phonology
  - LIN 307 Introduction to Sociolinguistics
  - LIN 431 Structure of an Uncommonly Taught Language
  - Two semesters of foreign language after completing Entry Skill 3/LANG, 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.
  - Plus three additional 3 credit upper division linguistics courses (LIN 344 and LIN 454 may not be used as one of these courses)
- 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)

## 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**

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
LIN 101	3
Foreign language 111	4
SBC	3
Total	14

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
SBC	3
Foreign language 112	4
LIN 201	4
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
LIN 307	3
Foreign language 211	3
LIN 345	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
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LIN 356	3
LIN 311	4
Foreign language 212	3
SBC	3
SBC	3
Total	16

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
LIN 330	3
LIN 301	4
SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
LIN 300	2
LIN 431	4
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
LIN 425	3
Upper-division Elective	3
Upper-division Elective	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
LIN 426	3
Upper-division Elective	3
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: Chandrani Roy

E-mail: Chandrani.Roy@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 455 Materials and Processes in Manufacturing Design
2. ESM 488 Cooperative Industrial Practice, or equivalent internship course
3. ESM 486 Innovation and Entrepreneurship in Engineering
4. MEC 325 Manufacturing processes
5. Two courses chosen from:
  - BUS 346 Management and Operations
  - BUS 372 Quality Management
  - EST 392 Engineering Economics
  - ESM 336 Electronic Materials
  - BME 381 Nanofabrication in Biomedical Applications
  - BME 404 Essentials of Tissue Engineering

Requirements for all other students

1. ESG 100 Introduction to Engineering Science
2. ESG 316 Engineering Science Design II: Methods or equivalent
3. ESG 332 Materials Science I: Structure and Properties of Materials
4. ESM 455 Materials and Processes in Manufacturing Design
5. Two courses chosen from:
  - ESG 201 Learning from Engineering Disaster
  - ESM 336 Electronic Materials
  - ESG 339 Thin Film Processing of Advanced Materials
  - ESM 488 Cooperative Industrial Practice, or equivalent internship course
  - ESM 335 Strength of Materials
  - ESM 450 Engineering Systems Laboratory
  - ESM 486 Innovation and Entrepreneurship in Engineering
  - MEC 325 Manufacturing Processes

*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)**

Director of Undergraduate Studies: Kamazima Lwiza Academic Advisor: Christina Ozelis Office: W0511 Melville Library

Phone: 631-632-9404

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 3)
- CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry and Lab (see Note 4 and Note 6)
- CHE 321 Organic Chemistry (see Note 5 and Note 6)
- MAT 125, MAT 126 Calculus (see Note 2). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
- ENS 119/PHY 119 Physics for Environmental Studies or PHY 121 Physics for Life Sciences with lab (see Note 2)
- AMS 102 or AMS 110 Statistics

## 2. Oceanography Core (13 credits)

- MAR 349 Biological Oceanography
- MAR 352 Introduction to Physical Oceanography
- MAR 351 Introduction to Ocean Chemistry
- MAR 305 Experimental Marine Biology

## 3. Marine Biology (15-17 credits)

Five marine biology electives from below:

- BIO 343 Invertebrate Zoology
- BIO 353 Marine Ecology
- MAR 301 Environmental Microbiology or MAR 302 Marine Microbial Ecology
- MAR 303 Long Island Marine Habitats
- MAR 304 Waves, Tides and Beaches
- MAR 308 Environmental Instrument Analysis
- MAR 315 Marine Conservation
- MAR 320 Limnology
- MAR 334 Remote Sensing of the Environment
- MAR 336 Marine Pollution
- MAR 356 Maritime Traditions of New England
- MAR 366 Plankton Ecology
- MAR 370 Marine Mammals
- MAR 373 Apex Predators
- MAR 375 Marine Mammal and Sea Turtle Rehabilitation
- MAR 376 Sea Turtles
- MAR 377 Sea Birds
- MAR 380 Ichthyology
- MAR 384 Diseases of Aquatic Organisms
- MAR 385 Fisheries Biology
- MAR 386 Ecosystem Science for Fisheries Management
- MAR 388 Tropical Marine Ecology
- MAR 394 Environmental Toxicology and Public Health
- MAR 487 Research or MAR 488 Internship (maximum of three credits for the major)

Other classes may be substituted with permission of undergraduate director

## 4. Upper-Division Writing Requirement

The advanced writing component of the major in MAR requires registration in the 0-credit MAR 459 and approval of either a term paper or a laboratory report written for an advanced course in the appropriate major at Stony Brook (including Readings and Research courses). Completion of MAR 459 (or BIO 459) with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be found at <http://www.somas.stonybrook.edu/education/undergraduate/upper-division-writing-requirement/>

For MAR/MVB majors, successful completion of BIO 459 will also be accepted. 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 grade the material and assign a grade for the appropriate section of MAR 459.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## Notes:

1. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 may be substituted for MAT 125, MAT 126
2. The first semester of any calculus-based Physics with lab can be substituted, such as PHY 131/PHY 133 or PHY 141 or PHY 142.
3. BIO 207 may be substituted for BIO 205.
4. CHE 129/130 may be substituted for CHE 131. CHE 152 may be substituted for CHE 131+132.
5. CHE 331 may be substituted for CHE 321.
6. CHE 152, 154, 331 may be substituted for CHE 131/132/133/134/321.

## 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.

#### Bachelor of Science Degree in Marine Science/Master of Science Degree in Marine and Atmospheric Sciences

Students interested in this program, intended to prepare students for professional employment or graduate school in the field of marine sciences, may apply for admission at the end of the junior year. Students in this combined B.S./M.S. program may complete both degrees in 10 semesters plus two summers (although the exact timing will depend on the student's progress on the research thesis). Entry in the combined B.S./M.S. program is contingent upon a student identifying a thesis advisor, so students should seek out research experience in the laboratories of prospective advisor prior to the end of their junior year. During the fourth year, students take a mixture of undergraduate and graduate courses (6-12 credits). After the 8<sup>th</sup> semester (during the summer), students begin M.S. level research. During the fifth year, students complete the remaining graduate requirements for the M.S., likely needing the following summer to complete the research project. The two to four 500-level MAR courses taken during the senior year may be counted toward required or elective requirements of the undergraduate Marine Science major. Please visit the SoMAS website <http://somas.stonybrook.edu/> for further information on the Marine Sciences programs.

#### 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

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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131	4
CHE 133	1
MAT 125	3
SBC	3
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 126	3
SBC	3
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
BIO 201 and BIO 204	5
AMS 110	3
CHE 321	4
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
BIO 203 and BIO 205	5
MAR elective	3
SBC	3
SBC	3
Total	14

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
BIO 202	3
MAR 305	3
ENS 119/PHY 119	4
Upper-division SBC	3
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
MAR or BIO elective	3
MAR 349	4
MAR elective	3
Upper-division SBC	3
SBC	3
Total	16

**SENIOR**

<b>FALL</b>	<b>Credits</b>
MAR elective	3
MAR 351	3
Upper-division SBC	3
SBC	3
MAR 458	0
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
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MAR elective	3
MAR elective	3
SBC	3
MAR 459	0
Elective	3
Upper-division SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Marine Vertebrate Biology (MVB)****Major in Marine Vertebrate Biology****School of Marine and Atmospheric Sciences (SoMAS)**

Director of Undergraduate Studies: Kamazima Lwiza Academic Advisor: Christina Ozelis Office: W0511 Melville Library  
Phone: 631-632-9404 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 3)
- CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry and Lab (see Note 4 and Note 6)
- CHE 321 Organic Chemistry (see Note 5 and Note 6)
- MAT 125, MAT 126 Calculus (See Note 1). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.

- ENS 119/PHY 119 Physics for Environmental Studies and MAR 352 Introduction to Physical Oceanography, or PHY 121, PHY 122 Physics for Life Sciences and labs (see Note 2)
- 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 373 Apex Predators
- 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 Marine Conservation
- MAR 366 Plankton Ecology
- MAR 375 Marine Mammal and Sea Turtle Rehabilitation
- MAR 384 Diseases of Aquatic Organisms
- MAR 385 Fisheries Biology
- MAR 386 Ecosystem Science for Fisheries Management
- 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

The advanced writing component of the major in MVB requires registration in the 0-credit MAR 459 and approval of either a term paper or a laboratory report written for an advanced course in the appropriate major at Stony Brook (including Readings and Research courses). Completion of MAR 459 (or BIO 459) with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be found at <http://www.somas.stonybrook.edu/education/undergraduate/upper-division-writing-requirement>

For MVB majors, successful completion of BIO 459 will also be accepted. 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 grade the material and assign a grade for the appropriate section of MAR 459.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Notes:

1. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 may be substituted for MAT 125, MAT 126
2. 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
3. BIO 207 may be substituted for BIO 205
4. CHE 129/130 may be substituted for CHE 131. CHE 152 may be substituted for CHE 131+132.
5. CHE 331 may be substituted for CHE 321.
6. CHE 152, 154, 331 may be substituted for CHE 131/132/133/134/321.

## **Bachelor of Science Degree in Marine Vertebrate Biology/Master of Science Degree in Marine Vertebrate Biology**

Students interested in this program, intended to prepare students for professional employment or graduate school in the field of marine vertebrate biology and marine science, may apply for admission at the end of the junior year. Students in this combined B.S./M.S. program may complete

both degrees in 10 semesters plus two summers (although the exact timing will depend on the student's progress on the research thesis). Entry in the combined B.S./M.S. program is contingent upon a student identifying a thesis advisor, so students should seek out research experience in the laboratories of prospective advisor prior to the end of their junior year. During the fourth year, students take a mixture of undergraduate and graduate courses (6-12 credits). After the 8<sup>th</sup> semester (during the summer), students begin M.S. level research. During the fifth year, students complete the remaining graduate requirements for the M.S., likely needing the following summer to complete the research project. The two to four 500-level MAR courses taken during the senior year may be counted toward required or elective requirements of the undergraduate Marine Science major. Please visit the SoMAS website <http://somas.stonybrook.edu/> for further information on the Marine Sciences programs.

#### 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

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131	4
CHE 133	1
MAT 125	3
SBC	3
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 126	3
SBC	3
Total	15

#### SOPHOMORE

FALL	Credits
BIO 201 and BIO 204	5
AMS 110	3
CHE 321	4
SBC	3
Total	15

SPRING	Credits
BIO 202 and BIO 205	5
BIO 354	4
SBC	3
SBC	3
Total	15

## JUNIOR

FALL	Credits
MAR Vertebrate Core Elective	3
ENS/PHY 119	3
MAR Biology Elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits
BIO 203	3
BIO 344	3
MAR 349	3
Upper-division SBC	3
Upper-division SBC	3
Total	16

## SENIOR

FALL	Credits
MAR 352	3
MAR Biology Elective	3
Upper-division SBC	3
MAR 458	0
Upper-division SBC	3
SBC	3
Total	15

SPRING	Credits
MAR Vertebrate Core Elective	3
MAR Biology Elective	3
MAR 459	0
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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

Dept. Administrator/Assistant to Chair & Undergraduate Program Coordinator: Chandrani Roy

E-mail: Chandrani.Roy@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.*

Fall 2017-Spring 2018

**Mathematics (MAT)****Major and Minor in Mathematics****Department of Mathematics, College of Arts and Sciences**

Chairperson: Robert Lazarsfeld

Director of Undergraduate Study: Sasha Kirillov

Assistant to the Chair: Lucille Meci

Office: Mathematics P143

Phone: (631) 632-8250

E-mail: lucille.meci@stonybrook.edu

Web address: <http://www.math.sunysb.edu>

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 Mathematics Majors Program, which leads to the B.S. Degree in Mathematics, has two special options: Advanced Track option and Secondary Teacher Education option.

The advanced track option is designed for students open to the challenges of advanced mathematics. State-of-the-art courses are taught in small classes by leading faculty and cover a broad range of material. The advanced track students are encouraged to take advantage of our top-ranked graduate program; qualified students are welcome to take graduate courses. All in all, the advanced track will prepare a student well for the challenge of a graduate or professional school at the finest universities in the country or a career in a variety of fields.

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.

Completion of the major typically requires approximately 40 credits, depending on student preparation and choices made.

**A. Mathematics and Mathematics-Related Courses**

1. Single-variable Calculus: Either MAT 131 and MAT 132, or MAT 125 and MAT 126 and MAT 127, or AMS 151 and AMS 161, or MAT 141 and MAT 142, or MAT 171. Some or all of this requirement may be fulfilled by an appropriate score on the Mathematics Placement Exam, by AP credit, or by comparable means. If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major. Students of the Advanced Track fulfill this requirement with MAT 141 and MAT 142. These two courses will also fulfill Requirement 6 partly because they include the contents of MAT 319 or MAT 320.

2. Multivariable Calculus, Linear Algebra, and Differential Equations: One course in multivariable calculus (MAT 203 or MAT 307 or AMS 261), one course in introductory linear algebra (MAT 211 or AMS 210), and one course in differential equations (MAT 303 or MAT 308 or AMS 361). Students who take *both* MAT 307 and MAT 308 do not need to take a separate course in linear algebra, since this material is included in those courses. Students of the Advanced Track fulfill this requirement by taking MAT 220 and MAT 322.

3. 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.) Students of the Advanced Track fulfill this requirement by taking MAT 150.

4. One course in computer literacy: MAT 331 or PHY 277 or CSE 110 or CSE 114 or MEC 111 or ESG 111 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. Advanced linear algebra course: MAT 310 or MAT 315.

6. A course in abstract algebra: MAT 312 or MAT 313.

7. 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.

8. Four mathematics-related courses beyond those taken to satisfy Requirements 2 through 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
- CHE 301, CHE 302, CHE 351, CHE 353, ECO 320, ECO 321, ECO 348, PHY 301, PHY 302, PHY 303, PHY 306, PHY 308, PHY 403, PHY 405, PHY 408, PHI 330, ESE 310, ESE 315, ESE 319, ESE 321, or ESE 337. 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 and following the D.E.C., 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.

Students following the Stony Brook Curriculum will fulfill the upper division writing requirement by completing the objectives for Writing within the Discipline (WRTD) and successful completion of MAT 319 or MAT 320 with a grade of C or better.

#### 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 o 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; 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.

### 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. Either MAT 131 and MAT 132, or MAT 125 and MAT 126 and MAT 127, or AMS 151 and AMS 161, or MAT 141 and MAT 142, or MAT 171. Some or all of this requirement may be fulfilled by an appropriate score on the Mathematics Placement Exam, by AP credit, or by comparable means.
2. MAT 211 or AMS 210 or MAT 308
3. MAT 203 or AMS 261 or MAT 307
4. MAT 310 or MAT 312 or MAT 313
5. MAT 319 or MAT 320 or MAT 341 or MAT 342
6. 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, computer science, chemistry, and physics. It tests the student's skills at the time the test is taken; students are advised to review their mathematics beforehand.

A student who wishes to use the placement examination to fulfill D.E.C. Category C, the QPS objective of the S.B.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 regularly to incoming students prior to orientation, as well as several times during the academic year and by appointment with the Mathematics Department. An unproctored, online version of the exam can be given in the case where taking the proctored version prior to orientation is impractical; this version of the exam can be used only for registration purposes and may not be used to fulfill graduation requirements.

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 (the Stony Brook Curriculum QPS objective, or 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**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

**FRESHMAN**

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 131 or MAT 141 or MAT 125	3-4
SBC	3
SBC	3
SBC	3
Total	16-17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
MAT 132 or MAT 142 or MAT 171 or MAT 126	3-4
MAT 200 or Elective	3
SBC	3
SBC	3
Total	16-17

**SOPHOMORE**

FALL	Credits
MAT 203 or MAT 205 or AMS 261	3
MAT 211 or AMS 210	3
SBC	3
SBC	3

SBC	3
Total	15

SPRING	Credits
MAT 303 or MAT 305 or AMS 361	3
MAT 331	3
SBC	3
SBC	3
SBC	3
Total	15

**JUNIOR**

FALL	Credits
MAT 312 or MAT 313	3
MAT 319 or MAT 320	3
MAT 336	3
SBC	3
SBC	3
Total	15

SPRING	Credits
MAT 322 or MAT 341 or MAT 342 or MAT 324	3
MAT 310	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

**SENIOR**

FALL	Credits
Upper-division MAT elective	3
Upper-division MAT elective	3
Upper-division MAT elective	3
SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division MAT elective	3
Upper-division MAT elective	3
Upper-division MAT elective	3
Elective	3
Elective	3

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.*

Fall 2017-Spring 2018

**Mechanical Engineering (MEC)****Major and Minor in Mechanical Engineering****Department of Mechanical Engineering, College of Engineering and Applied Sciences**

Chairperson: Qiaode (Jeffrey) Ge

Undergraduate Program Director: Thomas Cubaud

Undergraduate Program Coordinator: Amanda Flanagan

Email: [Amanda.Flanagan@stonybrook.edu](mailto:Amanda.Flanagan@stonybrook.edu) Office: 113 Light Engineering Lab

Phone: (631) 632-8310

Fax: (631) 632-8544

Web address: <http://me.stonybrook.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**

1. Graduates will meet the expectations of employers of mechanical engineers.
2. Qualified graduates will pursue advanced studies if they so desire.
3. Graduates will pursue leadership positions in their profession and/or communities.

**Student Outcomes**

The students will demonstrate the following:

- (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.

**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 not accepted directly may apply for acceptance after completing their first semester at the University.

Acceptance is based upon a student's achievement in 10 or more credits of mathematics, physics, and engineering courses that are taken at Stony Brook and satisfy the Major's requirements. In these courses, a student must achieve a grade point average (G.P.A.) of at least 3.0 with no more than one grade of a C or lower. Students who do not meet these requirements after two semesters of working towards the Major are disqualified and should not apply. The first semester of working towards the Major will be determined by a student's first MEC course that applies towards Major degree requirements. All transfer courses used to meet requirements of the major must be completed prior to admission. Students interested in applying for admission are encouraged to talk to the Undergraduate Program Director (listed here).

#### 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 or MAT 205 Calculus III
- c. AMS 361 Applied Calculus IV: Differential Equations or MAT 303 Calculus IV with Applications
- d. AMS 210 Applied Linear Algebra or MAT 211 Introduction to Linear Algebra

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. A basic science elective to be selected from the following list of courses: PHY 251/252, Modern Physics/Modern Physics Laboratory; ESG 281, Engineering Introduction to the Solid State; PHY 300, Waves and Optics; CHE 132 General Chemistry II; BIO 202, Fundamentals of Biology: Molecular and Cellular Biology; BIO 203, Fundamentals of Biology: Cellular and Organ Physiology; GEO 310, Introduction to Geophysics; GEO 312, Structure and Properties of Materials; AST 203, Astronomy; AST 205, Introduction to Planetary Sciences; ATM 205, Introduction to Atmospheric Sciences
- c. ESG 198 Fundamentals of Engineering Chemistry or CHE 131 General Chemistry or CHE 152 Molecular Science I

#### 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, PHY 133, PHY 134 Classical Physics I, II: Honors  
The following chemistry course may be substituted for ESG 198: CHE 131 General Chemistry I or CHE 152 Molecular Science I

#### 3. Laboratories

- MEC 316 Mechanical Engineering Laboratory I
- MEC 317 Mechanical Engineering Laboratory II

#### 4. Mechanical Engineering

- MEC 101 Freshman Design Innovation
- MEC 102 Engineering Computing and Problem Solving
- MEC 203 Engineering Graphics and CAD
- MEC 214 Probability and Statistics
- MEC 220 Practical Electronics Mechanical Engineers or ESE 271 Electrical Circuit Analysis I
- MEC 225 Fundamentals of Machining Practices
- 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. When a course is repeated, the higher grade will be used in calculating this average. A minimum grade of "C" in MEC 260, MEC 262, and MEC 441 is required for the B.E. degree. Note: in order to satisfy prerequisites for certain required courses, grades of 'C' or higher are needed in the following courses: PHY 131 or PHY 125, AMS 151 or MAT 131 or MAT 125, MEC 101 and MEC 363.

#### 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
- MEC 455 Applied Stress Analysis

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**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 102 (WRT)	3
MEC 101	3
MAT 131 (QPS)	4
PHY 131/133 (SNW)	4
HUM course	3
<b>Total</b>	<b>18</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
MAT 211 or AMS 210	3
MEC 102	2
MAT 132	4
PHY 132 & 134 (SNW)	4
USA course	3
<b>Total</b>	<b>17</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
MAT 203	4
ESG 198 or CHE 131 or CHE 152	4
MEC 203	3
MEC 220	3
MEC 260	3
<b>Total</b>	<b>17</b>

<b>SPRING</b>	<b>Credits</b>
MAT 303	4
Basic Science Elective**	3
MEC 262	3
MEC 363	3
EST 392 (SBS)	3
<b>Total</b>	<b>16</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
ESG 332	3
MEC 225	1

MEC 214	1
MEC 301	3
MEC 310	3
MEC 316 (TECH)	2
MEC 364	3
Total	16

SPRING	Credits
MEC 300	1
MEC 305	3
MEC 317 (TECH)	2
MEC 320	3
MEC 325	3
MEC 410	3
Total	15

## SENIOR

FALL	Credits
MEC 411	4
MEC 422	3
MEC 440*	3
Technical elective #1	3
STAS course	3
Total	16

SPRING	Credits
MEC 441*	3
Technical elective #2	3
Technical elective #3	3
ARTS course	3
GLO course	3
Total	15

\*This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

\*\*Basic science elective options: PHY 251/252, Modern Physics/Modern Physics Laboratory; ESG 281, Engineering Introduction to the Solid State; PHY 300, Waves and Optics; CHE 132 General Chemistry II; BIO 202, Fundamentals of Biology: Molecular and Cellular Biology; BIO 203, Fundamentals of Biology: Cellular and Organ Physiology; GEO 310, Introduction to Geophysics; GEO 312, Structure and Properties of Materials; AST 203, Astronomy; AST 205, Introduction to Planetary Sciences; ATM 205, Introduction to Atmospheric Sciences

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Media Arts (MDA)****Undergraduate College Academy 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 core courses must be taken at Stony Brook University. At least one 3-credit 300-level or above elective course must be taken at Stony Brook University. No more than two courses applied to the minor can count toward the student's major or other minor. No more than one elective course in the minor may be taken under the Pass/No Credit option; all other courses required for the minor must be passed with a letter grade of C or higher with the exception of MDA/THR 488, which is S/U. (Note: The P/NC option carries financial implications. All students should check with their financial aid advisor before choosing this option.)

**Declaration of the Minor**

The MDA minor is open to all undergraduate students and takes approximately 4 semesters (fall/spring) to complete and students are encouraged to declare before the start of their sophomore year but no later than the first semester of their junior year depending on target date of graduation. Students should consult with the Faculty Director as soon as possible and plan their course of study for fulfillment of their degree requirements.

Completion of the minor requires 21 credits.

**A. Required Courses:**

- MDA/THR 117 Media: Analysis and Culture
- MDA/THR 277 The Media Industry

One of the following courses:

- MDA/THR 480 Projects in Media
- MDA/THR 488 Internship in Media

**B. Students must complete 12 credits of electives of which at least 6 credits must be 300 or higher.**

- AAS 222 Indian Cinema
- ARH 207 Technologies of Representation
- ARH 336 Digital/Visual Culture
- ARH 345 The Moving Image
- ARS 225 Intro to the Digital Arts
- ARS 281 Photography I
- BUS 334 Consumer Advertising

- BUS 348 Principles of Marketing
- CCS 101 Intro to Cinema and Cultural Studies
- CCS 202 Film Genres
- CCS 205 Cinema History 19th century
- CCS 206 Cinema History
- CCS 311 Gender and Genre in Film
- CCS 313 Television Studies
- CDT 208 Intro to Media Technology
- CDT 318 Movie Making
- CLT 335 Interdisciplinary Study of Film
- DIA 207 Digital Media History
- DIA 396 Video/Computer Game History
- EGL 100 Computer Literacy
- EGL 194 Intro to Film
- EST 201 Technology and Trends in Society
- HUG 211 German Cinema
- HUI 211 French Cinema
- HUI 231 Sex and Politics in Italian Cinema
- HUI 338 Italian Americans in Film
- HUR 241 Russian Cinema
- HUS 390 Latin American Cinema
- JRN 101/103 News Literacy
- JRN 105 The Mind of a Reporter
- JRN 108 History/Future of Press
- JRN 220 Media Law and Ethics
- JRN 301 The Business of News
- MUS 109 Rock Music
- MUS 300 Music Technology
- POL 367 Mass Media in American Politics
- SOC 315 Sociology of Technology
- SOC 330 Media and Sociology
- THR 103 Theatre and Technology
- THR 110 Public Speaking
- THR 216 Intro to Visual Interpretation
- THR 230 Voice
- THR 246 Stage Lighting
- THR 298 Student Media Leadership
- THR 403 Media Theory and Criticism
- THR 480 and THR 488 (if not used to fulfill core category)

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.
3. No more than six credits from MDA/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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Minor: Charles Franco

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

E-mail: Charles.Franco@stonybrook.edu

Web address: <http://www.stonybrook.edu/commcms/eurolangs/>

**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 305 Art and Culture of the Middle Ages
- 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.*

Fall 2017-Spring 2018

**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) 632-7776

**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.stonybrook.edu/mtd>

**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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

**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

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
Lower-division Area A course	3-4
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
Lower-division Area B course	3-4
Lower-division Area C course	3
SBC	3
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
Lower-division Area B course	3
Lower-division Area C course	3
SBC	3

SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division Area A course	3
SBC	3
SBC	3
SBC	3
Elective	3
Total	15

**JUNIOR**

FALL	Credits
Upper-division Area A course	3
Upper-division Area B	3
Upper-division Area C course	3
SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division Area A course	3
Upper-division Area B course	3
Upper-division Area C course	3
Upper-division elective	3
SBC	3
Total	15

**SENIOR**

FALL	Credits
Upper-division Area A course	3
Upper-division Area B course	3
Upper-division Area C course	3
Elective	3
Elective	3
Total	15

SPRING	Credits
Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
Elective	3

Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Music (MUS)****Major and Minor in Music****Department of Music, College of Arts and Sciences**

Chairperson: Perry Goldstein

Director of Undergraduate Studies: Margaret Schedel

Assistant to the Chair: Martha Zadok

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts

Phone: (631) 632-7330

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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)**

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.

The following are descriptions of the minors offered by the Music Department. Less rigorous than the music major, minors are not intended to prepare students for advanced study or professional work in music:

**Ethnomusicology (ETH)**

The minor in Ethnomusicology is designed to provide undergraduates with knowledge about a range of ethnomusicology topics, methods, and theoretical perspectives, in conjunction with a related area of specialization in the social sciences. In addition to ethnomusicology classes, including survey courses and courses on specialized topics, students will take a combination of performance and social science classes on relevant subjects in other departments. The capstone course is MUS451, "Ethnographic Methods in Music," in which students conduct ethnographic research projects related to music. The minor in ethnomusicology is distinct from other existing music minors in that it offers training in fieldwork methods, an anthropological approach that does not rely heavily on the skills of analysis and performance that may be used in musicology, jazz studies, and the like. Moreover, it often emphasizes repertoire and practice from outside of Europe and the United States (our minor is especially strong in the musics of Asia). Ethnomusicology is the study of musical cultures, and entails a disciplinarily unique set of questions and methodologies, as well as objects.

**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 and media.

**Music (MUS)**

The minor in Music, general studies, is designed to provide undergraduate students with a knowledge of historical and analytical approaches to the study of music in addition to the opportunity to perform in an ensemble. It is particularly well-suited to students who wish to study music as a discipline of the humanities. Coursework includes an introduction to the study of music, courses in music analysis, two semesters in a performance ensemble, and a choice of courses on specialized topics, including the study of popular musics, non-western musical traditions, music and gender, music technology, and the works of individual composers.

**Music Theory (MTY)**

The minor in Music Theory is designed to provide undergraduate students with a specialized knowledge in musicianship and the theory of music in addition to its history. It is particularly well-suited to students interested in honing their skills as musicians and offers more rigorous training in music analysis than the general track. Coursework includes an introduction to the study of music, courses in musicianship, music theory, only two semesters in a performance ensemble, and a choice of courses on specialized topics, including the study of popular musics, non-western musical traditions, music and gender, music technology, and the works of individual composers.

**Jazz (JAZ)**

The minor in Jazz studies is designed to provide undergraduate students with a foundation in music theory and history that incorporates a jazz perspective in addition to the opportunity to perform in a jazz ensemble. It is particularly well-suited to students interested in developing their skills as jazz musicians while pursuing a broader education in music history and theory. Coursework includes an introduction to the study of music, courses in improvisation, music theory, the history of jazz, two semesters performing in a jazz ensemble, and a choice of courses on specialized topics, including American music, popular music, and musics of other western and non-western traditions.

## 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 or 451 (each semester a different topic will be offered) or one additional history course numbered 450 or 451 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

The upper-division writing requirement for music majors will be fulfilled by submission of two approved papers: one from an advanced music history course, either MUS 351, MUS 352, or MUS 450, and one from an advanced music analysis course either MUS 421 or MUS 422. Students will register for MUS 459 and submit approved papers with an approval form signed by the instructor to the Director of Undergraduate Studies in Music. Once both approved papers have been submitted, the Director of Undergraduate Studies will certify that the student has met the upper-division writing requirement in music and give a grade for MUS 459.

#### *Nature of the papers*

Any paper submitted to fulfill this requirement must have at least 4 pages of expository text (exclusive of musical examples, bibliography, diagrams, etc.) in 12-point font with normal margins. Grammar, spelling, sentence and paragraph structure must all be correct. The topic must be clearly stated and developed. The pages must be numbered. Any footnotes, citations, or bibliography must be properly supplied and formatted according to the principles in Jonathan Bellman's *A Short Guide to Writing About Music* (2007) or in Richard Wingell's *Writing about Music: An Introductory Guide*, 4th edition (2009). All musical examples must be properly formatted with clefs, captions, measure numbers, and correct notation. They must be large enough to be easily legible. Diagrams or Figures must be neat and clear.

Both papers should demonstrate the capacity to write clear and correct English at all levels (sentence, paragraph, sections, entire essay), to use musical concepts and terminology correctly, and to present ideas and arguments in an organized and effective way.

#### *Approval Process*

- 1) When a student wishes a paper submitted in one of the designated courses to be accepted as fulfilling part of the Writing Requirement, that student will submit the "Upper Division Writing Requirement Form" to the course instructor along with the assigned paper. (See attached form.)
- 2) After having read and graded the paper, the course instructor will either indicate on the form that the paper satisfies a component of the writing requirement, or will indicate that it does not satisfy the requirement. In the latter case, the instructor will provide suggestions for improvement in writing skills, which may include advice to take further courses in writing or in English.
- 3) If the paper is not approved for the upper-division writing requirement, the student must submit another paper for the appropriate category (history or theory), either a subsequent one written for the same course or a paper from another course.
- 4) Students must submit written work of a quality that can satisfy the upper-division writing requirement on a first reading. Instructors are not obligated to guide revisions of papers that do not demonstrate adequate upper-division writing proficiency on initial submission. An instructor may, however, at his or her discretion, offer to consider one revision if the original paper is very close to meeting standards of writing proficiency.
- 5) Once the form approving the paper for the writing requirement has been signed, the student will submit a copy of the paper along with the signed form to the Director of Undergraduate Studies in Music.
- 6) When the Director of Undergraduate Studies has received from a student two papers—one from a history course, one from an analysis course—with signed forms indicating that each has been approved for the Upper Division Writing Requirement, then the requirement will have been fulfilled by that student.

### 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 3.50 g.p.a. in music. After entering the honors program, a student must maintain at least a 3.50 g.p.a. in music.

Students must register for MUS 495 and complete a project in performance, composition, history, theory, or ethnomusicology. The project must have a speaking component and must be carried out under the supervision of a 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 Minor in Music (MUS)

The minor in Music (MUS) is 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 Music minor (MUS) 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 Music Theory minor (MTY), 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 minor requires 20 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.

### Requirements for the minor

#### 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 267 Jazz Combo
- MUS 268 Marching Band
- MUS 269 Intro to African Drumming
- MUS 270 Advanced African Drumming
- MUS 271 Stony Brook Camerata
- MUS 391 Chamber Music

#### Requirements for the Minor in **Ethnomusicology (ETH)**

For requirement information regarding the Minor in Ethnomusicology (ETH), see the Ethnomusicology section of this Bulletin.

#### 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.

#### Requirements for the Minor in Music Theory (MTY)

For requirement information regarding the Minor in Music Theory, see the Music Theory section of this Bulletin.

#### Sample Course Sequence for the Major in Music

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

The music major program is designed to be easily completed in 3 years of study. Additional elective courses may be added at any time.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MUS 121	2
MUS 122	1
MUS 130	3
MUS 321	3
Performance Study	2
Ensemble	1-2
Total	16-17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
MUS 220	2

MUS 141	1
MUS 322	3
MUS 350	4
Performance Study	2
Ensemble	1-2
Total	17-18

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
MUS 221	2
MUS 142	1
MUS 323	3
MUS 351	4
Performance Study	2
Ensemble	1-2
SBC	3
Total	16-17

<b>SPRING</b>	<b>Credits</b>
MUS 331	2
MUS 421	1
MUS 352	4
Performance Study	2
Ensemble	1-2
SBC	3
SBC	3
Total	16-17

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
MUS 422	3
MUS 450	4
Performance Study	2-4
Ensemble	1-2
SBC	6
Total	16-19

<b>SPRING</b>	<b>Credits</b>
Performance Study	2-4
Ensemble	1-2
Upper-Division Music elective*	3
SBC	9

Total	15-18
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**SENIOR**

<b>FALL</b>	<b>Credits</b>
Performance Study	2-4
Ensemble	1-2
SBC	3
Total	15-18

<b>SPRING</b>	<b>Credits</b>
Performance Study	2-4
Ensemble	1-2
Upper-division SBC	3
Upper-division SBC	3
SBC	3
MUS 459	0
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 Theory (MTY)****Minor in Music Theory****Department of Music, College of Arts and Sciences**

Chairperson: Perry Goldstein

Director of Undergraduate Studies: Margaret Schedel

Undergraduate Secretary: Germaine Berry

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Phone: (631) 632-7330

E-mail: Perry.Goldstein@stonybrook.edu

Web address: <http://www.sunysb.edu/music>

**Music Theory (MTY)**

The minor in Music Theory is designed to provide undergraduate students with a specialized knowledge in musicianship and the theory of music in addition to its history. It is particularly well-suited to students interested in honing their skills as musicians and offers more rigorous training in music analysis than the general track. Coursework includes an introduction to the study of music, courses in musicianship, music theory, only two semesters in a performance ensemble, and a choice of courses on specialized topics, including the study of popular musics, non-western musical traditions, music and gender, music technology, and the works of individual composers.

**Minor in Music Theory (MTY)**

The general Music minor (MUS) 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 Music Theory minor (MTY), 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 Theory (MTX)**

All courses offered for the minor must be passed with a letter grade of C or higher. The minor requires a minimum of 20 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.

**1. Theory:**

- MUS 120 Elementary Musicianship, MUS 121 Musicianship I
- MUS 220 Musicianship II, MUS 221 Musicianship III
- MUS 321 Tonal Harmony I, MUS 322 Tonal Harmony II

**2. History:**

- MUS 101 and one course chosen from the following: MUS 105, 301-314, 319-320

**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 267 Jazz Combo
- MUS 268 Marching Band
- MUS 235 Intro to African Drumming
- MUS 335 Advanced African Drumming
- MUS 271 Stony Brook Camerata
- MUS 391 Chamber Music

*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: Perry Goldstein

Director of Undergraduate Studies: Peter Winkler

Undergraduate Secretary: Germaine Berry

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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 and media.

**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
- CDT 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
  - MUS 320

**3. Specific:**

- CDT 341 Sound Design plus
- one course chosen from the following:
  - CDT 317 Interactive Media
  - CDT 318 Movie Making
  - MUS 344 Audio Engineering
  - CDT 450 Topics in Computational Arts

**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 269 Intro to African Drumming
- MUS 270 Advanced African Drumming
- MUS 271 Stony Brook Camerata
- 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 CDT 487 Independent Project.

#### MTX Faculty

Faculty information for this program can be found at [http://www.stonybrook.edu/commcms/music/aboutus/faculty\\_staff.shtml](http://www.stonybrook.edu/commcms/music/aboutus/faculty_staff.shtml)

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017–Spring 2018

**Nanotechnology Studies (NTS)****Interdisciplinary Minor in Nanotechnology Studies****College of Engineering and Applied Sciences**

Program Co-Directors: Gary P. Halada, Mary Frame-McMahon, David Ferguson  
Dept. Administrator/Assistant to Chair & Undergraduate Program Coordinator: Chandrani Roy  
E-mail: Chandrani.Roy@stonybrook.edu  
Office: 308 Engineering Building  
Phone: 631-632-8484

**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. ESM 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. ESM 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 Program: Professor Mary Ellen Lasala  
 Program Assistant: Jan Kavazanjian  
 Email: Jan.Kavazanjian@stonybrook.edu  
 Phone: 631-444-3781

Program Director for Registered Nurse Baccalaureate Program and Registered Nurse Baccalaureate to Masters Programs: Dr. Kathleen Gambino  
 Program Assistant: Valerie DiGiovanni  
 Email: valerie.digiovanni@stonybrook.edu  
 Phone: 631-444-3392

Assistant Dean for Academic Services, Office of Student Affairs: Kenneth MacDowell  
 Office: Health Sciences Center Level 2  
 Phone: (631) 444-3200  
 Email: Kenneth.MacDowell@stonybrook.edu

Web Address: <http://www.nursing.stonybrookmedicine.edu>

**School of Nursing****Mission**

The mission of the Stony Brook School of Nursing is to prepare nurse leaders at all entries of practice to advance the health of the people of New York, the wider geographic regions and the global community with a focus on the underserved. This is accomplished through innovative, high quality and accessible educational programs, clinical practice, research and public service.

**Vision**

Stony Brook University School of Nursing will be a top ranked school recognized for excellence and innovation in education, leadership, research, advocacy, and practice.

**Values - I REACH UP**

**Integrity:** the maintenance of high and consistent standards that hold up under scrutiny

**Reach:** the acknowledgement, consideration and regard for the unique contributions of all

**Excellence:** the state of highest quality

**Accountability:** the quality of being responsible for one's actions

**Creativity:** a unique ability to develop innovation

**Honesty:** a characteristic of being fair, truthful and morally upright

**Unity:** state of harmony of being with all people

**Perseverance:** steadfast in doing something despite difficulty or delay in achieving success

**Goals:**

1. Educate a diverse population of students for professional nursing practice in a variety of settings.
2. Provide educational access to geographically dispersed students through innovative programs and evolving technologies.
3. Contribute to the scholarly development of the profession through integration of theory, research and clinical practice.
4. Provide an educational foundation to promote cultural competence, ethical sensitivity, leadership and life-long learning.
5. Prepare for global improvement of healthcare through individual, collaborative and interdisciplinary efforts.
6. Provide an environment and infrastructure that supports faculty teaching, scholarship, research, service and practice.
7. 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:

# Minimum cumulative GPA of 2.8.

# Completion of three prerequisite sciences by the application deadline

# 57 college credits from an accredited institution with a grade of C or better in the following courses:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Lifespan Developmental Psychology 3 credits
- Microbiology, Lab Required 4 credits
- Anatomy: Anatomy and Physiology I, Lab Required 4 credits
- Physiology: Anatomy and Physiology II, Lab Required 4 credits
- Chemistry 3 credits
- Statistics: 3 credits
- Second semester of foreign language 3 credits
- American History 3 credits
- Global Issues 3 credits
- Humanities 6 credits
- Fine Arts 3 credits
- Electives 9 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:

# Minimum cumulative GPA of 2.8.

# Bachelor of Arts or Bachelor of Science degree in any major

# Completion of three prerequisite sciences by the application deadline

# Grade of C or better in the following courses:

- Microbiology, Lab Required 4 credits
- Anatomy: Anatomy and Physiology I, Lab Required 4 credits
- Physiology: Anatomy and Physiology II, Lab Required 4 credits
- Chemistry 3 credits
- Lifespan Developmental Psychology 3 credits
- Statistics 3 credits

### **Registered Nurse to Baccalaureate Degree Program Offered 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. Students are provided learning experiences focused on the world's evolving healthcare environment through communication, negotiation, and leadership. Students are also provided with learning experiences focused on individuals, families, groups, and communities. In addition, students are exposed to various models of professional nursing and healthcare. Applicants to the Registered Nurse to Baccalaureate Program are required to meet the following admission criteria:

# Minimum cumulative GPA of 2.5.

# Completion of three prerequisite sciences by the application deadline

# Grade of C or better in the following courses\*\*:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Developmental Psychology 3 credits
- Microbiology, Lab Required 4 credits
- Anatomy: Anatomy and Physiology I, Lab Required 4 credits
- Physiology: Anatomy and Physiology II, Lab Required 4 credits
- Chemistry 3 credits
- Statistics 3 credits
- Second semester of foreign language 3 credits\*\*\*
- American History 3 credits
- Global Issues 3 credits

- Humanities 6 credits
- Fine Arts 3 credits
- Electives 9 credits

\*RN license is required within 11 weeks of the start of the semester.

\*\*The SUNY Transfer Path for Nursing may affect admission requirements for graduation of SUNY AS degree programs in nursing. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

\*\*\* Stony Brook University students who satisfy the skill level 3 requirement for foreign language will fulfill the foreign language requirement for the School of Nursing. However, the number of required elective courses must increase from 9 to 12 in order to meet the minimum requirement of 57 credits.

**Registered Nurse Baccalaureate to Master of Science Degree Program  
Offered 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 Master of Science Program are required to meet the following admission criteria:

# Minimum cumulative GPA of 3.0

# Minimum of 1 year clinical experience as an RN in clinical area of interest.

# Completion of three prerequisite sciences by the application deadline

# Grade of C or better in the following courses\*:

- English Composition 3 credits
- Introduction to Sociology 3 credits
- Introduction to Psychology 3 credits
- Lifespan Developmental Psychology 3 credits
- Microbiology, Lab Required 4 credits
- Anatomy: Anatomy & Physiology I, Lab Required 4 credits
- Physiology: Anatomy & Physiology II, Lab Required 4 credits
- Chemistry 3 credits
- Statistics 3 credits
- Second semester of foreign language 3 credits\*\*
- American History 3 credits
- Global Issues 3 credits
- Humanities 6 credits
- Fine Arts 3 credits
- Electives 9 credits

\*The SUNY Transfer Path for Nursing may affect admission requirements for graduation of SUNY AS degree programs in nursing. Applicants are urged to attend Information Sessions for further advisement regarding admission requirements.

\*\* Stony Brook University students who satisfy the skill level 3 requirement for foreign language will fulfill the foreign language requirement for the School of Nursing. However, the number of required elective courses must increase from 9 to 12 in order to meet the minimum requirement of 57 credits.

**The School of Nursing reserves the right to change admission and program criteria to meet prevailing accreditation and registration requirements. Admission to the School of Nursing is highly competitive. Meeting minimum criteria for admission does not guarantee acceptance. The School of Nursing reserves the right to make final decisions based upon the applicant pool each year.**

For additional information, visit <http://www.nursing.stonybrookmedicine.edu>

**Sample Course Sequence: Requirements for Application to the School of Nursing**

A course planning guide for this major may be found here.

Freshman Fall	Credits	Spring	Credits
WRT 102	3	MAT 125*	3
MAT 123*	3	BIO 202	3

PSY 103	3	SOC 105	3
Demonstrate Diversity**	3	CHE 132	4
CHE 129/CHE 130	4	CHE 134 (optional lab)	1
CHE 133 (optional lab)	1	Demonstrate Diversity**	
Total	17	Total	13-14
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ANP 300	4	AMS 102	3
BIO 203	3	HBM 320	3
PSY 220	3	HBM 321	1
Demonstrate Diversity**	3	Demonstrate Diversity**	9
BIO 204 (required lab)	2		
Total	15	Total	16

\*Math and chemistry courses for year one will depend on math placement exam score.

\*\*Students must demonstrate diversity in the following areas: Fine Arts (3 credits), Humanities (6 credits), Global Issues (3 Credits), United States History (3 credits), Foreign Language (3 credits): Second semester of an elementary foreign language; level 3 foreign language placement exam score or an 85 or higher on a High School Regents Exam prior to 2011.

*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 142/134 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 and Minor 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: robert.watson@stonybrook.edu

Assistant Director: Janice Kito  
Phone: (631) 444-3027  
E-mail: janice.kito@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 and Minor in Pharmacology (BCP)**

**Note: The major and minor in Pharmacology has been suspended, effective Spring 2018. Students may not declare the major or minor in Pharmacology after Fall 2017.**

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/Undergraduate%20Program/application>. 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
2. CHE 133, CHE 134 General Chemistry Laboratory
3. CHE 321, CHE 322 Organic Chemistry
4. CHE 327 Organic Chemistry Laboratory
5. MAT 131, MAT 132 Calculus I, II (See Note 1). If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
6. PHY 121, PHY 122 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. HAS 355 Integrative Systems Physiology or HBY 350 Physiology or BIO 328 Mammalian Physiology or ANP 300 Anatomy Human
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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## 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 122: PHY 131, PHY 132 and labs or PHY 141, PHY 142 and labs or PHY 125, PHY 126, PHY 127 and labs

## 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.

Requirements for the Minor in Pharmacology (BCP)

**Note: The major and minor in Pharmacology has been suspended, effective Spring 2018. Students may not declare the major or minor in Pharmacology after Fall 2017.**

The Minor in Pharmacological Sciences is an interdisciplinary program for students interested in obtaining an understanding of the mechanisms of drug action and/or the economics, social factors, ethical considerations and drug discovery as well as governmental regulation of drug development and marketing.

The Minor is organized around areas relevant to modern Pharmacology, and allows considerable flexibility in order to match the specific interests of students within the field. 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 these credits must correspond to BCP courses, including at least one 400-level course. Mentored research, either at the bench or faculty guided readings and writing, in relevant areas of Pharmacological Sciences (BCP 487) is an acceptable way to fulfill credit requirements. At least three of the courses must be taken at the upper-division level. Students wishing to pursue a minor in Pharmacological Sciences must develop a specific and explicit plan for its completion, in consultation with the designated advisor. An example of a typical distribution would be the following:

1. Two 100-level courses including BCP 111
2. Two 200-level courses including BCP 201
3. Three 300/400-level courses, including one of the following: BCP 401, 402, 405 or 487. (It is important to note that BCP 405 has no pre-requisites and is exclusively an online course. Hence it has already been offered six times since it was first launched a little more than the year ago, and it is currently our plan to offer it continuously hereafter. BCP 487 is also without explicit prerequisites. It is entitled "Research in Pharmacology" and includes both laboratory research AND independent study with a faculty mentor. The latter is maximally flexible.)

#### Course Offerings

##### Chemistry

- CHE 129 General Chemistry IA
- CHE 130 Problem Solving in General Chemistry
- CHE 131 General Chemistry IB
- CHE 132 General Chemistry II
- CHE 152 Molecular Science I
- CHE 301 Physical Chemistry I
- CHE 302 Physical Chemistry II
- CHE 312 Physical Chemistry for the Life Sciences
- CHE 321 Organic Chemistry I
- CHE 322 Organic Chemistry IIA
- CHE 326 Organic Chemistry IIB

##### Biology

- BIO 101 Human Biology
- BIO 115 Evolution and Society
- 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
- BIO 302 Human Genetics
- BIO 310 Cell Biology
- BIO 314 Cancer Biology
- BIO 315 Microbiology
- BIO 328 Mammalian Physiology
- BIO 332 Computational Modelling
- BIO 334 Principles of Neurobiology
- BIO 361 Biochemistry I
- BIO 362 Biochemistry II

**Ecological Studies**

- EHI 340 Ecological and Social Dimensions of Disease

**Economics**

- ECO 108 Introduction to Economics
- ECO 327 Health Economics

**History**

- HIS 293 Disease in American History

**Pharmacological Sciences**

- BCP 111 American Drug Use and Abuse: Biomedical, Socioeconomic and Political Factors
- BCP 201 Introduction to Pharmacology: The Molecular, Clinical, and Social Basis of Drug Use
- BCP 401 Principles of Pharmacology
- BCP 402 Advanced Pharmacology
- BCP 403 Principles of Pharmacology Laboratory
- BCP 404 Advanced Pharmacology Laboratory
- BCP 405 Pharmacology to Pharmacy: Practical Clinical Aspects for Non-Clinicians
- BCP 406 Pharmacology Colloquium
- BCP 480 Introduction to Research Topics in Pharmacology
- BCP 487 Research in Pharmacology

**Political Science**

- POL 103 Introduction to Comparative Politics
- POL 201 Introduction to Statistical Methods in Political Science

**Psychology**

- PSY 103 Introduction to Psychology

**Sociology**

- SOC 105 Introduction to Sociology
- SOC 339 Sociology of Alcoholism and Drug Abuse

**Sample Course Sequence for the Major in Pharmacology**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
CHE 131	4
CHE 133	1
MAT 131	4
SBC	3
Total	16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CHE 132	4

CHE 134	1
MAT 132	4
SBC	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
CHE 321	4
BIO 203 and BIO 204	5
SBC	3
SBC	3
SBC	3
BCP 487 (suggested)	0-1
Total	18-19

<b>SPRING</b>	<b>Credits</b>
BIO 202 and BIO 203	5
CHE 322 or CHE 326	4
CHE 327	2
SBC	3
SBC	3
BCP 487 (suggested)	0-1
Total	17-18

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
PHY 121	4
BIO 361	3
BIO 365 or BIO 311	2-3
BCP 487	0-3
Upper-division SBC	3
SBC	3
Total	15-19

<b>SPRING</b>	<b>Credits</b>
PHY 122	4
BIO 362	3
BIO 310	3
BCP 406	2
BCP 487	0-3
SBC	3
Total	15-18

**SENIOR**

<b>FALL</b>	<b>Credits</b>
BCP 401	3
BCP 403	2
HBV 350	3
BCP 487*	1-3
SBC	3
BCP 400	0
Total	12-14

<b>SPRING</b>	<b>Credits</b>
BCP 402	3
BCP 404	2
BCP 487*	1- 3
SBC	3
SBC	3
Total	12-14

**\*\*BCP 487 research project is ideally begun by the fall semester of the sophomore year**

*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: Mary Rawlinson

Director of Undergraduate Studies: Harvey Cormier

Assistant to the Chair: Alissa Betz

Office: 213 Harriman Hall

Phone: (631) 632-7570

Web address: <http://www.stonybrook.edu/philosophy/>

Minors of particular interest to students majoring in Philosophy: Art History (ARH), Studio Art (ARS), Biology (BIO), Business Management (BUS), Comparative Literature (CLT), Computer Science (CSE), English (EGL), European Studies (EUR), French Language and Literature (FRN), German Language and Literature (GER), History (HIS), Humanities (HUM), Journalism (JRN), Linguistics (LIN), Mathematics (MAT), Physics (PHY), Political Science (POL), Psychology (PSY), Religious Studies (RLS), Women's Studies (WST)

**Philosophy (PHI)**

Philosophy examines the presuppositions and the conceptual foundations of all human activities, whether practical or theoretical. It is concerned with forms of knowledge (science, belief, self-examination); forms of human interaction (society, political life, morality, religion, justice); our practical relation to the environment (nature, technology, economics); and our creative productivity (art, literature). It has been interdisciplinary from its inception. The study of philosophy provides the knowledge and skills to reflect upon, analyze, and examine ourselves and the world we inhabit, and is the record of humanity's quest to understand itself. It also provides the skills that enable life-long learning and versatile professional development.

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 and write 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, editing and publishing, and academia. In addition to its focus on the liberal art curriculum, the Department of Philosophy offers courses in feminism and gender studies, computation and consciousness, philosophy of science, technology and the environment, and non-Western Philosophies.

**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 108 Logical and Critical Thinking or PHI 220 Introduction to Symbolic Logic (Students who expect to pursue graduate study in Philosophy should choose PHI 220)
2. PHI 300 Ancient Philosophy and PHI 306 Modern Philosophy
3. PHI 458 Speak Effectively Before an Audience (upper-division speaking requirement)
4. PHI 459 Write Effectively In Philosophy (upper-division writing requirement)
5. PHI 395 Junior Seminar
6. PHI 401 Individual Systems of the Great Philosophers or PHI 402 Analysis of Philosophic Texts
7. 21 additional credits of Philosophy coursework. Note that no more than two 100-level philosophy courses may be used to satisfy major requirements.

Philosophy majors must achieve an evaluation of S (Satisfactory) in PHI 458 Speak Effectively Before an Audience and PHI 459 Write Effectively in Philosophy, which separately may be taken in conjunction with PHI 395 Junior Seminar and/or another 300-level philosophy course that calls for public speaking to satisfy the speaking requirement (SPK) or calls for intensive writing to satisfy the upper-division writing requirement (WRTD), respectively. Students who wish to satisfy these requirements must inform the instructor of their intention to do so no later than the third week of the semester. The student's essays and public speaking will be appraised for the advanced writing and public speaking skills, respectively, appropriate to Philosophy majors in addition to the appraisal for the course. A student must satisfy the upper division speaking and writing requirements in order to register for PHI 401 Individual Systems of the Great Philosophers or PHI 402 Analysis of Philosophic Texts.

Note:

1. No more than two 100-level philosophy courses may be used to satisfy major requirements.

2. Please note that Philosophy course descriptions are very general and that precise topics can vary even between sections. More detailed up to date information may be found at [www.stonybrook.edu/philosophy](http://www.stonybrook.edu/philosophy)

### 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 two abroad 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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
PHI 100	3
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
PHI 264	3
SBC	3
SBC	3
Elective	3

Total	16
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**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
PHI 220	3
PHI 200	3
SBC	3
Elective	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
PHI 377	3
PHI 206	3
SBC	3
Elective	3
Elective	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
PHI 395 and PHI 459	3
Upper-division Philosophy elective	3
Elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Upper-division Philosophy elective	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
PHI 368	3
PHI 401	3
SBC	3
PHI 458	0
Upper-division elective	3

Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
PHI 372	3
Upper-division elective	3
Elective	3
Elective	3
Total	12

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Physics (PHY)****Major and Minor in Physics****Department of Physics and Astronomy, College of Arts and Sciences**

Chairperson: Axel Drees

Assistant to the Chair: Nathan Leoce-Schappin

Director of Undergraduate Studies: Robert McCarthy

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/Physics/>

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.

All courses used to satisfy the major requirements must be completed with a grade of C or higher, except that a maximum of three courses at the 100- or 200-level may be completed with a grade of C-.

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 with labs PHY 133 & 134 or PHY 141/133, 142/134 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.
3. AST 443 may substitute for PHY 445.
4. PHY/BME double majors who graduate with a BE in Biomedical Engineering may substitute BME 120 for PHY 277.
5. PHY/CSE double majors who graduate with a BS in Computer Science are exempt from PHY 277.

**B. Courses in Mathematics**

1. One of the following sequences: MAT 125, 126, 127 Calculus A, B, C or 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. If students do not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 is a required course for the major.
2. One of the following: MAT 205 Calculus III or MAT 203 Calculus III with Applications or AMS 261 Applied Calculus III or MAT 307 Multivariable Calculus with Linear Algebra.
3. One of the following: MAT 305 Calculus IV or MAT 303 Calculus IV with Applications or AMS 361 Applied Calculus IV: Differential Equations or MAT 308 Differential Equations with Linear Algebra.

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 physics-related courses that complement a Physics major's education are required. The intent is to add courses, especially in other quantitative sciences, which prepare the student for successful employment in research, education or industry. Any course beyond those required for the physics major that is required by the student's minor, second major or master's degree (for students in a combined degree program) is automatically included in the list of related courses. Additional related courses are listed below, but they are not exclusive. If another course is of interest and should qualify under the above goals, consult the undergraduate program director to see if it can be included.

- **AMS:** 102, 110, 210, 301, 303, 310, 311, 315 332, 335, 345, 351 and other 300-level courses (not 361).
- **AST:** 203, 205, 287, 341, 346, 347, 443, 447 and 487.
- **ATM:** 205, 247, 305, 320, 345, 346, 348, 397, 447 and 487.
- **BIO:** 201, 202, 203, 204, 205, 207, 310, 311, 332 and other 300-level courses.
- **BME:** 100, 120, 212, 212, 260 and many 300-level courses.
- **CHE:** 131/133, 132/134, 152, 154, 301, 302, 321, 322, 351, 375 and other 300-level courses.
- **CSE:** 110, 130, 150, 160, 161, 230, 260, 261 and most 300-level courses.
- **ECO:** 303, 305, 310, 321, 355 and 373.
- **ESE:** many 200- and 300-level courses.
- **ESG:** 302 and other 300-level courses.
- **ESM:** many 200- and 300-level courses.
- **EST:** 291, 320, 392, 393 and 499.
- **GEO:** 287 and many 300-level courses.
- **HBM:** 320 and 321.
- **ISE:** 332
- **JRN:** 365
- **MAT:** 211, 310, 312, 331, 333, 341, 342, 351, 362 and many 300-level courses (not 303, 305 or 307).
- **MAR:** most 300-level courses.
- **MEC:** most 300-level courses.
- **WSE:** 187 and 242

### D. Upper-Division Writing Requirement

Students are certified as satisfying the upper-division writing requirement by registering for the 0-credit PHY 459 and completing a writing project within their major. Students majoring in physics should consult an actual publication (for instance in Physical Review Letters or Physics Today) when considering the style of their submission. The writing project should be a clear, concise expression of a scientific statement. Within the first month of the semester in which the writing requirement is to be satisfied, the student should speak to the supervisor about his/her plans. If there are questions over the suitability of the proposed writing project, the student should discuss the proposal with the undergraduate program director. After the paper is accepted by the supervisor it is submitted to the undergraduate program director for a final approval. Satisfaction of the writing requirement is certified independently of the course grade, and is best completed in the junior year.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

### 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 (at least 3 credits total)
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 141/133 Classical Physics I: Honors
- PHY 132/134 Classical Physics II with Laboratory or PHY 142/134 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 307 Multivariable Calculus with Linear Algebra
- MAT 308 Differential Equations with Linear Algebra
- CHE 131, 132 General Chemistry
- CHE 133, 134 General 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 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, the CHE courses, 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 Atomic Physics and 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 Basic Communication Theory; ESE 358 Computer Vision; 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, 122 sequence is designed specifically for students majoring in biological sciences or pre-medical/pre-health programs. Any of the other three sequences (PHY 131/133, 132/134; PHY 141/133, 142/134; PHY 125, 126, 127 and PHY 133 & 134 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 141/133, 142/134) should be taken only by students who are prepared for a pace considerably faster than the three semester sequence (PHY 125/126/127/133/134). The PHY 141/133/142/134 sequence is designed for students with the strongest interest and preparation in physics and mathematics. In the PHY 125/126/133/127/134 sequence, PHY 126 and 127 may be taken in either order, although 133 remains a prerequisite for 134.

## 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:

- One of the following:
  - PHY 251/252 Modern Physics
  - ESG 281 An Engineering Introduction to the Solid State
- PHY 300 Waves and Optics
- One of the following:
  - PHY 301 Electromagnetic Theory
  - ESE 319 Electromagnetics and Transmission Line Theory
  - PHY 303 Mechanics
- One of the following:
  - PHY 306 Thermodynamics, Kinetic Theory, and Statistical Mechanics
  - MEC 398 Thermodynamics II
  - CME 314 Chemical Engineering Thermodynamics II
- One of the following:
  - PHY 335 Electronics and Instrumentation Laboratory
  - ESE 314 Electronics Laboratory B

**Sample Course Sequence for the Major in Physics**

A course planning guide for this major may be found [here](#). The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
MAT 131	4
PHY 131/PHY 133	4
SBC	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
MAT 132	4
PHY 132/PHY 134	4
SBC	3
<b>Total</b>	<b>15</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
PHY 251/PHY 252	4
PHY 277	3
MAT 307	4
SBC	3
SBC	3
Total	17

<b>SPRING</b>	<b>Credits</b>
PHY 300	4
MAT 308	4
SBC	3
SBC	3
SBC	3
Total	17

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
PHY 301	3
PHY 303	3
PHY-related elective	3
MAT 341	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
PHY 306	3
PHY 308	3
PHY 335	3
MAT 342	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
PHY 487	3
PHY elective	3
PHY-related elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits
PHY 445	3
PHY elective	3
PHY-related elective	3
PHY-related elective	3
Upper-division SBC	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Political Science (POL)****Major and Minor in Political Science****Department of Political Science, College of Arts and Sciences**

Chairperson: Jeffrey Segal

Director of Undergraduate Studies: Helmut Norpoth  
Assistant to the Chair: Germaine Hoynos

Undergraduate Coordinator: Janet Cea

Office: S-701 Social and Behavioral Sciences  
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Web address: <http://www.stonybrook.edu/polsci/index.html>

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), Sociology (SOC), Technology and Society (EST), Women's and Gender 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 42 credits.

**A. Study Within the Area of the Major**

- Required courses: (9 credits)
  - POL 101 World Politics
  - POL 102 American Government or POL 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.
- Political Science electives: (24 credits)
  - 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. EST 356 may substitute for one of the elective upper-division courses.
  - 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 must enroll in the 0-credit POL 459 course to meet the Stony Brook Curriculum's WRTD learning objective. They can choose to have their writing evaluated in one of two methods: Method I: Students may submit to the department's director of undergraduate studies a portfolio of papers written for upper-division courses in political science or related disciplines at Stony Brook, totaling 15 pages. The copies of the papers should be those that include the grade and summary comments by the instructor. Submit the portfolio along with the form available at the main office and filled out by the student. The director of undergraduate studies will evaluate the portfolio and inform the student of the evaluation. If the writing quality is judged unsatisfactory, the student should consult with the director of undergraduate studies about further steps. Method II: Students may ask the instructor of an upper-division political science course at Stony Brook to evaluate papers written for that course, totaling 15 pages. To do so, students must give the course instructor the form available at the main office and filled out by the student. The instructor will inform the student of the evaluation and submit the form with the evaluation to the director of undergraduate studies. If the evaluation is unsatisfactory, the student should either consult with the instructor or the director of undergraduate studies about further steps.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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

EST 356, 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.

3. EST 356 may substitute for one of the elective upper-division courses.

#### 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

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
POL 100-level*	3
POL 100-level*	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
POL 100-level*	3
SBC	3
SBC	3
SBC	3
Total	16

#### SOPHOMORE

FALL	Credits
POL 201**	3
POL 200-level	3
SBC	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
POL 300-level	3
Introductory course in related area	3
Introductory course in related area	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
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
SBC	3
SBC	3
Total	15

<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
Upper-division course related in area	3
Upper-division SBC	3
Upper-division elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
POL Upper-division elective	3
POL Upper-division elective	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
Electives, directed research, internship, or honors	15
Total	15

\*Every Political Science major must take POL 101, POL 102, and POL 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"

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

## Polysomnographic Technology (HHO)

### Major in Polysomnographic Technology

#### School of Health Technology and Management

Program Director: Russell Rozensky

Assistant to the Program: Patricia Bley

Office: Health Sciences Center Level 2 Room 449

Phone: (631) 444-3180

Email: Patricia.Bley@stonybrook.edu

Web Address: <https://healthtechnology.stonybrookmedicine.edu/poly>

## Polysomnographic Technology (HHO)

Polysomnographic Technology is a health care profession that specializes in the diagnosis and treatment of patients with sleep disorders.

Polysomnographic technologists practice under physician direction and provide diagnostic procedures and therapeutic treatments for a wide variety of patients, from infants to the elderly. Polysomnographic technologists provide services in many settings including hospitals, clinics, and physician offices. These services are provided in sleep centers, which are set-up to have numerous single patient bedrooms for diagnostic and therapeutic procedures. There is a main control room where the polysomnographic technologists monitor the patients during the sleep study. Individuals who graduate from the program can be employed as clinicians, managers, educators, and researchers.

Stony Brook University is accredited by Middle States Commission on Higher Education (<http://www.msche.org>). The Polysomnographic Technology Program is also an education program approved by the New York State Department of Education. The Polysomnographic Technology Program at Stony Brook University is accredited by the Commission on Accreditation of Allied Health Education Programs (<http://www.caahep.org>). The initial accreditation is valid from July 21, 2016 until July 31, 2021.

## Pre-Application Requirements for the Upper-Division Major in Polysomnographic Technology

The Polysomnographic Technology Program is a 2-year upper division professional program that requires students to have a minimum of 60 credits of required, recommended and elective courses prior to admission into the program. Students who satisfactorily complete the 2-year upper division professional program are awarded a Bachelor of Science degree and a School of Health Technology and Management certificate of professional achievement.

Minimum required prerequisite courses include: 3 credits English composition; 3 credits of arts; 3 credits of humanities; 3 credits of introductory (100 level) and 3 credits of intermediate or higher (200 – 400 level) social and behavioral sciences; 8 credits of anatomy and physiology or general biology with labs; 8 credits of chemistry with labs, 4 credits of physics with a lab, and 3 credits of statistics. All prerequisite courses must be completed with a grade of C or better. The minimum cumulative grade point average (GPA) for applicants is 2.5, with a minimum science GPA of 2.0. Natural science courses (biology, chemistry, and physics) less than 10 years old are preferred.

The Polysomnographic Technology Program at Stony Brook also requires students to be certified in Basic Life Support (BLS) offered by the American Heart Association (valid certification card required) prior to starting clinical rotations. HSQ 270 - Emergency Response, CPR and Personal Safety, is a 3 credit course offered at Stony Brook that will provide this certification and also count toward the minimum of 60 completed credits required of all applicants.

Stony Brook freshmen have the opportunity to declare Polysomnographic Technology as a lower division major by making an appointment with the Program Director. Freshmen accepted into the lower division major must complete all prerequisites with a grade of C or better by the end of the sophomore year, pass HAT 210 - Introduction to Respiratory Care with a grade of B or better, and achieve both a minimum cumulative grade point average (GPA) of 2.5 and a minimum science GPA of 2.0. Students successfully completing the lower division major are advanced to the upper division professional program.

All students, *except freshman declared majors*, must submit an on-line application by the deadline (March 1) to be considered for admission into the upper division professional program. Students can get information about the application process at: <https://healthtechnology.stonybrookmedicine.edu/programs/ptcp/admissions/process>

Note: For additional information, please call 631-444-3180 or visit the Polysomnographic Technology Program website at: <https://healthtechnology.stonybrookmedicine.edu/poly>

Please see <https://healthtechnology.stonybrookmedicine.edu/programs/ptcp/curriculum/courses> for course listings.

**Sample Course Sequence for the Major in Polysomnographic Technology****FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
CHE 129 or CHE 131 (SNW)	4
CHE 133	1
CHE 130 (if taking CHE 129)	1
MAT 123 or MAT 125 (QPS)	3
Humanities (HUM)	3
Total	15-16

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 125 or MAT 126 (QPS)	3
BIO 202 (STEM+)	3
Total	15

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
HAN 200 (SNW) or BIO 203 (STEM+) and BIO 204	4-5
PHY 121 (SNW)	3
PHY 123	1
Fine Arts (ARTS)	3
Social and Behavioral Sciences-100-level (SBS)	3
HAT 210	1
Total	15-16

<b>SPRING</b>	<b>Credits</b>
HAN 202 (STEM+)	4
Social and Behavioral Sciences-200- to 400-level (SBS+)	3
AMS 102 or AMS 110 (QPS)	3
Humanities (HUM)	3
USA elective (USA)	3
Total	16

**Notes:**

1. Natural science courses (biology, chemistry, and physics) less than 10 years old are preferred.
2. Prerequisites are required for some of the above courses that are above the required minimum to enter the Polysomnographic Technology Program.

**Prerequisites:**

1. All prerequisite courses must be completed with a grade of C or better.
2. The minimum cumulative grade point average (GPA) for applicants is 2.5, with a minimum science GPA of 2.0.
3. Freshmen accepted into the lower division major must complete all prerequisites by the end of the sophomore year, pass HAT 210 – Introduction to Respiratory Care with a grade of B or better, and meet the academic standards listed above.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

**Professional Writing (PWR)****Minor in Professional Writing  
Program in Writing and Rhetoric, College of Arts and Sciences**

Director: Kristina Lucenko

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>

**Professional Writing (PWR)**

Advanced knowledge of professional writing helps learners in all disciplines become better prepared to write successfully in professional environments. This minor complements any major, as professional writing skills are necessary in many upper-level courses and highly valued in most professions. Students are encouraged to complete an experientially-based project under a Program in Writing and Rhetoric faculty member's mentorship.

**Requirements for the minor in Professional Writing (PWR)**

Completion of the minor requires 21 credits. At least 15 of the 21 credits must be taken at Stony Brook University. Transfer credits are awarded by permission of the Program in Writing and Rhetoric's Undergraduate Program Director. Courses taken for the minor must be passed with a letter grade of C or higher.

**Required courses for all minors:**

- WRT 102 Intermediate Writing Workshop
- WRT 200 Grammar and Style for Writers
- WRT 201 Principles of Professional Writing
- WRT 304 Writing for Your Profession

**Elective courses for the minor (choose any three:**

- WRT 301 Writing in the Disciplines: Special Topics, when offered with topic "Technical Communications"
- WRT 302 Critical Writing Seminar when offered with a relevant topic, such as "Writing for the Social Sciences," "Writing for the New Media," "Communicating Across Cultures and Contexts," "Rhetoric and Culture," "Visual Rhetoric", "Global Literacies," "Feminist Rhetorics," "Fiction Writing," "Creative Nonfiction," "Playwriting," and "Practice of Editing and Publishing"
- WRT 303 The Personal Essay
- WRT 305 Writing for the Health Professions
- WRT 380 Advanced Research Writing: Theories, Methods, Practices
- WRT 381 Advanced Analytic and Argumentative Writing

***Recommended experiential learning project***

Students are also encouraged to complete a three-credit experiential learning project, either as a zero-credit WRT 444 attached to an upper-division course or to an Independent Study with a full-time faculty member, or as an Internship that would focus on their writing in the area of their major.

**PWR Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/writrhet/people/faculty.html>

*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**

Chairperson: Arthur Samuel

Director of Undergraduate Studies: John Robinson

Assistant to the Chair: Cynthia Forman

Undergraduate Academic Advisor: Carol Carlson

E-MAIL: Carol.Carlson@stonybrook.edu

Office: PSY B 109

Phone: (631) 632-7812

Student Coordinator: Donna Hildenbrand

E-MAIL: Donna.Hildenbrand@stonybrook.edu Office: PSY B 117

Phone: (631) 632-7802

Web address: <http://www.stonybrook.edu/commcms/psychology/index.html>

Minors of particular interest to students majoring in Psychology: 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, PSY 283, PSY 310, PSY 399, PSY 447, PSY 475, PSY 476, PSY 487, PSY 488, PSY 495-496, and the discontinued PSY 300.
2. Four more courses from among advanced courses numbered PSY 301 to 384, excluding PSY 310.
3. Upper-Division Writing Requirement

For the B.S. student:

1. One course numbered 200 or higher, excluding PSY 273, PSY 283, PSY 310, PSY 399, PSY 447, PSY 475, PSY 476, PSY 487, PSY 488, PSY 495-496, and the discontinued PSY 300.
2. A laboratory course (PSY 380-384; PSY 386).
3. Advanced statistics (PSY 301 or AMS 315).
4. Two more courses numbered 300 or higher, excluding PSY 310, PSY 399, PSY 447, PSY 475, PSY 476, PSY 487, PSY 488, PSY 495-496, and the discontinued PSY 300.
5. Upper-Division Writing Requirement

**For students pursuing the Diversified Educational Curriculum (D.E.C.),** the upper-division writing requirement of the Diversified Educational Curriculum (D.E.C.) can be fulfilled through submission of a writing sample of at least six pages, completed 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. 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. Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education.

**For students pursuing the Stony Brook Curriculum (SBC),** a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective must be completed in order to graduate. This WRTD requirement will routinely be satisfied by completing PSY 310. However, in special cases, co-registration for the 0-credit PSY 459 while completing a substantial paper or writing sample in another Psychology course will satisfy the WRTD requirement. A student must obtain the permission of the course instructor prior to registering for PSY 459.

Although not required for B.A. or B.S. degrees, the Department strongly recommends that any 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.

### 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 SOC 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. **The concentration requirement may also be satisfied by an approved minor or a second major in any department or program.**
  - Africana Studies (AFS)
  - Anthropology (ANT) (see Note 2)
  - Applied Mathematics and Statistics (AMS)
  - Biology (BIO) (see Note 2)
  - Computer Science (CSE)
  - Economics (ECO)
  - History (HIS)
  - Linguistics (LIN)
  - Marketing (MKT) (see Note 1)
  - Mathematics (MAT) (see Note 2)
  - Philosophy (PHI) (see Note 2)
  - Political Science (POL) (see Note 2)

- Sociology (SOC) (see Note 2)
- Women's, Gender, and Sexuality Studies (WST)

Note 1: The MKT concentration requires the completion of BUS 348 (Principles of Marketing), BUS 358 (Marketing Research), BUS 359 (Consumer Behavior) and BUS 448 (Marketing Strategy).

Note 2: 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 (e.g. completion of the Biology concentration also satisfies requirement number 2).

For the B.S. Student

All three categories below are required.

#### 1. Mathematics:

1. Calculus I (MAT 123 (a C or higher in MAT 123 is a prerequisite for MAT 125), 125, 131, 141, or AMS 151) and
2. 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:

1. Two courses from the following: BIO 201, BIO 202, and BIO 203
  2. 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:

1. Biology: Two BIO or biology-related courses. The list of approved courses to satisfy this requirement may be obtained from the Undergraduate Psychology Office.
2. Chemistry: CHE 131/133, CHE 132/134 or CHE 152 and CHE 154.
3. Mathematics: Two courses. The list of approved courses to satisfy this requirement may be obtained from the Undergraduate Psychology Office.
4. Physics: PHY 121 and 122; or PHY 125, 126, and 127; or PHY 131/133 and 132/134; or PHY 141 and 142.
5. Computer Science: CSE 114 and CSE 215.

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)

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
PSY 103	3
MAT course*	4
BIO course	4
SBC	3
Total	18

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
PSY Group A (220 or 230 or 240) OR PSY Group B (250 or 260)	3
PHI course	3
SOC or ANT or POL course**	3
Statistics course***	3
Total	16

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
PSY Group B (if Group A taken) OR Group A (if Group B taken)	3
Course outside concentration (#1)	3
PSY 310	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
PSY Group A or B course	3
PSY 200 and above elective	3
SBC	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
PSY Upper-division elec. (301 to 384)	3
Course outside concentration (#2)	3
Upper-division elective	3

Upper-division elective	3
Elective	3
Elective	3
Total	18

SPRING	Credits
PSY Upper-division elective (301-384)	3
Upper-division course outside concentration (#3)	3
PSY Upper-Division elective (301-384)	3
SBC	3
Elective	3
Total	15

**SENIOR**

FALL	Credits
Upper-division outside concentration (course #4)	3
PSY Upper-division elective (301-384)	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	15

SPRING	Credits
SBC	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Elective	3
Total	15

\*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.

\*\*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)**  
A course planning guide for this major may be found here.

**FRESHMAN**

FALL	Credits
First Year Seminar 101	1
WRT 101	3
PSY 103	3

MAT 125 or 131 or 141	3-4
CHE 131*	3-4
SBC	3
Total	16-18

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
PSY Group A (220 or 230 or 240) OR PSY Group B (250 or 260)	3
MAT 126 or 132 or 142	3-4
SBC	3
SBC	3
Total	16-17

## SOPHOMORE

FALL	Credits
PSY 201**	3
PSY Group B (if Group A taken) OR Group A (if Group B taken)	3
BIO 201, 202, or 203, and 204	5
SBC	3
SBC	3
Total	17

SPRING	Credits
PSY 310	4
PSY Group A or B	3
PSY elective***	3
BIO 201, 202, or 203, and 205	5
SBC	3
Total	18

## JUNIOR

FALL	Credits
PSY advanced laboratory (380 or 381 or 382 or 383 or 384)	3-4
Science sequence elective	3
PSY Upper-division elective***	3
Upper-division elective	3
SBC	3
Total	15-16

SPRING	Credits
PSY 301 or AMS 315	3
Science sequence elective	3

Upper-division elective	3
SBC	3
SBC	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
PSY Upper-division elective***	3
Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
PSY Upper-division elective***	3
Upper-division elective	3
Upper-division elective	3
Elective	3
SBC	3
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

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

Office: 1046 Humanities

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, co-registering in the 0-credit RLS 459, and achieving a special overall rating of "satisfactory" in RLS 459 based on the written work completed for RLS 301. An overall rating of "unsatisfactory" necessitates remedial action. More detailed information about this requirement is available from the program.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

#### 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**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
RLS 101 or RLS 102	3
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
Selected Area Emphasis course #1 (200 level)	3
SBC	3
SBC	3
SBC	3
<b>Total</b>	<b>16</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
Selected Area Emphasis course #2 (200 level or higher)	3
RLS elective outside Area Emphasis	3
SBC	3
SBC	3
SBC	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
Selected Area Emphasis course#3 (300 level or higher)	3
RLS elective outside Area Emphasis	3
SBC	3

Upper-division elective	3
Elective	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
RLS 301	3
Selected Area Emphasis course#4 (300 level or higher)	3
RLS Upper-division elective outside Area Emphasis	3
Upper-division elective	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
RLS Upper-division elective outside Area Emphasis	3
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
Upper-division SBC	3
Upper-division SBC	3
SBC	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
RLS 400	3
Upper-division elective	3
Upper-division elective	3
SBC	3
SBC	3
Total	15

*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/programs/rc/welcome>

#### Respiratory Care

Respiratory Care is a health care profession that specializes in the diagnosis and treatment of patients with heart, lung and sleep disorders. Respiratory Therapists (RTs) practice under physician direction and provide respiratory care diagnostic procedures and therapeutic treatments for a wide variety of patients, from premature infants to the elderly. RTs provide services in many settings including hospitals, clinics, physician offices, nursing homes, and rehabilitation centers. Many are also taking advantage of opportunities in diagnostic sleep labs, cardiac catheterization labs, in-home health care, and both medical equipment and pharmaceutical sales. Individuals who graduate from the program are employed as clinicians, managers, educators, and researchers.

The Respiratory Care Program offers a Bachelor of Science degree in Respiratory Care. Eligible senior students may also receive advanced training in sleep technology as part of the Polysomnography Specialty Option, leading to a certificate of completion in Polysomnography.

The Stony Brook University Respiratory Care Program (CoARC # 200134) and Polysomnography Specialty Option (CoARC # 400134) are accredited by the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com)), 1248 Harwood Road, Bedford, Texas, 76021-4244, (817)-283-2835. The Respiratory Care Program is also an education program approved by the New York State Department of Education.

#### Pre-Application Requirements for the **Upper-Division** Major in Respiratory Care

The Respiratory Care Program is a 2-year upper division professional program that requires students to have a minimum of 57 credits of required, recommended and elective courses prior to admission into the program. Students who satisfactorily complete the 2-year upper division professional program are awarded a Bachelor of Science degree and a School of Health Technology and Management certificate of professional achievement.

Minimum required prerequisite courses include: 3 credits English composition; 3 credits of arts; 3 credits of humanities; 3 credits of introductory (100 level) and 3 credits of intermediate or higher (200 – 400 level) social and behavioral sciences; 8 credits of anatomy and physiology or general biology with labs; 3 credits of microbiology; 8 credits of chemistry with labs, 4 credits of physics with a lab, and 3 credits of statistics.

All prerequisite courses must be completed with a grade of C or better. The minimum cumulative grade point average (GPA) for applicants is 2.5, with a minimum science GPA of 2.0. Natural science courses (biology, chemistry, and physics) less than 10 years old are preferred. Prerequisites are required for some of these courses that are above the required minimum.

The Respiratory Care Program at Stony Brook also requires students to be certified in Basic Life Support (BLS) offered by the American Heart Association (valid certification card required) prior to starting clinical rotations. HSQ 270 - Emergency Response, CPR and Personal Safety, is a 3 credit course offered at Stony Brook that will provide this certification and also count toward the minimum of 57 completed credits required of all applicants.

Stony Brook freshmen have the opportunity to declare respiratory care as a lower division major by making an appointment with the program director. Students successfully completing the lower division major are automatically advanced to the upper division professional program. Freshmen accepted into the lower division major must complete all prerequisites with a grade of C or better by the end of the sophomore year, pass HAT 210 - Introduction to Respiratory Care with a grade of B or better, and achieve both a minimum cumulative grade point average (GPA) of 2.5 and a minimum science GPA of 2.0.

All students, except freshman declared majors, must submit an on-line application by the deadline (March 1) to be considered for admission into the upper division professional program. Students can get information about the application process at: <http://healthtechnology.stonybrookmedicine.edu/programs/rc/admissions/process/apply>

#### Requirements for the Polysomnography Specialty Option

The Respiratory Care Program also offers an accredited Polysomnography Specialty Option leading to a certificate of completion in Polysomnography for those senior students in the program that are in good academic standing who would like advanced education in sleep technology. The number of students enrolled in the Polysomnography Specialty Option is limited to approximately 15. Senior students in good academic standing and with no outstanding admission prerequisites are eligible to apply to the Polysomnography Specialty Option. A selection lottery is used if more than 15 students apply. Students who satisfactorily complete the Polysomnography Specialty Option curriculum are awarded a Polysomnography certificate of completion.

#### Notes:

Graduates are eligible to take the National Board for Respiratory Care examinations to become a Registered Respiratory Therapist (RRT). Graduates of the Polysomnography Specialty Option are eligible to take the Sleep Disorders Specialty (SDS) examination upon earning RRT credentials. Please visit [www.NBRC.org](http://www.NBRC.org) for further information, exam eligibility, and requirements.

Graduates will also need to apply to the New York State Department of Education to obtain a license to practice as a Respiratory Therapist in New York State. Please visit: [www.op.nysed.gov](http://www.op.nysed.gov) for further information.

For any additional information, please call 631-444-3180 or visit the Respiratory Care Program website at: <http://healthtechnology.stonybrookmedicine.edu/programs/rc/welcome>

### Sample Course Sequence for the Major in Respiratory Care

A course planning guide for this major may be found here.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 129 or CHE 131 (SNW)	4
CHE 130 (if taking CHE 129)	1
CHE 133	1
Humanities (HUM)	3
MAT 123 or MAT 125 (QPS)	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132 (SNW)	4
CHE 134	1
MAT 125 or MAT 126 (QPS)	3
BIO 202 (STEM+)	3
Total	15

#### SOPHOMORE

FALL	Credits
HAN 200 (SNW) or BIO 203 (STEM+) and BIO 204	4-5
PHY 121 (SNW)	4
Social and Behavioral Sciences-100-level (SBS)	3
Arts (ARTS)	3
HAT 210	1
Total	15-16

SPRING	Credits
HAN 202 (STEM+)	4
Social and Behavioral Sciences-200- to 400-level (SBS+)	3
AMS 102 or AMS 110 (QPS)	3
BIO 315 or HBM 320 Microbiology	3
HSQ 270	3
Total	16

**Notes:**

**1. Natural science courses (biology, chemistry, and physics) less than 10 years old are preferred.**

**2. Prerequisites are required for some of the above courses that are above the required minimum to enter the Respiratory Care Program.**

**Prerequisites:**

**1. All prerequisite courses must be completed with a grade of C or better.**

**2. The minimum cumulative grade point average (GPA) for applicants is 2.5, with a minimum science GPA of 2.0.**

**3. Freshmen accepted into the lower division major must complete all prerequisites by the end of the sophomore year, pass HAT 210 – Introduction to Respiratory Care with a grade of B or better, and meet the academic standards listed above.**

*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: Luigi Fontanella

Director of Undergraduate Studies: Peter Carravetta

Coordinator of the Minor: Izabela Kalinowska-Blackwood

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 1055

Phone: (631) 632-7440

E-mail: [Izabela.Kalinowska-Blackwood@stonybrook.edu](mailto:Izabela.Kalinowska-Blackwood@stonybrook.edu)

Web address: <http://www.stonybrook.edu/commcms/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: Suzanne Velazquez, PhD, LCSW

Email: [Suzanne.Velazquez@stonybrook.edu](mailto:Suzanne.Velazquez@stonybrook.edu) Office: Health Sciences Center, Level 2, Room 093

Phone: (631) 444-6909

Assistant Dean for Academic Services: Sunday F. Coward

Email: [Sunday.Coward@stonybrook.edu](mailto:Sunday.Coward@stonybrook.edu) Office: Health Sciences Center, Level 2, Room 093

Phone: (631) 444-3154

Director of Admissions and Student Services: Kathleen Albin

Email: [Kathleen.Albin@stonybrook.edu](mailto:Kathleen.Albin@stonybrook.edu) Office: Health Sciences Center, Level 2, Room 093

Phone: (631) 444-3141

Application should be submitted in the sophomore year. Please visit the School's website for application information.

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. A separate application\* is required for admission for the program. 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 program is a two-year upper-division full-time program that includes 12 credit hours in supervised field work (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.

\*Application should be submitted in the sophomore year. Please visit the School's website for application information: <http://www.socialwelfare.stonybrookmedicine.edu>

**Pre-Application Requirements for the Major in Social Work**

57 college credits passed with a minimum 2.5 GPA and the following Stony Brook courses or transfer equivalents passed with a grade of C or higher:

1. 3 credits of English composition (WRT 102) (must satisfy SBC WRT requirement)
2. 3 credits in fine or performing arts, excluding design or skills improvement courses (must satisfy SBC ARTS requirement)
3. 3 credits of American political systems (POL 102)
4. 3 credits of introductory anthropology (ANT 102) or sociology (SOC 105)

5. 3 credits of introductory psychology (PSY 103)
6. 3 credits of American history (post-Reconstruction) (HIS 104)
7. 3-4 credits of introductory human biology (BIO 101) or another human biology course approved by the School of Social Welfare courses (must satisfy SBC SNW requirement)
8. 3-4 credits of college-level mathematics courses (MAT 118 or higher, AMS 102 or higher, or SOC 202) (must satisfy SBC QPS requirement))
9. 3 credits of humanities courses (excluding elementary languages) (must satisfy SBC HUM requirement)
10. 3 credits of foreign language courses (must satisfy SBC LANG-PART requirement)

Applicants should have demonstrated interest in the social welfare field through community involvement and/or 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

A course planning guide for this major may be found here.

<b>Freshman Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
WRT 101	3	WRT 102	3
BIO 101	3	Math D.E.C. C or QPS	3
ANT 102 or SOC 105	3	POL 102	3
MAP 103*	3	HIS 104	3
Foreign Language Partially Fulfills LANG	3	D.E.C. B or G or HUM	3
Total	15	Total	15
<b>Sophomore Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Fine and Performing Arts D.E.C. D or ARTS	3	**200- 300-level D.E.C. or SBC courses	12
PSY 103	3		
**200- and 300-level D.E.C. or SBC courses	9		
Total	15	Total	12

\*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: Daniel Levy

Director of Undergraduate Studies: Cathy Marrone

Assistant to the Chair: Pat Bremer

Undergraduate Secretary: Sharon Worksman

Office: S-401 Social and Behavioral Sciences

Phone: (631) 632-7700

E-MAIL: Sharon.Worksman@stonybrook.edu

Web address: <http://www.stonybrook.edu/sociology>

Minors of particular interest to students majoring in Sociology: Anthropology (ANT), Business Management (BUS), International Studies (INT), Political Science (POL), Women's and Gender Studies (WST)

**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 completed for the major, except those graded S/U, must be passed with a letter grade of C or higher. Excluding required courses, credit can be awarded for just one P graded course.

Completion of the major requires 39 credits, of which 27 to 30 credits 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**

In addition to the required courses above, students must complete an additional 18 credits of coursework from among all sociology course offerings.

**Note:**

Only six credits of independent study courses (SOC 447, 487, 488, 495, 496) may be used toward the requirements of 18 elective credits 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 (only those courses with designator ANT), economics, history, linguistics, political science, psychology, and women's studies. Credits from applied social science professions such as social work, police science, education, and management science are not applicable.

## C. Upper-Division Writing Requirement

Sociology majors are expected to fulfill the upper-division writing requirement by the time of graduation. Students may meet the requirement by having their writing evaluated in certain upper-division courses. Normally this requirement is met through SOC 361, the required Historical Development of Sociological Theory course, which also satisfies the SBC WRTD requirement. Alternatively, students who have indicated that they wish to have their writing evaluated in an upper division sociology course with the equivalent of an 8 – 10 page paper, should co-register for the 0-credit SOC 459 and will receive a grade for SOC 459, 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## 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 gpa in all sociology courses and a 3.2 overall, honors are conferred.

**Sample Course Sequence for the Major in Sociology**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SOC 105	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SOC elective	3
SBC	3
SBC	3
SBC	3

Total	16
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**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
SOC 201	3
SOC elective	3
SOC elective	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
SOC 202 or AMS 102	3
SOC elective	3
Social science elective	3
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
SOC 361	3
SOC Upper-division elective	3
Social science elective	3
SBC	3
SBC	3
Total	15

<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 elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
SOC Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
Social science elective	3
SOC elective	3

Total	15
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<b>SPRING</b>	<b>Credits</b>
SOC Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Upper-division elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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
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)
  - 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
- AAS 447 Directed Readings
- AAS 487 Supervised Research
- 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.*

Fall 2017-Spring 2018

**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: Kathleen M. Vernon

Director of Undergraduate Studies: Paul Firbas

Office: N-3018, Melville Library

Phone: (631) 632-6935

Web address: <http://www.stonybrook.edu/commcms/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 211, SPN 212, and SPN 310/SPN 311 completed through Challenge examinations). All courses in Spanish must be passed with a letter grade of C or higher.

Completion of the major requires 36-42 credits, depending on language placement. See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information. A double major requires 30-36 credits. (See notes 1 and 2, below).

- Required Basic Spanish Language Courses: SPN 211 Intermediate Spanish I and SPN 212 Intermediate Spanish II (6 credits, or the equivalent proficiency satisfied through permission of the department, or through the placement or the challenge exam).
- Required Basic Courses: (24 credits)
  - SPN 311 Spanish Conversation and Composition (or SPN 310 Spanish Grammar and Composition for Students of Hispanic-American Background) (See Note 3, below.)
  - SPN 312 Introduction to Literary Studies
  - SPN 321 Advanced Spanish Grammar and Composition
- 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 397 Introduction to Spanish Literature I
- SPN 393 Introduction to Hispanic Linguistics
- Advanced Courses in Hispanic Linguistics, Literature, and Culture (15 credits)

Five additional courses in upper-division SPN courses chosen in consultation with the Departmental advisor. (HUL 324 and HUS 390 are 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.

- Upper-Division Writing Requirement

Beginning Fall 2014, all students who complete SPN 321 will have satisfied the upper-division writing requirement for the major as well as the university WRTD requirement.

## Notes:

1. Those students with enough language proficiency to satisfy requirement A will complete a total of 36 credits. The students who need to take SPN 211 and 212 will complete a total of 42 credits.
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.
3. Students of Spanish-speaking background may take the Challenge examination for SPN 310/311.

## 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 18-24 credits, depending on language placement (see note). See [http://www.stonybrook.edu/llrc/placement\\_challenge\\_exams/placement\\_exam.html](http://www.stonybrook.edu/llrc/placement_challenge_exams/placement_exam.html) for placement exam information.

A. Basic Spanish Language Courses: SPN 211, SPN 212 (6 credits, or the equivalent proficiency satisfied through permission of the department, or through the placement or the challenge exam).

## B. Required Basic Courses

- SPN 311 Spanish Conversation and Composition  
**OR** SPN 310 Spanish Grammar and Composition for students of Hispanic-American background
- SPN 312 Introduction to Literary Studies
- SPN 321 Advanced Spanish Grammar and Composition

## C. Advanced Elective Courses

- Three other upper-division SPN courses, two of which must be at the 400 level.

Note: Students with enough language proficiency to satisfy requirement A will complete a total of 18 credits. Students who need to take SPN 211 and 212 will complete a total of 24 credits.

## 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 section titled "Special Academic Opportunities."

**Sample Course Sequence for the Major in Spanish**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SPN 211	3
SBC	3
SBC	3

SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SPN 212	3
SBC	3
SBC	3
Elective	3
Total	16

## SOPHOMORE

FALL	Credits
SPN 311	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
SPN 312	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

## JUNIOR

FALL	Credits
Upper-division elective	3
SPN upper-division elective	3
SPN 321	3
SPN 391	3
SBC	3
Total	15

SPRING	Credits
SPN 393	3
SPN 395	3
SPN 396	3
SBC	3

Elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
SPN 400-level elective	3
SPN 400-level elective	3
SBC	3
SBC	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
SPN 400-level elective	3
Upper-division SBC	3
Upper-division SBC	3
Elective	3
Elective	3
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](mailto:arlene.cassidy@stonybrook.edu)

Program Office: W0511 Melville Library

Phone: 631.632.9404

Website: <http://www.stonybrook.edu/commcms/sustainability/majors/SUSmajorpage.pcf.html>

**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 125 or MAT 131 or AMS 151. If students do not place into MAT 125 or 131 or AMS 151 on the basis of the math placement examination, MAT 123 is a required course for the major.
- ECO 108 Introduction to Economics
- PHI 104 Moral Reasoning
- POL 102 Introduction to American Government
- SBC 111 Introduction to Sustainability Studies
- SBC 115 Introduction to Human Demographics
- SBC 201 Systems and Models
- SBC 206 Economics and Sustainability
- SBC 113 Physical Geography
- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- CHE/ENV 115 Chemistry, Life, Environment (Note: CHE 115, 129, 131, 141, or 152 may be substituted for CHE/ENV 115)

## B. Career and Leadership Skills (6 credits)

- CSK 302 Technical Writing and Communication
- CSK 305 Collective Action and Advocacy

## C. Core Courses (27 credits)

## Required:

- SUS 302 Integrative Assessment Models
- SUS 366 Philosophy of the Environment

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
- SUS 343 Age of the Anthropocene

## Group 2: Ecology

- EHI 310 Preservation and Restoration of Ecosystems
- EHI 311 Ecosystem-Based Management
- EHI 340 Ecological and Social Dimensions of Disease
- EHI 350 Design Ecotoxicology Research
- EHI 351 Conduct Ecotoxicology Research
- ENS 311 Ecosystem Ecology and Global Environment
- BIO 351 Ecology

#### Group 3: Human Population

- EHI 321 Human Reproductive Ecology
- EHI 322 Human Ecology
- GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
- SBC 310 Migration, Development and Population Redistribution
- SUS 303 Demographic Change and Sustainability

#### Group 4: Economics

- ECO 373 Economics of the Environment and Natural Resources
- 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

- EDP 305 Risk Assessment and Sustainable Development
- EHM 316 Cuba and Sustainability
- EHM 321 Utopia and Dystopia and the Environment in Literature and Culture
- ENS 312 Population, Technology and the Environment
- ENS 333 Environmental Law
- ENV 310 Sustainability and Renewable Energy in Costa Rica
- ENV 316 Coastal Zone Management
- ENV 339 Economics of Coastal and Marine Ecosystems
- HIS 352 Environmental History of China
- SBC 307 Environmental History of North America
- SBC 308 American Environmental Politics
- SBC 309 Global Environmental Politics
- SBC 311 Disasters and Society: A Global Perspective
- SBC 312 Environment, Society, and Health
- SBC 321 Ecology and Evolution in American Literature
- SUS 341 Environmental Treatises and Protocols
- SUS 350 Contemporary Topics in Sustainability
- SUS 487 Research
- SUS 488 Internship

#### D. Systems Courses (3 credits)

One course selected from the two choices below:

- SBC 401 Integrative, Collaborative Systems Project
- ENV 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 **with letter grades of no lower than a B** from any 300-level or 400-level course in the major to the director of the SUS Undergraduate Program.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Note:

All 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.

## Study Abroad

Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their 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)

At least 12 credits applied to the minor may not be applied to any major or other minor within the Sustainability Studies Program. 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:

- ENS 311 Ecosystem Ecology and Global Environment
- ENS 312 Population, Technology and the Environment
- ENS 333 Environmental Law
- ENV 301 Sustainability of the Long Island Pine Barrens
- SUS 366 Philosophy of the Environment
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Management
- 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 321 Ecology and Evolution in American Literature
- SBC 401 Integrative, Collaborative Systems Studies
- GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
- SUS 341 Environmental Treatises and Protocols
- SUS 350 Contemporary Topics in Sustainability\*
- EHI 311 Ecosystem-Based Management
- ENV 310 Sustainable and Renewable Energy in Costa Rica or EHM 316 Cuba and Sustainability

\*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**  
**A course planning guide for this major may be found here.**

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
MAT 125	3
SBC 111	3
CSK 102	1
Foreign Language or elective	4
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
CSK Elective #1	1
ENV/CHE 115	3
CSK Elective #2	1
POL 102	3
SBC 113	3
<b>Total</b>	<b>15</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
SBC 201	2
SBC 115	3
ECO 108	4
SBC	6
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
Foreign Language or elective	4
BIO 201	3
PHI 104	3
SBC 206	3
Elective	2
<b>Total</b>	<b>15</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
SUS 366	3
Group 1 Elective	3

SBC	6
Elective	3
Total	15

SPRING	Credits
SUS 302	3
Group 2 Elective	3
Group 3 Elective	3
SBC	6
Total	15

## SENIOR

FALL	Credits
Group 4 Selection 1	3
Group 5 Selection 1	3
SBC 401	3
Electives	6
Total	15

SPRING	Credits
Group 1-5 selection	3
Group 1-5 selection	3
Electives	6
SBC	3
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**

Interim Chairperson: Wolf Schafer

Undergraduate Program Director: David Tonjes

Advisor: Rita Reagan-Redko

Office: 1425 Computer Science

Phone: (631) 632-1057

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Website: <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 and PHY 122

or PHY 125, PHY 126, PHY 127, PHY 133, PHY 134

or PHY 141, PHY 142, PHY 133, PHY 134

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
  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)

1. EST 202 Introduction to Science, Technology, and Society Studies
2. EST 304 Communication for Engineers and Scientists
3. EST 305 Applications Software for Information Management
4. EST 326 Management for Engineers
5. EST 327 Marketing for Engineers
6. EST 331 Professional Ethics and Intellectual Property
7. EST 391 Technology Assessment
8. EST 392 Engineering and Managerial Economics
9. EST 393 Project Management
10. EST 440 Interdisciplinary Research Methods
11. EST 441 Interdisciplinary Senior Project

##### 2. Electives

1. EST 204 Modern Digital Technology and Innovation
2. EST 205 Introduction to Tech Design
3. EST 207 Interaction Design
4. EST 310 Design of Computer Games
5. EST 320 Comm Technology Systems
6. EST 323 Human Computer Interactions
7. EST 325 Technology in the Workplace
8. EST 341 Waste Treatment Technologies
9. EST 475 UG TA
10. EST 488 Internship in TSM
11. EST 499 Research in TSM
12. Other 300/400 level courses in the area of specialization are allowed upon the approval of the TSM advisor

Please note:

- At most 3 credits of the 3 electives can be counted from the following courses: EST 475, EST 488 and EST 499.
- Only two, 200-level courses may be used in the major elective category unless permission is received from the department.
- 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, Technological Systems Management majors must complete EST 440 and EST 441 with a grade of C or higher. Successful completion of these two courses also satisfies the university WRTD requirement.

#### 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. Please note: only two, 200-level courses may be used for the minor unless permission is received from the department.

1. EST 204 Modern Digital Technology and Innovation
2. EST 205 Introduction to Tech Design
3. EST 207 Interaction Design
4. EST 304 Communication for Engineers and Scientists
5. EST 305 Applications Software for Information Management
6. EST 320 Communication Technological Systems
7. EST 325 Technology in the Workplace
8. EST 326 Management for Engineers
9. EST 327 Marketing for Engineers
10. EST 391 Technology Assessment
11. EST 393 Project Management
12. Other 300/400 level courses in the minor are allowed upon the approval of the TSM advisor.

### Sample Course Sequence for the Major in Technological Systems Management

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

#### FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
EST 202	3
AMS 151 (QPS)	3
Natural Science 1 (SNW)	4
Total	14

#### SPRING

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
EST 304	3
AMS 161	3
Natural Science 2 (SNW)	4
Total	14

#### SOPHOMORE

FALL	Credits
EST/SPEC Elective	3
EST 331	3
Specialization course	3
Elective	3
SBC course	3

Total	15
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SPRING	Credits
EST 305	3
EST 392 (SBS)	3
Specialization course	3
SBC course	3
SBC course	3
Total	15

**JUNIOR**

FALL	Credits
EST 326	3
EST 391 (STAS)	3
EST/SPEC Elective	3
Specialization course	3
Elective	3
Total	15

SPRING	Credits
EST 327	3
EST 393	3
EST/SPEC Elective	3
Specialization course	3
Elective	3
Total	15

**SENIOR**

FALL	Credits
EST 440*	3
Specialization course (300-400) (STEM+)	3
SBC course	3
Elective	3
Elective	3
Total	15

SPRING	Credits
EST 441*	3
Specialization course (300-400) (STEM+)	3
Specialization course (300-400) (STEM+)	3
Elective	3
Elective	3
Total	15

\*This course partially satisfies the following: ESI, CER, SPK, WRTD, SBS+, STEM+, EXP+. For more information contact the CEAS Undergraduate Student Office.

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**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

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Web Address: <http://www.stonybrook.edu/commcms/theatre-arts/academics/undergraduate.html>

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 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, 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)**

**Note: The major in Theatre Arts has been suspended, effective Fall 2017. Students may not declare the major in Theatre Arts after Fall 2017.**

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 49 credits.

A. One of the following courses (3 credits):

- THR 103 Introduction to Theatre Design
- THR 104 Introduction to Play Analysis
- THR 105 Introduction to Acting

B. Required courses (13 credits):

- THR 115 Stagecraft
- THR 201 Introduction to Theatre History I
- THR 202 Introduction to Theatre History II
- THR 224 Experimental Studio (see Note 1)

C. One of the following courses (3 credits):

- THR 214 Theatre in New York
- THR 216 Introduction to Visual Interpretation
- THR 230 Voice for the Actor
- THR 232 Improvisation

- THR 246 Stage Lighting
- THR 277 The Media Industry

D. One of the following courses (3 credits):

- THR 205 Acting II
- THR 215 Foundation of Performance Design
- THR 326 Playwriting

E. One of the following courses (3 credits):

- THR 312 Topics in American Theatre History
- THR 313 Topics in Asian Theatre History
- THR 315 Topics in Theatre History and Theory: The Classical Age
- THR 316 Topics in Theatre Theory and Theory: The Modern Age

F. Required courses (12 credits)

- THR 320 Build Crew or THR 321 Run Crew
- THR 380 Performance Lab 1
- THR 381 Performance Lab 2
- THR 401 Senior Seminar

G. Electives

Majors must complete a minimum of 12 additional upper division credits (300-level courses or higher) chosen from the following:

- CDT 317 Interactive Performance, Media, and MIDI
- CDT 318 Music and the Moving Image
- 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 2)
- 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 2)
- THR 438 Directing I
- THR 439 Directing II

Note 1: THR 224 Experimental Studio may be waived for transfer students.

Note 2: May be repeated once for credit but may only count once toward fulfillment of elective requirements

Note 3: 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.

C. Upper-Division Writing Requirement

Before the end of the second semester of the junior year, each student must register for the 0-credit THR 459 and submit 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

## 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.

**Requirements for 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 credits must be taken at Stony Brook.

Completion of the minor requires a minimum of 19 credits.

## A. Theatre Arts Minor Core Program

1. THR 101 Introduction to Theatre Arts
2. THR 103 Introduction to Theatre Design or THR 105 Acting I
3. THR 115 Stagecraft

## B. Upper-Division Electives

Nine upper-division credits to be chosen from courses in theatre arts (THR) or dance (DAN).

**Sample Course Sequence for the Major in Theatre Arts**

**A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.**

## FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
THR 103	4
THR 104	3
SBC	3
SBC	1
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
THR 105	3
THR 115	4
THR 201	3
Total	14

## SOPHOMORE

<b>FALL</b>	<b>Credits</b>
THR 202	3
ARH 102 or ARS 205 or ARS 154 or CDT 208	3
SBC	3
SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>
MUS 101 or MUS 119 or MUS 130	3
2 of: THR 215, 208, 205, 216, 230, 232, & 354	6
SBC	3
SBC	3
Total	15

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
THR 315 or THR 316	3
THR 320 or THR 321	3
THR elective	3
SBC	3
Elective	3
Total	15

<b>SPRING</b>	<b>Credits</b>
THR 312	3
THR Upper-division elective	3
SBC	3
SBC	3
Upper-division elective	3
Total	15

**SENIOR**

<b>FALL</b>	<b>Credits</b>
THR 401 (Senior Seminar)	3
One of: THR 487, 488, 483, 484	3
THR Upper-division elective	3
Upper-division SBC	3
SBC	3
Total	15

<b>SPRING</b>	<b>Credits</b>

THR Upper-division elective	3
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Elective	3
Total	15

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Turkana Basin Institute Origins Semester Abroad Themed Path (TBO)****SBC Integrated Course Cluster**

Director: Jason Lewis

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

Phone: (631) 632-5800

**Turkana Basin Institute Origins Semester Abroad Themed Path (TBO) SBC Integrated Course Cluster**

The Turkana Basin Institute 'Origins' semester abroad field school is comprised of five sequential two-week course modules that provide 15 credits of 300-level coursework in ecology, archaeology, paleontology, physical anthropology, and geology. This program is a unique opportunity for students interested in the science of humanity's past. It combines the excitement and hands-on experiential learning of a field school with the immersion of a full semester study abroad. The TBI field school offers a balance of hands-on field experience and classroom instruction. It is ideal for students looking to acquire practical field skills in survey methods, vertebrate fossil identification, stone tool technology, and ecology

**Requirements for the Turkana Basin Institute Origins Semester Abroad Themed Path (TBO)**

Completion of the Turkana Basin Institute Origins Semester Abroad themed path requires 15 credits.

Students will earn the Stony Brook Curriculum learning objectives that are attached directly to the course in the program, and, upon completion of the program, students will earn these additional SBC learning objectives: GLO, TECH, EXP+, and ESI.

Note that in order for students to satisfy the SBC learning objectives in this cluster, they must complete the Origins program in its entirety. Courses completed individually will only satisfy the learning objectives that are directly attached to the courses, if any.

The following courses are required for completion of the Turkana Basin Institute Origins themed path:

- ANP 304 Ecology of the Turkana Basin
- ANP 305 Vertebrate Paleontology and Paleoecology of the Turkana Basin
- ANP 306 Human Evolution in the Turkana Basin
- ANT 307 Archaeology of the Turkana Basin
- GEO 303 Geology of the Turkana Basin

**TBO Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/anthropology/faculty/tbi.html>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Turkana Basin Institute Origins Summer Field School Themed Path (TBS)****SBC Integrated Course Cluster**

Director: Jason Lewis

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

Phone: (631) 632-5800

**Turkana Basin Institute Origins Summer Field School Themed Path (TBS) SBC Integrated Course Cluster**

The Turkana Basin Institute Origins Summer Field School is comprised of three sequential two-week course modules that provide 9 credits of 300-level coursework combining ecology, paleontology, physical anthropology, and archaeology. This program addresses the place that humans occupy in the natural world and how we came to occupy that position. This program focuses on hands-on experience in field survey and excavation methods, paleoenvironmental reconstruction, taphonomy and more, and includes field trips to important paleontological and archaeological sites, diverse ecological settings, and remarkable geological features throughout the Turkana Basin. Participants will work directly with leading scientists and do fieldwork at active hominin fossil localities and archaeological excavations, such as at Lomekwi 3, the oldest stone tool site in the world.

**Requirements for the Turkana Basin Institute Origins Summer Field School Themed Path (TBS)**

Completion of the Turkana Basin Institute Origins Summer Field School themed path requires 9 credits. Students will earn the Stony Brook Curriculum learning objectives that are attached directly to the course in the program, and, upon completion of the program, students will earn these additional SBC learning objectives: GLO, TECH, and EXP+. Note that in order for students to satisfy the SBC learning objectives in this cluster, they must complete the Origins Summer program in its entirety. Courses completed individually will only satisfy the learning objectives that are directly attached to the courses, if any.

The following courses are required for completion of the Turkana Basin Institute Summer Field School Themed Path:

- ANP 310 Environments, Ecosystems and Evolution
- ANP 308 Paleoanthropological Field Methods
- ANT 321 Archaeological Field Methods

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**TBS Faculty**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/anthropology/faculty/tbi.html>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Fall 2017-Spring 2018

**Women's and Gender Studies (WST)****Major and Minor in Women's and Gender Studies****Department of Women's, Gender, and Sexuality Studies, College of Arts and Sciences**

Chair: Mary Jo Bona

Undergraduate Program Director: Ritch Calvin

Assistant to the Chair: Jackie Donnelly

Office: Humanities 2048

Phone: (631) 632-1967

Web address: <http://www.stonybrook.edu/commcms/wgss/>

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 and Gender 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 and Gender Studies Majors and Minors

**B. Focused Studies**

One course in each of the following categories (See Note 1)

- Women's and Gender Studies in a Global Context: WST 395 Topics in Global Feminism (or approved other course)
- Gender, Race, and Ethnicity: WST 398 Topics in Gender, Race, and Ethnicity (or approved other course)
- 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):

- AAS 328 Race, Humor, & Asia America
- AAS 331 Japanese Literature in the Feminine Domain
- AAS 392 Soc Sci Topics in Asian & Asian American Studies (approved topic: "Caste & Gender in Hindu Law")
- AFH 382 Black Women's Literature of Diaspora
- AFS 345 Culture & Gender
- AFS 350 Black Women & Social Change
- AFS 370 African-American Family
- AFS 381 AIDS, Race, & Gender in the Black Community
- ANP 403 Seminar in Biological Anthropology (approved topic: "Hormones & Behavior")
- ANT 367 Male & Female
- ARH 391 Topics in Global Art (approved topic: "Images of Women in Visual Culture")
- BIO 358 Biology of Human Social & Sexual Behavior
- CCS 311 Gender & Genre in Film
- CLT 301 Theory of Literature (approved topic: "Queer Modernities")
- EGL 276 Feminism: Literature and Cultural Contexts
- EGL 310 Neoclassical Literature in English (approved topic: "Gender in the 18th Century")
- EGL 350 Major Writers of American Literature, Colonial Period to 1900 (approved topic: "James, Stein, & Woolf")
- EGL 352 Major Writers of 20th Century Literature in English (approved topic: "Virginia Woolf")
- EGL 362 Drama in English (approved topic: "Women in Modern US Drama")
- EGL 371 Topics in Gender Studies in Literature
- EGL 372 Topics in Women & Literature (approved topics: "Ecofeminism," "Mothering, Race, & Gender," "Women Writers")
- EUR 390 Special Topics in European Studies (approved topic: "European Women Writers")
- HIS 336 Women, Work, & Family in Modern European History
- HIS 360 Women in Premodern Europe
- HIS 340 Topics in Asian History (approved topic: "Women in 20th Century China")
- HIS 341 20th Century China
- HIS 392 Topics in European History (approved topic: "The Age of Jane Austen")
- HIS 393 Topics in Modern European History (approved topic: "Sexual Politics in Modern Europe")
- HIS 396 Topics in US History (approved topic: "Women & Work in 20th Century US")
- HIS 401 Colloquium in European History (approved topic: "Heresy & Witchcraft in Middle Ages")
- HUI 231 Sex & Politics in Italian Cinema
- HUI 235 Sex, Love, Tragedy: Early Italian Cinema
- HUI 237 Images of Italian-American Women
- LHD 301 Human Sexual & Gender Development Issues (approved topics: "Dirty Sex," "Gender & Technology," "Love & Power in Hollywood," "Men & Women in Society," "Men in America")
- LHD 302 Colloquium in Human & Gender Development (approved topics: "Gender [& Sex] & Contemporary Media," "Pornography, Media, & AIDS")
- LHD 401 Advanced Seminar in Human Sexual & Gender Development (approved topic: "Fetishes, Freaks, & Addictions")
- MUS 314 Women Making Music
- PHI 284 Intro to Feminist Theory (III)
- PHI 384 Advanced Topics in Feminist Philosophy (III)
- POL 330 Gender Issues & the Law
- POL 347 Women & Politics
- PSY 240 Survey in Social Psychology
- PSY 347 Psychology of Women
- PSY 349 Special Topics in Social Psychology (approved topic: "Women's Health Issues")
- RLS 366 Feminine Spirituality
- SOC 247 Sociology of Gender
- SOC 340 Sociology of Human Reproduction
- SOC 371 Gender & Work
- SOC 390 Special Topics (approved topic: "Gender in Africa")
- SOC 391 Special Topics (approved topics: "Bodies: A Social Primer," "Sociology of Masculinity")
- SOC 394 Special Topics (approved topic: "Globalization, Gender, Migration")
- SPN 410 Theory in Contexts (approved topic: "Money, Sex, & Power")

#### 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.

Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Notes:

1. A list of approved courses which satisfy requirement B may 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 and Gender 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

- WST 111 Introduction to Queer Studies in the Humanities
- WST 112 Introduction to Queer Studies in the Social Sciences
- WST 391 Music and Sexuality
- WST 392 Special Topics in Women and Science (see department for approved topics)
- WST 394 Special Topics in Medicine, Reproduction, and Gender (see department for approved topics)
- WST 399 Topics in Gender and Sexuality (see department for approved topics)
- WST 401 Seminar in Women's and Gender Studies (see department for approved topics)
- WST/SOC 340 Sociology of Reproduction
- WST/AFS 381 AIDS, Race and Gender in the Black Community
- HIS/WST 374 Historical Perspectives on Gender Orientation
- HIS 394 AIDS and Social History
- 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

- WST 310 Contemporary Feminist Issues
- WST 377/PSY 347 Psychology of Women
- WST 391 Special Topics in Women's and Gender Studies in the Humanities (see department for approved topics)
- WST 392 Special Topics in Women and Science (see department for approved topics)
- WST 394 Special Topics in Medicine, Reproduction, and Gender (see department for approved topics)
- WST 395 Topics in Global Feminism (see department for approved topics)
- WST 396 Special Topics in the History of American Women (see department for approved topics)
- WST 397 Social Sciences Topics in Women's and Gender Studies
- WST 398 Topics in Gender, Race, and Ethnicity
- WST/SOC 247 Sociology of Gender
- LHD 301 Human Sexual and Gender Development Issues
- LHD 401 Advanced Seminar in Human Sexual and Gender Development
- WST/SOC 247 Sociology of Gender
- WST/POL 330 Gender and Law
- WST/POL 347 Gender and Politics
- WST/SOC 340 Sociology of Reproduction
- WST/AFS 350 Black Women and Social Change
- WST/SOC 371 Gender and Work
- AAS 392 Gender and Caste in Hindu Law
- AFS 345 Women in Africa and the Caribbean
- CCS 401 Masculinity and Popular Culture
- CFS 308 Violence in the Family
- HIS 300 Race, Gender and Rights/US Legal
- PSY 240 Social Psychology
- SOC 390 Special Topics (see department for approved topics)

#### Honors Program in Women's and Gender Studies

Any Women's and Gender Studies major who has maintained a grade point average (GPA) of 3.50 in the WaGS major and a 3.00 GPA overall are eligible to enroll in the Women's and Gender Studies with honors program. The student must maintain these respective GPAs throughout the duration of the honors program. The student must enroll in the honors program before the end of the junior year. The student must identify a potential faculty member within the department to serve as a mentor, and, with the written approval of the mentor, submit the honors program application, which will describe the honors thesis project.

In the senior year, the student must enroll in WST 495 in the first semester and WST 496 in the second semester, for a total of six credits. This year long sequence of WST 495/496 is in lieu of the general Senior Seminar, WST 408. Since there are two semesters of required coursework, students in the program will complete 39 credits for the major, as opposed to 36 for students not enrolled in the program. The student's honors thesis must be completed no later than four weeks prior to the end of the second semester, to allow for review by the honors committee and to allow for revisions. The honors thesis will be read by the student's mentor and two other CAT faculty members or CAT affiliates.

If the honors program is completed with distinction and the student has achieved a 3.50 GPA in all WaGS courses taken in the senior year, honors are conferred.

#### 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.

Completion of the minor requires 21 credits.

1. WST 102 Introduction to Women's and Gender 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 and Gender 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, 391, 392, 393, 394, 395, 396, 397, 398, or 399.

**Sample Course Sequence for the Major in Women's and Gender Studies**

A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

**FRESHMAN**

<b>FALL</b>	<b>Credits</b>
First Year Seminar 101	1
WRT 101	3
WST 102	3
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>16</b>

<b>SPRING</b>	<b>Credits</b>
First Year Seminar 102	1
WRT 102	3
WST 103	3
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>16</b>

**SOPHOMORE**

<b>FALL</b>	<b>Credits</b>
WST 291	3
SBC	3
SBC	3
SBC	3
Elective	3
<b>Total</b>	<b>15</b>

<b>SPRING</b>	<b>Credits</b>
Major elective	3
SBC	3
SBC	3
Elective	3
Elective	3
<b>Total</b>	<b>15</b>

**JUNIOR**

<b>FALL</b>	<b>Credits</b>
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WST 301	3
WST 395	3
Upper-division elective	3
WST 408	3
SBC	3
Total	15

SPRING	Credits
WST 305	3
WST 398	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	15

## SENIOR

FALL	Credits
Major elective	3
Major elective	3
WST 399	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
WST 488	3
Major elective	3
SBC	3
SBC	3
Elective	3
Total	15

*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: Roger Thompson

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 201 Principles of Professional Writing
- 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 306 Tutor Training
- WRT 380 Advanced Research Writing
- 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.*