About the Bulletin

The information in this publication, which pertains to the Spring 2025 academic semester, is accurate as of January 2025. Circumstances may require that a given course be withdrawn or that alternate offerings be made.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 semester. Typically, the fall edition is published in March and the spring edition is published in October. The March edition of the online bulletin shall encompass academic activities related to Summer Session and Fall semester enrollment. The October edition of the online bulletin shall encompass academic activities related to Winter Session and Spring Semester enrollment. See also, policies on leave of absence and when majors change.
Any information in a printed copy of the Undergraduate Bulletin may be superseded by the appropriate online version. Deadlines to propose changes to the Bulletin are set according to the publication dates. 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 Office of the Provost and Lynn Zawie, Assistant Director, Web Content, Office of Communications & Marketing.

About Stony Brook University

- About Stony Brook University
- Colleges and Schools
- Officers of Administration
- Academic Calendars

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/SUNY IS AN AFFIRMATIVE ACTION, EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER.

This document is available in alternative format upon request. Contact (631) 632-6355.

Consistent with federal and state guidelines, Stony Brook University does not discriminate on the basis of race, sex, sexual orientation, gender identity or expression, religion, age, color, creed, national or ethnic origin, disability, marital status, familial status, pregnancy, genetic predisposition, criminal convictions, domestic violence victim status, and veteran or military status and all other protected classes under federal or state laws in its educational programs or employment. If you are a student or an employee of Stony Brook University and you consider yourself to be a target of discrimination or harassment, you may file a complaint in writing with the Office of Institutional Diversity and Equity. 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, Equal Employment Opportunity Commission, or the Office of Civil Rights.
Any questions concerning this policy or allegations of noncompliance should be directed to:

Office of Institutional Diversity and Equity
Administration Building, Room 201
(631) 632-6280
www.stonybrook.edu/oide

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
Student Accessibility Support Center (SASC)

Stony Brook Union Suite 107
Stony Brook University
Stony Brook, NY 11794-3216
(631) 632-6748/9, V/TDD

Student Responsibility

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

Student Consumer Information

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

Additional Information

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

Office of Undergraduate Admissions
Stony Brook University
Stony Brook, New York 11794-1901
(631) 632-6868
Fax (631) 632-9898
TDD (631) 632-6859

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

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

Student Services

- Campus Bookstore
- Division of Information Technology
- Division of Student Affairs
  - Campus Residences
  - Career Center
  - Student Health, Wellness, & Prevention Services
  - Student Life
- Division of Undergraduate Education
  - Academic and Transfer Advising Services
  - Academic Success and Tutoring Center
  - Undergraduate Colleges
- Enrollment and Retention Management
  - Office of Financial Aid and Scholarship Services
  - Office of the Registrar
- Math Learning Center
- Office of Global Affairs
  - Intensive English Center
  - Visa and Immigration Services
- The Ombuds Office
- Stony Brook Child Care Services
- Stony Brook University Libraries
- The Writing Center

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.

- Advanced Placement Credit
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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
African American Studies*	African American Studies	4 or 5	AFS 101		F	CER, SBS, USA
Africana Studies	Africana Studies	3	None	3	F	SBS, USA
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	4	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	SUS 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, DIV
	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	none	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	3	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
Precalculus	Precalculus	5	MAT 123, Placement 5	3	Skill 1	none

Precalculus	Precalculus	4	MAT 123, Placement 4	3	Skill 1	none
Precalculus	Precalculus	3	MAP 103, Placement 3	3	Skill 1	none
Psychology	Psychology	4 or 5	PSY 103	3	F	SBS, CER
	Psychology	3	none	3	F	SBS
Research	Research	3,4 or 5	none	3	none	none
Seminar	Seminar	3,4 or 5	none	3	none	none
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

*Note: The College Board is piloting the AP Exam in African American Studies beginning in academic year 2022-23

Placement Tests

The university offers placement tests that evaluate the level of preparation of each student in foreign language, mathematics and writing. 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.
Foreign Language Placement

Math Placement

Writing Placement

Foreign Language Placement

Foreign Placement Exam Score	Placement into…	SBC
1	Language 111	
2	Language 112	LANG_PART
3	Language 211	LANG
4	Language 212	LANG
5	See Department	LANG

Math Placement

Math Placement Exam Score	Placement into…	SBC
1	MAP 101 advised, MAP 103 possible	
2	MAP 103	
2+	MAT 118 or Statistics or MAT 119+MAT 123	
3	MAT 122 or MAT 123	
3+	MAT 130+MAT 125	
4	MAT 125; MAT 200	
5	MAT 131 or AMS 151	
6	MAT 126	QPS*
7	MAT 132 or AMS 161; MAT 211 or AMS 210; MAT 250	QPS*
8	MAT 127	QPS*

9	Beyond 100-level calculus	QPS*

*Scores on unproctored math placement exams are used only for registration purposes. Only proctored math placement exams with scores of 6 or higher will fulfill QPS and major/minor requirements.

Note: Higher level placements may take courses with lower level placements as long as the student does not already have credit for that course. For example, a student with placement level 6 could take MAT 131 and MAT 200, if desired.

Writing Placement

See chart below for additional information.

Every student must demonstrate a sufficient 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 in writing courses in the Program in Academic English (WAE 190, WAE 192, WAE 194) and/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 Exam.**

SAT Evidence-Based Reading and Writing Score

Students with an Evidence-Based Reading and Writing (EBRW) 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 exam of students with an Evidence-Based Reading and Writing score (EBRW) below 580 to determine placement into the appropriate writing course.**

ACT English Language Arts Score

Students with an English Language Arts (ELA)* 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 exam of students with an English Language Arts (ELA)* score below 23 to determine placement into the appropriate writing course.**

***Without a writing test score, no English Language Arts (ELA) score will be reported.**

AP Scores

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 https://www.stonybrook.edu/sb/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.

Online Writing Placement Exam

All matriculating students 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 exam. Students will read excerpts from source texts and respond to a writing prompt. This 30-60 minute online writing exam will be made available to students as described below. Failure to complete the online writing exam 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 exam will be contacted about this by the Program in Writing and Rhetoric via email in late May of students' intended year of matriculation.

Transfer Students

Transfer students who are instructed to complete the online writing placement exam should email Jilleen.May@stonybrook.edu to request access to the exam. Please plan for a two (2) business day response time.

Final Placement

In the first week of WRT and WAE class, faculty may ask students to complete a writing sample 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

Evidence-Based Reading and Writing			
SAT ***Evidence-Based Reading and Writing***	Below 580	Online writing exam evaluated for placement	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
ACT ***English Language Arts***	23 or higher	Waived from WRT 101	WRT 102
ACT ***English Language Arts***	Below 23	Online writing diagnostic evaluated for placement	WAE 190, WAE 192, WAE 194, WRT 101 or WRT 102
AP ***English Language/ Composition***	3 or higher	Waived from WRT 101	WRT 102
AP ***English Literature/ Composition***	3 or higher	Waived from WRT 101	WRT 102
Transfer Credit ***English Composition (course equivalent to*** WRT 101***)***	C or higher	Waived from WRT 101	WRT 102
Transfer Credit ***English Composition (course equivalent to*** WRT 102***)***	C or higher	Waived from WRT 101 and WRT 102	WRT completed

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 are guaranteed junior standing*. 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.

**Junior standing denotes 57-84 credits earned; it does not indicate that graduation is guaranteed after two years. Graduation is determined by successful completion of university and major-specific degree requirements, and some transfer credits may not count toward degree requirements.*

4. Transfer credit is entered on the official University transcript, and may not be removed from the official transcript once posted. 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. 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.

10. 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.

11. 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.

12. Students will receive transfer credit for a maximum of four credits of 100-level physical education courses.

13. 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. Visit College Board at: apscore.org (school code 2548).

14. 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.

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.

Financial Information

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
- Financial Aid
- Types of Financial Aid
- Cost

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 June 15th for Session 1 and July 15th for Summer Session 2. Billing information is available online at https://www.stonybrook.edu/commcms/summer/tuition-and-aid.php

Winter Session billing information is available online at https://www.stonybrook.edu/commcms/winter/financial.php

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

Housing Agreement Cancellation, Termination, and Financial Liability Information

Housing cancellations prior to posted deadlines are eligible for a $100 credit of the deposit. After a student moves into their housing assignment, they are financially liable until the end of the agreement period. Please see the related housing website for the most up to date information on this information: https://www.stonybrook.edu/commcms/studentaffairs/res/housing/financial_liability.php

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 Meal Plan Fee

Because the meal plan is an annual agreement, students who withdraw from the University or graduate mid-year from the University must notify the Meal Plan Office. If students do not notify the Meal Plan Office of their departure, they will be charged the full amount of the meal plan. Meal plans will be prorated weekly.
For more information, consult the meal plan website at 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.

Records & Registration

- The SOLAR System
- Degree Audit Tool (Degree Works)
- Change of Address
- Registering for Classes
- Late Registration
- Add/Drop Period
- Closed Courses and Courses Requiring Permission
- First-Week Attendance
- Enrollment Status
- Course Load and Course Withdrawal
- Final Examinations
- Taking Time Off
- Grading and the Grading System
- Courses without G/P/NC option
- Curriculum Policies

- Course Prerequisites and Placement
- Multiple Registrations for the Same Course
- Transferring Coursework after Matriculation
- Academic Credit by Examination and Other Credit Options
- Transcripts
- Application for Graduation
- Degrees Awarded Posthumously

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/. **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. 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 https://www.stonybrook.edu/commcms/registrar/registration/timeoff.php, and Request can be found at https://www.stonybrook.edu/commcms/registrar/forms/forms.php.

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.

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.

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.

Drop-Down Period

Select freshman-level mathematics, and physics courses have an extended add/drop period, usually after students have been notified of the results of the first exam, allowing students to drop-down to a less advanced level course.

In order to seek approval for an allowable drop down transaction (see below), students must complete a Drop-down Form and obtain signatures from both the new course instructor or Undergraduate Program Director of that course's department and their academic advisor. Once processed by the Registrar's Office, the student's original course will be replaced on their transcript with the drop-down course.

This process may only be completed after the add/drop deadline, but before the Drop-down deadline as published in the academic calendar. All other course changes after the deadline will result in a "W" on the student's record and/or may require a petition for an academic exception, if appropriate.

When obtaining required signatures, students should discuss how this change may impact degree progress, as well as the basis for grading in the new course. Dropping down to a course in which credit was previously earned (e.g. MAT 131/AP) may impact financial aid awards.

The following are the **only** allowable drop-down transactions:

- MAT 127 to AMS 161 or MAT 132
- MAT 127 to MAT 126
- AMS 161 or MAT 132 to MAT 126
- AMS 161 or MAT 132 to AMS 151 or MAT 131
- MAT 126 to AMS 151 or MAT 131
- MAT 126 to MAT 125
- AMS 151 or MAT 131 to MAT 125
- AMS 151 or MAT 131 to MAT 123
- MAT 125 to MAT 123
- MAT 123 to MAP 103
- PHY 141 to PHY 131
- PHY 141 to PHY 125
- PHY 131 to PHY 125
- PHY 142 to PHY 132
- PHY 142 to PHY 127
- PHY 132 to PHY 127

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 Notes #3-6.

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 or have withdrawn in any previous semester 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. For continuing students the credit limit during advance preregistration is 17 credits. Certain programs have exceptions to these limits. This credit limit applies to all students until either the end of summer orientation or the business day before the start of classes (whichever is later).

At that point, the limit is raised to 19 credits. Students that are eligible and subsequently register for more than 19 credits may be subject to an overload fee. An overload is considered when students register for more than 19 credits for the fall or spring semesters.

4. The combined total of registered and waitlisted credits is 19 credits at any point during the registration period.

5. Students enrolled in more than 19 credits (overload) will be charged an overload fee.
6. Newly matriculated students in their first fall or spring semester are held to a credit limit of 17, except for those noted below:

Newly Matriculated Major or Group	*Credit Limit*
Biomedical Engineering Majors	18
Chemical and Molecular Engineering Majors	19
Special Programs: Honors, WISE, and USCH	18

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

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.

Involuntary Leave

Requiring a student to take a leave of absence is rare and only happens when current medical knowledge and/or
the best available objective evidence indicates to the President's designee(s) at the University that there is a significant risk to the student's health or safety, or the health or safety of others in the Campus community, or the student's behavior severely disrupts the College or University environment, where no reasonable accommodations can adequately reduce that risk or disruption.

The institution offers a range of resources, support services, and accommodations to address the physical and mental health needs of students. However, on rare occasions, a student's needs may require a level of care that exceeds the care that the institution can appropriately provide. Where current knowledge about the individual's medical condition and/or the best available objective evidence indicates that a student poses a significant risk to their own safety not based on mere speculation, stereotypes, or generalizations, or the health and safety of others in the Campus community, or where a student's behavior severely disrupts the College or University environment and the student does not take a voluntary leave of absence, the President's designee(s) has the authority to place a student on an involuntary leave of absence, after appropriate procedural due process has occurred according to the SUNY policy found here.

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	OFFICE
International Students (F1, F2, J1, J2 Visas)	Visa and Immigration Services
EOP/AIM Students	EOP/AIM Office
Honors College Students	The Honors College
Athletes	Athletics Academic Advising
Freshmen (First two semesters)	Undergraduate 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.

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 two consecutive Fall/Spring semesters following the semester 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. Effective Fall 2019, students in the 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 two consecutive Fall/Spring 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 and Winter terms are not considered to be semesters and credits earned during the Summer/Winter do not count toward maintaining matriculation. Students rematriculating and returning in a Summer term follow the academic requirements in effect for the Fall semester following their Summer rematriculation, and students rematriculating and returning in a Winter term follow the academic requirements in effect for the Spring semester following their Winter rematriculation.

3. Effective Fall 2019, College of Engineering and Applied Sciences students will be assigned a new matriculation date after two semesters 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 satsify 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.

8. Students rematriculating in the first fall/spring semester immediately following mandatory military service, may request an exception to follow requirements in effect at the time of their leave. To be eligible for such consideration, students must provide documentation demonstrating the start and end date of their service.

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).
2. 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.
3. Courses graded P may be used to satisfy the university upper-division credit requirement.
4. 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.

5. 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.
6. Students may elect the GPNC option for no more than one course per term.
7. The Registrar does not communicate to the instructor of a course the names of students who elect the GPNC option.
8. 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.
9. 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.
10. 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.). 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

See Curriculum Policies

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, CIV, CME, EEO, 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.

Courses without G/P/NC option

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

Subject	Number	Title	Grade Basis
AAS	444	Experiential Learning	Satisfactory/Unsatisfactory
AAS	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
AAS	459	Write Effectively	Satisfactory/Unsatisfactory
AAS	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
AAS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
AAS	488	Internship	Satisfactory/Unsatisfactory
ACC	210	Financial Accounting	A Through F Undergraduate
ACC	214	Mngrl Cost Analysis and App	A Through F Undergraduate
ACC	310	Intermediate Accounting I	A Through F Undergraduate
ACC	311	Federal Income Taxation I	A Through F Undergraduate
ACC	314	Federal Income Taxation II	A Through F Undergraduate
ACC	315	Accounting for Small Bus Entrp	A Through F Undergraduate
ACC	400	External Auditing	A Through F Undergraduate
ACC	214	Mngrl Cost Analysis and App	A Through F Undergraduate
ADV	101	Advising 101: Transfer Seminar	Satisfactory/Unsatisfactory

ADV	201	Preparing for Medical School	Satisfactory/Unsatisfactory
ADV	202	Academic Success Seminar	ABC/U Grading
ADV	475	Undergraduate Teaching Practic	Satisfactory/Unsatisfactory
ADV	476	Undergraduate Teaching Practic	Satisfactory/Unsatisfactory
ADV	488	ATAS Internship	Satisfactory/Unsatisfactory
AFH	444	Experiential Learning	Satisfactory/Unsatisfactory
AFH	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
AFH	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
AFS	283	Community Service	Satisfactory/Unsatisfactory
AFS	444	Experiential Learning	Satisfactory/Unsatisfactory
AFS	459	Write Effectively	Satisfactory/Unsatisfactory
AFS	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
AFS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
AFS	488	Internship	Satisfactory/Unsatisfactory
AIM	102	Expository Writing	Remedial
AIM	104	Lit Analysis, Critical Reasoni	ABC/U Grading
AMR	444	Experiential Learning	Satisfactory/Unsatisfactory
AMR	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
AMR	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
AMR	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
AMR	488	Internship	Satisfactory/Unsatisfactory
AMS	300	Writing in Applied Mathematics	Satisfactory/Unsatisfactory
AMS	320	Quant Finance	A Through F Undergraduate
AMS	325	Computing and Programming Fundamentals in Applied Mathematics and Statistics	A Through F Undergraduate
AMS	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
AMS	459	Write Effectively	Satisfactory/Unsatisfactory
AMS	475	Undergrad Teachng Practicum	A Through F Undergraduate
AMS	476	Undergrad Teaching Practicum	A Through F Undergraduate
ANP	444	Experiential Learning	Satisfactory/Unsatisfactory
ANP	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
ANP	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
ANP	488	Internship in Biologica Anthro	Satisfactory/Unsatisfactory
ANT	444	Experiential Learning	Satisfactory/Unsatisfactory
ANT	458	Speak Effectively Before an Au	Satisfactory/Unsatisfactory
ANT	459	Write Effectively	Satisfactory/Unsatisfactory
ANT	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
ANT	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
ANT	488	Internship	Satisfactory/Unsatisfactory
ARH	299	Gallery Management Workshop	Satisfactory/Unsatisfactory
ARH	444	Experiential Learning	Satisfactory/Unsatisfactory
ARH	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
ARH	459	Write Effectively in Art Histo	Satisfactory/Unsatisfactory
ARH	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
ARH	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory

ARH	488	Internship	Satisfactory/Unsatisfactory
ARS	299	Studio Management Workshop	Satisfactory/Unsatisfactory
ARS	355	Anatomical/Bio Illustration	A Through F Undergraduate
ARS	444	Experiential Learning	Satisfactory/Unsatisfactory
ARS	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
ARS	459	Write Effectively/Studio Art	Satisfactory/Unsatisfactory
ARS	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
ARS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
ARS	488	Internship	Satisfactory/Unsatisfactory
ASC	101	Prac. Engaging Presentations	Satisfactory/Unsatisfactory
AST	444	Experiential Learning	Satisfactory/Unsatisfactory
AST	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
AST	459	Write Effectively in Astronomy	Satisfactory/Unsatisfactory
AST	475	Teaching Practicum in Astronom	Satisfactory/Unsatisfactory
AST	487	Senior Research in Astronomy	Satisfactory/Unsatisfactory
ATM	444	Experiential Learning	Satisfactory/Unsatisfactory
ATM	488	Internship	Satisfactory/Unsatisfactory
BCP	400	Writing in Pharmacology	Satisfactory/Unsatisfactory
BCP	444	Experiential Learning	Satisfactory/Unsatisfactory
BCP	475	Undergrad Teaching Pract Pharm	Satisfactory/Unsatisfactory
BCP	488	Internship	Satisfactory/Unsatisfactory
BIO	444	Experiential Learning	Satisfactory/Unsatisfactory
BIO	446	Readings in Neurobio & Physiol	Satisfactory/Unsatisfactory
BIO	447	Readings in Molec Cell Dev Bio	Satisfactory/Unsatisfactory
BIO	449	Readings in Ecology & Evolutn	Satisfactory/Unsatisfactory
BIO	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
BIO	459	Write Effectively	Satisfactory/Unsatisfactory
BIO	475	Teachng Pract. College Bio I	Satisfactory/Unsatisfactory
BIO	476	Teachng Pract. College Bio II	Satisfactory/Unsatisfactory
BIO	484	Research in Biology & Society	Satisfactory/Unsatisfactory
BIO	486	Rsrch in Neurobiology & Physio	Satisfactory/Unsatisfactory
BIO	487	Rsrch in Molec Cell & Dev Bio	Satisfactory/Unsatisfactory
BIO	488	Internship in Biological Scien	Satisfactory/Unsatisfactory
BIO	489	Rsrch in Ecology & Evolution	Satisfactory/Unsatisfactory
BME	120	BME Programming Fundamentals	A Through F Undergraduate
BME	203	Emergent Biodesign	A Through F Undergraduate
BME	260	Stat and Dyn Bio Systems	A Through F Undergraduate
BME	271	Circuits and Bioelectricity	A Through F Undergraduate
BME	300	Writing in Biomed Engrng	Satisfactory/Unsatisfactory
BME	301	Bioelectricity	A Through F Undergraduate
BME	311	Bioimaging	A Through F Undergraduate
BME	312	LabVIEW Programming	A Through F Undergraduate
BME	353	Introduction to Biomaterials	A Through F Undergraduate
BME	354	Advanced Biomaterials	A Through F Undergraduate
BME	361	Data Science with Python	A Through F Undergraduate
BME	371	Biological Microfluidics	A Through F Undergraduate

BME	402	Contemporary Biotechnology	A Through F Undergraduate
BME	430	Quant Human Physiology	A Through F Undergraduate
BME	440	Biomedical Engrng Design	A Through F Undergraduate
BME	441	Sr Design Proj in Biomed Eng	A Through F Undergraduate
BME	444	Experiential Learning	Satisfactory/Unsatisfactory
BME	475	Undergrad Teaching Practicum	A Through F Undergraduate
BME	476	Undergrad Teaching Practicum	A Through F Undergraduate
BME	488	Biomedical Engnrng Internship	A Through F Undergraduate
BME	494	Honors Seminar on Research	A Through F Undergraduate
BME	495	Honors Independent Research	A Through F Undergraduate
BUS	215	Intro to Business Statistics	A Through F Undergraduate
BUS	220	Intro to Decision Sciences	A Through F Undergraduate
BUS	294	Principles of Management	A Through F Undergraduate
BUS	300	Writing for Business Mngmnt	Satisfactory/Unsatisfactory
BUS	301	Business Communications	A Through F Undergraduate
BUS	325	Legal Environment of Business	A Through F Undergraduate
BUS	326	Organizational Behavior	A Through F Undergraduate
BUS	330	Principles of Finance	A Through F Undergraduate
BUS	331	International Finance	A Through F Undergraduate
BUS	332	Entrepreneurial Finance	A Through F Undergraduate
BUS	333	Intro. BUS. Real Estate	A Through F Undergraduate
BUS	334	Consumer Advertising/Promotion	A Through F Undergraduate
BUS	336	Mergers & Acquisitions	A Through F Undergraduate
BUS	337	Entrprnshp Across Countries	A Through F Undergraduate
BUS	340	Information Systms in Managmnt	A Through F Undergraduate
BUS	346	Operations Management	A Through F Undergraduate
BUS	348	Principles of Marketing	A Through F Undergraduate
BUS	351	Human Resource Management	A Through F Undergraduate
BUS	353	Entrepreneurship	A Through F Undergraduate
BUS	354	Business Agreements	A Through F Undergraduate
BUS	355	Investment Analysis	A Through F Undergraduate
BUS	356	Financial Analysis with Excel	A Through F Undergraduate
BUS	357	Principles of Sales	A Through F Undergraduate
BUS	358	Marketing Research	A Through F Undergraduate
BUS	359	Consumer Behavior	A Through F Undergraduate
BUS	361	Retail Management	A Through F Undergraduate
BUS	362	Prnciples of Int'l Marketing	A Through F Undergraduate
BUS	363	Brand Management	A Through F Undergraduate
BUS	365	Financial Management	A Through F Undergraduate
BUS	366	Money and Financial Inst.	A Through F Undergraduate
BUS	369	Marketing of New Products	A Through F Undergraduate
BUS	370	Lean Practices in Operations	A Through F Undergraduate
BUS	371	Supply Chain Management	A Through F Undergraduate
BUS	372	Quality Management	A Through F Undergraduate
BUS	375	Data Mining	A Through F Undergraduate
BUS	376	Risk Management & Insurance	A Through F Undergraduate

BUS	377	Risk Management & Insurance II	A Through F Undergraduate
BUS	380	Honors - Rsch Methods	A Through F Undergraduate
BUS	383	Social Entrepreneurship	A Through F Undergraduate
BUS	390	Special Topics in Bus Mgt.	A Through F Undergraduate
BUS	391	Mgt. of Sports Organizations	A Through F Undergraduate
BUS	393	Principles of Project Mgt	A Through F Undergraduate
BUS	399	IP Strategy	A Through F Undergraduate
BUS	401	Negotiation Workshop	A Through F Undergraduate
BUS	440	International Management	A Through F Undergraduate
BUS	441	Business Strategy	A Through F Undergraduate
BUS	446	Business Ethics through Film	A Through F Undergraduate
BUS	447	Business Ethics	A Through F Undergraduate
BUS	448	Marketing Strategy	A Through F Undergraduate
BUS	449	Marketing Client Project	A Through F Undergraduate
BUS	468	Risk Arbitrage	A Through F Undergraduate
BUS	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
BUS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
BUS	487	Independent Research	A Through F Undergraduate
BUS	488	Internship	Satisfactory/Unsatisfactory
BUS	495	Business Honors Program Thesis	A Through F Undergraduate
BUS	496	Business Honors Program Thesis	A Through F Undergraduate
CCS	444	Experiential Learning	Satisfactory/Unsatisfactory
CCS	458	Speak Effectively/Audience	Satisfactory/Unsatisfactory
CCS	459	Write Effectively in CCS	Satisfactory/Unsatisfactory
CCS	475	Undergrad Teachng Practicum	Satisfactory/Unsatisfactory
CCS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
CCS	488	Internship	Satisfactory/Unsatisfactory
CDT	488	Internship	Satisfactory/Unsatisfactory
CHE	125	Chemistry Learning Strategies	ABC/U Grading
CHE	130	Problem Solving in Generl Chem	Satisfactory/Unsatisfactory
CHE	385	Tools of Chemistry	ABC/U Grading
CHE	386	Professional Skills	Satisfactory/Unsatisfactory
CHE	444	Experiential Learning	Satisfactory/Unsatisfactory
CHE	459	Write Effectively	Satisfactory/Unsatisfactory
CHE	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
CHE	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
CHE	477	Undergrad Teaching Pract. III	Satisfactory/Unsatisfactory
CHE	488	Internship	Satisfactory/Unsatisfactory
CHI	444	Experiential Learning	Satisfactory/Unsatisfactory
CHI	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
CHI	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
CIV	355	Data Analytics for Civil Engineering	A Through F Undergraduate
CIV	203	Autocad Basics	A Through F Undergraduate
CIV	210	Land Surveying	A Through F Undergraduate
CIV	300	Technical Communication	A Through F Undergraduate

CIV	305	TRANSP SYS I	A Through F Undergraduate
CIV	306	TRANSP SYS II	A Through F Undergraduate
CIV	310	Structural Engineering	A Through F Undergraduate
CIV	312	Steel & Concrete Design	A Through F Undergraduate
CIV	320	Water Treatment Design	A Through F Undergraduate
CIV	330	Intro. to Geotech. Eng.	A Through F Undergraduate
CIV	340	CE Materials Lab	A Through F Undergraduate
CIV	341	Geotech Lab	A Through F Undergraduate
CIV	342	CE Hydraulics Lab	A Through F Undergraduate
CIV	350	Num Analysis for Civ Eng	A Through F Undergraduate
CIV	364	Fluid Mechanics	A Through F Undergraduate
CIV	393	Construction Management	A Through F Undergraduate
CIV	407	Transportation Economics	A Through F Undergraduate
CIV	410	PRIN FOUND ENG	A Through F Undergraduate
CIV	411	Matrix Structural Analysis	A Through F Undergraduate
CIV	412	Steel and Concrete Design II	A Through F Undergraduate
CIV	420	Hydraulics	A Through F Undergraduate
CIV	422	Coastal Engineering	A Through F Undergraduate
CIV	423	Coastal Design	A Through F Undergraduate
CIV	424	Stormwater Management & Design	A Through F Undergraduate
CIV	426	Environ. Bio. Process	A Through F Undergraduate
CIV	432	Vibration Mechanics	A Through F Undergraduate
CIV	436	Prestressed Concrete Design	A Through F Undergraduate
CIV	440	Senior Design I	A Through F Undergraduate
CIV	441	Senior Design II	A Through F Undergraduate
CIV	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
CIV	476	Instr. Lab Development Pract.	A Through F Undergraduate
CIV	488	Civil Engineering Internship	A Through F Undergraduate
CIV	491	Topics in Civil Engineering	A Through F Undergraduate
CIV	499	Independent Research	A Through F Undergraduate
CLL	444	Experiential Learning	Satisfactory/Unsatisfactory
CLS	444	Experiential Learning	Satisfactory/Unsatisfactory
CLS	475	Undergrad Teachng Practicum	Satisfactory/Unsatisfactory
CLT	444	Experiential Learning	Satisfactory/Unsatisfactory
CLT	444	Experiential Learning	Satisfactory/Unsatisfactory
CLT	458	Speak Effectively/Audience	Satisfactory/Unsatisfactory
CLT	459	Write Effectively/Comp Lit	Satisfactory/Unsatisfactory
CLT	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
CLT	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
CME	233	Ethics and Bus Prac for Eng	A Through F Undergraduate
CME	300	Writing in Chem & Molec Engrg	Satisfactory/Unsatisfactory
CME	321	Intro to cGMP	A Through F Undergraduate
CME	350	Comp EnTech	A Through F Undergraduate
CME	355	Chemical Process Safety	A Through F Undergraduate
CME	360	Nanomaterials and Applications	A Through F Undergraduate

CME	369	Polymer Engineering	A Through F Undergraduate
CME	372	Colloids, Micelles & Emul Sci	A Through F Undergraduate
CME	375	Corrosion and Protection	A Through F Undergraduate
CME	405	Process Control	A Through F Undergraduate
CME	425	Intro to Catalysis	A Through F Undergraduate
CME	460	Nanosystems	A Through F Undergraduate
CME	475	Undergraduate Teaching Prac	A Through F Undergraduate
CME	480	Cell Bio for Chemical Eng	A Through F Undergraduate
CME	481	Advanced Cell Bio for CE	A Through F Undergraduate
CME	490	Prep Chem Eng Fund Eng Exam	Satisfactory/Unsatisfactory
CME	491	Sust Ren Energy	A Through F Undergraduate
CSE	114	Intro to Object-Oriented Prog	A Through F Undergraduate
CSE	150	Fndtns Comp Sci: Honors	A Through F Undergraduate
CSE	160	Comp Sci A: Honors	A Through F Undergraduate
CSE	161	Lab for Comp Sci A: Honors	A Through F Undergraduate
CSE	214	Data Structures	A Through F Undergraduate
CSE	215	Foundations of Comp Science	A Through F Undergraduate
CSE	216	Programming Abstractions	A Through F Undergraduate
CSE	219	Computer Science III	A Through F Undergraduate
CSE	220	Systems Fundamentals I	A Through F Undergraduate
CSE	260	Comp Sci B: Honors	A Through F Undergraduate
CSE	261	Lab for Comp Sci B: Honors	A Through F Undergraduate
CSE	300	Technical Communications	A Through F Undergraduate
CSE	303	Intro to Theory of Computation	A Through F Undergraduate
CSE	304	Compiler Design	A Through F Undergraduate
CSE	305	Principles of Database Systems	A Through F Undergraduate
CSE	306	Operating Systems	A Through F Undergraduate
CSE	307	Principles of Progr Languages	A Through F Undergraduate
CSE	310	Computer Networks	A Through F Undergraduate
CSE	311	Systems Administration	A Through F Undergraduate
CSE	312	Legal Issues in Info Systems	A Through F Undergraduate
CSE	316	Software Development	A Through F Undergraduate
CSE	320	Systems Fundamentals II	A Through F Undergraduate
CSE	323	Human-Computer Interaction	A Through F Undergraduate
CSE	327	Computer Vision	A Through F Undergraduate
CSE	328	Fundamentals of Comp Graphics	A Through F Undergraduate
CSE	331	Computer Security Fundamentals	A Through F Undergraduate
CSE	332	Introduction to Visualization	A Through F Undergraduate
CSE	333	User Interface Development	A Through F Undergraduate
CSE	334	Intro to Multimedia Systems	A Through F Undergraduate
CSE	336	Internet Programming	A Through F Undergraduate
CSE	337	Scripting Languages	A Through F Undergraduate
CSE	350	Theory of Computation: Honors	A Through F Undergraduate
CSE	351	Introduction to Data Science	A Through F Undergraduate
CSE	352	Artificial Intelligence	A Through F Undergraduate
CSE	353	Machine Learning	A Through F Undergraduate

CSE	354	Natural Language Processing	A Through F Undergraduate
CSE	356	Cloud Computing	A Through F Undergraduate
CSE	357	Statistics for Data Science	A Through F Undergraduate
CSE	360	Software Security	A Through F Undergraduate
CSE	361	Web Security	A Through F Undergraduate
CSE	362	Mobile Security	A Through F Undergraduate
CSE	363	Offensive Security	A Through F Undergraduate
CSE	364	Advanced Multimedia Techniques	A Through F Undergraduate
CSE	366	Intro to Virtual Reality	A Through F Undergraduate
CSE	370	Wireless and Mobile Networking	A Through F Undergraduate
CSE	371	Logic	A Through F Undergraduate
CSE	377	Intro to Medical Imaging	A Through F Undergraduate
CSE	378	Intro to Robotics	A Through F Undergraduate
CSE	380	2D Game Programming	A Through F Undergraduate
CSE	381	3D Game Programming	A Through F Undergraduate
CSE	385	Analysis of Algorithms: Honors	A Through F Undergraduate
CSE	390	Topics in Computer Science	A Through F Undergraduate
CSE	391	Topics in Computer Science	A Through F Undergraduate
CSE	392	Topics in Computer Science	A Through F Undergraduate
CSE	393	Topics in Computer Science	A Through F Undergraduate
CSE	394	Topics in Computer Science	A Through F Undergraduate
CSE	416	Software Engineering	A Through F Undergraduate
CSE	475	Undergrad Teaching Practicum	A Through F Undergraduate
CSE	487	Research in Computer Science	A Through F Undergraduate
CSE	488	Internship in Computer Science	Satisfactory/Unsatisfactory
CSE	495	Sr Honors Research Project I	A Through F Undergraduate
CSE	496	Sr Honors Research Project II	A Through F Undergraduate
CWL	444	Experiential Learning	Satisfactory/Unsatisfactory
DAN	444	Experiential Learning	Satisfactory/Unsatisfactory
DAN	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
DAN	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
DAN	488	Internship	Satisfactory/Unsatisfactory
DIA	444	Experiential Learning	Satisfactory/Unsatisfactory
EAS	101	Engineering & Applied Science	Satisfactory/Unsatisfactory
EBH	444	Experiential Learning	Satisfactory/Unsatisfactory
EBH	447	Readings/HumanEvolutionary Bio	Satisfactory/Unsatisfactory
EBH	458	Speak Effectively Before an Au	Satisfactory/Unsatisfactory
EBH	459	Write Effectively in EBH	Satisfactory/Unsatisfactory
EBH	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
EBH	476	UndergradTeaching Practicum II	Satisfactory/Unsatisfactory
EBH	487	Research/Human EvolutionaryBio	Satisfactory/Unsatisfactory
EBH	488	Internship in Human Evol Bio	Satisfactory/Unsatisfactory
ECO	359	Reading and Writing/Economics	Satisfactory/Unsatisfactory
ECO	444	Experiential Learning	Satisfactory/Unsatisfactory
ECO	459	Write Effectively in Economics	Satisfactory/Unsatisfactory
ECO	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory

ECO	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
ECO	488	Internship in Economics	Satisfactory/Unsatisfactory
EDP	444	Experiential Learning	Satisfactory/Unsatisfactory
EDP	487	Research in EDP	Satisfactory/Unsatisfactory
EDP	488	Internship in EDP	Satisfactory/Unsatisfactory
EEO	124	C Prog for EE	A Through F Undergraduate
EEO	218	Digital Logic Design	A Through F Undergraduate
EEO	219	Digital Logic Design Lab	A Through F Undergraduate
EEO	224	OOP for Elec & Comp Eng	A Through F Undergraduate
EEO	271	Electrical Circuit Analysis I	A Through F Undergraduate
EEO	300	Tech Comm EE Eng	A Through F Undergraduate
EEO	301	Signals and Systems	A Through F Undergraduate
EEO	302	Eng Ethics Soc Impact	A Through F Undergraduate
EEO	303	Digital Signal Processing	A Through F Undergraduate
EEO	304	Elec Instr Op Amps	A Through F Undergraduate
EEO	306	Random Signals & Systems	A Through F Undergraduate
EEO	311	Electronics Circuits II	A Through F Undergraduate
EEO	314	Mos Transistor Modeling	A Through F Undergraduate
EEO	315	Electronics Circuits I	A Through F Undergraduate
EEO	316	Int Elect Dev Circ	A Through F Undergraduate
EEO	319	Electromagnetic Waves and Transmission Lines	A Through F Undergraduate
EEO	331	Intro to Semiconductor Devices	A Through F Undergraduate
EEO	340	Nanotechnology, Engg, and Sci	A Through F Undergraduate
EEO	346	Computer Communications	A Through F Undergraduate
EEO	352	Electronics Laboratory I	A Through F Undergraduate
EEO	353	Electronics Laboratory II	A Through F Undergraduate
EEO	363	Fiber Optic Communications	A Through F Undergraduate
EEO	366	Mixed Signal Systems on Chip	A Through F Undergraduate
EEO	388	Foundations of Machine Learning	A Through F Undergraduate
EEO	401	RF/Microwave Circuits	A Through F Undergraduate
EEO	414	Fundamentals of Low Noise Electronics for Sensors	A Through F Undergraduate
EEO	415	Intro to Microelecmec Sys	A Through F Undergraduate
EEO	425	Elec Mach and Energy Conv	A Through F Undergraduate
EEO	440	Engineering Design I	A Through F Undergraduate
EEO	441	Engineering Design II	A Through F Undergraduate
EEO	470	REN DSTRBTD GEN & STOR	A Through F Undergraduate
EEO	475	Undergraduate Teaching Practicum	A Through F Undergraduate
EEO	482	Power Sys Engg I	A Through F Undergraduate
EEO	488	Internship in EE	A Through F Undergraduate
EEO	499	Research in Electrical Engineering	A Through F Undergraduate
EGL	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory
EGL	444	Experiential Learning	Satisfactory/Unsatisfactory
EGL	449	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory

EGL	450	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
EGL	451	Supvsd Tchng Eng Grade 7-9	Satisfactory/Unsatisfactory
EGL	452	Supvsd Tchng Eng Grade 10-12	Satisfactory/Unsatisfactory
EGL	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
EGL	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
EGL	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
EGL	488	Internship	Satisfactory/Unsatisfactory
ENS	447	Readings in Environmental Sci	Satisfactory/Unsatisfactory
ENS	488	Internship in Envir Studies	Satisfactory/Unsatisfactory
ENV	405	Field Camp	Satisfactory/Unsatisfactory
ENV	444	Experiential Learning	Satisfactory/Unsatisfactory
ENV	447	Readings in Environmental Sci	Satisfactory/Unsatisfactory
ENV	487	Research in Environmental Sci	Satisfactory/Unsatisfactory
ENV	488	Internship in Coastal Environ	Satisfactory/Unsatisfactory
ESE	111	Making with Arduino	A Through F Undergraduate
ESE	118	Digital Logic Design	A Through F Undergraduate
ESE	122	Discrete Math for Engineers	A Through F Undergraduate
ESE	124	Programming Fundamentals	A Through F Undergraduate
ESE	188	Understanding ML	A Through F Undergraduate
ESE	201	Engg & Tech Entrepreneurship	A Through F Undergraduate
ESE	305	Deterministic Signals & Systms	A Through F Undergraduate
ESE	306	Random Signals & Systems	A Through F Undergraduate
ESE	211	Electronics Laboratory A	A Through F Undergraduate
ESE	224	Adv. Prog. & Data Structures	A Through F Undergraduate
ESE	271	Electrical Circuit Analysis	A Through F Undergraduate
ESE	272	Electronics	A Through F Undergraduate
ESE	273	Microelectronic Circuits	A Through F Undergraduate
ESE	280	Embedded Systems Design I	A Through F Undergraduate
ESE	290	Transitional Study	A Through F Undergraduate
ESE	300	Technical Communication	A Through F Undergraduate
ESE	301	Engineering Ethics	A Through F Undergraduate
ESE	304	Apps of Operational Amplifiers	A Through F Undergraduate
ESE	314	Electronics Laboratory B	A Through F Undergraduate
ESE	315	Control System Design	A Through F Undergraduate
ESE	319	Electromagnetic Waves and Transmission Lines	A Through F Undergraduate
ESE	323	Mod Circuit Board Des & Proto	A Through F Undergraduate
ESE	324	Adv. Electronics Lab	A Through F Undergraduate
ESE	325	Modern Sensors	A Through F Undergraduate
ESE	330	Integrated Electronics	A Through F Undergraduate
ESE	331	Semiconductor Devices	A Through F Undergraduate
ESE	332	Quantum Mech. for Engineers	A Through F Undergraduate
ESE	333	Real-Time Operating Systems	A Through F Undergraduate
ESE	334	Introduction to Nanoelectronic Devices	A Through F Undergraduate
ESE	337	Digital Signal Process: Theory	A Through F Undergraduate

ESE	340	Basic Communication Theory	A Through F Undergraduate
ESE	342	Communication Systems	A Through F Undergraduate
ESE	343	Mobile Cloud Computing	A Through F Undergraduate
ESE	344	Software Techniques for Engnrs	A Through F Undergraduate
ESE	345	Computer Architecture	A Through F Undergraduate
ESE	346	Computer Communications	A Through F Undergraduate
ESE	347	Digital Signal Process: Implem	A Through F Undergraduate
ESE	350	Electrical Power Systems	A Through F Undergraduate
ESE	352	Electromech Energy Converters	A Through F Undergraduate
ESE	355	VLSI System Design	A Through F Undergraduate
ESE	356	Digital Sys Spec and Modeling	A Through F Undergraduate
ESE	358	Computer Vision	A Through F Undergraduate
ESE	360	Network Security Engineering	A Through F Undergraduate
ESE	366	Mixed Signal Systems on Chip	A Through F Undergraduate
ESE	375	Architectures for DSP	A Through F Undergraduate
ESE	381	Embedded Microproc Syst Des II	A Through F Undergraduate
ESE	382	Digital Des Using VHDL & PLDs	A Through F Undergraduate
ESE	388	Foundations of Machine Learning	A Through F Undergraduate
ESE	411	Analog Integrated Circuits	A Through F Undergraduate
ESE	412	Lightwave Devices	A Through F Undergraduate
ESE	413	Introduction to Photovoltaics	A Through F Undergraduate
ESE	414	Fundamentals of Low Noise Electronics for Sensors	A Through F Undergraduate
ESE	440	Senior Design I	A Through F Undergraduate
ESE	441	Senior Design II	A Through F Undergraduate
ESE	442	Recent Adv. in Comm. & Net.	A Through F Undergraduate
ESE	451	Power Electronics	A Through F Undergraduate
ESE	452	Advanced Power Electronics	A Through F Undergraduate
ESE	457	Digital Image Processing	A Through F Undergraduate
ESE	462	AI Driven Smart Grids	A through F Undergraduate
ESE	475	Undergrad Teaching Practicum	A Through F Undergraduate
ESE	476	Instructional Lab Practicum	A Through F Undergraduate
ESE	488	Internship Electr/Comp Engnrng	A Through F Undergraduate
ESE	494	Honors Seminar on Research	A Through F Undergraduate
ESE	495	Honors Research Project	A Through F Undergraduate
ESE	499	Research in Electrical Science	A Through F Undergraduate
ESG	300	Writing in Engineering Science	Satisfactory/Unsatisfactory
ESG	375	Fund. of Professional Engg	A Through F Undergraduate
ESG	420	Fluid Flow, Ht & Mass Transprt	A Through F Undergraduate
ESL	195	Acad English Skills for US Res	A Through F Undergraduate
ESM	213	Intro to Nanotech	A Through F Undergraduate
ESM	378	Materials Chemistry	A Through F Undergraduate
ESM	400	Research and Nanotech	A Through F Undergraduate
ESM	475	UndergradTeaching Practicum	A Through F Undergraduate
ESM	486	Innovation in Engineering	A Through F Undergraduate
EST	194	Decision-making	A Through F Undergraduate

EST	202	Intro to Sci, Tech,Soc Studies	A Through F Undergraduate
EST	204	Modern Digital Tech Innovation	A Through F Undergraduate
EST	209	Introduction to Italian Design	A Through F Undergraduate
EST	280	Fundmtls of Indstrl Engnrng	A Through F Undergraduate
EST	304	Communication for Engr & Sci	A Through F Undergraduate
EST	306	Cloud Computing Applications	A Through F Undergraduate
EST	310	Design of Computer Games	A Through F Undergraduate
EST	323	Human-Computer Interaction	A Through F Undergraduate
EST	331	Engineering Ethics	A Through F Undergraduate
EST	339	Benevolent Computing	A Through F Undergraduate
EST	341	Waste Treatment Technologies	A Through F Undergraduate
EST	342	Industrial Engineering, Intro to Operations Research I	A Through F Undergraduate
EST	344	Technical Writing	A Through F Undergraduate
EST	356	Nuclear Nonprolif	A Through F Undergraduate
EST	364	How to Build a Startup	A Through F Undergraduate
EST	372	Mobile Revolution	A Through F Undergraduate
EST	388	Specialt Topics in TSM	A Through F Undergraduate
EST	389	Special Topics in TSM	A Through F Undergraduate
EST	391	Technology Assessment	A Through F Undergraduate
EST	392	Engineering Economics	A Through F Undergraduate
EST	393	Project Management	A Through F Undergraduate
EST	440	Interdis Rsch Methods	A Through F Undergraduate
EST	441	Interdis Senior Project	A Through F Undergraduate
EUR	444	Experiential Learning	Satisfactory/Unsatisfactory
EUR	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
EUR	459	Write Effectively in European	Satisfactory/Unsatisfactory
EUR	475	Ugrad Teaching Practicum I	Satisfactory/Unsatisfactory
EUR	476	Ugrad Teaching Practicum II	Satisfactory/Unsatisfactory
EUR	488	Internship	Satisfactory/Unsatisfactory
EXT	288	Internship	Satisfactory/Unsatisfactory
EXT	488	Internship	Satisfactory/Unsatisfactory
FLA	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory
FLA	449	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
FLA	450	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
FLA	451	Suprvsd Teaching: Grades 7-9	Satisfactory/Unsatisfactory
FLA	452	Suprvsd Teaching: Grades 10-12	Satisfactory/Unsatisfactory
FLM	488	Internship	Satisfactory/Unsatisfactory
FRN	444	Experiential Learning	Satisfactory/Unsatisfactory
FRN	459	Write Effectively/French	Satisfactory/Unsatisfactory
FRN	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
FRN	476	Undergrad Teach Practicum II	Satisfactory/Unsatisfactory
FRN	488	Internship	Satisfactory/Unsatisfactory
FSY	248	SUMMER ABD:OTHR SUNY	Satisfactory/Unsatisfactory
FSY	302	SUNY FOREIGN STUDY	Satisfactory/Unsatisfactory
FSY	397	Foreign Study Abroad: Japan	Satisfactory/Unsatisfactory

GEO	287	Introductory Rsrch in Geology	Satisfactory/Unsatisfactory
GEO	444	Experiential Learning	Satisfactory/Unsatisfactory
GEO	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
GEO	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
GEO	488	Internship	Satisfactory/Unsatisfactory
GEO	496	Writing a Literature Review	Satisfactory/Unsatisfactory
GEO	497	Communicating Geoscience	Satisfactory/Unsatisfactory
GER	444	Experiential Learning	Satisfactory/Unsatisfactory
GER	459	Write Effectively in German	Satisfactory/Unsatisfactory
GER	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
GER	476	Undergrad Teach Practicum II	Satisfactory/Unsatisfactory
GER	488	Internship	Satisfactory/Unsatisfactory
GLI	444	Experiential Learning	Satisfactory/Unsatisfactory
GLI	458	Speak Effectively	Satisfactory/Unsatisfactory
GLI	459	Write Effectively in GLI	Satisfactory/Unsatisfactory
GLI	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
GLI	476	Undergrad Teaching Practic II	Satisfactory/Unsatisfactory
GLI	488	Internship	Satisfactory/Unsatisfactory
GSI	200	Global Summer Institute	Satisfactory/Unsatisfactory
GSI	201	English for Academic Success	Satisfactory/Unsatisfactory
GSS	475	Undergraduate Teaching Practic	Satisfactory/Unsatisfactory
GSS	487	Geospatial Science Research	Satisfactory/Unsatisfactory
GSS	488	Geospatial Science Internship	Satisfactory/Unsatisfactory
HBW	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
HBW	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
HIS	444	Experiential Learning	Satisfactory/Unsatisfactory
HIS	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
HIS	459	Write Effectively in History	Satisfactory/Unsatisfactory
HIS	488	Internship	Satisfactory/Unsatisfactory
HON	101	Introduction to Stony Brook	Satisfactory/Unsatisfactory
HON	475	Honors College Teaching Practi	Satisfactory/Unsatisfactory
HUF	475	Teaching Practicum I	Satisfactory/Unsatisfactory
HUI	475	Teaching Practicum I	Satisfactory/Unsatisfactory
HUI	476	Teaching Practicum II	Satisfactory/Unsatisfactory
HUR	475	Teaching Practicum I	Satisfactory/Unsatisfactory
HUR	476	Teaching Practicum II	Satisfactory/Unsatisfactory
HUS	475	Undgr Teach Pract Hisp Culture	Satisfactory/Unsatisfactory
IAP	444	Global Service Learning	A Through F Undergraduate
IAP	488	Internship	Satisfactory/Unsatisfactory
IEC	101	INTENS EGL BEGINNER	Progress Not Dgr Stats
IEC	102	INTENS EGL LO-INTER	Progress Not Dgr Stats
IEC	103	Intensive Intermediate EGL	Progress Not Dgr Stats
IEC	104	Intensive High Intermed EGL	Progress Not Dgr Stats
IEC	106	Intensive English Advanced	Progress Not Dgr Stats
IEC	111	INTENS EGL BEGINNER	Progress Not Dgr Stats
IEC	112	INTENS EGL LO-INTER	Progress Not Dgr Stats

IEC	113	Intensive Intermediate EGL	Progress Not Dgr Stats
IEC	114	Intensive High Intermed EGL	Progress Not Dgr Stats
ISE	218	Fundamentals of IT	A Through F Undergraduate
ISE	300	Technical Communications	A Through F Undergraduate
ISE	305	Database Design and Practice	A Through F Undergraduate
ISE	311	Systems Administration	A Through F Undergraduate
ISE	312	Legal Issues in Info Systems	A Through F Undergraduate
ISE	315	Database Transaction Proc Syst	A Through F Undergraduate
ISE	316	Introduction to Networking	A Through F Undergraduate
ISE	317	Computer Networking II	A Through F Undergraduate
ISE	320	Information Management	A Through F Undergraduate
ISE	321	Network Administration	A Through F Undergraduate
ISE	323	Human-Computer Interaction	A Through F Undergraduate
ISE	331	Computer Security	A Through F Undergraduate
ISE	332	Introduction to Visualization	A Through F Undergraduate
ISE	333	User Interface Development	A Through F Undergraduate
ISE	334	Intro to Multimedia Systems	A Through F Undergraduate
ISE	337	Scripting Languages	A Through F Undergraduate
ISE	339	Benevolent Computing	A Through F Undergraduate
ISE	340	Design of Computer Games	A Through F Undergraduate
ISE	364	Advanced Multimedia Techniques	A Through F Undergraduate
ISE	377	Intro to Medical Imaging	A Through F Undergraduate
ISE	378	Intro to Robotics	A Through F Undergraduate
ISE	390	Topics in Information Systems	A Through F Undergraduate
ISE	391	Topics in Information Systems	A Through F Undergraduate
ISE	392	Topics in Information Systems	A Through F Undergraduate
ISE	475	Undergrad Teaching Practicum	A Through F Undergraduate
ISE	487	Rsrch in Information Systems	A Through F Undergraduate
ISE	488	Information Systems Internship	Satisfactory/Unsatisfactory
ITL	444	Experiential Learning	Satisfactory/Unsatisfactory
ITL	459	Write Effectively in Italian	Satisfactory/Unsatisfactory
ITL	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
ITL	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
ITL	488	Internship	Satisfactory/Unsatisfactory
JPN	444	Experiential Learning	Satisfactory/Unsatisfactory
JPN	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
JPN	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
JPN	488	Internship	Satisfactory/Unsatisfactory
JRN	111	Grammar and Editing Lab	A Through F Undergraduate
JRN	372	Introduction to Weathercasting	Satisfactory/Unsatisfactory
JRN	373	Advanced Weathercasting	Satisfactory/Unsatisfactory
JRN	393	Audio Journalism Lab	A Through F Undergraduate
JRN	444	Experiential Learning	Satisfactory/Unsatisfactory
JRN	475	Teaching Practicum I	Satisfactory/Unsatisfactory
JRN	476	Teaching Practicum II	Satisfactory/Unsatisfactory
JRN	487	Independent Study	Satisfactory/Unsatisfactory

JRN	488	Internship	Satisfactory/Unsatisfactory
JRN	489	Specialized Internship	Satisfactory/Unsatisfactory
KOR	444	Experiential Learning	Satisfactory/Unsatisfactory
KOR	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
KOR	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
KOR	488	Internship	Satisfactory/Unsatisfactory
LAC	488	Internship	Satisfactory/Unsatisfactory
LAN	475	Practicum in Lang Teaching I	Satisfactory/Unsatisfactory
LAN	476	Practicum in Lang Teaching II	Satisfactory/Unsatisfactory
LAT	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
LCR	488	Intern: Commnty Servic Learnng	Satisfactory/Unsatisfactory
LDR	488	LDR Internship	Satisfactory/Unsatisfactory
LHD	307	Lab HIV Reduc in Campus Contxt	Satisfactory/Unsatisfactory
LHD	308	Lab HIV Reduc in Campus Contxt	Satisfactory/Unsatisfactory
LHD	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
LHD	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
LHD	488	Internship	Satisfactory/Unsatisfactory
LHW	488	Internship in Health & Wellnes	Satisfactory/Unsatisfactory
LIA	488	Internship in Arts Management	Satisfactory/Unsatisfactory
LIN	235	Signed Languages and Deaf Communities	A Through F Undergraduate
LIN	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory
LIN	444	Experiential Learning	Satisfactory/Unsatisfactory
LIN	449	Field Experience, Grades N-12	Satisfactory/Unsatisfactory
LIN	450	Field Experience, Grades N-12	Satisfactory/Unsatisfactory
LIN	451	Sup Teaching ESL Grades N-6	Satisfactory/Unsatisfactory
LIN	452	Sup Teaching ESL Grades 7-12	Satisfactory/Unsatisfactory
LIN	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
LIN	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
LIN	488	Internship	Satisfactory/Unsatisfactory
LSE	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
MAE	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory
MAE	451	Sup Teaching Grades 7-9	Satisfactory/Unsatisfactory
MAE	452	Sup Teaching Grades 10-12	Satisfactory/Unsatisfactory
MAP	101	Fundamentals of Arithm & Algeb	Remedial
MAP	102	Proficiency Algebra Review	Developmental Courses
MAP	103	Proficiency Algebra	Developmental Courses
MAR	447	Readings in Marine Science	Satisfactory/Unsatisfactory
MAR	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
MAR	459	Write Effectively	Satisfactory/Unsatisfactory
MAR	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
MAR	488	Internship	Satisfactory/Unsatisfactory
MAT	119	Foundations for Precalculus	Satisfactory/Unsatisfactory
MAT	160	Mathematical Problems & Games	Satisfactory/Unsatisfactory
MAT	371	Logic	A Through F Undergraduate
MAT	425	Teaching remedial mathematics	A Through F Undergraduate

MAT	444	Experiential Learning	Satisfactory/Unsatisfactory
MAT	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
MAT	459	Write Effectively	Satisfactory/Unsatisfactory
MAT	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
MDA	488	Internship	Satisfactory/Unsatisfactory
MEC	101	Freshman Design Innovation	A Through F Undergraduate
MEC	102	Engrg Computg & Prob Solvg	A Through F Undergraduate
MEC	203	Eng Graphics and CAD	A Through F Undergraduate
MEC	214	Probability and Statistics	A Through F Undergraduate
MEC	220	Practical Electronics MechEng	A Through F Undergraduate
MEC	225	Fund of Machining Practices	A Through F Undergraduate
MEC	226	Modern Machining Practices	A Through F Undergraduate
MEC	260	Engineering Statics	A Through F Undergraduate
MEC	262	Engineering Dynamics	A Through F Undergraduate
MEC	300	Tech Commun in Mech Engnrng	Satisfactory/Unsatisfactory
MEC	301	Thermodynamics	A Through F Undergraduate
MEC	305	Heat and Mass Transfer	A Through F Undergraduate
MEC	310	Introduction to Machine Design	A Through F Undergraduate
MEC	316	Instrumentation and Solids Lab	A Through F Undergraduate
MEC	317	Thermal-Fluids Lab	A Through F Undergraduate
MEC	320	Num Methods Eng Des Anal	A Through F Undergraduate
MEC	325	Manufacturing Processes	A Through F Undergraduate
MEC	363	Mechanics of Solids	A Through F Undergraduate
MEC	364	Intro to Fluid Mechanics	A Through F Undergraduate
MEC	393	Engineering Fluid Mechanics	A Through F Undergraduate
MEC	398	Thermodynamics II	A Through F Undergraduate
MEC	402	Mechanical Vibrations	A Through F Undergraduate
MEC	410	Design of Machine Elmnt	A Through F Undergraduate
MEC	411	Control Syst Analysis & Design	A Through F Undergraduate
MEC	422	Thermal System Design	A Through F Undergraduate
MEC	423	Internal Combustion Engines	A Through F Undergraduate
MEC	440	Mechanical Engnrng Design I	A Through F Undergraduate
MEC	441	Mechanical Engnrng Design II	A Through F Undergraduate
MEC	442	Intro Experim Stress Analysis	A Through F Undergraduate
MEC	450	Mechatronics	A Through F Undergraduate
MEC	455	Applied Stress Analysis	A Through F Undergraduate
MEC	456	Intro Engineering Composites	A Through F Undergraduate
MEC	457	Engin Composites Fabr & Char	A Through F Undergraduate
MEC	464	Fundamentals of Aerodynamics	A Through F Undergraduate
MEC	465	Aerospace Propulsion	A Through F Undergraduate
MEC	470	Introduction to Tribology	A Through F Undergraduate
MEC	475	Undergrad Teaching Practicum	A Through F Undergraduate
MEC	488	Mechanical Engnrng Internship	Satisfactory/Unsatisfactory
MEC	491	Topics in Mechanical Engnrng	A Through F Undergraduate
MEC	492	Topics in Mechanical Engnrng	A Through F Undergraduate
MEC	495	Professional Engineering Semin	Satisfactory/Unsatisfactory

MEC	499	Research in Mechanical Engnrng	A Through F Undergraduate
MSL	101	Introduction to the Army	A Through F Undergraduate
MSL	102	Foundations of Leadership	A Through F Undergraduate
MSL	201	Leadership and Decision Making	A Through F Undergraduate
MSL	202	Army Doctrine/Team Development	A Through F Undergraduate
MSL	301	Training Management	A Through F Undergraduate
MSL	302	Applied Leadership	A Through F Undergraduate
MSL	401	The Army Officer	A Through F Undergraduate
MSL	402	Company Grade Leadership	A Through F Undergraduate
MUS	313	Hearing Politics	S/U-Undergrad No Credit
MUS	444	Experiential Learning	Satisfactory/Unsatisfactory
MUS	458	Speak Effectively Before an Au	Satisfactory/Unsatisfactory
MUS	459	Write Effectively	Satisfactory/Unsatisfactory
MUS	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
MUS	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
MUS	488	Internship	Satisfactory/Unsatisfactory
MVL	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
MVL	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
PAE	101	Intermediate Academic English	A Through F Undergraduate
PHI	444	Experiential Learning	Satisfactory/Unsatisfactory
PHI	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
PHI	459	Write Effectively/Philosophy	Satisfactory/Unsatisfactory
PHI	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
PHI	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
PHY	444	Experiential Learning	Satisfactory/Unsatisfactory
PHY	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
PHY	459	Write Effectively in Physics	Satisfactory/Unsatisfactory
PHY	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
POL	287	Intro Rsrch in Political Sci	Satisfactory/Unsatisfactory
POL	444	Experiential Learning	Satisfactory/Unsatisfactory
POL	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
POL	459	Write Effectively	Satisfactory/Unsatisfactory
POL	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
POL	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
POL	488	Internship	Satisfactory/Unsatisfactory
POL	489	Washingtn or Albany Internship	Satisfactory/Unsatisfactory
PSY	273	Supervised Rsrch in Psychology	Satisfactory/Unsatisfactory
PSY	283	Applications & Community Servc	Satisfactory/Unsatisfactory
PSY	444	Experiential Learning	Satisfactory/Unsatisfactory
PSY	459	Write Effectively/Psychology	Satisfactory/Unsatisfactory
PSY	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
PSY	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
PSY	488	Internship	Satisfactory/Unsatisfactory
RLS	444	Experiential Learning	Satisfactory/Unsatisfactory
RLS	459	Write Effectively in RLS	Satisfactory/Unsatisfactory

RLS	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
RUS	444	Experiential Learning	Satisfactory/Unsatisfactory
RUS	475	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
RUS	476	Undergrad Teach Practicum II	Satisfactory/Unsatisfactory
SBU	101	Introduction to Stony Brook	Satisfactory/Unsatisfactory
SBU	102	Undergraduate College Seminar	A Through F Undergraduate
SBU	275	Undergraduate College Fellows Seminar	Satisfactory/Unsatisfactory
SBU	276	Undergraduate College Fellows Practicum	Satisfactory/Unsatisfactory
SBU	301	Global Issues	Satisfactory/Unsatisfactory
SBU	475	Undergraduate College Teaching Practicum	Satisfactory/Unsatisfactory
SBU	488	Undergraduate College Internship	Satisfactory/Unsatisfactory
SCH	101	Introduction to Stony Brook	Satisfactory/Unsatisfactory
SCH	102	University Scholars Seminar	A Through F Undergraduate
SCH	275	Scholars Fellows Seminar	Satisfactory/Unsatisfactory
SCH	276	Scholars Fellows Practicum	Satisfactory/Unsatisfactory
SCH	444	Experiential Learning	Satisfactory/Unsatisfactory
SCH	475	Scholars Teaching Practicum	Satisfactory/Unsatisfactory
SCH	488	University Scholars Internship	Satisfactory/Unsatisfactory
SCI	449	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
SCI	450	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
SCI	451	Sup Teaching Sci: Grade 7-9	Satisfactory/Unsatisfactory
SCI	452	Sup Teaching Sci: Grade 10-12	Satisfactory/Unsatisfactory
SLN	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
SLN	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
SOC	444	Experiential Learning	Satisfactory/Unsatisfactory
SOC	458	Speak Effectively Before/Aud	Satisfactory/Unsatisfactory
SOC	459	Write Effectively in Sociology	Satisfactory/Unsatisfactory
SOC	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
SOC	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
SOC	488	Internship	Satisfactory/Unsatisfactory
SPN	444	Experiential Learning	Satisfactory/Unsatisfactory
SPN	458	SpeakEffectivelyBeforeAudience	Satisfactory/Unsatisfactory
SPN	459	Write Effectively in Spanish	Satisfactory/Unsatisfactory
SPN	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
SPN	488	Internship	Satisfactory/Unsatisfactory
SSE	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory
SSE	449	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
SSE	450	Field Experience, Grades 7-12	Satisfactory/Unsatisfactory
SSE	451	Suprvsd Teaching Grades 7-9	Satisfactory/Unsatisfactory
SSE	452	Suprvsd Teaching Grades 10-12	Satisfactory/Unsatisfactory
SSE	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
SSE	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
SSI	400	EXP+, SPK, CER	Satisfactory/Unsatisfactory

SUS	444	Experiential Learning	Satisfactory/Unsatisfactory
SUS	475	Undergrad Teaching Practicum	Satisfactory/Unsatisfactory
SUS	476	Undergrad Teaching Practicum I	Satisfactory/Unsatisfactory
SUS	487	Research/Sustainability	Satisfactory/Unsatisfactory
SUS	487	Research/Environmental Human	Satisfactory/Unsatisfactory
SUS	487	Research in Sustainability Stu	Satisfactory/Unsatisfactory
SUS	488	Internship in Sustainability	Satisfactory/Unsatisfactory
SUS	488	Internship/Environmental Hum	Satisfactory/Unsatisfactory
SUS	488	Internship in Sustainability	Satisfactory/Unsatisfactory
THR	298	Student Media Leadership	Satisfactory/Unsatisfactory
THR	444	Experiential Learning	Satisfactory/Unsatisfactory
THR	458	Speak Effectively Before Aud	Satisfactory/Unsatisfactory
THR	459	Write Effectively in THR	Satisfactory/Unsatisfactory
THR	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory
THR	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
THR	488	Internship	Satisfactory/Unsatisfactory
VIP	295	Intro Multidisc Proj	A Through F Undergraduate
VIP	395	Intmd Multidisc Proj	A Through F Undergraduate
VIP	396	Intmd Multidisc Proj Practicum	A Through F Undergraduate
VIP	495	Adv Multidisc Project	A Through F Undergraduate
VIP	496	Adv Multidisc Proj Practicum	A Through F Undergraduate
WAE	190	Intermediate Writing	A Through F Undergraduate
WAE	192	High Intermediate Writing	A Through F Undergraduate
WAE	194	Advanced Writing Academic Eng	A Through F Undergraduate
WRT	101	Introductory Writing Workshop	ABC/U Grading
WRT	102	Intermediate Writing Workshop	ABC/U Grading
WRT	444	Experiential Learning	Satisfactory/Unsatisfactory
WRT	488	Internship	Satisfactory/Unsatisfactory
WSE	105	Opportunities in STEM & Beyond	A Through F Undergraduate
WSE	201	Society and Gender in STEM	A Through F Undergraduate
WSE	205	Career Planning in STEM	A Through F Undergraduate
WSE	380	Research and Discovery in STEM	A Through F Undergraduate
WSE	381	Service-Learning in STEM	A Through F Undergraduate
WSE	401	Women's Leadership in STEM	A Through F Undergraduate
WSE	405	Life Design in STEM	A Through F Undergraduate
WSE	475	Teaching Practicum	A Through F Undergraduate
WSE	477	Mentoring/Leadership Practicum	A Through F Undergraduate
WSE	487	Research Practicum	A Through F Undergraduate
WSE	488	Internship Practicum	A Through F Undergraduate
WSE	495	WISE Honors Project/Thesis I	A Through F Undergraduate
WSE	496	WISE Honors Project/Thesis II	A Through F Undergraduate
WST	287	Research in Women's Studies	Satisfactory/Unsatisfactory
WST	444	Experiential Learning	Satisfactory/Unsatisfactory
WST	458	Speak Effectively/Audience	Satisfactory/Unsatisfactory
WST	459	Write Effectively in WST	Satisfactory/Unsatisfactory
WST	475	Undergrad Teachng Practicum I	Satisfactory/Unsatisfactory

WST	476	Undergrad Teachng Practicum II	Satisfactory/Unsatisfactory
WST	488	Internship	Satisfactory/Unsatisfactory

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.

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
Grade Pass/No Credit (GPNC) Courses: Courses taken under the Pass/No Credit option will not satisfy SBC or general education requirements. Students may only GPNC one course per term.

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 Graded Credits: Students who matriculate prior to Fall 2019 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.

Course Prerequisites

Students should meet the prerequisites to a course before taking the course, and courses enforce prerequisites at the time of registration. 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. 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	321
CHE	322
CHE	326
CSE	114
ECO	108
ECO	303
ECO	305
ECO	320
MAP	103
MAT	122
MAT	123
MAT	125
MAT	126
MAT	127
MAT	131
MAT	132
MAT	141
MAT	142
PHY	121
PHY	122
PHY	125
PHY	126

PHY	127
PHY	131
PHY	132
PHY	133
PHY	134
PHY	141
PHY	142
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).
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. *Note: WAE 190, WAE 192, WAE 194, WRT 101, & WRT 102 are exempt from the petition process.*
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. 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, and taking two mutually exclusive courses is considered a retake of the same course. Credit will not be earned for the second time taking a course considered part of a group of mutually exclusive courses. Such courses are identified in their Undergraduate 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.

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. 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. WRT 102 may not be transferred after matriculation at Stony Brook University.
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.

International Transfer Credit Policy for Summer & Winter for Currently Enrolled Stony Brook Students
To obtain Stony Brook credit for summer or winter courses offered by an institution outside of the United States, currently enrolled Stony Brook students are required to participate in an approved partner university program offered through International Academic Programs (IAP) in the Office of Global Affairs. All other international credits obtained in the summer or winter will not be eligible as transfer credit applied to your Stony Brook degree program. This also includes international credits taken from U.S. institutions outside of IAP or SUNY.

Credit Limit Policy for Transfer Credits for Summer & Winter Sessions
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.

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

Transcripts may be ordered directly from the student's 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. Transcripts may be requested for personal use or to submit directly to another institution or agency. Please note that in certain instances, location of study is indicated.

A transcript request form is available from the Registrar, or it may 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.
Students may view their unofficial transcripts using the SOLAR system at http://www.stonybrook.edu/solarsystem.

Degree Revocation

If a degree is revoked or rescinded, the degree conferral will be removed from the academic record and adjusted in the student information system.

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)1(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.

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

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 Degree Requirements
- General Education: The Stony Brook Curriculum (SBC)

Stony Brook University General Degree Requirements

Note: The Degree Works degree audit, 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 degree audit is an official evaluation of a student's progress toward University Degree Requirements. The degree audit is also designed to be a helpful advisory tool to review Major/Minor requirements. The successful completion of Major (and Minor, if applicable) requirements are ultimately determined by a 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: The Stony Brook Curriculum

The Stony Brook Curriculum includes both breadth and depth of study (provided by both the SBC learning outcomes and the major requirements), as well as ensuring skills necessary for life-long learning.

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 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 CIV, 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 civil, 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 316 and 317; CIV 340, 341, 342; and CIV, ESE, ESG, BME, and MEC 300, 440, and 441. CIV, 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: The Stony Brook Curriculum (SBC)
All students must complete General education requirements by completing the Stony Brook Curriculum. Students are responsible for completing the general education requirements published in the Bulletin that was current as of the first semester of matriculation (or rematriculation).

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 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 categories.

Through the general education curriculum, students will:

DEMONSTRATE VERSATILITY by showing proficiency in each of ten fundamental categories:

- 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 1)
- 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 1: CEAS majors, the Athletic Training major, the Respiratory Care major, and the Clinical Laboratory Sciences major are exempt from the LANG category. Students enrolled in the major in Social Work are exempt from the LANG category, 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 categories signifies that most courses in this category will be relatively advanced courses at the 200- to 400-level. These categories 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)
- Respect Diversity and Foster Inclusiveness (DIV) (see Note 2 below)
- Evaluate and Synthesize Researched Information (ESI)
- Speak Effectively before an Audience (SPK)
- Write Effectively within One’s Discipline (WRTD)

Note 2: Students are responsible for completing the general education requirements published in the Bulletin that was current as of the first semester of matriculation (or rematriculation). The following student groups must satisfy the DIV category as part of their degree requirements:

- Freshmen who matriculate in the Fall of 2019 or later
- Transfer students who matriculate in the Spring of 2020 or later
- Students who rematriculate in the Fall of 2019 or later

Students may reduce the number of courses needed to achieve the Stony Brook Curriculum categories 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 categories, 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 categories. LANG, WRT, and QPS categories 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. Students who have completed the Stony Brook Curriculum will have met all requirements for the SUNY General Education Framework.

More Information

- SBC Learning Outcomes
- Application of Transfer Credits to Stony Brook Curriculum
- SUNY General Education and Stony Brook Equivalency Table
- SUNY General Education Framework

Note on Courses Satisfying SBC categories:

- A student's general education record may not be changed retroactively. The University may change the SBC area or categories 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 categories. 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 categories, 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 categories. LANG, WRT, and QPS categories 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 categories. If an SBC abbreviation does not appear with the course entry in the Bulletin, that course may not be used to satisfy any SBC categories.
- College courses taken while the student was in high school will be evaluated for applicability to SBC categories.
- Transferred courses must carry at least three semester hours of credit to be applicable to any category.

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
- New York Clean Slate Act

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
New students: <2.0 first semester GPA	First Semester Warning	Advising required
Continuing students in good academic standing: <2.0 semester GPA for two or more consecutive semesters	Warning	Advising required
Students on first semester warning: <2.0 cumulative GPA, but > 2.0 second semester GPA *Continuing students in good academic standing:* <2.0 cumulative GPA	Probation	Advising required
Students on first semester warning: <2.0 cumulative GPA, but 1.0-1.99 second semester GPA -> suspended but eligible to petition for immediate reinstatement	Suspension	Advising/Petition required

<2.0 cumulative GPA and <1.0 second semester GPA -> suspended and NOT eligible to petition for immediate reinstatement *Students on probation:* <2,0 cumulative GPA, but > 2.0 semester -> suspended but eligible to petition for immediate reinstatement <2.0 cumulative GPA and <2.0 semester GPA -> suspended and NOT eligible to petition for immediate reinstatement		
	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

Academic Integrity Policy

Any member of the academic community may refer a suspected violation of academic integrity to the Academic Judiciary Office. The accusation should be submitted using the online reporting form found on the academic integrity website within two weeks of the discovery of the suspected violation. All faculty are encouraged to discuss the situation with their Chair, Undergraduate Program Director or Dean's Office before submitting an official accusation. When it is not possible for the accusation to be made within the two-week period, justification for the delay should be included in the filing documentation. Course instructors who suspect violations of academic integrity must report their suspicions to the Academic Judiciary Office; they may not establish a penalty independently. An instructor will be asked to provide a recommended penalty on the accusation report submitted to the Academic Judiciary Office. The instructor's recommended penalty is noted on the accusation report submitted to the Academic Judiciary committee. Instructors may wish to consult with the Academic Integrity Officer before identifying recommended penalties.

When the Academic Judiciary Office receives an accusation, each student is notified by email and instructed to make an appointment with the Academic Integrity Officer to discuss the accusation. This meeting may include an academic advisor or other professional from the student's College/School to address the implications of the accusation on degree progress or other related academic issues/concerns. Students are encouraged to invite an advisor to offer counsel on any potential academic implications. A copy of the accusation report (including a course instructor's recommended penalty, if applicable) and supporting documentation, if any, will be given to all parties named in the report. Students accused of academic dishonesty will have two weeks from the date of notification to inform the staff within the Academic Judiciary Office whether or not they intend to appeal the accusation. In the meantime, a student's academic record will notate an "I" grade in the course signifying that there is a pending academic judiciary matter (for course-based accusations), as well as pending remarks of academic dishonesty. The "I" grade and the pending remarks will remain until the matter is resolved. Students should continue attending class and completing coursework for in-progress courses.

Penalties for Violating Academic Integrity

An F for the course is considered to be an appropriate penalty grade for an academic integrity violation that occurs within the context of a course or courses, though a more lenient or more severe penalty may be recommended under certain circumstances. For example, where premeditation or conspiracy (e.g., use of ringers or electronic devices) is involved, penalties such as suspension or expulsion may be considered. The minimum penalty is typically a zero on the assignment in question. In all cases a written report of the offense and the recommended penalty of the course instructor must be forwarded to the Academic Judiciary Office in order that students may be formally notified of the accusation, recommended penalty, and procedures for accepting the recommended penalty or appealing the accusation and requesting a hearing. A course for which a penalty grade has been assigned cannot be dropped or taken Pass/No Credit.

In addition to any penalty imposed by the Academic Judiciary, a student who is found responsible for a first offense of academic dishonesty will have an academic dishonesty notation on their record and for course-based offenses, will typically be given a Q grade for the course, signifying that they have violated academic integrity policies. The Q is computed in the student's GPA as an F. After successfully completing the non-credit academic integrity course (called the Q Course), the academic dishonesty notation and the Q grade (if applicable) are removed. The Q grade is replaced with the earned grade. Students must successfully complete the University's Q Course no later than the academic semester immediately following the finding of an academic integrity violation.

The Q Course requires attendance at every session that meets on Wednesdays for 1 hour (1:00 – 2:00pm) per week for 10 weeks during the fall and spring semesters. Students are encouraged to register at least one month before the start of the course.

You may find out more about the Q course by calling the Division of Undergraduate Education at (631) 632-7080 or email: academic_judiciary@stonybrook.edu.

Multiple Offenses

If a student is found responsible for two or more violations of academic integrity, the Academic Judiciary Committee will consider recommending a penalty in addition to those already established for the separate offenses. The penalties for a second offense include suspension or permanent expulsion from the University, a permanent notation on the student's academic record of academic dishonesty, and/or a permanent Q grade for all courses (past and current) for which the student was found responsible for violating academic integrity.

Appeals of Academic Dishonesty Accusations

A student accused of violating academic integrity policies may appeal the accusation through the Academic Judiciary Office. An accusation that is not appealed will be considered as a finding of responsibility for violating academic integrity. By appealing the accusation, the student asserts

that they did not violate University policy concerning academic integrity. Students may not appeal /request exceptions for having a Q grade on their record or taking the Q course.

All appeals must be presented in writing not later than two weeks after notification of the accusation and meeting with the Academic Judiciary Office to discuss the accusation and the academic integrity policies and procedures. On receiving a student's request for an appeal, the Academic Judiciary Office will inform the instructor or reporting individual and schedule a hearing. In cases of first offenses, where students do not appeal, the recommended penalty of the reporting individual/instructor will be applied, with very few exceptions.

Students who appeal an accusation for a course that is in progress should continue attending the class and completing coursework. Any student who is granted a hearing and is found not responsible of violating academic integrity will receive their earned grade in the course.

A student who is granted a hearing and is found responsible for violating academic integrity will receive penalties as described above. These penalties may differ from the penalty recommended by the reporting individual/instructor.

NOTE: A student who is found responsible for violating academic integrity and is determined to have presented false evidence or false statements at the hearing may have a second accusation of dishonesty brought against them by the hearing board. This would constitute multiple accusations and potentially more serious penalties, including suspension or permanent expulsion.

Hearing Boards

Academic judiciary hearing boards consist of appointed members from the Academic Judiciary Committee, but may also include faculty and staff who have volunteered to serve on the hearing boards.

A five-person hearing board will consist of two faculty, one professional staff member and/or teaching assistant, and two undergraduate students; majority vote determines outcome. The Academic Integrity Officer (or designee) will normally serve as non-voting hearing officer. In those situations, where the student and course are in the College of Engineering and Applied Sciences (CEAS), one faculty member and one student representative will be from the CEAS. Additional faculty will be consulted to address specific technical issues as appropriate.

Evidence

The standard of evidence used by the hearing board is "clear and convincing." Students may be found responsible on the basis of direct evidence, circumstantial evidence, or a combination of the two. This may include, for example, any of the following: a dramatic change in writing style; possession of accessible notes, devices (i.e. mobile phones, clickers, calculators, translators, etc.), or similarly prohibited material during an exam; observed communication between students during an exam; or unusual similarity among exams, papers, assignments, projects, or other work, including similarity with online resources.

The Hearing

A student accused of violating academic integrity will be given an opportunity to address the hearing board. The student may bring an advisor or witness. Advisors may counsel their advisees during the hearing but do not have the privilege of the floor. The Academic Judiciary Office must be notified of the intention to bring advisors or witnesses no later than two working days prior to the hearing.

The board may call its own witnesses and introduce pertinent information to the hearing. The board may bring an advisor, who may remain during the entire hearing. The reporting individual/instructor and the student may ask each other questions, as well as ask questions of each other's witnesses.

When two or more students are accused in the same academic dishonesty case, they can request to meet with the board independently of the other student(s) and their advisors and witnesses.

The hearing officer may dismiss any participant who exhibits disruptive behavior during the hearing. The board will attempt to reach a decision on the basis of the evidence before it regardless of the presence or absence of the persons concerned, their witnesses, or their advisors. In cases where reasonable notice of absence for cause has been given (at least 24 hours), the hearing will be postponed and rescheduled as soon as possible.

Hearings normally proceed as follows:

The individual/instructor reporting the violation of academic integrity makes a statement summarizing the case and reviews supporting documentation, if any. This statement cannot be interrupted by questions or challenges. However, the hearing officer may ask the speaker to repeat something for clarification.

The student accused of violating academic integrity then makes a statement responding to the accusation. The student may present evidence at this point supporting their appeal of the accusation. The student's statement cannot be interrupted by questions or challenges. However, the hearing officer may ask the speaker to repeat something for clarification. If the hearing involves multiple students accused in the same case, all students will be present for the reporting individual/instructor’s statement. However, each student will make a separate response statement, without any other students present. If a statement by any of the students implicates any of the others, the implicated student will be informed so that they can respond.

The members of the hearing board may ask questions of any of those present, including witnesses. Witnesses will normally not be present for the initial statements and will be called in to the hearing room only after initial statements are presented and the hearing board's initial questions are answered. Their presence will normally be permitted only during their own statements. Either party may call witnesses.

At the conclusion of the hearing, the board will make a decision of finding the student "responsible" or "not responsible" for violating academic integrity. All decisions will be made by majority of the members present. The individual votes and tally are not divulged.

Although there can be substantial variance, hearings are normally completed within about an hour. Students and reporting individuals/ instructors will be notified by email of the outcome of the hearing.

Appeal of Committee Action

Decisions made by the Academic Judiciary Committee can be appealed by submitting a detailed statement (either as e-mail text or an attachment) to the Associate Provost for Academic Success, or their designee, at academic_appeals@stonybrook.edu. In situations where the student is in the College of Engineering and Applied Sciences (CEAS), the appeal will be forwarded for consideration to the CEAS Office of the Dean. Appeals are only considered based on new evidence not available at the time of the hearing and/or errors in procedure. Appeals must be submitted within seven (7) business days of the original hearing committee's decision. Instructions for appeals and specific deadlines are included in the email with the decision by the hearing committee.

An Academic Judiciary appeal that is denied by the Associate Provost or CEAS Office of the Dean, may be appealed to the Vice Provost for Undergraduate Education only when new documentation not available at the time of the hearing or evidence of procedural error is provided. Appeal requests should include the original request, as well as the new documentation and/or evidence of procedural error, and must be submitted within seven (7) business days of the communication of the decision from the Associate Provost's or CEAS Dean's Office. Appeals should be emailed to due@stonybrook.edu and addressed to the Vice Provost for Undergraduate Education. The appeal decision of the Vice Provost for Undergraduate Education is final.

Completion of Cases

Once an accusation has been initiated, the hearing or review procedures prescribed by these rules will be completed whether or not the reporting individual or student remains associated with the University.

Communication with Student

All Academic Judiciary email will be addressed to students at the email address on record in the Registrar's 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.

Student Accessibility Support Center (SASC) Statement:

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact the Student Accessibility Support Center (SASC), Stony Brook Union Suite 107, (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 the staff at the Student Accessibility Support Center (SASC). 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

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.

• 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, email 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.

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

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 Fine Arts (B.F.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, the School of Journalism, or Southampton Arts Programs, 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, School of Journalism, and Southampton Arts Programs, 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. Note that a first major may not be dropped without declaring a new major.

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, and Southampton Arts Programs

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, School of Journalism, and Southampton Arts Programs.

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 Professions 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 Professions offers four programs that students can declare as a major beginning in freshman year: clinical laboratory sciences, respiratory care, and health science. Students in these programs are advanced to the upper-division level after successful completion of program prerequisites.

Students interested in any of the undergraduate health professions are strongly encouraged to identify themselves by officially declaring an area of interest. Detailed information about the Health Sciences 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 major and minor 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 is available through SOLAR, and is used to declare a minor officially; the approval of the department is required. Students may have up to three declared minors 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., B.F.A., 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, Southampton Arts Programs, 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 Professions.

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 Southampton Arts Programs 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 are not permitted to pursue a double major – only double degrees are permitted.

Students in the School of Health Professions and the School of Social Welfare may choose to pursue a double major; however, the HSC 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, Southampton Arts Programs, 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 Southampton Arts Programs

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 Southampton Arts Programs

or

- A major in the Health Sciences School of Health Professions 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 or Southampton Arts Programs

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, the School of Journalism, or Southampton Arts Programs
- 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, the School of Journalism, or Southampton Arts Programs

- 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, the School of Journalism, or Southampton Arts Programs
- A major in electrical engineering (EEO) plus a major in applied math and statistics (AMS), computer science (CSE), information systems (ISE), technological systems management (TSM), or any major in the College of Arts and Sciences, College of Business, the School of Marine and Atmospheric Sciences, the School of Journalism, or Southampton Arts Programs

Note: It is not possible to have a double major consisting of computer science and information systems, or a major in electrical engineering (EEO) and any Bachelor of Engineering degree.

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), creative writing (CWL), information systems (ISE), journalism (JRN), 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 Bachelor of Engineering majors or a double major in electrical engineering (EEO) and any Bachelor of Engineering degree.

*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, Southampton Arts Programs, SOJ, COB; and to the College of Engineering and Applied Sciences Undergraduate Student Office for students majoring within CEAS. 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.

Special Academic Opportunities

- Accelerated Bachelor and Master Degrees
- Army Reserve Officer's Training Corps (ROTC)
- Graduate Courses
- The Honors College
- Independent Study
- International Academic Programs
- Internship Program
- National Student Exchange
- Scholars for Medicine/Scholars for Dental Medicine
- Simons STEM Scholars Honors Program
- Undergraduate Research and Creative Activities Program (URECA)
- Undergraduate Teaching Assistantships
- University Scholars
- Vertically Integrated Projects Program (VIP)
- 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. Students must spend at least one year in full-time residency for the masters portion of the program and must earn a minimum of 30 graduate credits for the masters portion of the program. For comprehensive information regarding graduate degree requirements, see the Graduate Bulletin.

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:

Art History & Criticism, B.A./M.A.

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.

Philosophy, B.A./M.A
Political Science, B.A./Public Policy, 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.

Chemical and Molecular Engineering, B.E./M.S Civil 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.

School of Marine and Atmospheric Sciences Accelerated Degree Programs
Atmospheric and Oceanic Sciences, B.S./ Marine and Atmospheric Sciences, M.S. (Atmospheric Track)

Marine Sciences, B.S./ Marine and Atmospheric Sciences, M.S. (Marine Track)

Marine Vertebrate Biology, B.S./ Marine and Atmospheric Sciences, M.S. (Marine Track)

Environmental Studies, B.A./ Marine Conservation and Policy, M.A.

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 Distributed Teacher and Leader 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.)

Linguistics + M.A.T. French, leading to dual certification TESOL/French (B.A./M.A.T.)

Linguistics + M.A.T. Italian, leading to dual certification TESOL/Italian (B.A./M.A.T.)

Linguistics + M.A.T. Spanish, leading to dual certification TESOL/Spanish (B.A./M.A.T.)

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.

Army Reserve Officers Training Corp (ROTC)

Office: Student Activity Center Basement
Phone: (631) 816-3017
Email: sbarmyrotc@gmail.com
Contact: https://www.culperbattalion.com/contactWebsite: https://www.culperbattalion.com/home

Army ROTC (Reserve Officers Training Corps) is designed to train the next generation of U.S. Army officers. This program offers students the chance to excel in not only their academics but in the field of military science and leadership. Students may participate in the program during their freshman and sophomore years with no service obligation. They will learn Army leadership, custom & traditions, military operations and tactics, health and physical fitness, applied leadership theory, and effective communication.

Students enrolled in the advanced course (junior and senior years) earn a commission as a 2nd Lieutenant in the Army serving on active duty or in the Army Reserve or National Guard.

The Life of an ROTC Cadet
As a cadet, students will embark upon the mental and physical challenges of ROTC in addition to the academic responsibilities at Stony Brook. Cadets learn how to manage their time between academics and ROTC functions. Some ROTC time is spent completing physical training; the other is spent in the classroom and lab, where students will learn the fundamentals of leadership and management and practical skills that include small team leadership, decision making, and team building. In addition, cadets participate in activities outside of normal classroom and laboratory instruction, such as Field Training Exercises, Military Ball, Army 10 Miler, Tunnels for Towers, etc.
Army ROTC offers three programs leading to a commission as a second lieutenant in the Army, National Guard, or Reserve:

1. Traditional four-year program for incoming first-year students
2. Three-year program for interested sophomores
3. A two-year program for qualifying juniors, transfer students, or graduate students

Scholarships

Students may qualify for a four, three or two-year scholarship. Scholarships are awarded to ROTC cadets based on academic record, extracurricular activities, and leadership potential.

Scholarships are limited: High school students need to apply online. College students compete for scholarships on campus based on grades and performance during Army ROTC training. Students must have a 2.5 GPA to be awarded and maintain a scholarship.

Timeline

During the first year, students are introduced to the skills and lifestyle of an ROTC cadet.

During sophomore year, students will continue to learn the skills that were introduced during the first year while building more leadership experience by assisting and leading the underclassmen.

During junior year, students will prepare for the Cadet Leadership Course at Fort Knox, Kentucky. Students will attend the multi-weeklong camp during the summer between of junior and senior years and are put to the test the endurance, leadership skills, and mental agility they've gained in cooperation with other cadets from across the nation.

During senior year, students will hold cadet officer positions and work with faculty to help run the program and assist underclassmen in their training.

Graduation and Assignment

Cadets receive their occupational specialty and location of assignment during their senior year. Upon graduation, ROTC officers go on to serve in one of 16 fields, including Army aviation, signal corps, infantry, military police, military intelligence, etc.

Army cadets may apply for active duty on a full-time basis or on a part-time basis through the National Guard or Reserve. After commissioning, Second Lieutenants will continue their professional military education by preparing to attend their branch-specific Basic Officer Leadership Course (BOLC).

Graduating cadets may also request authorization to immediately continue their education in graduate programs in the medical, legal, and ministry fields.

Some of the Details:

1. If a student chooses to complete the Army ROTC training program, they must sign a contract to join the Army by the junior year of college. This contract will obligate them to be affiliated with the Army for eight years: a minimum of four years in an active participating status and four years in a non-active status, during which they could still be called to duty if required. They will also earn a monthly salary, that is tax exempted and a yearly allowance for textbooks
2. Students must complete all requirements in order to be commissioned as a Second Lieutenant in the U.S. Army. Requirements include obtaining a bachelor's degree, being physically qualified and completing all required Army ROTC training. Full-time active duty is not guaranteed. In order to be competitive, students need to have above a 3.0 GPA for the first three years of college, score high on the Army Physical Fitness Test, and demonstrate outstanding leadership during Army ROTC training.
3. Active Duty (full time) Second Lieutenants start out at about $40,000 a year salary with medical and dental benefits included.
4. Reserve Component (part-time) Second Lieutenants start out making about $6,000 a year working one weekend a month and two weeks a year, with opportunities to earn more for completing additional work or training at a rate of about $100 a day. This is in addition to a civilian job salary. Discounted medical and life insurance benefits are available. Basic dental care is provided.
5. Students who enlist in the Army Reserve or National Guard in conjunction with Army ROTC are not deployed while still in college. They earn a monthly stipend for monthly weekend duty and about $2,000 for completing nine weeks of basic training. There are some opportunities for additional duty at a rate of about $50-$70 a day. Discounted medical and life insurance benefits are available. Basic dental care is provided.
6. Students who enlist in the Reserve Component can still compete for active duty commissioning, but if they fail to complete their Army ROTC obligation, they are bound to remain an enlisted soldier in the Reserve Component in accordance with their enlistment contract.

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 receiving any form of financial aid should contact the Office of Financial Aid and Scholarship Services prior to enrolling in graduate courses. 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. Undergraduate students who have been admitted to the Graduate School at Stony Brook may apply a maximum of twelve credits toward the graduate degree for courses taken with advance approval and future offer of admission to the Graduate School. These credits may not be applied to the undergraduate degree.

The Honors College

Assistant Dean: Dr. Catherine Sherman
Administrative Director: Jessica Klare
Office: Stony Brook Union, Suite 111
Phone: (631) 632-4378
E-mail: honorscollege@stonybrook.edu Website: www.stonybrook.edu/universityhonors

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, critical thinking, and self-direction. The revised curriculum provides a humanistic and multidisciplinary foundation with opportunities for critical reflection, along with a focus on transdisciplinary problem-solving skills to articulate solutions to contemporary societal challenges.

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 and a record of advanced or college-level coursework. Recent incoming cohorts had 97-99 high school GPAs, 1500-1560 SAT (critical reading and math) composite scores, and 34-35 ACT composite scores. 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. 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 Prior to Fall 2025

1. Honors College students who enter as first-year students must take HON 101, HON 105, 106, 201, 301, 401, 495, and 496 or their equivalents. Students take HON 101, 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

1. 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.

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.

2. 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. The curriculum culminates with a required a Senior Project/Thesis (HON 495/496):

1. Every Honors College student must submit a letter of intent containing a detailed description of the student's intended Senior Honors Project/Thesis. The letter of intent must be submitted to the Honors College for approval no later than the last day of classes of the final semester of the 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 University Honors Senior Symposium. The grade on the Senior Honors Project/Thesis 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. Students may substitute an appropriate credit-bearing departmental honors project or they may, with the approval of the department, submit their Honors College Senior Project for departmental honors. In no case, however, may students submit the same project for academic credit under two different sets of course numbers and/or designators.

Curriculum Beginning Fall 2025

1. Honors College students who enter as first-year students must take HON 101, 105, 106, 200, 205, two core Honors seminars (201, 301, or 401), 305, 495, and 496 or their equivalents. Students take HON 101, 105, 106, 200 in the first year. HON 205 and 305, as well as two core Honors seminars, should be completed in years two and three. Students will complete their Senior Project/Thesis in year four. 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.) Honors Topics courses (HON 110-120) are non-required electives.
2. Students may substitute one of their two required Honors core seminars (201, 301, or 401) with one of the following: HON 300 (Special Topics); HON 310 (Honors Experiences); or a pre-approved departmental course plus Honors Course Contract. Students must obtain Honors College approval in advance of taking the substitution course. Further information about course substitution requirements and procedures is available with the Honors College.
3. Students must complete a Senior Project or Thesis. Those enrolled in HON 495 and 496 will follow the project guidelines as described above. Through an application process, select students can complete their Senior Project through a two-semester, course-based Social Analysis and Impact Capstone. The Capstone requires the submission of a singled-authored Thesis paper and an oral presentation to be given at the University Honors Senior Symposium. A grade of C or higher is required for satisfactory completion of the Capstone.

The Fall 2025 curriculum affords students some choice in the courses they take to fulfill their Honors program requirements. As such, students must review their degree audits carefully to ensure they are completing their SBCs.

Course Sequencing

First year HON 101, 105, 106, and 200
Second and Third Years HON 205, 305, and two Honors core seminars (201, 301, or 401)
Fourth Year HON 490/491 or HON 495/496

Requirements to maintain Honors College membership and receive transcript notation include:

- Receive an “S” (Satisfactory) grade in HON 101 and pass all required Honors College courses with a C or higher, including the Senior Honors Project or Thesis;
- Maintain a cumulative GPA of at least a 3.0;
- Not be found guilty of academic dishonesty; and
- Cleared through Community Standards to ensure no University Code of Conduct policies have been violated.

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 of 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.

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. 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 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

Simons STEM Scholars Honors Program (SSP)

Office:Heavy Engineering, Room 230
Phone: (631) 632 8306
E-mail: simonsscholars@stonybrook.edu
Website: stonybrook.edu/SimonsScholars

The Simons STEM Scholars Honors Program (SSP) offers educational and research training opportunities in science, technology, engineering and mathematics (STEM) for undergraduate students with a personal commitment to the advancement of historically underrepresented groups in STEM. The mission of the program is to recruit, nurture and develop a diverse group of high achieving students who have an interest in graduate study (PhD or MD/PhD) and research in STEM related disciplines. Students also must have an interest in the advancement of historically underrepresented groups in STEM. The four-year curriculum is designed to promote academic excellence, provide research career readiness for the PhD pathway, and foster a cohort community through service and leadership.

Acceptance

Simons STEM Scholars 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. Strong applicants should have demonstrated a personal commitment to the advancement of underrepresented populations in STEM and a commitment to the research and/or PhD pathway. Additionally, applicants have presented a strong collaborative nature, leadership qualities and above all else an outstanding character.

Simons STEM Scholars does not accept transfer students. Historically, students have had an average High School GPA of a 97-100 and an average SAT in the 99th percentile. Most students have taken calculus prior to their arrival on campus and have conducted some form of research.

Curriculum

The core of the SSP Honors program curriculum emphasizes not only academic excellence in STEM, but a deep understanding of the PhD and MD/PhD pathway as it relates to the experiences of populations that have been historically underrepresented in their respective fields. Through their tenure at Stony Brook University, in addition to required research engagement, research talks and graduate school visits during the semesters, the Simons STEM Scholars will take a series of courses, modeled after the success of the Women in Science & Engineering (WISE) Honors curriculum, which embed graduate school readiness through a combination of coursework and practicum in required research/career exploration, leadership, and professional development experiences that are adapted to focus on post PhD options as a career path. Moreover, these courses will satisfy elements of the Stony Brook Curriculum, to ensure that students maintain their progress towards graduation in four years.

Course Sequence

A SSP Honors student should take the course sequence (or their equivalents) described in the following table. Successful completion of the course sequence will result in Honors designation on transcript

	Fall	Spring
First Year	**SSP 101 (1c)**	**SSP 105 (1c)**
Second Year	**SSP 205 (1c) (offered both semesters)**	
SSP 380 (3c) (offered both semesters)		
Third Year	**SSP 305 (1c) (offered both semesters)**	
Fourth Year	**SSP 475 (3c) (offered both semesters)**	
	SSP 477 (2c) (offered both semesters)	
	SSP 487 (2c) (offered both semesters)	
	SSP 488 (2c) (offered both semesters)	

- Students will take SSP 101 and SSP 105 in the first year.
- SSP 380 must be completed within the first 2 years
- SSP 205 and 305 are to be taken in that order.
- Scholars must complete a 2 credit practicum course

The SSP Honors Curriculum will fulfill the general education requirements though the courses listed below:

SSP 105/205 = GLO

SSP 205 = DIV

SSP 475 = EXP+

SSP 487 = EXP+

SSP 488 = EXP+

Transcript Notation
Requirements to have Simons STEM Scholars Honors transcript notation:

- Pass all of the courses of the SSP Honors curriculum with a B or higher grade
- 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 SSP Honors course (those with the SSP designator) may request to repeat the course toward SSP Honors requirements.

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.

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

Assistant Dean: Dr. Catherine Sherman

Director: Jessie Frevola

Office: Stony Brook Union, Suite 111

Phone: (631) 632-4378

Email: universityscholars@stonybrook.edu

Website: www.stonybrook.edu/universityhonors

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, service, and academic excellence.

University Scholars is a four-year program and is made up of some of the campus' most active student and community leaders. Recent incoming students have had 96-99 high school GPAs, 1410-1520 SAT (critical reading and math) composite scores, and 31-34 ACT composite scores. The Program is by invitation only.

First-year students 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 Executive 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. 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 service initiatives.

Curriculum Before Fall 2025

Students must satisfactorily complete first-year foundational seminars SCH 101 and 102, complete the EXP+ requirement, and meet their co-curricular event attendance requirements as determined by their class year. First-year students must participate in two Scholar-designated events per semester; sophomores through seniors must attend one per semester.

Curriculum Beginning Fall 2025

The updated curriculum develops student leadership and engagement in order to prepare and empower students to realize their potential, that of others, and of the greater good. Students must satisfactorily complete first-year foundational courses (SCH 101 & 102), the EXP+ requirement, as well as attend a Scholars' designated event every semester. First-year students are required to attend two events per semester. Students will develop their leadership knowledge and skills through SCH 200: Scholars Leadership Foundations and SCH 300: Scholars Leadership Practice. The Scholars Senior Capstone (SCH 490) is the culminating academic requirement in the program. Through the Capstone, seniors will synthesize their academic learning, leadership knowledge, and program experiences with their professional goals and plans.

Course Sequence

First Year	SCH 101 and 102
Second and Third Years	SCH 200 and 300
Fourth Year	SCH 490

Requirements to maintain University Scholars Program membership and receive transcript notation include:

- Receive an "S" (Satisfactory) grade in their SCH 101 course and a C or better in all required SCH courses;
- Maintain a cumulative GPA of at least a 3.0;
- Not be found guilty of academic dishonesty;
- Meet the minimum "for-credit" event requirement each semester (freshmen must attend 2 each semester; upperclassmen must attend 1 each semester): and
- Cleared through Community Standards to ensure no University Code of Conduct policies have been violated.

Women in Science and Engineering (WISE) Honors

Assistant Dean: Dr. Catherine Sherman

Director: Jacquelyn Gatta

Office: Stony Brook Union, Suite 111
Phone: (631) 632-4378
E-mail: wisehonors@stonybrook.edu
Website: stonybrook.edu/universityhonors

The WISE Honors Program offers educational and professional science, technology, engineering, and mathematics (STEM) opportunities for undergraduate students at the University by facilitating individual, institutional, and social change. The main goals of the program are to: (1) promote academic excellence; (2) support 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. Recent incoming students have had 95-98 high school GPAs, 1420-1540 SAT (critical reading and math) composite scores, and 32-34 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 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	
First year	WSE 101 (1c)	WSE 105 (1c)		*Academics*	*Research and Career*
Second year	WSE 380 (3 c) (offered both semesters)	WSE 205 (1c)		*Academics*	*Research and Career*
Third year	WSE 381 (1c) (offered both semesters) WSE 201 (3c) offered both semesters			*Academics*	*Service and Career*
Fourth year	WSE 401 (1c) (offered both semesters)	WSE 405 (1c)	WSE Practicum (total 2 credits) offered both semesters WSE 475, WSE 477, WSE 487, WSE 488	*Leadership*	
	WSE 495 (3c)	WSE 496 (3c)		*Thesis or Design Project*	

- Students will take WSE 101 and WSE 105 in the first year.
- WSE Practicum for a total of 2 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). 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 WSE 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 University Honors Senior Symposium. The grade on the senior thesis or project design must be C 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 though the courses listed below:

- WSE 105/201 = GLO
- WSE 201 = HUM/DIV

- 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 maintain WISE Honors Program membership and receive transcript notation:

- Receive and "S" (Satisfactory) grade in WSE 101 and pass all required WISE Honors curriculum with a C or higher grade including the Senior Thesis or Design Project;
- Maintain a cumulative GPA of at least 3.0;
- Not be found guilty of academic dishonesty; and
- Cleared through Community Standards to ensure no University Code of Conduct policies have been violated.

Students who receive a grade of C- 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 or contact the Office of Student Financial Aid Services at (631) 632-6840.

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 annually.

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 annually.

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; Martin B. Travis Award, to a student in Political Science who plans to attend law school; Patricia E. Herman Award, to a junior or senior in Political Science with an interest in urban planning and/or environmental issues; Michael Gramer Honors Thesis Award, to a student in the departmental Honors program.

Psychology - Awards presented to graduating majors outstanding in research, community service, and academic performance; PSI CHI Awards for Best Oral and for Best Poster Presentations at the PSI CHI scientific conference.

Slavic Languages - Zoltan and Cele Paldy Memorial Award for Excellence in Slavic Studies.

Sociology - Outstanding Scholarship Awards.

Theatre Arts - Peter J. Rajkowski Award, in recognition of leadership, initiative, and organizational skills in theatre projects; Richard Hartzell Prize, to a senior in theatre arts; Thomas G. Neumiller Scholarship, to an undergraduate junior or senior theatre major.

Women's Studies - Award presented to a graduating major or minor for academic excellence and community service.

Writing and Rhetoric - WRT 101 Essay Contest Award, for the best essay written by a WRT 101 student that year; WRT 102 Essay Contest Award, for the best essay written by a WRT 102 student that year.

In addition, the Stony Brook Foundation presents awards at commencement to undergraduate students demonstrating high academic achievement as determined by their departments.

Edward Countey Award

This award is presented each year by a committee consisting of the faculty in biological and medical illustration to the outstanding undergraduate student in that field.

Edward Lambe Science Teaching Award

This award is presented annually to a student preparing for a career in science teaching.

Elisabeth Luce Moore Award

The Elisabeth Luce Moore Award in International and Religious Studies is given annually to a deserving student, graduate or undergraduate, who has demonstrated outstanding academic achievement and gives promise of contributions of unusual stature to the fostering of international understanding and the appreciation of religious values.

Irene Kondorousis Manoussos Pikoulas Scholarship

Endowed by her son Michael Manoussos to assist a promising student in political science, completion of whose studies might not be possible without this award.

Martin B. Travis Award

This award is made annually to a student completing a major in political science who plans to attend law school. The award honors Professor Emeritus Martin B. Travis.

Martin Buskin Memorial Award

This award is presented annually to the student who most exemplifies the qualities of journalistic integrity, scholarship, and deep concern for education.

Michael Flynn Award

Established by the Flynn family in memory of their son, Michael, this $500 award is presented to a senior student with a disability who has been at Stony Brook for at least two semesters and has a g.p.a. of 3.00 or higher.

Minorities in Medicine Award

This award is presented annually by the Minorities in Medicine Organization to an outstanding African-American, Latino, or Native American upper-division student who has demonstrated a commitment to pursuing a career in the health professions.

Norma Mahoney Black and Hispanic Alumni Association Award

This award is presented to an African-American, Latino, or Native American graduating senior who has excelled in his or her academics and who has demonstrated a concern for the Black and Latino communities.

Outstanding Student Achievement Awards

The Office of Special Programs presents this award to Educational Opportunity Program (EOP) students who maintain cumulative g.p.a.'s of 3.00 or higher.

Patricia E. Herman Award

This award is presented annually in memory of Patricia E. Herman to a junior or senior majoring in political science who has an interest in urban planning and/or environmental issues.

Patrick W. Warner Award in Economics and Applied Mathematics

This award is presented annually to a junior majoring in economics or applied mathematics and statistics to recognize outstanding academic achievement. The award honors Patrick W. Warner, Class of '74.

Phi Beta Kappa Undergraduate Research and Creative Activities Awards

These awards, one in research and one in creative activities, are presented annually to recognize superior performance by undergraduate students at any level in the liberal arts and sciences.

President's, Provost's, and Dean of Arts and Sciences Art Purchase Awards

These awards are given annually to senior art majors whose works, in the judgment of the studio art faculty, demonstrate originality, imagination, and mastery of craft. The art works become part of the University's permanent collection and are displayed in University offices.

Raymond F. Jones Award

This award is presented annually in memory of Raymond F. Jones, professor of biology and director of internationalprograms. 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 3.70 and the minimum for juniors was 3.98. 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. To be considered for election, students must have applied for graduation by February 15, July 15, or October 15 (before each graduation). Students who believe they are eligible for election, but have applied for graduation after these deadlines, should contact the Chapter Secretary directly.
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 full time students who have earned between 12 and 80 credits for a Cumulative GPA of 3.50 or more. Each full-time student must have completed in that semester at least 12 credits for a letter grade (not 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.

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 Professions), 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). Students pursuing a Second Bachelors degree are ineligible for the Dean's List. 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.

Departmental Honors Programs

Students must declare their intention to seek departmental honors and must carry out required academic activities to earn this distinction. Honors requirements are described in the Approved Majors, Minors, and Programs chapter in the listing of each department that offers honors. For students who qualify, this honor is indicated on their diploma and on their permanent academic record.

Accounting (ACC)

Minor in Accounting

College of Business

Dean: Haresh Gurnani
Associate Dean: Danling Jiang

Director of Undergraduate Studies: Christine Pitocco
Office of Student Services: 109 Harriman Hall
Phone: (631) 632-7171
Email: cobundergraduate@stonybrook.edu
Fax: (631) 632-8181
Website: 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 https://www.stonybrook.edu/commcms/business/faculty-research/faculty-list

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

Chair: Alain Patrice Nganang

Director of Undergraduate Studies: Shimelis Gulema

Assistant to the Chair: Ann Berrios

Email: ann.berrios@stonybrook.edu

Office: S-249 Social and Behavioral Sciences

Phone: (631) 632-7470

Website: 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.
Students select from an Interdisciplinary concentration, a concentration in Human Rights and Social Justice, and a concentration in Health and Disease. Note that concentrations do not appear on the Stony Brook transcript.

Interdisciplinary Concentration in Africana Studies

The interdisciplinary concentration in Africana Studies is intended to provide students with a broad knowledge of issues pertinent to Africa and the African diaspora. Students who follow this concentration will be exposed to the breadth of courses offered in the department, including foundations courses that deal with the Black experience; courses from the humanities and the social sciences; and courses that delineate the experiences of Africans in Africa and the diaspora. Thus, students will learn about art, music, philosophy, literature, history, politics, languages, cultures, societies, religion, dance—all from an interdisciplinary and transnational Africana perspective.

Learning Objectives

Students who complete the Interdisciplinary concentration in Africana Studies will be able to:

- Apply an Africana lens to the study of the humanities and the social sciences.
- Demonstrate an awareness of African and diasporic cultures and societies.
- Demonstrate their ability to think critically about social, political, and economic issues pertinent to Africa and the African diaspora.
- Interrogate and assess scholarly and popular sources on Africa and the African diaspora.
- Demonstrate awareness of the methodologies and skills used in the humanities and social sciences.

Requirements for the Interdisciplinary Concentration in Africana Studies
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.

Concentration in Human Rights & Social Justice

Questions of human rights and social justice have been central features of modern nation-states. In fact, in the twenty-first century, issues of human rights and social justice seem even more pressing in the light of the rise of autocratic governments, a recrudescence of far-right movements and fascist sensibilities, contracting economies, restrictions placed on journalists and others who "speak truth to power", and examples of ethnic cleansing under the watch of those who were held up as exemplars of human rights. This concentration will provide students with the knowledge and skills to address the multifarious issues that fall under the rubrics of human rights and social justice.

Learning Objectives

Students who complete the concentration in Human Rights and Social Justice will be able to:

- Demonstrate expertise in the major Africana theories on human rights and social justice.
- Evaluate and analyse the worth and veracity of various discourses (literature, moving images, inter alia) that delineate human rights issues in Africa or the African diaspora.
- Conduct research and write a cogent analysis on a major issue pertaining to social justice or human rights in Africa or the African diaspora.
- Apply the principles learnt in the classroom to "real-life" situations through a Social Action Project.

Requirements for the Concentration in Human Rights & Social Justice

- Social Action Project—the topic for the Social Action Project must be approved by the Undergraduate Director.
- Internship Requirement: Students must serve an internship in an organisation in Long Island or the Greater New York City area.

1. Foundation Courses

- AFS 101, 102 Themes in the Black Experience I, II

2. One course from each of the following areas (two of these courses must be selected from 200-level courses and two must be 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 Ethnic

3. Five courses under area of specialization; 3 of these courses must be from the Department of Africana Studies. Courses in the Department of Africana Studies which will be used to satisfy the Human Rights and Social Justice concentration are as follows:

- AFS 340 Human Rights in Africa
- AFS/HIS 325 The Civil Rights Movement
- AFS 350 Black Women and Social Change
- AFS 373 Sexualities: African and Caribbean Perspectives
- AFH 380 African American and Caribbean Theatre
- AFS 382 Race, Ethnicity, and Environment
- AFS 392 The Black Power Movement
- ARH 328 Exhibiting Africa

Courses from outside of Africana Studies which can be used to satisfy the concentration are as follows:

- SOC 303 Social Inequality
- SOC 309 Social Conflicts and Movements
- POL 310 Immigration and Refugee Politics
- POL 325 Civil Liberties and Civil Rights
- HWC 304 Contemporary Social Justice Issues
- HWC 361 Implications of Racial Issues for Social Welfare

4. 2 Research and EXP+ Courses at the 400-level:

- AFS/POL 477 Qualitative and Mixed Methods
- AFS/AFH 487 Research in Africana Studies

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.

Concentration in Health and Disease

Access to healthcare is one of the defining features of compassionate nations. Moreover, establishing standards of care is critical to delivering adequate health services. The concentration in health and disease considers these issues while at the same time creating educated citizenry who can move easily between academic and professional healthcare settings.

Learning Objectives

Students who complete the concentration in Health and Disease in Africa and the African Diaspora will be able to:

- Demonstrate expertise in the areas of health and disease in Africa and the African diaspora from historical and contemporary perspectives.
- Analyse case studies of health issues from Africa and the African diaspora.
- Demonstrate knowledge of qualitative and quantitative research methodologies and be able to use these methodologies to measure health outcomes.
- Interpret data.
- Demonstrate awareness of how the law and health intersect including areas relating to patient confidentiality and medical ethics.
- Demonstrate verbal and written skills consistent with those needed in professional healthcare settings.

Requirements for the Concentration in Health and Disease in Africa and the African Diaspora

- Students must earn a grade of “C” or higher in all courses towards their major.
- Social Action Project—the topic for the Social Action Project must be approved by the Undergraduate Director.
- Internship Requirement: Students must serve an internship in an organisation in Long Island or the Greater New York City area.

1. Foundation Courses

- AFS 101, 102 Themes in the Black Experience I, II

2. One course from each of the following areas (two of these courses must be selected from 200-level courses and two must be 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 Ethnic

3. Five courses under area of specialization; 3 of these courses must be from the Department of Africana Studies. Courses in the Department of Africana Studies which will be used to satisfy the Human Rights and Social Justice concentration are as follows:

- AFS/HIS 368 Health and Disease in Africa
- AFS/WST 381 AIDS, Race, and Gender in the Black Community
- AFS 374 Environment and Development in the African Diaspora

Courses from outside of Africana Studies which can be used to satisfy the concentration are as follows:

- SOC 200 Medicine and Society
- SOC 339 Sociology of Alcoholism and Drug Abuse
- SOC 393 Special Topics in Health, Medicine, and Social Change
- HIS 293 Disease in American History
- WST 394 Special Topics in Medicine, Reproduction, and Gender

4. 2 Research and EXP+ Courses at the 400-level:

- AFS/POL 477 Qualitative and Mixed Methods
- AFS/AFH 487 Research in Africana Studies

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: Interdisciplinary Concentration in Africana Studies

For more information about SBC courses that fulfill major requirements, click here.

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

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.

Anthropology (ANT)

Major and Minor in Anthropology

Department of Anthropology, College of Arts and Sciences

Chair: Katheryn Twiss

Director of Undergraduate Studies: Catherine Markham

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Minors of particular interest to students majoring in Anthropology: China Studies (CNS), History (HIS), Japanese Studies (JNH), Judaic Studies (JDS), Korean Studies (KOR)

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. The Anthropology program offers four specializations that allow students to tailor their advanced coursework to specific intellectual interests, training objectives, and career goals. Completion of the major entails 21 credits of foundational courses, plus completion of one of the four specializations. At least 18 credits must be in upper-division courses (300 level or higher). ANP/ANT 475, 476, and 488 DO NOT count toward the major requirements. All major courses (including transfer credits) must be passed with a letter grade of C or higher.

A. Foundational coursework required for all Anthropology majors, regardless of specialization

I. Introductory courses:

Students must take an introductory course in all three subfields offered in the major.

- ANT 102 What Makes Us Human?
- ANT 104 Archaeology
- ANP 120 Introduction to Biological Anthropology

II. Subfield courses:

1. One course in biological anthropology or human evolutionary biology (All applicable courses are listed below under the Biological Anthropology subfield)
2. One course in archaeology (See Archaeology subfield list below)
3. One course in cultural anthropology (See Cultural Anthropology subfield list below)

III. One 400-level seminar chosen from ANP 401, ANP 403, ANP 404, ANP 405, ANP 406, ANP 407, ANP 410, ANT 401, ANT 402, ANT 405, ANT 410, ANT 415, ANT 417, ANT 418, ANT 419, EBH 401, EBH 404, or EBH 405.

IV. Upper-Division 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. To complete the Writing Requirement in Anthropology, students must register for the 0-credit ANT 459, and submit one or more papers completed during a 300--level or higher "Writing Intensive" ANP/ANT/EBH course (selected from the subfield courses listed below or ANT 410) with an evaluation of S (Satisfactory). Detailed information on criteria and procedures for fulfilling the Writing Requirement in Anthropology is available from the Director of Undergraduate Studies.

B. Specializations of advanced study

Students must complete one of the four following specializations. Learning goals, advanced requirements (in addition to the baseline requirements listed above), and credit totals are listed for each specialization.

Specialization in contemporary approaches to anthropology

Learning goals: Anthropology is a discipline that embraces a holistic approach to examining the question "What makes us human?" This specialization offers students flexibility to take courses in a variety of anthropological subfields, exploring this question from morphological, behavioral, archaeological, and cultural standpoints. Students gain knowledge and methodological skills from courses covering both scientific and humanistic approaches to anthropology.

Advanced coursework requirements: Five elective courses (15 credits) at the 200-level or higher in Anthropology or Human Evolutionary Biology. Any 200+ course on the subfield lists may qualify, as well as ANP 202, ANP 401, ANT 215, ANT 410, ANP/ANT 447 (max 3 credits each), and ANP/ANT 487 (max 3 credits each). The Director of Undergraduate Studies may approve substitution of one course with anthropologically-relevant content from another department.

Credit total: 21 baseline coursework credits + 15 advanced specialization credits = 36 credits

Specialization in interdisciplinary anthropology

Learning goals: Anthropological research often bears on, or is shaped by, findings in sister disciplines, and successful application of anthropological knowledge in public service and private enterprise careers may depend on expertise in disciplines outside of anthropology. The Interdisciplinary specialization offers students the opportunity to partner their anthropology coursework with complementary learning in a minor field of study.

Advanced coursework requirements: Five elective courses (15 credits) at the 200-level or higher in Anthropology or Human Evolutionary Biology. Any 200+ course on the subfield lists may qualify, as well as ANP 202, ANP 401, ANT 215, ANT 410, ANP/ANT 447 (max 3 credits each), and ANP/ANT 487 (max 3 credits each). The Director of Undergraduate Studies may approve substitution of one course with anthropologically-relevant content from another department.

Students must also complete a minor in a related field approved by the Director of Undergraduate Studies. On declaring the Interdisciplinary specialization, the student must also declare their minor field of study.

Credit total: 21 baseline coursework credits + 15 advanced specialization credits = 36 credits, plus the credit requirements of related minor

Specialization in anthropological field methods

Learning goals: Fieldwork is a core element of many anthropological research endeavors. Although study abroad field schools are available to any student majoring in Anthropology regardless of their chosen specialization, the Field Methods specialization gives special emphasis to field-based programs so students may gain recognition for this advanced skill set.

Advanced coursework requirements: Seven elective courses (21 credits) at the 200-level or higher in Anthropology or Human Evolutionary Biology. Any 200+ course on the subfield lists may qualify, as well as ANP 202, ANP 401, ANT 215, ANT 410, ANP/ANT 447 (max 3 credits each), and ANP/ANT 487 (max 3 credits each). The Director of Undergraduate Studies may approve substitution of one course with anthropologically-relevant content from another department.

At least three of these courses (9 credits) must come from field training coursework that takes place off campus (i.e. at the Turkana Basin Institute, the Institute for the Conservation of Tropical Environments, or another field-based education program approved by the Director of Undergraduate Studies).

Credit total: 21 baseline coursework credits + 21 advanced specialization credits = 42 credits

Specialization in anthropological research and analysis

Learning goals: Preparing for an academic career in anthropology entails hands-on experience in laboratory methods and advanced training in critical thinking and research design. The Research & Analysis specialization pushes students to transition from “consumers” to “producers” of anthropological knowledge by giving heavy emphasis to seminars, lab courses, and independent research projects.

Advanced coursework requirements: Students may apply for this specialization once they have attained U3 standing. To qualify, they must have a minimum GPA of 3.5 in Anthropology. They must complete five 3-credit elective courses at the 200-level or higher in Anthropology or Human Evolutionary Biology. Any 200+ course on the subfield lists may qualify, as well as ANP 202, ANP 401, ANT 215, ANT 410, ANP/ANT 447 (max 3 credits), and ANP/ANT 487 (max 3 credits). The Director of Undergraduate Studies may approve substitution of one course with anthropologically-relevant content from another department.

In addition, students must complete 9 more credits in seminars, lab courses, and/or independent research. Eligible courses include ANP 387, ANP 399, ANP 401, ANP 403, ANP 404, ANP 405, ANP 406, ANP 407, ANP 410, ANP 487 (3 credits max), ANP 495, ANP 496, ANT 387, ANT 399, ANT 401, ANT 402, ANT 405, ANT 410, ANT 415, ANT 417, ANT 418, ANT 419, , ANT 487 (3 credits max), ANT 495, ANT 496, EBH 401, EBH 404, or EBH 405.

Credit total: 21 baseline coursework credits + 24 advanced specialization credits = 45 credits

Subfields of Study

The following courses qualify for the Biological Anthropology subfield:

- ANP 101 Human Biology
- 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 315 Climate Change and Human Evolution
- ANP 321 Primate Evolution
- ANP 326 Lemurs of Madagascar
- ANP 350 Methods in Studying Primates
- ANP 360 Primate Conservation
- ANP 387 Independent Briodiversity Research Project in Madagascar
- 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 407 Building Bones
- ANP 410 Comparative Primate Anatomy
- EBH 200 The Evolution of Human Behavior
- EBH 204 Research Skills
- EBH 230 Computer-Based Biostatistics
- EBH 302 Human Genetics
- 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
- EBH 401 Seminar in Evolutionary Biology of Humans
- EBH 404 The Evolution of Parenting
- EBH 405 Life History & Development

The following courses qualify for the Archaeology subfield:

- ANT 103 Archaeology for a Better World
- 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 273 The Unstoppable Species?
- ANT 277 The Origins of Art
- 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 359 The Archaeology of Food
- ANT 360 Ancient Mesopotamia
- ANT 362 Long Island Archaeology
- ANT 363 Approaches to Archaeology
- ANT 371 Ancient China
- 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 Stone Tools in Human Evolution
- ANT 419 Zooarchaeology
- HIS 212 Ancient History of Mesoamerica
- HIS 385 Aztec Civilization
- HIS 386 The Maya

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 Americans
- ANT 205 Ancient Japanese Civilization
- ANT 208 Zombiology
- ANT 230 Peoples of the World
- ANT 250 African Cultures Today
- 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 Cultural Diversity in China
- ANT 380 Race and Ethnicity in Latin America and the Caribbean
- ANT 381 Applied Anthropology
- ANT 387 Independent Cultural Research Project in Madagascar
- 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 unless the student is completing the specialization in anthropological research and analysis, in which case ANP/T 495/6 may count toward the advanced credits. 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 102What Makes Us Human?
- ANT 104 Archaeology
- ANP 120 Introduction to Biological Anthropology

2. Subfield courses:

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

3. Three elective courses:

Elective courses (at the 200-level or higher) may be drawn from any of the 200+ subfield courses listed above, plus ANP 202, ANP 401, ANT 215, ANT 410, ANP/ANT 447 (max 3 credits each), and ANP/ANT 487 (max 3 credits each).

Sample Course Sequence for the Major in Anthropology

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
ANT 102	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1

WRT 102	3
ANP 120	3
SBC	3
SBC	3
Elective	3
Total	16

SOPHOMORE

FALL	Credits
Subfield course 1	3
Subfield course 2	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ANT 104	3
Subfield course 3	3
SBC	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
ANT 417	3
ANP 201	3
ANT 371	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
ANT 357	3
ANP 300	4
ANT 381	3
Upper-division elective	3
Elective	3
Total	16

SENIOR

FALL	Credits

Upper-division elective	3
Upper-division elective	3
Elective	3
SBC	3
SBC	3
Total	15

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

Chair: Joseph Mitchell

Undergraduate Program Director: Esther Arkin

Email: Esther.Arkin@stonybrook.edu

Undergraduate Program Coordinator: Cathy Arrighetta

Office: P-139B Math Tower

Phone: (631) 632-8370

Website: 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 Applied Mathematics and Statistics (AMS) major is a professional B.S. program that prepares graduates for quantitative careers in business and industry with a toolkit of applicable mathematical techniques and problem-solving strategies primarily drawn from probability and statistics, operations research, and actuarial mathematics. Many AMS students choose to combine AMS with an additional major or minor. Students can plan programs of study according to their career plans and interests, in various areas of applied mathematics and statistics. In addition, some students may consider accelerated programs that combine B.S. with a Master's program.

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 may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.

Applications for major admission are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students must meet the following requirements:

- Grades of B-minus or better in linear algebra (AMS 210 or MAT 211) and multivariable calculus (AMS 261 or MAT 203),
- An overall GPA of 2.8 or better in all attempts of calculus (calculus I, II, III, A, B, C) and linear algebra,
- At most one of the courses in calculus (calculus I, II, III, A, B, C) and linear algebra may be repeated, and
- Completion of course evaluations for all transferred courses that are to be used to meet requirements of the major.

AOI in Applied Mathematics and Statistics (GAM) students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry, and apply for admission by the application deadline immediately following completion of the above requirements, but not later than the one year limit. These AOI students who meet the above criteria within the stated time limit are guaranteed admission. All other students fulfilling the requirements are not guaranteed acceptance. Admission is competitive and contingent upon program capacity.

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 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

2. One AMS approved computing course; approved AMS courses may include

- AMS 325 Computing and Programming Fundamentals in Applied Mathematics and Statistics
- CSE 101 Computer Science Principles
- CSE 114 Introduction to Object-Oriented Programming
- ESG 111 Programming for Engineers

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 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 302 and above (excluding 312), and MAT designated courses numbered 310 and above.

4. Upper-Division Writing Requirement:

All degree candidates must demonstrate skill in written English at a level acceptable for Applied Mathematics and Statistics majors. AMS students must register for a course designated by the University as WRTD (e.g., AMS 300).

Grading

All courses taken to satisfy requirements 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. Popular choices for AMS double majors include 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.

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. Admission to the minor is competitive and contingent upon program capacity.

A. Calculus: AMS 151, AMS 161 (See Note)

B. Linear algebra: AMS 210 or MAT 211
C. Core AMS courses: AMS 301 and AMS 310 or AMS 311
D. AMS electives: three additional 300+ level AMS courses with the exception of AMS 300, 301, 310 or 311 if used as a requirement in C. At most one of the AMS upper division electives can be from among AMS 475, 476, 487.

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
or Level 9 on the MPE

Sample Course Sequence for the Major in Applied Mathematics and Statistics

For more information about SBC courses that fulfill major requirements, click here.

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

FALL	Credits
AMS 210 (STEM+)	3
AMS 261 (STEM+)	4
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
AMS 301 (STEM+)	3
AMS 310 (STEM+)	3
SBC	3
Elective	3
Elective	3

Total	15

JUNIOR

FALL	Credits
AMS 3xx (SBS+)	3
AMS 315 (ESI, CER)	3
Elective	3
Elective	3
Elective	3
Total	15

SPRING	Credits
AMS 3xx	3
AMS 3xx	3
Elective	3
Elective	3
Elective	3
Total	15

SENIOR

FALL	Credits
AMS 3xx	3
AMS 3xx (WRTD)	3
Elective	3
Elective	3
Elective	3
AMS 300 (WRTD, SPK)	1
Total	16

SPRING	Credits
AMS 4xx (EXP+)	3
Elective	3
Elective	3
Elective	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 https://www.stonybrook.edu/commcms/ams/people/index.php#CoreFaculty

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

Art History and Criticism (ARH)

Major and Minor in Art History

Department of Art, College of Arts and Sciences

Chair: Linda O'Keeffe

Director of Undergraduate Studies: Izumi Ashizawa

Assistant to the Chair: Laura Sisti

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

Website: http://art.stonybrook.edu/undergraduate/ug-arhc/

Minors of particular interest to students majoring in Art History: French (FRN), Studio Art (ARS)

Department of Art

The Department of Art offers three majors: Art History and Criticism, Studio Art and Media/Art/Culture. 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.

The department also offers three minors: Art History, Studio Art, and Digital Arts (see separate listing for DIA minor in this Bulletin).

Art History and Criticism looks at images, objects, and spaces throughout history and across geographic regions. Majors and minors acquire a broad foundation in art history at the introductory level. Majors 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, and across the Americas, Europe, the Middle East, Asia and Africa, 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.

Media/Art/Culture is a specialized interdisciplinary curriculum that brings together art history, film and media history, and photography, film and digital media studio practice. The program offers courses informed by histories of media, technology, and art, explored through specific social and cultural formations. Students engage critically with diverse topics and issues at the intersection of digital art, media, technology, and culture. Students acquire the practical skills to create innovative work in digital media, including writing, photography, video, sound, interactive, computational and internet based media. Coursework emphasizes cross-disciplinary, project- based, and collaborative learning; students practice working on their own and in teams using theory and practice in ways that will help prepare them to contribute in a wide range of contemporary workplaces. We prepare students to be socially aware global citizens who think critically about how to make positive change in a society that is ever increasingly shaped by new and emerging technologies.

Studio Art majors concentrate on the creative, technical, and practical aspects of the Fine Arts. They acquire a foundation in drawing, digital media and 2-dimensional/ 3-dimensional design, and select one of three areas of concentration to specialize in. The areas of concentration include: painting, drawing, and printmaking; photography, digital and electronic media; and sculpture and ceramics. Beyond their areas of specialization, students have the opportunity to take elective courses in all of the disciplines. Studio Art majors are expected to acquire a sound foundation in art history and criticism to inform and inspire their own creative work. Students have on and off-campus internship and exhibition opportunities, as well as faculty mentors to guide them in preparing for graduate studies, and professional work and creative opportunities.

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
- 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
  - EGL 220 Critical Approaches to the Cinema

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 308, 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, ARH 400

Sample Course Sequence for the Major in Art History
For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1

WRT 101	3
ARH 202	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
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

FALL	Credits
ARH 208 or ARH 209	3
ARH 201 or ARH 203	3
Language	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ARH 300-level	3
ARH 300-level	3
Language	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
ARH 300-level	3
ARH 300-level	3
Language or ARS	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits

ARH 300-level	3
ARH 300-level	3
Language or elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SENIOR

FALL	Credits
ARH 300-level	3
ARH 400-level	3
ARH 308	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits
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)

Major and Minor in Studio Art
Department of Art, College of Arts and Sciences

Chair: Linda O'Keeffe

Director of Undergraduate Studies: Izumi Ashizawa

Assistant to the Chair: Laura Sisti

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

Website: http://art.stonybrook.edu/undergraduate/ug-ars/

Minors of particular interest to students majoring in Studio Art: Digital Arts (DIA), Art History (ARH), Media Arts (MDA)

Department of Art

The Department of Art offers three majors: Art History and Criticism, Studio Art and Media/Art/Culture. 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.

The department also offers three minors: Art History, Studio Art, and Digital Arts (see separate listing for DIA minor in this Bulletin).

Art History and Criticism looks at images, objects, and spaces throughout history and across geographic regions. Majors and minors acquire a broad foundation in art history at the introductory level. Majors 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, and across the Americas, Europe, the Middle East, Asia and Africa, 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.

Media/Art/Culture is a specialized interdisciplinary curriculum that brings together art history, film and media history, and photography, film and digital media studio practice. The program offers courses informed by histories of media, technology, and art, explored through specific social and cultural formations. Students engage critically with diverse topics and issues at the intersection of digital art, media, technology, and culture. Students acquire the practical skills to create innovative work in digital media, including writing, photography, video, sound, interactive, computational and internet based media. Coursework emphasizes cross-disciplinary, project- based, and collaborative learning; students practice working on their own and in teams using theory and practice in ways that will help prepare them to contribute in a wide range of contemporary workplaces. We prepare students to be socially aware global citizens who think critically about how to make positive change in a society that is ever increasingly shaped by new and emerging technologies.

Studio Art majors concentrate on the creative, technical, and practical aspects of the Fine Arts. They acquire a foundation in drawing, digital media and 2-dimensional/ 3-dimensional design, and select one of three areas of concentration to specialize in. The areas of concentration include: painting, drawing, and printmaking; photography, digital and electronic media; and sculpture and ceramics. Beyond their areas of specialization, students have the opportunity to take elective courses in all of the disciplines. Studio Art majors are expected to acquire a sound foundation in art history and criticism to inform and inspire their own creative work. Students have on and off-campus internship and exhibition opportunities, as well as faculty mentors to guide them in preparing for graduate studies, and professional work and creative opportunities.

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 355, ARS 359, ARS 374, ARS 375, ARS 452, ARS 471, ARS 472
- Electronic Media and Photography: MUS 208, ARS 281, ARS 317, ARS 318, ARS 324, ARS 325, ARS 326, ARS 327, ARS 328, ARS 329, ARS 381, ARS 382, ARS 425, ARS 481, ARS 482, MUS 341
- Sculpture and Ceramic Sculpture: ARS 256, ARS 264, ARS 364, ARS 365, ARS 366, ARS 384, ARS 402, ARS 465, ARS 466

3. Electives: Seven additional studio classes

- Chosen from any of the above areas of concentration. May include ARS 105, ARS 390, ARS 401, ARS 403, ARS 407, 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
ARS 154	3
ARH 202 or ARH 204	3
SBC	3

SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
ARS 225	3
ARH 206	3
SBC	3
SBC	3
Total	16

SOPHOMORE

FALL	Credits
ARH 322	3
ARH 324	3
ARS 255	3
SBC	3
SBC	3
Total	15

SPRING	Credits
ARS 350	3
ARS 351	3
ARS 352	3
CDT 317	3
SBC	3
Total	15

JUNIOR

FALL	Credits
ARS 364	3
ARS 366	3
ARS 381	3
ARS 326	3
SBC	3
Total	15

SPRING	Credits
ARS 318	3
ARS 325	3
ARS 327	3
SBC	3

SBC	3
Total	15

SENIOR

FALL	Credits
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.

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

Chair: Eriko Sato

Director of Undergraduate Studies:Gregory Ruf

Administrative Assistant: Lynne Foerster

Business Administrator: Theresa Spadola

Office: 1046 Humanities

Phone: (631) 632-4030

Website: http://www.stonybrook.edu/commcms/asian/

Minors of particular interest to students majoring in Asian and Asian American Studies: Anthropology (ANT), China Studies (CNS), History (HIS), Japanese Studies (JNS), Korean Studies (KOR), Linguistics (LIN), 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 (6 credits)

Majors are required to take at least 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 (9 credits)

Majors are required to take three of the core courses to AAS major:

- AAS 102 Eastern Religions
- AAS 201 Introduction to the Civilization of the Indian Subcontinent
- AAS 216 Introduction to Japanese Studies
- AAS 217 Introduction to Korean Culture
- AAS 220 China: Language and Culture
- AAS 232 Introduction to Asian American Fiction and Film

Students may substitute courses not listed, with Director of Undergraduate Studies approval.

C. Areas of Focus (15 credits)

Majors are required to take fifteen credits from one 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. Note: Students may substitute courses not listed under their chosen Area of Focus with Director of Undergraduate Studies approval.

1) Asian Philosophy and Religions

Courses in this area of focus include but are not limited to:

- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 236 Korean Religions
- AAS 240 Confucianism and Daoism
- AAS 256 Hinduism
- AAS 260 Buddhism
- AAS 280 Islam
- AAS 300 Intellectual History of East Asia
- AAS 326 Indian Mythology
- AAS 366 Feminine Spirituality
- AAS 368 Yoga: Theory and Praxis
- AAS 380 Islamic Classics
- AAS 382 Japanese Buddhism
- AAS 387 Islam and Confucianism
- AAS 391 Humanities Topics in Asian and Asian American Studies
- AAS 472 Topics and Asian Philosophy

2) Literature, Arts, and Culture of Asia

Courses in this area of focus include but are not limited to:

- AAS 110 Appreciating Indian Music
- AAS 212 Asian and Asian American Studies Topics in the Humanities
- AAS 232 Introduction to Asian American Fiction and Film
- AAS 237 Introduction to Japanese Literature
- AAS 247 Modern Korea through Visual Culture
- 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
- AAS 440 Inter-Asia Cultural Studies

3) Society and Contemporary Issues

Courses in this area of focus include but are not limited to:

- AAS 211 Asian and Asian American Studies Topics in the Social Sciences
- AAS 219 Japan in the Age of Courtier and Samurai
- AAS 223 China: Society and Civilization

- AAS 232 Introduction to Asian American Fiction and Film
- AAS 247 Modern Korea through Visual Culture
- AAS 328 Race, Humor and Asian America
- AAS 338 Contemporary India: History, Politics, and Diplomacy
- AAS 339 Contemporary China: History, Politics, and Diplomacy
- AAS 343 Modern Japan
- AAS 351 Revolutionary China: Politics, Culture, and Power
- AAS 352 Environmental History of China
- AAS 353 Postwar Japan
- 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 area of focus 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 219 Japan in the Age of Courtier and Samurai
- AAS 237 Introduction to Japanese Literature
- AAS 247 Modern Korea through Visual Culture
- AAS 320 Literature of India
- AAS 321 Korean Literature
- AAS 322 Literature of Japan
- AAS 323 Language and Society in South Korea
- AAS 324 Language and Society in North Korea
- AAS 326 Indian Mythology
- AAS 327 Great Epics of India: Ramayana and Mahabharata
- AAS 330 Language and Society in South Asia
- AAS 337 History of Korea
- AAS 338 Contemporary India: History, Politics, and Diplomacy
- AAS 339 Contemporary China: History, Politics, and Diplomacy
- AAS 343 Modern Japan
- AAS 344 Learning of Asian Languages
- AAS 351 Revolutionary China: Politics, Culture, and Power
- AAS 352 Environmental History of China
- AAS 353 Postwar Japan
- AAS 370 Intercultural Communication
- AAS 371 Ancient China
- AAS 372 Family, Marriage, and Kinship in China
- AAS 379 Cultural Diversity of China
- 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 400 Seminar in Korean Studies
- CHI 426 Structure of Chinese
- JPN 426 Structure of Japanese
- KOR 426 Structure of Korean

D. Asian and Asian American Studies Electives (6 credits)

Majors are required to take two electives in AAS to meet the total credit and upper-division credit requirements.

E. Senior Seminar (3 credits)

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: Write Effectively in Asian and

Asian American Studies, 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 201 Introduction to the Civilization of the Indian Subcontinent
- AAS 216 Introduction to Japanese Studies
- AAS 217 Introduction to Korean Culture
- AAS 220 China: Language and Culture
- AAS 232 Introduction to Asian American Fiction and Film

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

For more information about SBC courses that fulfill major requirements, click here.

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

SPRING	Credits
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

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

SPRING	Credits
Intermediate Asian language II	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

JUNIOR

FALL	Credits
Concentration: 1st course	3
Concentration: 2nd course	3
SBC	3
Elective	3

Elective	3
Total	15

SPRING	Credits
Concentration: 3rd course	3
Concentration: 4th course	3
SBC	3
Elective	3
Elective	3
Total	15

SENIOR

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

SPRING	Credits
One upper-division elective in AAS	3
Elective	3
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.

Astronomy/Planetary Sciences (AST)

Major and Minor in Astronomy/Planetary Sciences

Department of Physics and Astronomy, College of Arts and Sciences

Chair: Chang-Kee Jung

Astronomy Director of Undergraduate Studies: Michael Zingale

Department Administrator: Nathan Leoce-Schappin

Assistant to the Director: Diane Diaferia

Office: P-110 Graduate Physics

Phone: (631) 632-8100

Website: http://www.astro.sunysb.edu

Minors of particular interest to students majoring in Astronomy: Electrical Engineering (ESE), Mathematics (MAT), Optics (OPT)

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, and three of these four courses: AST 341 Stars and Radiation, AST 346 Galaxies, AST 347 Cosmology and AST 390 Special Topics in Astrophysics.
2. At least six credits from additional AST courses numbered 205 or higher (except AST 248, AST 301, AST 389, and AST 475), including AST 390 and PHY 408. Up to three credits of AST 287, AST 447, and AST 487may 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 (except the AST courses). 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 (or MAT 119/MAT 123) is a required course for the major.
2. One of the following: AMS 261 Applied Calculus III or MAT 307 Multivariable Calculus with Linear Algebra
3. One of the following: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 (or MAT 130/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.

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. At least nine additional credits in AST courses at the 300 level or higher. No more than three of these credits may come from AST 301 or AST 389.
4. PHY125/126/127 or PHY131/132 or PHY141/142 and PHY133/134
5. MAT 125 Calculus A (or MAT 130/MAT 125) 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

For more information about SBC courses that fulfill major requirements, click here.

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 390 or AST 346	3
PHY 308	3
PHY 300	3
Upper-division elective	3
SBC	3
Total	15

SENIOR

FALL	Credits
AST 443 or AST 347	3-4
Upper-division SBC	3
SBC	3
SBC	3
SBC	3
Total	15-16

SPRING	Credits
AST 346 or AST 390	3
Upper-division SBC	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.

Atmospheric and Oceanic Sciences (ATM)

Major in Atmospheric and Oceanic Sciences

School of Marine and Atmospheric Sciences (SoMAS)
Director of Undergraduate Studies: Brian Colle

Undergraduate Advisor: Nancy Black
Advising Office: E2361 Melville Library
Phone: (631) 632-9404
Advising email: nancy.black@stonybrook.edu
Website: 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 210 Applied Linear Algebra
2. MAT 131 and MAT 132 Calculus I and II (See note below). If students do not place into MAT 125 or MAT 131 on the basis of the math placement examination, MAT 123 (or MAT 119/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 129/CHE 130 or 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 with labs
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 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
- ATM 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
- 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 (or MAT 125/MAT 130), MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 or 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 (optional, 1-3 credits):

- ATM 387 Weather and Climate Data Analysis
- ATM 447 Senior Tutorial in Atmospheric Sciences
- ATM 487 Senior Research or ATM 488 Internship

D. Upper-Division Writing Requirement:

The advanced writing component of the major in ATM requires registration in, and satisfactory completion of the 0-credit MAR 459 or SUS 459 (S/U grading) along with enrollment in an approved advanced course that entails writing of either a term paper or a laboratory report. Completion of MAR 459 with a grade of S will also result in fulfillment of the WRTD requirement. A list of preapproved courses can be found at http://www.somas.stonybrook.edu/education/undergraduate/.

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 8thsemester (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)

For more information about SBC courses that fulfill major requirements, click here.

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

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

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

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

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

JUNIOR

FALL	Credits
ATM 345	3
ATM 201	3
SBC	3
SBC	3
SBC	3
Total	15

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

SENIOR

FALL	Credits
MAR 334	3
GEO 313	3
Upper-division SBC	3
Upper-division SBC	3
SBC	3
Total	15

SPRING	Credits
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

Chair: Wali Karzai

Director of Undergraduate Studies: Bernadette Holdener
Email: biochem_ugpd@stonybrook.edu
Assistant to the Chair: Carol Juliano
Office: 450 Life Sciences Building
Phone: (631) 632-8550
Website: http://www.stonybrook.edu/commcms/biochem/

Minors of particular interest to students majoring in Biochemistry: Biomaterials (BES), Bioengineering (BNG), Chemistry (CHE)

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. To double major in Biochemistry and either Chemistry or
Bioengineering, Biochemistry majors should consult with the Biochemistry Major Undergraduate Program Director and the respective second major Undergraduate Program Director for acceptable course combinations.

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 69 to 74 credits.
Transfer students who wish to complete the requirements for the Biochemistry major must take Biochemistry I and II (BIO 361and 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 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 (or MAT 119/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 2)
2. BIO 310 Cell Biology
3. BIO 361, BIO 362 Biochemistry I,II (see Note 1)

4. BIO 365 Biochemistry Laboratory
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
- 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 2)
- 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)
- EBH 380 Genomics (formerly offered as BIO 304 Genomics)

Note 1. BIO 361 and BIO 362 must be taken in order. A grade of C or higher in BIO 202 and CHE 321 & CHE 326 or CHE 322is required to enroll in BIO 361 and BIO 362.
Note 2. 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 Upper Division Writing Requirement for the Biochemistry major is consistent with the University Graduation Requirements for General Education, and successful completion will satisfy the Stony Brook Curriculum (SBC) learning outcomes for "Write Effectively within One's Discipline" (WRTD).

Registration: To satisfy the Upper-Division Writing requirement for the major in Biochemistry, students must co-register for the 0-credit BIO 459 course with either BIO 365 (Biochemistry lab) or an alternate approved advanced course in biological sciences or chemistry (see below). Students MUST enroll in BIO 459 at the same time they are registering for the respective advanced course. To receive WRTD credit and a satisfactory grade in BIO 459, either a BIO 365 lab report or term paper from another approved advanced biology/chemistry course must be submitted for writing evaluation prior to the end of the term and pass the review process.

How to submit writing sample: After submitting their lab report or term paper for BIO course credit, students should submit the same document via Brightspace to BIO 459 “Assignments” for writing evaluation. It is the student’s responsibility to submit their writing sample early in the semester to allow adequate time for review and revision before end of term. Students are encouraged to submit their upper division writing requirement in their junior year or by the end of their next-to-last semester, since submission in the final semester could delay graduation clearance.

Review process: The Program in Writing and Rhetoric will evaluate the BIO 459 submission, provide feedback, and will contact the student directly if remedial efforts are needed. Satisfactory completion of BIO 459 will fulfill the Stony Brook Curriculum (SBC) “Writing in the Discipline” WRTD learning objectives. If the writing assignment is initially found to be unsatisfactory, the student will be instructed by The Program in Writing and Rhetoric before resubmitting a revised version of their original paper.

Alternate approved advanced courses: While BIO 459 co-registration with BIO 365 is highly recommended for Biochemistry majors, other upper division courses that routinely offer writing assignments which fulfill the WRTD requirement with co-registration in BIO 459 are listed below. When considering alternate courses, students should take into consideration the limited enrollment opportunities for biochemistry majors in upper division laboratory courses other than BIO 365 and verify that they have the required pre-or co-requisites. Students considering registering for an approved alternative course are strongly encouraged to discuss this option with the Biochemistry Undergraduate Program Director at biochem_ugpd@stonybrook.edu or make an appointment with a Division of Undergraduate Biology Advisor using Navigate.

- BIO 312 Bioinformatics and Computational Biology
- BIO 320 General Genetics
- BIO 321 Ecological Genetics (Fall and Spring semesters ONLY)

- BIO 327 Developmental Genetics Laboratory
- BIO 335 Neurobiology Laboratory
- BIO 336 Conservation Biology
- BIO 344 Chordate Zoology
- BIO 352 Ecology Laboratory
- BIO 353 Marine Ecology
- BIO 354 Evolution
- BIO 364 Laboratory Techniques in Cancer Biology
- BIO 365 Biochemistry Laboratory
- BIO 366 Molecular Microbiology Laboratory
- BIO 367 Molecular Diversity Laboratory
- BIO 385 Plant Ecology Laboratory
- BIO 386 Ecosystem Ecology and the Global Environment
- 400 level BIO or CHE readings or research courses with instructor permission also considered
- EBH 302 Human Genetics

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 that 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

For more information about SBC courses that fulfill major requirements, click here.

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
Total	15-16

SOPHOMORE

FALL	Credits
BIO 203	3
CHE 321	4
MAT 127 (if MAT 125, MAT 126, MAT 127 sequence taken)	3
BIO 204	2
BIO 458	0
LANG 111	4
Total	16

SPRING	Credits
BIO 201 or BIO 202	3
CHE 322	4
CHE 327	2
BIO 205 or BIO 207	2
LANG 112	4
Total	15

JUNIOR

FALL	Credits
BIO 361*	3
PHY 121	4
BIO 365	3
BIO 459	0
SBC	3
SBC	3
Total	16

SPRING	Credits
BIO 362*	3
BIO 320	3
PHY 122	4
SBC	3
SBC	3
Total	16

SENIOR

FALL	Credits
BIO elective***	3
SBC or BIO elective***	3
SBC	3
SBC	3

SBC	3
Total	15

SPRING	Credits
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 but has very limited enrollment capacity; CHE 312 is offered only in the spring.

***Two BIO electives are required for the major and must be chosen from the approved list.
Electives not on the list must be approved by the Biochemistry major Undergraduate Program Director

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

Bioengineering (BNG)

Minor in Bioengineering

Department of Biomedical Engineering, College of Engineering and Applied Sciences

Chairperson: Yi-Xian Qin
Undergraduate Program Director: Molly Frame
Undergraduate Program Director: Mei Lin (Ete) Chan
Undergraduate Program Coordinator: Jessica Kuhn Berthold
Office: Bioengineering 102
Phone: (631) 632-8371
E-mail: bme_ug_program@stonybrook.edu
Web address: http://www.stonybrook.edu/bme

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.).

Priority is given to students with a grade point average of 3.00 or higher. Admission is competitive and contingent upon program capacity.

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

B. Specialization Tracks

1. Biomaterials/Biomechanics
   1. BME 260 Statics and Dynamics in Biological Systems
   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. BME 271 Introduction to Electric Circuits and Bioelectricity
   2. BME 301 Bioelectricity
   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. 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)

Majors 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 in the Biology B.S. major: Applied Mathematics and Statistics (AMS), Biomaterials (BES), Bioengineering (BNG), Chemistry (CHE), Environmental Studies (ENS), Health and Wellness (LHW), Science and Engineering (LSE), Writing and Rhetoric (WRT)
The list of approved minors for the Biology B.A. can be found on the Biology B.A. webpage.
The Undergraduate Biology Program
Director: John Peter Gergen
Assistant Director: Kaitlyn Cozier
Advisors: Rachel Pilero, Matthew Bialt, Kayla McFadden
Schedule advising appointments online through Navigate
Office: Biology Learning Laboratories, Undergraduate Biology Office Suite, Rooms 104-112
Program Secretary: Lynette Giordano
Phone: (631) 632-8530
Website: http://www.stonybrook.edu/biology
Department of Biochemistry and Cell Biology
Chair: Wali Karzai
Assistant to the Chair: Carol Juliano
Website: http://www.stonybrook.edu/biochem
Department of Ecology and Evolution
Chair: Joshua S. Rest
Assistant to the Chair: Donna DiGiovanni
Website: https://www.stonybrook.edu/commcms/ecoevo/
Department of Neurobiology and Behavior
Chair: Alfredo Fontanini
Assistant to the Chair: Catherine Costanzo
Website: https://www.stonybrook.edu/commcms/neurobiology/

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.

Undergraduate Biology offers both Bachelor of Sciences (B.S.) and a Bachelor of Arts (B.A.) degree programs in Biology. Both degree programs build on a strong foundation in chemistry, mathematics and physics that provides the concepts and methodologies needed to understand biological complexity at multiple levels. 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. For the Biology B.S. degree this core foundation is followed by advanced course and laboratory work that includes an in-depth program of study in an area of Specialization along with complementary studies that ensure breadth of exposure to other areas of biology. These Specializations include Developmental Genetics, Ecology and Evolution, Environmental Biology, Interdisciplinary Biological Sciences, Neuroscience, Quantitative Biology and Bioinformatics. The Biology B.A. program involves fewer advanced courses in biology, but instead requires completion of a non-overlapping minor in the College of Arts and Sciences or the School of Communication and Journalism. The B.A. provides an option for students interested in careers that build on foundational knowledge in the biosciences who also have strong interests in areas such as the fine arts, humanities, social sciences, or communication. The B.S. program is most appropriate for students interested in graduate studies in the biological sciences or technical positions in industry, including biotechnology, government agencies, and research institutes. Both programs provide excellent preparation for professional careers in the health sciences.

Students in the Biology B.A. or B.S. programs 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.

Information related to the Biology major and minor is available from the Undergraduate Biology Office and website: https://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 Biology 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.

Biology Undergraduate Degree Options

Undergraduate Biology offers both Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) degree programs in Biology, along with a minor in Biology.

Students in the Biology BA or BS programs 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 B.A. (BIO)

Completion of the B.A. major in Biology requires a minimum of 55 credits for the major, along with a required minor (18-24 credits). **All 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, with the exception of the Spring 2020 semester**. All core and advanced courses in biology must be taken for a letter grade and passed with a grade of C or higher. At least one semester of the two-semester sequences of required courses in general chemistry lecture, organic chemistry lecture, and physics lecture/lab must be passed with a letter grade of C or higher. The organic chemistry lab must be passed with a C or higher.

A. Foundational Courses in Related Fields

1. Chemistry Sequence Lecture Options:

- CHE 129/CHE 130, CHE 132 General Chemistry IA and II OR CHE 131, CHE 132 General Chemistry IB and II OR CHE 152 Molecular Science I

2. Chemistry Sequence Laboratory Options

- CHE 133, CHE 134 General Chemistry Laboratory I and II, OR CHE 154 Molecular Science Lab I

3. Organic Chemistry Lecture Options

- CHE 321, CHE 322 Organic Chemistry I and IIA OR CHE 321, CHE 326 Organic Chemistry I and IIB OR CHE 331, 332 Molecular Science II and III

4. Organic Chemistry Lecture Options

- CHE 327 Organic Chemistry Laboratory OR CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques

5. Calculus Course Options

- MAT 125 Calculus A (or MAT 130/MAT 125) OR MAT 131 Calculus I OR MAT 141 Analysis I OR MAT 171 Accelerated Single Variable Calculus OR AMS 151 OR Level 7, 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 (or MAT 119/MAT 123) is a required course for the major.

6. Physics Sequence Options

- 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 B (AMS 161, MAT 126, MAT 132, MAT 142, or MAT 171) or higher is required for the major.

7. Statistics Course Options

- 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

Students who transfer in AMS 102 from another institution with a grade of 'A' or higher will receive credit for the statistics course.

B. Core Courses in Biology

1. BIO 201 Fundamental of Biology; Organisms to Ecosystems
2. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
3. BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
4. BIO 204 and BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences I and II OR BIO 204 and BIO 207 Fundamentals of Scientific Inquiry in the Biological Sciences I and IIB

C. Advanced Courses in Biology

At least one of the following 3 credit upper division BIO courses:

1. BIO 320 General Genetics

2. BIO 321 Ecological Genetics and Genomics
3. BIO 354 Evolution
4. EBH 302 Human Genetics

D. Advanced Biology Electives
Two additional upper division BIO courses. Research, readings, teaching practica and internship courses cannot be used to satisfy upper-division BIO course requirements. Students cannot take both BIO 320 and BIO 321 for biology major credit. Only one of these courses may be taken for biology major credit.

E. Approved Liberal Arts Minor within the College of Arts and Sciences or the School of Communication and Journalism
Completion of a Minor within the College of Arts and Sciences or the School of Communication and Journalism with no more than a 3 credit overlap with the major requirements for the BIO B.A. The list of approved minors for the Biology BA can be found on Undergraduate Biology's website here.

F. Upper-Division Writing Requirement

Registration: The Upper Division Writing Requirement for the Biology major is consistent with the University Graduation Requirements for General Education, and successful completion will satisfy the Stony Brook Curriculum (SBC) learning outcomes for "Write Effectively within One's Discipline" (WRTD). In order to satisfy the Upper-Division Writing requirement for the major in Biology, students must co-register for the 0-credit BIO 459 course with an approved advanced course as listed below. Students must enroll in BIO 459 at the same time that they are registering for the respective advanced course. To receive a satisfactory grade in BIO 459 and WRTD credit, either a lab report or term paper from the advanced course must be submitted prior to the end of the term.

How to submit writing sample: After submitting their lab report or term paper for BIO course credit in their respective courses, students should submit the exact same document to the BIO 459 Brightspace course assignments for writing evaluation. We encourage submission of writing samples early in the semester to allow time for review and revision if needed.

Review of writing sample: The Program in Writing and Rhetoric will evaluate the BIO 459 submission and will contact the student directly if remedial efforts are needed. Satisfactory completion of BIO 459 will fulfill the Stony Brook Curriculum (SBC) "Writing in the Discipline" WRTD learning objectives. If the writing assignment is initially found to be unsatisfactory, the student will be instructed by the Program in Writing and Rhetoric before resubmitting a revised version of their original paper. If, in lieu of making revisions, a student chooses to submit a paper from another course that routinely offers a BIO 459 assignment, they should not enroll in BIO 459 again. To allow for evaluation and possible revision of their writing sample, students are urged to complete their upper division writing requirement in their junior year or by the end of their next-to-last semester. Completion of the upper division writing requirement in the final semester is considered but may delay graduation clearance.

Courses that routinely offer assignments that can satisfy the BIO 459 WRTD learning outcomes:

- BIO 312
- BIO 320
- BIO 321
- BIO 327
- BIO 335
- BIO 336
- BIO 344
- BIO 352
- BIO 353
- BIO 354
- BIO 364
- BIO 365
- BIO 366
- BIO 367
- BIO 385
- BIO 386
- EBH 302

Application of Transfer Credits to the Biology BA Requirements:

Core 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 may satisfy the requirements for courses in related fields with transferred courses, if the courses are approved as being equivalent. **Upper-division or upper-division equivalent courses taken elsewhere and transferred to Stony Brook can satisfy the requirement for BIO 320, BIO 321, BIO 354 or EBH 302 for the Biology BA; however, students must still take three advanced courses (300-level BIO courses) here at Stony Brook**.

Requirements for the Major in Biology B.S. (BIO)

Completion of the B.S. major in Biology 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, with the exception of the Spring 20 semester. 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. The organic chemistry lab must be passed with a C or higher. Completion of the BIO major requires completion of the foundational courses in related fields, 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, including advanced courses in biology from other departments, 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

1. Chemistry Sequence Lecture Options

- CHE 129/CHE 130, CHE 132 General Chemistry IA and II OR CHE 131, CHE 132 General Chemistry IB and II OR CHE 152 Molecular Science I

2. Chemistry Sequence Laboratory Options

- CHE 133, CHE 134 General Chemistry Laboratory I and II, OR CHE 154 Molecular Science Lab I Organic Chemistry Lecture Options

3. Organic Chemistry Lecture Options

- CHE 321, CHE 322 Organic Chemistry I and IIA OR CHE 321, CHE 326 Organic Chemistry I and IIB OR CHE 331, 332 Molecular Science II and III

4. Organic Chemistry Laboratory Options

- CHE 327 Organic Chemistry Laboratory OR CHE 383 Introductory Synthetic and Spectroscopic Laboratory Techniques

5. Calculus Sequence Options

- MAT 125 (or MAT 130/MAT 125), MAT 126 Calculus A and B OR MAT 131, MAT 132 Calculus I and II OR MAT 141, MAT 142 Analysis I and 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 (or MAT 119/MAT 123) is a required course for the major.

6. Physics Sequence Options

- 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.

7. Statistics Course Options

- 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

Students who transfer in AMS 102 from another institution with a grade of 'A' or higher will receive credit for the statistics course.

B. Core Courses in Biology

1. BIO 201 Fundamental of Biology; Organisms to Ecosystems
2. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
3. BIO 203 Fundamentals of Biology: Cellular and Organ Physiology
4. BIO 204 and BIO 205 Fundamentals of Scientific Inquiry in the Biological Sciences I and IIA or BIO 204 and BIO 207 Fundamentals of Scientific Inquiry in the Biological Sciences IIB

C. Advanced Courses in Biology

Programs of study in the Biology major are organized into 6 Specializations that promote in-depth explorations of different areas while also insuring a breadth of exposure to other areas in the biological sciences. DECLARING A SPECIALIZATION IS REQUIRED TO COMPLETE THE BIOLOGY BS. 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 6 Specializations are: Developmental Genetics, Ecology and Evolution, Environmental Biology, Interdisciplinary Biology, Neuroscience, and Quantitative Biology and Bioinformatics. There is also a special degree program for students who choose to double major in Biology and Clinical Laboratory Sciences; if students would like to pursue this double major, please speak with a biology advisor. 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.

Students cannot take both BIO 320 and BIO 321 for biology major credit. Only one of these courses may be taken for biology major credit.

Advanced BIO Courses:

Area I: Biochemistry, Molecular and Cellular Biology:

- BIO 306 Principles of Virology (Lecture)
- BIO 310 Cell Biology (Lecture)
- BIO 312 Bioinformatics and Computational Biology (Lecture with 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)
- AMS 333 Mathematical Biology (Lecture)
- BIO 511 Topics in Biotechnology (Lecture with 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

- 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)
- BIO 347 Introduction to Neural Computation (Lecture)
- BIO 369 Animal Nutrition (Lecture)
- BCP 401 Principles of Pharmacology (Lecture)
- BME 301 Biophotonics (Lecture)
- BME 303 Biomechanics (Lecture)
- EBH 316 The Evolution of the Human Brain (Lecture, previously listed as ANP 316)
- EBH 331 Hormones and Behavior (Lecture)

Area III: Organisms

- BIO 315 Microbiology (Lecture)
- BIO 325 Animal Development (Lecture)
- BIO 327 Developmental Genetics Laboratory (Laboratory)
- BIO 341 Plant Diversity (Lecture with Laboratory)
- BIO 342 Invertebrate Zoology (Lecture)
- BIO 343 Invertebrate Zoology Laboratory (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)
- BIO 515 Current Topics in Microbiology (Laboratory)
- MAR 370 Marine Mammals (Lecture)
- MAR 375 Marine Mammal and Sea Turtle Rehabilitation (Lecture)
- 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

- 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 383 Paleobiology (Lecture with Laboratory)
- BIO 385 Plant Ecology (Lecture)
- BIO 386 Ecosystem Ecology and the Global Environment (Lecture)
- ANP 304 Modern and Ancient Environments of Eastern Africa (Lecture with Laboratory)
- ANP 305 Vertebrate Paleontology of the Turkana Basin (Laboratory)
- ANP 306 Paleoanthropological Discoveries of the Turkana Basin (Lecture with Laboratory)
- ANP 307 Comparing Ecosystems in Madagascar (Lecture)
- ANP 325 Primate Behavior (Lecture)
- ANP 326 Lemurs of Madagascar (Lecture)
- ANP 350 Methods of Studying Primates (Lecture)
- ANP 351 Biodiversity Assessment Methods for Tropical Field Research (Lecture)
- ANP 360 Primate Conservation (Lecture)
- ANP 391 Topics in Physical Anthropology (Lecture)
- EBH 359 Behavioral Ecology (Lecture) (formerly BIO 359)
- EBH 380 Genomics (Lecture)
- 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 (Lecture)
- 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)

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), Area II (Neurobiology and Physiology), or Area III (Organisms) or from the list of advanced laboratory 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 Environmental Biology

1. BIO 351 Ecology
2. One advanced BIO laboratory course from Area IV (Ecology and Evolution) or from the list of advanced laboratory courses offered by other Departments and accepted for BIO major credit in this area.
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), Area II (Neurobiology and Physiology), or Area III (Organisms) 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 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
- BIO 347 Introduction to Neural Computation
- 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.

D. Upper-Division Writing Requirement

Registration: The Upper Division Writing Requirement for the Biology major is consistent with the University Graduation Requirements for General Education, and successful completion will satisfy the Stony Brook Curriculum (SBC) learning outcomes for "Write Effectively within One's Discipline" (WRTD). In order to satisfy the Upper-Division Writing requirement for the major in Biology, students must co-register for the 0-credit BIO 459 course with an approved advanced course as listed below. Students must enroll in BIO 459 at the same time that they are registering for the respective advanced course. To receive a satisfactory grade in BIO 459 and WRTD credit, either a lab report or term paper from the advanced course must be submitted prior to the end of the term.

How to submit writing sample: After submitting their lab report or term paper for BIO course credit in their respective courses, students should submit the exact same document to the BIO 459 Brightspace course assignments for writing evaluation. We encourage submission of writing samples early in the semester to allow time for review and revision if needed.

Review of writing sample: The Program in Writing and Rhetoric will evaluate the BIO 459 submission and will contact the student directly if remedial efforts are needed. Satisfactory completion of BIO 459 will fulfill the Stony Brook Curriculum (SBC) “Writing in the Discipline” WRTD learning objectives. If the writing assignment is initially found to be unsatisfactory, the student will be instructed by the Program in Writing and Rhetoric before resubmitting a revised version of their original paper. If, in lieu of making revisions, a student chooses to submit a paper from another course that routinely offers a BIO 459 assignment, they should not enroll in BIO 459 again. To allow for evaluation and possible revision of their writing sample, students are urged to complete their upper division writing requirement in their junior year or by the end of their next-to-last semester. Completion of the upper division writing requirement in the final semester is considered but may delay graduation clearance.

Courses that routinely offer assignments that can satisfy the BIO 459 WRTD learning outcomes:

- BIO 312

- BIO 320
- BIO 321
- BIO 327
- BIO 335
- BIO 336
- BIO 344
- BIO 352
- BIO 353
- BIO 354
- BIO 364
- BIO 365
- BIO 366
- BIO 367
- BIO 385
- BIO 386
- EBH 302
- EBH 380

Application of Transfer Credits to the Biology BS 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.

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. Only courses with BIO indicators are accepted for the Biology minor with the exception of: EBH 302, EBH 370, EBH 359, EBH 380, EBH 381.
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.

Sample Course Sequence for the Major in Biology, B.A.

For more information about SBC courses that fulfill major requirements, click here.

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
AMS 110 or BIO 211	3-4
BIO 201	3
Total	15-16

SOPHOMORE

FALL	Credits
CHE 321	4
BIO 202 or BIO 203	3

course for minor	3
SBC	3
Total	13

SPRING	Credits
CHE 322	4
CHE 327	2
BIO 202 or BIO 203	3
course for minor	3
BIO 3xx elective	3
Total	15

JUNIOR

FALL	Credits
BIO 204	3
PHY 121	4
course for minor	3
SBC	3
elective	3
Total	16

SPRING	Credits
BIO 205 or BIO 207	2
BIO 3XX elective	3
PHY 122	3
upper-division course for minor	3
SBC	3
SBC	3
Total	17

SENIOR

FALL	Credits
BIO 3xx elective	3
upper-division course for minor	3
SBC	3
upper-division elective	3
upper-division elective	3
Total	15

SPRING	Credits
upper-division course for minor	3
SBC	3
upper-division elective	3

upper-division elective	3
elective	3
Total	15

Sample Course Sequence for the Major in Biology, B.S.

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131 or CHE 129 & CHE 130	4 or 5
CHE 133	1
MAT 125 or MAT 131 or AMS 151	3
SBC	3
Total	15-16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
BIO 201 or BIO 202	3
MAT 126 or MAT 132 or AMS 161	3
Total	15

SOPHOMORE

FALL	Credits
CHE 321	4
BIO 203	3
BIO 204	2
SBC	3
SBC	3
Total	15

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

JUNIOR

FALL	Credits
Advanced BIO Lecture	3
PHY 121 or PHY 131 & PHY 133	4
AMS 110 or BIO 211	3
SBC	3
SBC	3
Total	16

SPRING	Credits
PHY 122 or PHY 132 & PHY 134	4
Advanced BIO Lecture	3
Advanced BIO Lecture	3
SBC	3
SBC	3
Total	15-16

SENIOR

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

SPRING	Credits
Advanced BIO Lecture	3
Advanced BIO Lab	2-3
Upper-division Elective	3
Upper-division Elective	3
Upper-division Elective	3
Total	14-15

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

Biomaterials (BES)

Minor in Biomaterials

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Interim Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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 Chemical 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 118 Digital Logic Design
3. ESE 280 Embedded Microcontroller Systems Design I
4. ESM 453 Biomaterials
5. Three courses chosen from:

    - BME 301 Bioelectricity
    - 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 453 Biomaterials
3. ESG 332 Materials Science I: Structure and Properties of Materials
4. Three courses chosen from:

- BME 301 Bioelectricity
- 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 453 Biomaterials
5. Three courses chosen from:

- BME 301 Bioelectricity
- 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

Chair: Yi-Xian Qin
Undergraduate Program Director: Mary (Molly) Frame, PhD

Undergraduate Program Director: Mei Lin (Ete) Chan
Undergraduate Program Coordinator: Jessica Kuhn Berthold

Email: bme_ug_program@stonybrook.edu
Phone: (631) 632-8371
Website: https://www.stonybrook.edu/bme/

Minors of particular interest to students majoring in Biomedical Engineering: Applied Math and Statistics (AMS), Biochemistry (BCH), Nanotechnology (NTS)

Department Information - Biomedical Engineering (BME)

The Department of Biomedical Engineering offers the major in Biomedical Engineering, leading to the Bachelor of Engineering (B.E.) degree. In a rigorous, cross-disciplinary training and research environment, the major program provides an engineering education along with a strong background in the biological and physical sciences. It is designed to enhance the development of creativity and collaboration through study of a specialization within the field of biomedical engineering. Teamwork, communication skills, and hands-on laboratory and research experience are emphasized. The curriculum provides students with the underlying engineering principles required to understand how biological organisms are formed and how they respond to their environment. The Biomedical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Core courses provide depth within the broad field of biomedical engineering. These are integrated with, and rely upon, course offerings from both the College of Engineering and Applied Sciences and the College of Arts and Sciences. To achieve the breadth of engineering experience expected of Biomedical Engineering graduates, additional elective courses from the College of Engineering and Applied Sciences are required of all Biomedical Engineering students.

The Department also offers a five-year accelerated B.E./M.S. degree, which can be completed within one additional year of studies beyond the Bachelor's degree.

The accelerated B.E./M.S. is intended to prepare high-achieving and highly-motivated undergraduate BME students for either doctoral studies or a variety of advanced professional positions. The program is highly selective with admission based on academic performance as well as undergraduate research. Juniors can be admitted into the accelerated degree program if they satisfy the requirements outlined in the Graduate Bulletin. The requirements for the accelerated program are the same as the requirements for the B.E. and M.S. degree, except that two graduate 500-level courses replace two 300-level electives, so that six graduate credits are counted toward the undergraduate degree.

Graduates are prepared for entry into professions in biomedical engineering, biotechnology, pharmaceuticals, and medical technology, as well as careers in academia and government. Potential employers include colleges and universities, hospitals, government, research institutes and laboratories, and private industry.

Program Educational Objectives

The undergraduate program in biomedical engineering has the following 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.

Student Outcomes

The students will demonstrate the following:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Requirements for the Major in Biomedical Engineering

Acceptance into the Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.

Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completed AMS 161 and PHY 132/134 or equivalents;
- Earn 10 or more credits of mathematics, physics and engineering courses that are taken at Stony Brook and satisfy the major’s requirements;
- Obtain a grade point average of at least 3.0 in major courses with no more than one grade below B-;
- No more than two required courses for the major have been repeated;
- Completion of course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.
Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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 128 credits.

1. Mathematics

a. AMS 151, AMS 161 Calculus I, II
b. AMS 261 or MAT 203 Calculus III
c. AMS 361 or MAT 303 Calculus IV
d. AMS 210 Applied Linear Algebra

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

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. Biomedical Engineering

a. BME 100 Introduction to Biomedical Engineering
b. BME 203 Emergent Biodesign
c. BME 212 Laboratory Methods in Biomedical Engineering
d. BME 260 Statics and Dynamics in Biological Systems
e. BME 271 Introduction to Electric Circuits and Bioelectricity
f. BME 301 Bioelectricity
g. BME 303 Biomechanics
h. BME 304 Genetic Engineering
i. BME 305 Biofluids
j. BME 440 Biomedical Engineering Design
k. BME 441 Senior Design Project in Bioengineering

5. Biomedical Engineering Specializations and Technical Electives

Biomedical engineering students must complete a specialization, composed of at least 30 credits in one of three areas, including at least two 3- to 4-credit design technical elective courses with a BME designation. Five 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 three 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.

6. 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 300- or 400-level BME course (excluding BME 440, 441, and 499). 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 5 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 to graduate. 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; 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. Fifteen credits must be BME (not BME 499), however six additional credits may be BME 499. Although any BME technical elective courses will be accepted within any of the three tracks, below are recommended courses for each track. Non-BME technical elective courses are entirely track specific. BME courses with significant design content are marked by (*).

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 353 Introduction to Biomaterials

BME 354 Advanced Biomaterials (*)
BME 361 Data Science with Python
BME 371 Biological Microfluidics
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
ESG 302 Thermodynamics of Materials
ESG 332 Materials Science I: Structure and Properties of Materials
ESM 335 Strength of Materials
ESM 453 Biomaterials
ESM 469 Polymer Engineering
MEC 363 Mechanics of Solids

Alternative courses:

AMS 315 Data Analysis
AMS 333 Mathematical Biology
BME 311 Fundamentals of Bio-imaging (*)
BME 312 LabVIEW Programming in Engineering (*)
BME 313 Bioinstrumentation (*)
BME 402 Contemporary Biotechnology
BME 481 Biosensors (*)
CHE 321 Organic Chemistry I
CHE 322 Organic Chemistry II
CHE 327 Organic Chemistry Laboratory
CSE 332 Introduction to Scientific Visualization
ESE 315 Control System Design
ESG 281 Engineering Intro to Solid State
ESG 316 Engineering Science Design Methods
ESM 325 Diffraction Techniques and Structure of Solids
ESM 335 Strength of Materials
ESM 450 Engineering Systems Laboratory
ESM 469 Polymer Engineering
MEC 310 Introduction to Machine Design
MEC 320 Numerical Methods in Engineering Design and Analysis
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 310 Introduction to Biomedical Optics and Ultrasound
BME 311 Fundamentals of Macro to Molecular Bioimaging (*)
BME 312 LabVIEW Programming in Engineering (*)
BME 313 Bioinstrumentation (*)
BME 361 Data Science with Python
BME 381 Nanofabrication in Biomedical Applications (*)
BME 430 Quantitative Human Physiology
BME 461 Biosystems Analysis
BME 481 Biosensors (*)
CSE 377 Introduction to Medical Imaging
ESE 211 Electronics Laboratory A
ESE 273 Microelectronic Circuits
ESE 306 Random Signals and Systems
ESE 314 Electronics Laboratory B
ESE 315 Control System Design

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 B

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 311 Bioimaging (*)
BME 353 Introduction to Biomaterials
BME 354 Advanced Biomaterials (*)
BME 361 Data Science with Python
BME 371 Biological Microfluidics
BME 381 Nanofabrication in Biomedical Applications (*)
BME 402 Contemporary Biotechnology
BME 404 Essentials of Tissue Engineering (*)
BME 420 Computational Biomechanics
BME 430 Quantitative Physiology
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 310 Cell 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 312 LabVIEW Programming in Engineering (*)
BME 313 Bioinstrumentation (*)
CHE 312 Physical Chemistry for the Life Sciences
CHE 346 Biomolecular Structure and Reactivity
CHE 353 Chemical Thermodynamics
EBH 302 Human Genetics
ESG 332 Materials Science I: Structure and Properties of Materials
ESM 453 Biomaterials
ESM 469 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.
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.

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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
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	3
AMS 161 (QPS)	3
CHE 132 (SNW)	4
PHY 132/134 (SNW)	4
Total	15

SOPHOMORE

FALL	Credits
BME 212 or SBC	3
BIO 202	3
AMS 261	4
BIO 204	2
AMS 210	3
BME 203	3
Total	18

SPRING	Credits
BME 212 or SBC	3
BME 304 (STAS)	3
AMS 361	4
BME 260	4
SBC	3
Total	17

JUNIOR

FALL	Credits
BME 271	3
AMS 310	3
BME 300	0
BME 303 (STAS)	3
Technical Elective	3
Technical Elective	3
Total	15

SPRING	Credits
BME 301	3
BME 305	3
SBC	3
Technical Elective	3
Technical Elective	3
Total	15

SENIOR

FALL	Credits
BME 440*	3
Technical Elective	3
Technical Elective	3
Technical Elective	3
SBC	3
Total	15

SPRING	Credits
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.

Black Heritage Studies (BLH)

Minor in Black Heritage Studies

Department of Africana Studies, College of Arts and Sciences

Chair: Alain Patrice Nganang

Director of Undergraduate Studies: Shimelis Gulema

Assistant to the Chair: Ann Berrios

Email: ann.berrios@stonybrook.edu

Office: S-249 Social and Behavioral Sciences

Phone: (631) 632-7470

Website: http://www.stonybrook.edu/commcms/africana-studies/

Black Heritage Studies (BLH)

The Black Heritage Studies minor intends to connect students with the African continent, with a sequence of classes that combines history, anthropology, and archeology, the study of an African language and studies abroad. All courses offered for the minor, except those graded S/U must be passed with a letter grade C or higher.

Requirements for the Minor in Black Heritage Studies (BLH)

Completion of the Black Heritage Studies Minor requires a minimum of 18 credits, with at least 9 upper division credits.

Requirements for the Minor in Black Heritage Studies:

1. KSW 111, KSW 112 Beginning Swahili I, II OR AFS 101, 102 Themes in the Black Experience I, II
2. Four elective courses chosen from the list below. At least two courses must be AFS or AFH. Six credits of study abroad may count as elective credit.
   - AFH 206 Great Books of the Black Experience
   - AFH 329/HUF 318 Pan-African Literature I
   - AFH 330 Pan-African Literature II
   - AFH 382/EGL 382/WST 382 Black Women's Literature
   - AFH 391 Topics in Africana Studies
   - AFH 423 Africana Literature in French
   - AFS 221/HIS 221 Introduction to Modern African History
   - AFS 277/HIS 277 The Modern Color Line
   - AFS 365/SOC 365 Introduction to African Society
   - AFS 300 Blacks in the City
   - AFS 375 Slavery
   - 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
   - AFS 346/HIS 346 Political and Social History of Africa
   - AFS 380/ANT 380 Race and Ethnic
   - AFS 340 Human Rights in Africa
   - AFS 350 Black Women and Social Change
   - AFS 373 Sexualities: African and Caribbean Perspectives
   - AFS 381 AIDS, Race, and Gender in the Black Community ANT 250 African Cultures Today
   - ANT 307 Prehistoric Archaeology of Africa (with emphasis on the Turkana Basin)
   - ANT 355 Ancient African Civilizations
   - SOC 365 Global Africa
   - SOC 310 Racism and Ethnic Relations
   - HIS 282: African American History Since 1877
   - AFS/HIS 325: Civil Rights and Black Power
   - HIS 339: Recent African American History
   - HIS 366: Carceral Studies: Histories of Policing, Prisons, and Surveillance of Race
   - HIS 374: Surveillance State: A History of U.S. Domestic Spying

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

Business Management (BUS)

Major in Business Management

College of Business

Dean: Haresh Gurnani
Associate Dean for Academic Programs: Danling Jiang
Undergraduate Program Director: Christine Pitocco
Office of Student Services: 109 Harriman Hall
Phone: (631) 632-7171
Email: cobundergraduate@stonybrook.edu
Fax: (631) 632-8181
Website: 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 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 four business functions: accounting, finance, marketing, and operations management. The knowledge gained in the specialization assists students in finding employment in that area of a business.

Requirements for the Major in Business Management (BUS)

Note: Many Business courses must be taken for a letter grade and do not offer students a G/P/NC option. See the courses without G/P/NC option course list for a full list of courses that do not offer a G/P/NC option.
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 3.2 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 55 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 used to fulfill an area of specialization.

A. Core Courses

- ACC 210 Financial Accounting
- ACC 214 Managerial Cost Analysis and Applications
- BUS 215 Introduction to Business Statistics
- BUS 220 Introduction to Decision Sciences
- BUS 301 Business Communications
- BUS 326 Organizational Behavior
- BUS 330 Principles of Finance
- BUS 340 Information Systems in Management
- 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
- MAT 122 Overview of Calculus; or MAT 123 Precalculus; or MAT 119 Foundations for Precalculus and MAT 123 Precalculus; or a higher level calculus course

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 310 Intermediate Accounting I
- ACC 311 Federal Income Taxation I

b. Select two from the following:

- ACC 313 Intermediate Accounting II
- ACC 314 Federal Income Taxation II
- ACC 400 External Auditing
- BUS 488 Internship

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.

2. Finance

a. Select four from the following:

- BUS 317: Estate & Financial Planning
- BUS 331 International Finance
- BUS 332 Entrepreneurial Finance
- BUS 336 Mergers and Acquisitions
- BUS 355 Investment Analysis
- BUS 356 Financial Analysis with Excel (formerly offered as 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 406 Real Estate Finance
- BUS 488 Internship

3. 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 Integrated Marketing Communications
- BUS 335 Business Advertising and Promotion
- BUS 357 Principles of Sales
- BUS 360 Business Marketing
- BUS 362 Principles of International Marketing
- BUS 363 Brand Management
- BUS 378 Marketing Ethics, Public Policy, and Social Change
- BUS 449 Marketing in Action
- BUS 488 Internship

4. Operations Management

a. Select four from the following:

- BUS 370 Lean Practices in Operations
- BUS 371 Supply Chain Management
- BUS 372 Quality Management
- BUS 375 Data Mining
- BUS 393 Principles of Project Management
- 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 objectives SPK and WRTD. This course must be taken at Stony Brook.

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 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.

Business Honors Program (BHP)

Qualified students may graduate with honors in the College of Business. Admission requirements for the honors program are an overall GPA of 3.5 or higher and successful completion of WRT 102 with a B or better. To graduate with honors requires an accumulated GPA of 3.5 or better, fulfillment of the courses below, and a student presentation during the Undergraduate Research & Creative Activities Celebration of Undergraduate Research & Creativity (an annual event organized by the URECA Program that showcases undergraduate research, open to all SBU undergraduates conducting faculty-mentored research and creative projects). Students' progress and performance will be monitored throughout the program. Students who perform poorly (below a cumulative 3.5 GPA) in their academic studies will be counseled and warned that they are in jeopardy of being dropped from the BHP. Following at least one warning, such students will not be permitted to continue in the BHP. Students entering as a business major, either as an existing Stony Brook student or transfer student, will be evaluated under the same criteria for curriculum and admittance to the BHP.

Required Courses (each 3 credits):

- BUS 495 Business Honors Program Thesis (Capstone Experience)
- BUS 496 Business Honors Program Thesis (Capstone Experience)

The College of Business Honors Program Capstone enables junior and senior undergraduate students to pursue a track of excellence of their choice required for graduation. These tracks include, but are not limited to:

- Working with a PhD faculty member in a business department of choice. 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.
- Partnering with a corporate sponsor to design an experiential program for your senior year that promotes the synergies of learning for the organization as well as the student body at the COB. This Honors Capstone requires a well thought out project/plan with a reflection piece that is shared with the employer and the COB.
- Designing and producing a program/project that incorporates research and analysis in a specialization of your choice, working with a PhD faculty mentor who serves as a mentor pursuing research in a particular specialization with a predetermined learning outcome.
- Completing a business plan as your Honors thesis, working with a faculty member in innovation or entrepreneurship.
- Pursuing social entrepreneurship/community impact by taking on a project grounding in creating innovative solutions to society's social problems. This Honors Capstone will require a written implementation proposal incorporating research, analysis, possible a corporate sponsor and an implementation plan.
- Creating a project that entails leadership on the Stony brook University Campus and the use of planning, organizing and orchestrating an idea from conception to a measurable end result. This Honors Capstone will require a written implementation proposal incorporating research, analysis and an implementation plan.

Acceptance to the Business Honors Program

- Applicants must complete the BHP application which includes a 250-500 word essay. The deadline is March 15; however, applications will be reviewed on a rolling basis. Students are encouraged to apply prior to March 1.

Please contact the Office of Student Services at cobundergraduate@stonybrook.edu with any questions regarding the Honors program.

Sample Course Sequence for the Major in Business Management

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102	3
MAT 122	3
ARTS course	3
HUM course	3
Elective	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

ACC 214	3
BUS 348	3
TECH course	3
EXP +, SBS +, or HFA + course	3
Total	15

JUNIOR

FALL	Credits
EXP +, SBS +, or HFA + course	3
BUS 346	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
Specialization course	3
Elective	3
Upper-division elective	3
Total	15

SPRING	Credits
BUS 447 (CER) or BUS 446 (CER)	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 https://www.stonybrook.edu/commcms/business/about/_faculty/

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 Chemical Engineering, College of Engineering and Applied Sciences

Chairperson: Dilip Gersappe

Undergraduate Program Director: Tadanori Koga

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

OFFICE: Engineering 231

PHONE: (631) 632-8381

E-MAIL: cme_undergradadvising@stonybrook.edu

PROGRAM WEBSITE: https://www.stonybrook.edu/matscieng/

Minors of particular interest to students majoring in Chemical and Molecular Engineering: Business (BUS), Chemistry (CHE), Materials Science (ESM), Physics (PHY), Applied Mathematics and Statistics (AMS), Pharmacology (BCP)

Chemical and Molecular Engineering

The Department of Materials Science and Chemical 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, neutraceutical, 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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Requirements for the Major in Chemical and Molecular Engineering

Acceptance into the Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of "Q" in the instance of a first offense.

Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Students must have a grade of B or higher in all 100-level mathematics, physics, and chemistry courses required by the major.
- Students must have an overall GPA of 3.2 with no more than one grade of C+ or lower in any course, unless permission to waive is granted by the undergraduate program director.
- Department must receive completed course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.
Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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 Applied Calculus III or Calculus III with Applications
c. AMS 361 or MAT 303 Applied Calculus IV:Differential Equations or Calculus IV with Applications
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

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 or CHE 331 Molecular Science II
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 133/CHE 132/ CHE 134: CHE 152 Molecular Science I and CHE 154 Molecular Science Laboratory I

b. Physics
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
ESG 111 Programming for Engineers

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 310, CME 320, CME 410, CME 420 Chemical Engineering Laboratory I, II, III, IV
CME 401 Separation Technologies
CME 405 Process Control in Engineering Design
CME 425 Introduction to Catalysis or 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 junior 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.

CME 360 Nanomaterials and Applications
CME 369 or ESM 469 Polymer Engineering
CME 375 Fundamentals of Industrial Corrosion and Corrosion Protection
CME 460 Nanomaterials: Synthesis, Processing and Characterization
ESG 332 Materials Science I: Structure and Properties of Materials
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 or ESM 469 Polymer Engineering
CME 372 Colloids, emulsions, micelles

C. Polymer specialization

CME 369 or ESM 469 Polymer Engineering
CME 371 Biomaterials
CME 460 Nanomaterials: Synthesis, Processing and Characterization
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:
BIO 310 Cell Biology
BIO 328 Mammalian Physiology
BIO 335 Neurobiology Laboratory
BIO 317 Principles of Cellular Signaling
BME 354 Advanced Biomaterials
CHE 346 Biomolecular Structure and Reactivity
CME 371 Biomaterials or BME 353 Introduction to Biomaterials
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 9 credits of any upper division (300 level or above) Business courses not required for the CME major.

F. Chemistry
The Chemistry specialization consists of 9 credits of upper level CHE 300 courses not already required for the CME Major.

G. Physics
The Physics specialization consists of 9 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.

The Accelerated B.E./M.S. Degree Program in Chemical and Molecular Engineering

The accelerated B.E./M.S. program in chemical and molecular engineering allows students to use up to six 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 chemical and molecular 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 Chemical and Molecular Engineering

For more information about SBC courses that fulfill major requirements, click here.

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
ESG 111	3
Total	16

SPRING	Credits
AMS 361	4
CME 233	2
SBC	3
CME 312	3
CME 314	3
Total	15

JUNIOR

FALL	Credits
SBC	3
CME 310, CME 300	3, 0
CME 318	3
SBC	3
CME 315	3
Total	15

SPRING	Credits
CME 323	3
CME 320 (TECH)	2
CME 405	3
CME 322	3
Specialization Course	3
Total	14

SENIOR

FALL	Credits
CME 401	3
CME 410	2
CME 440*	3
CME 480	3
SBC	3
Specialization course or CME 425	3
Total	17

SPRING	Credits
CME 420	2
CME 441*	3
CME 427 or Specialization course	3
SBC	3
SBC	3
Specialization course	3
Total	17

*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.

Chemistry (CHE)

Majors and Minor in Chemistry

Department of Chemistry, College of Arts and Sciences

Chair: Stanislaus Wong

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

Website: http://stonybrook.edu/chemistry

Minors of particular interest to students majoring in Chemistry: Biology (BIO), Environmental Studies (ENS), Marine Sciences (MAR)

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)

The department of Chemistry offers both a Bachelor of Arts and a Bachelor of Science degree in Chemistry.

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-. G/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 a minimum of 66 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, II, 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) and MAT 203 (Calculus III with applications) (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 (or MAT 119/MAT 123) is a required course for the major.
10. 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 or CHE 377 Inorganic Chemistry Laboratory
- CHE 328 Synthetic and Spectroscopic Laboratory Techniques or CHE 384 Intermediate Synthetic and Spectroscopic Laboratory Techniques
- CHE 487 Research in Chemistry (3 credits) or CHE 495/CHE 496 Senior Research (see note 3)
- Two electives chosen from: CHE 345/461, CHE 346/461, CHE 348/461, CHE 351, CHE 353, CHE 358, CHE 376, CHE 377 (see note 3) CHE 378, PHY 251, or ESG 281

2. Biological Chemistry Option (See note 4)

- CHE 328 Synthetic and Spectroscopic Laboratory Techniques or CHE 384 Intermediate Synthetic and Spectroscopic Laboratory Techniques
- One organic or inorganic chemistry elective chosen from: CHE 345/461, CHE 346/461 (See note 5), CHE 348/461, CHE 376, CHE 377, 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
- AMS 210 or MAT 211 or AMS 261 or MAT 303 (See note 6)
- PHY 251/PHY 252 Modern Physics and Laboratory
- One elective chosen from: CHE 358 Computing in Chemistry, 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 or CHE 377 Inorganic Chemistry Laboratory, or ENV 321 Chemistry for Environmental Science Laboratory
- CHE 328 Synthetic and Spectroscopic Laboratory Techniques or 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 6 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 (or MAT 130/MAT 125), MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 for MAT 131, MAT 132; AMS 210 or MAT 211 or AMS 261 for MAT 203. 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. Students may complete both CHE 357 and CHE 377 in lieu of the research requirement. However, CHE 377 can only fulfill one of the requirements of the alternative to CHE 357, the alternative to research, or one of the electives.
4. It is recommended that students selecting the biological option take a minimum of one BIO lab (e.g., BIO 204).
5. CHE 346/461 may not be used as both an elective and as a substitute for BIO 361.
6. The Chemical Physics option requires two math courses in addition to Calculus I and II.
7. 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.
8. 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).
9. 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, CHE 304, and one of the following: 1. CHE 487 (6 or more credits), 2. CHE 495-496, 3. CHE 357 and CHE 377, 4. CHE 357 and CHE 487 (3 or more credits), 5. CHE 377 and CHE 487 (3 or more credits) or 6. a research experience in the chemical sciences at another college, university, or government laboratory of at least 180 hours (see note 11).
   Students who elect the *chemical physics* option must complete CHE 346/461 and one of the following:
   1. 6 additional credits chosen from CHE 328 or CHE 384, CHE 377, CHE 487 (3 or more credits), or CHE 495-496,
   or 2. a research experience in the chemical sciences of at least 180 hours at another college, university, or
   government laboratory (see note 11).
   Students who elect the *marine and atmospheric chemistry* option must complete CHE 346/461, CHE 328 or
   CHE 384, and one of the following: 1. CHE 487 (6 or more credits), 2. CHE 495-496, 3. CHE 357 and CHE
   377, 4. CHE 357 and CHE 487 (3 or more credits), 5. CHE 377 and CHE 487 (3 or more credits) or 6. a research experience in the chemical sciences at another college, university,
   or government laboratory of at least 180 hours (see note 11).
   Students who elect the *environmental chemistry* option must complete CHE 346/461 and either CHE 377 (in addition to CHE 357 or ENV 321), CHE 487 (3 credits), CHE 495-496, or a research experience in the chemical sciences at another college, university, or government laboratory of at least 180 hours (see note 10).
10. Additional Areas of Study
    Because knowledge of computer programming is of great value to all chemists, CHE 358 or other course in computer programming is recommended.
11. Students who fulfill ACS requirements with an off-campus research experience must register for CHE 487 (0 credits). All students using CHE 487 to fulfill ACS requirements must prepare a written research report that will be evaluated by a Stony Brook Chemistry faculty member.

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-. G/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 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 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 MAT 203 Calculus III with applications (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 WRTD learning objective.

Notes:

1. Alternate Mathematics Sequences
   The following alternate sequences may be substituted for major requirements or prerequisites: MAT 125 (or MAT 130/MAT 125), MAT 126, MAT 127 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 for MAT 131, MAT 132; AMS 210 or MAT 211 for MAT 203. 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)
For more information about SBC courses that fulfill major requirements, click here.

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
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 327	2
MAT 203	3
PHY 131	4
SBC	3
Total	16

SPRING	Credits
CHE 322	4
CHE 328	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 487 or CHE 495	3
Upper-division SBC	3
SBC	3
SBC	3
SBC	3
Total	17

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

*Only if CHE 495 was taken prior Fall

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

For more information about SBC courses that fulfill major requirements, click 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 327	2
MAT 203	3
PHY 131	4
SBC	3
Total	16

SPRING	Credits
CHE 322	4
CHE 328**	3
CHE 385	1
PHY 132	4
SBC	3
SBC	3
Total	18

JUNIOR

FALL	Credits
CHE 301	4
CHE 303	2
SBC	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 375	3
Upper-division elective	3
Upper-division elective	3
Elective	3
SBC	3
Total	15

SPRING	Credits
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: Tingda (Hannah) Li

Business Administrator: Theresa Spadola

Administrative Assistant: Lynne Foerster

Office: 1046 Humanities

Phone: (631) 632-4030

Website: https://www.stonybrook.edu/commcms/asianamerican/

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 foundation course from the following (3 credits):

- AAS 220 China: Language and Culture
- AAS 223 China: Society and Civilization

2. Two Chinese language courses, the equivalent of CHI 112 or higher, from the following (6-7 credits):

- CHI 101 Intensive Elementary Chinese
- CHI 112 Elementary Chinese II
- CHI 120 Elementary Chinese for Heritage Speakers
- CHI 201 Intensive Intermediate Chinese
- 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 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 elective courses from the following: (9 credits)

- AAS/RLS 240 Confucianism & Daoism
- AAS/RLS 287 Islam in China
- AAS 300 Intellectual History of East Asia
- AAS 339 Contemporary China: History, Politics, Diplomacy since 1949
- AAS 340/HIS 340 Topics in Asian History (when topic is appropriate)
- AAS 344 Acquisition of Asian Languages
- AAS 351/HIS 351 Revolutionary China: Politics, Culture, and Power
- AAS 352/HIS 352 Environmental History of China

- AAS 360 Chinese Sociolinguistics
- 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 Cultural Diversity in China
- AAS 385 Translation Studies of Asian Languages
- AAS 387 Islam and Confucianism
- AAS 391 Humanities Topics in AAS (when topic is appropriate)
- AAS 392 Social Science Topics in AAS (when topic is appropriate)
- AAS 396 Topics in Sinophone Literature and Culture (when topic is appropriate)
- AAS 401 Seminar in AAS (when topic is appropriate)
- AAS 440 Inter-Asia Cultural Studies
- AAS 447 Directed Readings (when topic is appropriate)
- AAS 487 Supervised Research in AAS (when topic is appropriate)
- CHI 220 Intermediate Chinese for Heritage Speakers
- CHI 212 Intermediate Chinese II (see note 1)
- CHI 311 Advanced Chinese I (see note 1)
- CHI 312 Advanced Chinese II (see note 1)
- CHI 410 Business Chinese (see note 1)
- CHI 411 Readings in Journalistic Chinese (see note 1)
- CHI 412 Readings in Classical Chinese (see note 1)
- CHI 421 Chinese Poetry and Short Stories (see note 1)
- CHI 422 Chinese Lyric Prose and Plays (see note 1)
- CHI 426 Structure of Mandarin Chinese (see note 1)
- RLS 390, RLS 391 Special Topics (when topic is appropriate)

Notes:

1. Courses used to complete Requirement 2 (Chinese language courses) may not also be used to complete Requirement 3 (elective courses).
2. Up to six credits taken in China Studies-related courses from other institutions may count toward the China Studies minor with approval of the Director of China Studies.
3. Up to nine (9) credits earned from SBU’s study abroad/exchange programs in China count toward the minor in China Studies with approval of the Director of China Studies.

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

Chair: Rigoberto Burgueño

Undergraduate Program Director: Rigoberto Burgueño
Undergraduate Program Coordinator and Advisor: Maria Moore
Office: Computer Science 2434
Phone: (631) 632-8777
Email: civil_undergrad@stonybrook.edu
Website: 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. The Civil Engineering Undergraduate Program at Stony Brook University is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

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:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Civil Engineering (CIV)

Requirements for Acceptance to the Major in Civil Engineering

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completion of at least 10 credits of mathematics, physics, chemistry, and engineering courses (excluding EST 392, ESE 301 and CME 233) required for the major,
- Earned a G.P.A. of 3.2 in all mathematics, physics, chemistry, and engineering courses (excluding EST 392, ESE 301 and CME 233) applicable to major requirements with no more than one grade less than B-,
- No courses required for the major have been repeated, and

• Completion of course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.

Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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.
d. AMS 310 Survey of Probability and Statistics

2. Natural Sciences

a. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and Laboratories
Note: The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY 134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142, PHY 133, PHY 134 Classical Physics I, II: Honors
b. CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry I, II and Laboratories or CHE 152/154
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 203 Autocad Basics
- 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 350 Numerical Analysis for Civil Engineers
- CIV 364 Fluid Mechanics for Civil Engineers
- CIV 393 Construction Engineering, Management, and Technology
- CIV 420 Hydraulics

5. Mechanical Engineering

- MEC 102 Engineering Computing and Problem Solving
- MEC 260 Engineering Statics
- MEC 262 Engineering Dynamics
- MEC 363 Mechanics of Solids

6. Engineering Design

- CIV 312 Steel and Reinforced Concrete Design I
- CIV 440 Senior Design I
- CIV 441 Senior Design II

7. Writing and Oral Communication Requirement

- CIV 300 Technical Communication

8. Engineering Economics

- EST 392 Engineering Economics

9. Engineering Ethics

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

10. Technical Electives

Complete 12 credits of electives from the approved list below. At least 9 credits must be CIV courses with no more than 3 credits total from CIV 476 Instructional Laboratory Curriculum Practicum, CIV 488 Civil Engineering Internship, or CIV 499 Undergraduate Research. A maximum of 6 credits of CIV 491 Topics in Civil Engineering may count towards the technical electives requirement.

- CIV 306 Transportation Systems Analysis II
- CIV 355 Data Analytics for Civil Engineering Systems
- CIV 394 Sustainability of Building and Infrastructure Systems
- CIV 402 Introduction to Transportation Planning
- CIV 407 Transportation Economics
- CIV 410 Principles of Foundation Engineering
- CIV 411 Matrix Structural Analysis
- CIV 412 Steel and Concrete Design II
- CIV 414 Advanced Construction Materials
- CIV 418 Subsurface Infrastructure
- CIV 423 Coastal Engineering Planning and Design
- CIV 424 Stormwater Management & Design
- CIV 426 Introduction to Environmental Biotechnology
- CIV 432 Vibration Mechanics
- CIV 436 Prestressed Concrete Design
- CIV 476 Instructional Laboratory Development Practicum
- CIV 488 Civil Engineering Internship
- CIV 491 Topics in Civil Engineering
- CIV 499 Independent Research
- AMS 315 Data Analysis
- ESG 332 Materials Science I: Structure and Properties of Materials
- GEO 315 Groundwater Hydrology
- GEO 347 Remote Sensing
- MEC 393 Engineering Fluid Mechanics
- MEC 455 Applied Stress Analysis

Grading

All courses taken to satisfy requirements 1 through 10 above must be taken for a letter grade. The grade point average for the courses MEC 260, 262, CIV 101, 210, 305, 310, 312, 320, 330, 350, 364, 393, 420, 440, 441, and all 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, MEC 363 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

FRESHMAN

FALL	Credits

First Year Seminar 101	1
WRT 102 (WRT)	3
AMS 151 (QPS) or MAT 131	3 -4
PHY 131/133 (SNW)	4
CIV 101	3
Basic Science Elective	3
Total	17-18

SPRING	Credits
First Year Seminar 102	1
AMS 161 or MAT 132	3 -4
PHY 132/134	4
MEC 102	2
CHE 131	4
SBC course	3
Total	17-18

SOPHOMORE

FALL	Credits
AMS 261 or MAT 203	4
CHE 132/133	5
MEC 260	3
AMS 310	3
CIV 203	1
Total	16

SPRING	Credits
AMS 361 or MAT 303	4
MEC 262	3
MEC 363	3
EST 392 (SBS)	3
CHE 134	1
SBC course	3
Total	17

JUNIOR

FALL	Credits
CIV 364	3
CIV 210	1
CIV 305	3
CIV 310 (TECH)	3
CIV 340	2
ESE 301 (STAS)	2

Total	14

SPRING	Credits
CIV 300	1
CIV 312	3
CIV 320	3
CIV 330	3
CIV 341	2
CIV 350	3
Total	15

SENIOR

FALL	Credits
CIV 440*	3
CIV 420	3
CIV 342	1
Technical Elective	3
Technical Elective	3
SBC course	3
Total	16

SPRING	Credits
CIV 441*	3
CIV 393	3
Technical Elective	3
Technical Elective	3
SBC 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.

CIV Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/civileng/people/FacultyDirectory-Snippet.php#Faculty

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

Classics (CLS)

Minor in Classics

Department of Languages and Cultural Studies; College of Arts and Sciences

Chair: Sarah Jourdain

Program Coordinator: Kathleen De Riesthal

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128
Phone: (631) 632-7440

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies/

Classics (CLS)

The minor in Classics 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 Classics (CLS)

The student must select at least ***five*** courses from group I, and **two** courses from groups II through IV. ***Nine*** credits in the minor must be from courses numbered 252 (see note) 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 Elementary Latin I
- LAT 112 Elementary Latin II
- LAT 251 Readings in Latin Literature I
- LAT 252 Readings in Latin Literature 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
- CLL 215 Classical Mythology
- CLS 225 The Classical Tradition
- CLL 315 Gender, Sexuality, Race & Ethnicity in Ancient Geek and Roman Literature
- CLS 325 The Latin and Greek Origins of Medicine
- CLS 447 Independent Study

Group III:

- ARH 300 Greek Art and Architecture
- ARH 301 Roman Art and Architecture

Group IV:

- PHI 200 Introduction to Ancient Philosophy
- PHI 300 Ancient Philosophy

Group V:

- PHI 200 Introduction to Ancient Philosophy
- PHI 300 Ancient Philosophy

Note: LAT 251 and LAT 252 are advanced literature courses where students read, translate and analyze authentic ancient Latin literature. It is not equivalent to a 211-212 level course in the modern languages. In Latin, we complete all of the grammar of the language in LAT 111-112 and move at an accelerated pace.

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

Climate Science (CCI)

Major in Climate Science

School of Marine and Atmospheric Sciences (SoMAS)
Director of Undergraduate Studies: Edmund Kar-Man Chang

Undergraduate Advisor: Nancy Black
Advising Office: E2361 Melville Library
Phone: (631) 632-9404
Advising email: nancy.black@stonybrook.edu
Website: https://www.stonybrook.edu/somas/

Department Information - Climate Science (CCI)

An understanding of climate science is essential to the interpretation of climate variations and change, as well as the assessment of their impacts on diverse human populations and ecological systems. The Stony Brook Climate Science program prepares students to be climate professionals who can help develop and implement strategies for mitigation of, as well as adaptation to, adverse impacts of climate change. Students in this program learn basic scientific information on processes in the atmosphere and the ocean that drive climate change and are informed about current and anticipated climate impacts and possible mitigation and adaptation strategies. Students learn about threats to coastal environments, economic and social impacts of climate and how the various aspects of climate have evolved over the history of the Earth.

A key aspect of climate science is the emergence of very large and increasing amounts of data about the atmosphere, the ocean, human and animal populations in diverse environments and multiple parts of the global ecosystems. There are extensive data on extreme events like hurricanes, floods and drought and on human, animal and plant health. Earth System Models generate expected future changes in all aspects of the climate system. The students in this program become familiar with the types of data available, learn quantitative skills for analyzing climate data from observations and model simulations to discern trends and possible future scenarios.

The curriculum is designed to meet the current needs of employers in climate applications. This gives our students confidence that their studies are pertinent to building a rewarding career which would be relevant to society's crucial needs.

Students may learn more about the School of Marine and Atmospheric Sciences by visiting http://www.stonybrook.edu/somas.

Requirements for the Major in Climate Science (CCI)

The major in Climate Science leads to the Bachelor of Science degree. Completion of the Climate Science major requires a minimum of 65 credits. Of these, no more than one course (4 credits) with a P or a passing grade below C can be credited to the major.

I. Foundation Courses (19-23 credits)

- AMS 102 Statistics or equivalent (see Note 1)
- MAT 131 Calculus I and MAT 132 Calculus II (see Note 2)
- CHE 131 General Chemistry IB (See Note 3)
- ENS 119/PHY 119 Physics for Environmental Studies (see Note 4)
- ENS 101 Prospects for Planet Earth or SUS 111 Introduction to Sustainability or ECO 108 Introduction to Economics (see Note 5)

II. Required Departmental Courses (46 credits)

A. Basics of Climate Science (15 credits)

- ATM 201 Introduction to Climate and Climate Change
- ATM 205 Introduction to Atmospheric Sciences
- ATM 305 Global Atmospheric Change
- ATM 397 Air Pollution and Global Warming
- MAR 333 Coastal Oceanography

B. Sustainable Climate Change (15 credits)

Five courses from the choices below:

- EDP 302 Sustainable Planning and Development
- ENS 301 Contemporary Environmental Issues and Policies
- ENV 304 Global Environmental Change
- ENV 316 Coastal Zone Management
- SUS 200 Human Settlement: History and Future
- SUS 206 Economics and Sustainability

- SUS 305 Collective Action and Advocacy
- SUS 307 Environmental Economics and Management
- SUS 317 American Environmental History
- SUS 323 Environmental Justice
- SUS 343 Age of the Anthropocene
- SUS 366/PHI 366 Philosophy of the Environment

C. Problem Solving Skills (16 credits)

- ATM 320 Problem Solving in Python
- GSS 313 GIS Design and Application I
- GSS 314 GIS Laboratory
- MAR 334 Remote Sensing of the Environment
- Capstone Project (one of the following, research and internship topics should be climate-related and must be approved by the Divison Director):
  - ATM 387 Weather and Climate Data Analysis (3 credits) and ATM 487 Senior Research in Atmospheric Sciences (3 credits)
  - ATM 487 Senior Research in Atmospheric Sciences (6 credits)
  - ATM 488 Internship (6 credits)
  - MAR 487 Research in Marine Sciences (6 credits)
  - MAR 488 Internship (6 credits)
  - SUS 487 Research in Sustainability (6 credits)
  - SUS 488 Internship in Sustainability Studies (6 credits)

D. Upper-Division Writing Requirement:

The advanced writing component of the major in Climate Science requires registration in, and satisfactory completion of the 0-credit MAR 459 or SUS 459 (S/U grading) along with enrollment in an approved advanced course that entails writing of either a term paper or a laboratory report. Completion of MAR 459 with a grade of S will also result in fulfillment of the WRTD requirement. A list of preapproved courses can be obtained through the department.

Notes:

1. AMS 110, AMS 310, ECO 320, POL 201, PSY 201, or SOC 202 may be substituted for AMS 102.
2. AMS 151/AMS 161 or MAT 125/MAT 126/MAT 127 may be substituted for MAT 131/MAT 132.
3. CHE 129/CHE 130 or CHE 152 may be substituted for CHE 131.
4. PHY 121, PHY 125, PHY 131, or PHY 141 may be substituted for ENS 119/PHY 119.

Honors Program in Climate Sciences

Graduation with departmental honors in Climate Science 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 Climate Science

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

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

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
MAT 132	4
NES 101 or SUS 101 or ECO 108	3-4
ENS 119/PHY 119	4
Total	15-16

SOPHOMORE

FALL	Credits
ATM 201	3
ATM 205	3
Sust. Change elective	3
SBC	4
Elective	3
Total	15

SPRING	Credits
AMS 102	3
Sust. Change elective	3
SBC	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits
GSS 313/GSS 314	4
MAR 303	3
Sust. Change elective	3

SBC	3
Elective	3
Total	16

SPRING	Credits
ATM 305	3
ATM 320	3
Sust. Change elective	3
SBC	3
Elective	3
Total	15

SENIOR

FALL	Credits
MAR 334	3
Sust. Change elective	3
Captsone Project 1	3
SBC	3
Upper-division elective	3
Total	15

SPRING	Credits
ATM 397	3
Capstone Project 2	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.

Climate Solutions (CLI)

Minor in Climate Solutions

School of Marine and Atmospheric Sciences

Director: Sara Hamideh
Email: sara.hamideh@stonybrook.edu
Undergraduate Advisor: Nancy Black
Phone: (631) 632-9404
Office: E2361 Melville Library
Website: https://www.stonybrook.edu/somas/

Climate Solutions (CLI)

Climate Solutions Minor is intended to provide a coherent foundational knowledge about climate change and skills to work on mitigation and adaptation solutions. This new knowledge and these skills will deepen and strengthen students' major education by offering a transdisciplinary understanding of the forces that have created the climate crisis, possible solutions offered by various fields, and the socio-economic and political forces that have made the solutions to this crisis so difficult.

Requirements for the Minor in Climate Solutions (CLI)

At least 12 credits applied to the minor may not be applied to any major or other minor. Of the 6 credits that could be also applied to another major or minor, no more than one course can be from the electives list below. 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. Required core courses (9 credits):

- ATM 201 Introduction to Climate and Climate Change or ATM 237 World Climate and Atmosphere
- SUS 323 Environmental Justice
- CME 491 Sustainable Future through Renewable Energy

2. Elective courses (6 credits, select 1 course from each of 2 different paths):

Natural Sciences Path

- ATM 305 Global Atmospheric Change
- BIO 319 Landscape Ecology Laboratory
- BIO 336 Conservation Biology
- BIO 351 Ecology
- BIO 385 Plant Ecology
- BIO 386/ENS 311 Ecosystem Ecology and the Global Environment
- GSS 313/314 GIS Design and Application I and Lab
- SUS 322 Human Ecology
- SUS 326 Conservation Genetics
- SUS 340 Social Dimensions of Disease
- SUS 343 Age of the Anthropocene

Engineering Path

- CIV 355 Data Analytics for Civil Engineering Systems
- CIV 407 Transportation Economics
- CIV 422 Introduction to Coastal Engineering
- CIV 423 Coastal Engineering Planning and Design
- CIV 424 Stormwater Management and Design
- EST 391 Technology Assessment

Social Sciences and Humanities Path

- COM 351 Team Collaboration
- COM 365 Talking Science
- COM 436 Environmental Communication
- ECO 335 Economic Development
- ECO 373 Economics of Environment and Natural Resources
- EGL 317 Energy Humanities and Literature
- EGL 319/SUS 321 Ecology and Evolution in American Literature
- EGL 372 Topics in Women and Literature: Ecofeminism
- GLI 320 Global, Cultural, and Environmental Issues
- HIS 365 Environmental History of North America

- JRN 438 Weathercasting & Environmental Reporting
- POL 371 Politics of Climate Change
- SOC 344 Environmental Sociology
- SUS 307 Environmental Economics and Management
- SUS 311 Disasters and Society: A Global Perspective
- SUS 317 American Environmental History
- SUS 318 American Environmental Politics
- SUS 362 Resilient Communities
- SUS 366/PHI 366 Philosophy of the Environment

3. Capstone (3 credits):

- Internship (488 course, or similar) or independent research with a faculty mentor (487 course, or similar), which must be approved in advance by the Climate Solutions Minor Director or Steering Committee.

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 Professions

Information and program requirements for the major in Clinical Laboratory Sciences may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Clinical Laboratory Sciences, BS

Clinical Laboratory Sciences

Information and program requirements for the major in Clinical Laboratory Sciences may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Clinical Laboratory Sciences, BS

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

Coastal Environmental Studies (COS)

Major and Minor in Coastal Environmental Studies

Director: Katherine B. Aubrecht, Department of Chemistry and Sustainability Studies Program
Email: katherine.aubrecht@stonybrook.eduUndergraduate Advisor: Nancy Black
Program Office: E2361 Melville Library
Phone: (631) 632-9404
Website: https://www.somas.stonybrook.edu/

Coastal Environmental Studies
The Coastal Environmental Studies degree provides the skills, knowledge, and preparation for students to assess and address coastal environmental problems. The curriculum integrates principles and methodologies from physical sciences, natural sciences, and physical geography, combined with an understanding of environmental ethics, environmental policy, and environmental law.

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. No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. 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)

- 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
- CHE 131/CHE 133 and CHE 132 (see Note 4)
- ENS 119/PHY 119 Physics for Environmental Studies (with lab) (see Note 3)
- MAT 131/MAT 132 or MAT 125 (or MAT 130/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 (or MAT 119/MAT 123) is a required course for the major.
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 113 Physical Geography (formerly offered as SBC 113) or GEO 102 The Earth
- SUS 201 Systems and Models (formerly offered as SBC 201)

B. Career and Leadership Skills

- SUS 301 Technical Writing and Communication (formerly offered as CSK 302)
- SUS 305 Collective Action and Advocacy (formerly offered as CSK 305) or ENS 301 Contemporary Environmental Issues and Policies

C. Core Courses

- ATM 305 Global Atmospheric Change or ENV 304 Global Environmental 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
- ENS 311/BIO 386 Ecosystem Ecology and the Global Environment
- ENV 310 Sustainability and Renewable Energy—Costa 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
- MAR 394 Environmental Toxicology and Public Health
- SUS 319 Restoration Ecology (formerly offered as EHI 310)

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*
- ENV 339 Economics of Coastal and Marine Ecosystems
- SOC 344 Environmental Sociology
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 311 Disasters and Society* (formerly offered as SBC 311)
- SUS 312 Environment, Society, and Health* (formerly offered as SBC 312)
- SUS 317 Environmental History of North America (formerly offered as SBC 307)
- SUS 318 American Environmental Politics* (formerly offered as SBC 308)
- SUS 321 Ecology and Evolution in American Literature (formerly offered as SBC 321)
- SUS 324 Human Geography and the Environment
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 330 Extreme Events in Literature (formerly offered as SBC 330)
- SUS 340 Ecological and Social Dimensions of Disease (formerly offered as EHI 340)
- 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)
- SUS 401 Integrative, Collaborative Systems Project (formerly offered as SBC 401)

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 125 and PHY 126 and PHY 133; PHY 131 and 133; or PHY 141 and 133 may be substituted for PHY 119/ENS 119
Note 4: CHE 129/130 or CHE 152 may be substituted for CHE 131; CHE 154 may be substituted for CHE 133

E. Upper-Division Writing Requirement

The advanced writing component of the major in COS requires registration in the 0-credit SUS 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 SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department.

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.

Double Majors

Excluding ENV 301 (Sustainability of the Long Island Pine Barrens), SUS 301 (Technical Writing and Communication), SUS 305 (Collective Advocacy and Action), and SUS 401 (Integrative Collaborative Systems Studies), no more than 6 credits of 300-400 level course credits can be applied to two majors within the School of Marine and Atmospheric Sciences.

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 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.

Declaration of the Minor

To progress efficiently through 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.

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 130/MAT 125) or MAT 131 Calculus or AMS 151
- SUS 113 Physical Geography (formerly offered as SBC 113) *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
- SUS 319 Restoration Ecology (formerly offered as EHI 310)
- ENV 304 Global Environmental Change
- ENV 317 Ecology of Algae and Plants of Coastal Plains Freshwater Habitats
- ENV 340 Contemporary Topics in Environmental Science
- 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

- SUS 309 Global Environmental Politics (formerly offered as SBC 309) *or* SUS 317 Environmental History of North America (formerly offered as SBC 307)

Sample Course Sequence for the Major in Coastal Environmental Studies
For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 125	3
ENS 101 or SUS 111	3
CHE 131/133	5
Total	15

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132	4
MAT 126	3
SBC	3
Elective	3
Total	17

SOPHOMORE

FALL	Credits
BIO 201	3
BIO 204	2
AMS 102	3
SUS 113 or GEO 102	3
SBC	3
Total	14

SPRING	Credits
SUS 201	3
ENS 119	4
SBC	3
SBC	3

Elective	3
Total	16

JUNIOR

FALL	Credits
SUS 305	3
BIO 351	3
ENV 320/ENV 321	4
SBC	3
SBC	3
Total	16

SPRING	Credits
GSS 313 / GSS 314	4
Group A elective	3
Group B elective	3
SBC	3
Elective	3
Total	16

SENIOR

FALL	Credits
SUS 301	3
ENV 304	3
Group A elective	3
SBC	3
Elective	3
Total	15

SPRING	Credits
SUS 401 or ENV 487 or ENV 488	3
Group A elective	3
Group B 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.

Communication (COM)

Major and Minor in Communication

School of Communication and Journalism

Dean: Dr. Laura Lindenfeld

Associate Dean and Director of Undergraduate Studies: Irene Virag

Office: Melville Library N-4004

Phone: (631) 632-7403

Website: http://www.stonybrook.edu/journalism

Email: socjadvising@stonybrook.edu

Advising: Visit SoCJ Undergraduate Advising for program resources and ways to connect with an advisor.

Communication (COM)

The Bachelor of Arts in Communication at Stony Brook University prepares students to analyze and synthesize the history, content, use, and effects of different forms of communication, and to apply this understanding to diverse situations. Rooted in social science research, students learn to understand, assess, and think critically about communication, including the examination of how communication shapes, reinforces, and intervenes in systemic inequalities, discrimination, and injustice. Students gain skills and real-world experience in designing communication with understanding and sensitivity toward issues of diversity, equity, and inclusion. Because interpersonal, intercultural, and team communication are integral to professional success, students develop core strengths in these areas.

Offered through the School of Communication and Journalism, this degree program offers students a blend of research and practice. Students become engaged leaders, collaborators, and problem solvers who are proficient in the study of complex communication challenges and capable of designing effective communication across contexts and industries. Graduates are prepared to pursue advanced degree programs or to embark on dynamic competitive careers in an evolving global workforce that depends on outstanding communication.

Requirements for the Major and Minor in Communication (COM)

Requirements for the Major

Required Courses (24 credits)

- COM 100 Introduction to Communication
- COM 120 Fundamentals of Public Speaking
- COM 202 Intercultural Communication
- COM 206 Interpersonal Communication
- COM 314 Communication Research
- COM 315 Communication Theory
- COM 351 Team Collaboration
- COM 495 Communication Senior Project

Choose four of the following electives (12 credits)

- COM 357 Health Communication
- COM 358 Nonverbal Communication
- COM 346 Race, Class, and Gender in Media
- COM 365 Talking Science
- COM 386 Special Topics: Issues in Communication
- COM 400 Advanced Communication Research
- COM 401 Organizational Communication
- COM 402 Crisis Communication
- COM 403 Strategic Communication
- COM 404 Communication for Social Change and Public Advocacy
- COM 405 Political Communication
- COM 406 Risk Communication
- COM 407 Social Media Analytics
- COM 415 Data Analysis and Storytelling
- COM 436 Environmental Communication
- COM 487 Independent Study
- COM 496 Internship

Requirements for the Minor

Required Courses (6 credits)

- COM 100: Introduction to Communication
- COM 120: Fundamentals of Public Speaking

Choose one of the following courses (3 credits)

- COM 202: Intercultural Communication
- COM 206: Interpersonal Communication

Choose three of the following electives at or above the 300 level (9 credits)

- COM 314: Communication Research
- COM 315: Communication Theory
- COM 351: Team Collaboration
- COM 357: Health Communication
- COM 358: Nonverbal Communication
- COM 346: Race, Class, and Gender in Media
- COM 365: Talking Science
- COM 386: Special Topics: Issues in Communication
- COM 400: Advanced Communication Research
- COM 401: Organizational Communication
- COM 402: Crisis Communication
- COM 403: Strategic Communication
- COM 404: Communication for Social Change and Public Advocacy
- COM 405: Political Communication
- COM 406: Risk Communication
- COM 407: Social Media Analytics
- COM 415: Data Analysis and Storytelling
- COM 436: Environmental Communication

COM Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/journalism/about/fac-staff#/dean's%20office

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

Communication and Innovation (CBI)

Minor in Communication and Innovation

School of Communication and Journalism

Dean: Dr. Laura Lindenfeld

Associate Dean and Director of Undergraduate Studies: Irene Virag

Office: Melville Library N-4004

Phone: (631) 632-7403

Website: http://www.stonybrook.edu/journalism

Email: socj_ugadvising@stonybrook.edu

Communication and Innovation (CBI)

Designed especially for students in STEM fields, the Communication and Innovation minor prepares students for key competencies required to flourish in the future workforce, including teamwork and collaboration, interpersonal and media communication, creativity, entrepreneurship, ethics, and leadership.

Completion of the Minor in Communication and Innovation requires 18 credits.

Requirements for the Minor in Communication and Innovation

Transfer students

Transfer courses will be evaluated individually for Communication and Innovation equivalency by the Undergraduate Director.

Completion of the minor in Communication and Innovation requires 18 credits.

1. **The following courses (15 credits) are required of minors:**

- BUS 115 Introduction to Business
- COM 120 Fundamentals of Public Speaking
- BUS 301 Business Communication
- COM 365 Talking Science
- COM 351 Team Collaboration

2. **One of the following courses (3 credits) is required of minors:**

- BUS 353: Entrepreneurship
- BUS 383: Social Entrepreneurship
- BUS 399: Intellectual Property Strategy

CBI Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/journalism/about/fac-staff#/dean's%20office

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

Computer Engineering (ECE)

Major in Computer Engineering

Department of Electrical and Computer Engineering, College of Engineering and Applied Sciences

Interim Chair: Leon Shterengas

Undergraduate Program Director: Ridha Kamoua

Undergraduate Program Coordinator: Claire Desio

Office: 231 Engineering
Phone: (631) 632-8381

Email: ECEundergradCoordinator@stonybrook.edu

Website: 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)

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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Requirements for the Major in Computer Engineering (ECE)

Acceptance into the Computer Engineering Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completion of at least 11 credits of mathematics, physics, electrical and computer engineering, or computer science courses required for major (excluding ESE300 and ESE301),
- Earned a G.P.A. of 3.2 or higher in all mathematics, physics, and engineering courses (excluding ESE300 and ESE301) applicable to major requirements with no more than one grade less than B-,
- No courses required for the major have been repeated, and
- Completion of course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.

Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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 or Introduction to Linear Algebra
- AMS 261 or MAT 203 Applied Calculus III or Calculus III with Applications
- AMS 361 or MAT 303 Applied Calculus IV: Differential Equations or 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 131 and MAT 132) or (MAT 125, MAT 126 and MAT 127).

2. Natural Sciences

- One course from CHE 131, CHE 152, ESG 198, BIO 202, BIO 203, PHY 251
- 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

4. Engineering Topics

Engineering topics include engineering core and engineering design. Content of the former category is determined by the creative application of basic mathematics and science skills, while the content of the latter category focuses on the procedure of devising systems, components, or processes.

a. Engineering Core Courses

- ESE 118 Digital Logic Design
- ESE 271 Electrical Circuit Analysis
- ESE 272 Electronics
- ESE 305 Deterministic Signals and Systems

b. Engineering Design

- ESE 280 Embedded Microcontroller Systems Design I
- ESE 345 Computer Architecture
- ESE 382 Digital Design Using VHDL and PLDs
- ESE 440 Senior Design I
- ESE 441 Senior 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. Discrete Mathematics and Probability and Statistics

- ESE 122 Discrete Mathematics for Engineers
- ESE 306 Random Signals and Systems

6. Software

- ESE 124 Programming Fundamentals
- ESE 224 Advanced Programming and Data Structures
- ESE 333 Real-time Operating Systems
- ESE 344 Software Techniques for Engineers

7. Computer Engineering Electives

Seven upper-level ESE courses. A list of acceptable electives can be found in the electrical and computer engineering undergraduate guide. For students in the BEMS program or with a double major or minor in computer science, please check the computer engineering undergraduate guide for a complete list of electives.

8. Engineering Ethics

- ESE 301 Engineering Ethics and Societal Impact

9. Upper-Division Writing Requirement: ESE 300 Technical Communication for Electrical and Computer Engineers

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 after completion of ESE 280.

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, 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 118, ESE 124, ESE 224, ESE 271, ESE 272, ESE 280, ESE 300, ESE 301, ESE 345, ESE 382, ESE 440, and ESE 441
- Five ESE 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

The major in Computer Engineering leads to a Bachelor of Engineering degree which requires completion of a minimum of 128 credits.

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
ESE 122	3
AMS 151[1] (QPS)	3
ESE 123 (TECH)	4
WRT 102 (WRT)	3
Total	14

SPRING	Credits
First Year Seminar 102	1
AMS 161[1] (QPS)	3
PHY 131/133 [2]	4
ESE 124	4
ESE 118	4
Total	16

SOPHOMORE

FALL	Credits
PHY 132/134 [2]	4
ESE 280	4
ESE 271	3

ESE 224	4
Total	15

SPRING	Credits
AMS 210 or MAT 211	3
ESE 272	4
ESE 344	3
ESE 382	4
SBC	3
Total	17

JUNIOR

FALL	Credits
AMS 361	4
ESE 305	3
ESE 345	3
ESE 333	3
ESE Elective	3
Total	16

SPRING	Credits
ESE Elective	3
SBC	3
ESE 300	2
AMS 261	4
ESE Elective	2
ESE 306	3
Total	17

SENIOR

FALL	Credits
ESE 440*	3
ESE Elective	3
ESE Elective	3
CHE 131[3]	3
SBC	3
Total	16

SPRING	Credits
ESE 441*	3
ESE Elective	3
ESE Elective	3
SBC	3

SBC	3
ESE 301 (STAS)	2
Total	17

All courses in **bold** must be passed with a minimum grade of C.

1. AMS 151 and AMS 161 can be replaced by (MAT 131 and MAT 132) or (MAT 131 and 171), or (MAT 125 , MAT 126 , and MAT 127) or (MAT 141 and MAT 142), or (MAT 141 and MAT 171).
2. PHY 131 and PHY 132 can be replaced by (PHY 125 , PHY 126 , and PHY 127), or (PHY 141 and PHY 142). Students taking the three semester sequence should take PHY 125 , PHY 127 and PHY 126 in that order.
3. Students can also take one of the following science courses: CHE 152, ESG 198, BIO 202, BIO 203, PHY 251
4. For students in the BEMS program or with a double major or minor in computer science, please check the computer engineering undergraduate guide for a complete list of electives.

*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.

Computer Science (CSE)

Major and Minor in Computer Science

Department of Computer Science, College of Engineering and Applied Sciences

Chair: Samir Das

Undergraduate Program Director: Kevin McDonnell

Undergraduate Advisor: Paul Fodor

Undergraduate Program Coordinators: Sara Gergen and Noelle Pluschau

Office: 231 Engineering Building
Phone: (631) 632-8470

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Website: http://www.cs.stonybrook.edu

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:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

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.

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 and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students in majors and pre-majors outside of Computer Science and Information Systems may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.

Area of Interest in CSE and ISE and ISE Majors

Applications for major admission from AOI students and ISE majors are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completed CSE 114, CSE 214, and CSE 215. (Honors students may substitute CSE 160, CSE 260, and CSE 150.) Transfer students matriculating at Stony Brook with credit for some (but not all) of these courses must complete the remaining course(s) before applying for major admission. Transfer students matriculating at Stony Brook with credit for all three courses must work with a CSE advisor to identify an appropriate course to complete before applying for major admission. Once a student matriculates at Stony Brook, these courses must be taken at Stony Brook University.
- Earn grades of B- or higher and a grade point average of 3.20 or higher in the above courses (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).
- Repeated at most one of these courses.
- Earned a cumulative grade point average of 3.00 or higher.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following the one year limit. Admission of AOI students who apply late will follow the process for students outside of Computer Science and Information Systems.

Students outside of Computer Science and Information Systems

Applications for major admission are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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 Introduction to Object-Oriented Programming
- CSE 214 Data Structures

- CSE 215 Foundations of Computer Science or CSE 150 Foundations of Computer Science: Honors
- CSE 216 Programming Abstractions
- CSE 220 Systems Fundamentals I

Note: Students may substitute the four courses CSE 160, CSE 161, CSE 260 and CSE 261 for the three courses CSE 114, CSE 214 and CSE 216.

2. Required Advanced Courses

- CSE 303 Introduction to the Theory of Computation or CSE 350 Theory of Computation: Honors
- CSE 310 Computer Networks
- CSE 316 Fundamentals of Software Development
- CSE 320 Systems Fundamentals II
- CSE 373 Analysis of Algorithms or CSE 385 Analysis of Algorithms: Honors
- CSE 416 Software Engineering

3. Computer Science Electives

Four upper-division technical CSE electives, each of which must carry at least three credits. 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. 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

6. Both of the following:

- AMS 301 Finite Mathematical Structures
- AMS 310 Survey of Probability and Statistics or AMS 311 Probability Theory

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 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, GEO 122, PHY 125, PHY 127, PHY 132, PHY 134, PHY 142, PHY 251, PHY 252
Note: The courses selected in 7 and 8 must carry at least 9 credits.

9. Professional Ethics

- CSE 312 Social, Legal, and Ethical Issues in Computing

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 416 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.

Specializations

In consultation with a program director, students have the option to select an area of specialization. This allows the student to take a subset of courses, promoting in-depth exploration in the various fields of computer science. All courses taken to fulfill the requirements of a specialization must be completed with a grade of C or higher.

Specialization in Artificial Intelligence and Data Science

The specialization in artificial intelligence and data science emphasizes modern approaches for building intelligent systems using machine learning. It requires four courses selected from the list below. The four courses must include at least two core courses. Students may declare their participation in the specialization after completing two core courses.

1. Core Courses

1. CSE 351 Introduction to Data Science
2. CSE 352 Artificial Intelligence
3. CSE 353 Machine Learning
4. CSE 357 Statistical Methods for Data Science

2. Electives

- CSE 323 Human-Computer Interaction
- CSE 327 Fundamentals of Computer Vision
- CSE 332 Introduction to Visualization
- CSE 337 Scripting Languages
- CSE 354 Natural Language Processing
- CSE 371 Logic
- CSE 378 Introduction to Robotics
- CSE 390 Special Topics in Computer Science*
- CSE 487 Research in Computer Science*, CSE 495 Senior Honors Research Project I or CSE 496 Senior Honors Research Project II*

*Special topic or research project must be in artificial intelligence or data science.

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 courses, two electives, and a project. Students may declare their participation in the specialization after completing the courses in 1a and 1b.

1. Core Courses

a. CSE 323 Human-Computer Interaction
b. PSY 260 Survey in Cognition and Perception
c. CSE 328 Fundamentals of computer Graphics or CSE 332 Introduction to Visualization
d. CSE 333 User Interface Development

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 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 Special Topics in Computer Science*
- PSY 368 Sensation and Perception
- PSY 369 Special Topics in Cognition and Perception

*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 four core courses, two electives, and a project. Students may declare their participation in the specialization after completing two core courses.

1. Core Courses

a. CSE 306 Operating Systems
b. CSE 328 Fundamentals of Computer Graphics
c. CSE 380 2D Game Programming
d. CSE 381 3D Game Programming

2. Two electives from the following:

CSE 327 Fundamentals of Computer Vision
CSE 331 Computer Security Fundamentals
CSE 332 Introduction to Visualization
CSE 334 Introduction to Multimedia Systems
CSE 352 Artificial Intelligence
CSE 353 Machine Learning
CSE 355 Computational Geometry
CSE 364 Advanced Multimedia Techniques
CSE 376 Advanced Programming in UNIX/C
CSE 378 Introduction to Robotics

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 Security and Privacy

The specialization in Security and Privacy prepares students for a career as a security engineer, threat analyst, or security / privacy 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 and privacy, while also exposing the student to some of the latest developments. Students may declare their participation in the specialization after completing one of the core courses and at least two other courses that fall under (1) or (2).

1. Core Courses

a. CSE 331 Computer Security Fundamentals
b. CSE 360 Software Security, CSE 361 Web Security, CSE 362 Mobile Security, or CSE 363 Offensive Security

2. Three electives from the following, not to include any course taken as a core course. *Note that at most one course from each item may be used to satisfy the specialization requirements.*

CSE 360 Software Security
CSE 361 Web Security
CSE 362 Mobile Security
CSE 363 Offensive Security
CSE 304 Compiler Design or CSE 307 Principles of Programming Languages
CSE 306 Operating Systems or CSE 356 Cloud Computing or CSE 376 Advanced Systems Programming in UNIX/C
CSE 390 Special Topics in Computer Science*
CSE 487 Research in Computer Science*, CSE 495 Senior Honors Research Project I or CSE 496 Senior Honors Research Project II*

* The special topic or project course must be in computer security.

Specialization in Systems Software Development

The specialization in systems software development prepares students for a career in software applications development or systems software development. Students may declare their participation in the specialization after completing two of the courses listed below.

Five of the following courses are required, at most two of which may be drawn from CSE 331, CSE 360-363:

CSE 304 Compiler Design
CSE 306 Operating Systems
CSE 311 Systems Administration
CSE 331 Computer Security Fundamentals
CSE 356 Cloud Computing
CSE 360 Software Security
CSE 361 Web Security
CSE 362 Mobile Security
CSE 363 Offensive Security
CSE 376 Advanced Systems Programming in Unix/C
CSE 390 Special Topics in Computer Science*

*Special topics courses must be in systems software development.

Honors in Computer Science

Honors in Computer Science offers a specially designed curriculum to a limited number of exceptional students. Honors is open to freshmen and to continuing students. To be admitted as a freshman, students must demonstrate overall academic excellence, 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 meet all the following criteria may apply to Honors in Computer Science: have U2 standing or higher, completed at least two technical CSE courses and earned a weighted average of 3.50 in all CSE courses, and earned a cumulative grade point average of 3.50. Students whose GPA drops below this standard may lose Honors designation.

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 during most of the semesters in a four-year program of study. Honors 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, the two-semester honors project, a minimum of three honors courses in addition to the project, and a grade point average of at least 3.50, both cumulative and in CSE courses. Graduate courses may be counted as honors courses with prior approval of the department. The teaching practicum CSE 475 may be substituted for one of the honors courses. Other suitable advanced undergraduate courses may be counted as honors courses with prior approval of the department. The requirement of three honors courses can be relaxed to one course for students with at least a 3.75 grade point average, both overall and for CSE courses.

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 requirements may be considered 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 (or 160) and either CSE 214 (or 260) or CSE 215 (or 150) with grades of B- or higher in each course. Priority is given to students with a GPA of 3.20 or higher in these CSE courses and a cumulative GPA of 3.00 or higher. For students who have completed more than two CSE courses applicable towards minor entry, the GPA in CSE courses is computed using the highest grades earned in two of CSE 114, CSE 214 and CSE 215. At most one of the courses used to meet minor entry requirements 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. Only courses transferred before matriculation can be used for CSE minor admission purposes. Admission is competitive and contingent upon program capacity.

The minor requires seven CSE courses totaling 22 to 24 credits as outlined below. Students who have declared the minor should see a Computer Science Undergraduate Advisor to discuss a suitable selection of Computer Science electives.

1. CSE 114 Introduction to Object Oriented Programming
2. CSE 214 Data Structures
3. CSE 216 Programming Abstractions 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: Students may substitute CSE 160, CSE 161, CSE 260, and CSE 261 for CSE 114, CSE 214 and CSE 216; and CSE 150 for CSE 215. Each course taken to satisfy the requirements for the minor 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 nine 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CSE 101 (TECH)	4

AMS 151 (QPS)	3
Natural Science (SNW)	3
SBC	3
Total	17

SPRING	Credits
First Year Seminar 102	1
WRT 102 (WRT)	3
AMS 161	3
Natural Science	3
CSE 114 (TECH)	4
Total	14

SOPHOMORE

FALL	Credits
CSE 214	4
CSE 215	4
SBC	3
Natural Science	3
SBC	3
Total	17

SPRING	Credits
CSE 216	4
CSE 220	4
AMS 210	3
SBC	3
Total	14

JUNIOR

FALL	Credits
CSE 300 (SPK & WRTD)	3
CSE 316	3
CSE 303	3
AMS 301	3
SBC	3
Total	15

SPRING	Credits
CSE 312 (STAS, CER, ESI)	3
CSE 320	3
CSE 373	3
Elective	3

AMS 310	3
Total	15

SENIOR

FALL	Credits
CSE 416	3
CSE technical elective	3
CSE 310	3
Elective	3
Elective	3
Total	15

SPRING	Credits
CSE technical elective	3
CSE technical elective	3
CSE technical elective	3
Elective	3
Elective	3
Total	15

Notes:

- SBC refers to the following categories: DIV, HUM, SBS, ARTS, USA, GLO
- Students may satisfy the Pursue Deeper Understanding category of the SBC by completing CSE 316 and CSE 416.

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

Creative Writing (CWL)

Major (B.F.A.) and Minor in Creative Writing
Southampton Arts Programs
Undergraduate Program Director: Genevieve Crane
Email: genevieve.crane@stonybrook.eduUndergraduate Program Coordinator: Liz McRae
Email: Elizabeth.McRae@stonybrook.edu
Office: Melville Library, N3017, Zip 3371

Phone: (631) 632-7102

Website: https://www.stonybrook.edu/commcms/lichtenstein-center/

Creative Writing

A Bachelor of Fine Arts degree in creative writing offers a way for students to write compellingly about the issues at the "deep heart's core" of their – and our – experience. Through workshops in the practice of craft, majors develop their capacity for expression and persuasion, seeking the voice and form of expression that best connects what they have to say with their audience. In literature courses, they learn to read like a writer and to contextualize their own work. The capstone project, a book-length manuscript, teaches self-reliance: students learn to apply their skills and carry a creative vision through to completion. The major's interdisciplinary aspects and project-driven structure promote creative thinking about students' own interests and burgeoning competencies, about the nature of truth, and about the time and place in which their imaginations live. See www.stonybrook.edu/bfa for more information

A minor in creative writing offers a way for students to engage with their major area of studies from a writer's perspective. At Stony Brook, the minor finds its home in the student's own interests and burgeoning competences, and provides a coherent, themed pathway through many of the SBC requirements in the humanities.

Requirements for the Major and Minor in Creative Writing (CWL)

Notes regarding the Major in Creative Writing:

- Current Stony Brook students are encouraged to apply to the major in their first or second year.
- Transfer students already in their second year at another institution are strongly encouraged to apply to the major along with their application to Stony Brook. Speak with the program director to plan a path through this 60-credit degree.

Admission to the Major

Students who would like to major in Creative Writing apply to the program with a portfolio that includes a statement of purpose and ten to 15 pages of creative writing in any genre or genres. Those applying to Stony Brook may apply for admission to Creative Writing at the same time and will be prompted to submit their portfolios. Those who are already Stony Brook students, or have been admitted as transfer students to Stony Brook from another institution, should apply with the supplemental materials to the Program Director. Current students are advised to apply to the major after they have successfully completed CWL 190 and CWL 202 or the equivalent. See department website for a more detailed description of the application process and portfolio.

Requirements for the Major in Creative Writing

The major in Creative Writing leads to a Bachelor of Fine Arts degree. Students must earn a C or better in all courses toward the major, and a B or better in CWL 250, a course for majors only. At the end of their second year, majors choose a genre in which to specialize: fiction, poetry, scriptwriting, or creative nonfiction. In either spring of their 3rd year or fall of their 4th, majors take their capstone cluster of courses.

Completion of the major requires at least 60 credits.

Study within the Area

A. Introductory courses required of all majors (9 credits)

- CWL 190 Introduction to Contemporary Literature
- CWL 202 Introduction to Creative Writing: Writing Everything
- CWL 250 Join the Conversation

B. Ten writing workshops (30-31 credits)

Students may repeat courses for credit. Majors must take at least 3 workshops outside their declared genre.

- 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 Forms of Fiction, Poetry, Scriptwriting, Creative Nonfiction, Professional and Scientific Writing (MFA faculty). By special permission, majors may take a graduate writing workshop, or may count credits earned in EGL 285, EGL 286, THR 325, or THR 326 toward this requirement. Note that a maximum of 6 graduate credits may be applied toward the undergraduate degree.

C. Two literature courses for writers (6 credits)

Students may repeat these courses for credit as the topics change.

- CWL 330 Topics in European Literature for Writers
- CWL 335 Topics in American Literature for Writers
- CWL 340 Topics in World Literature for Writers

Students may count credits earned in AFH 205, 329, 330, 368 and 382, AAS 321 and 322, EGL 224, HUF 318, HUS 271, UST 382 toward this requirement. Students may also petition to substitute any other relevant courses from other departments.

D. Four "Capstone Cluster" courses (15 credits)

These courses should be taken during the fall of Y4.

- CWL 390 The Ethics of the Creative Imagination
- CWL 450 Senior Project
- CWL 487 Mind the Gap: Independent Reading
- CWL 499 Thesis

E. Upper-Division Writing Requirement
The upper-division writing requirement is satisfied by satisfactory completion of CWL 300, 305, 310, 315, 320, or 325 with a grade of C or better. These courses satisfy Requirement B for the major, ten required writing workshops.

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 Creative Writing

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. 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.

When it is offered, students may take up to five creative writing courses in a single semester through a Semester by the Sea residency at the Southampton campus.

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 Forms of Fiction, Poetry, Scriptwriting, Creative Nonfiction, Professional and Scientific Writing (MFA faculty). By special permission, 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

*Note: Workshop courses taken to satisfy requirement B may not be used to also satisfy requirement D.

Sample Course Sequence for the Major in Creative Writing

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CWL 202	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CWL 190	3
SBC	3
Elective	3
Elective	3
Total	16

SOPHOMORE

FALL	Credits
CWL 300-325	3
CWL 300-325	3
CWL 300-325	3

SBC	3
Elective	3
Total	15

SPRING	Credits
CWL 300-325	3
CWL 300-325	3
CWL 330-340	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits
CWL 250	3
CWL 300-325	3
CWL 330-340	3
SBC	3
Elective	3
Total	15

SPRING	Credits
CWL 300-325	3
300-level Elective (outside of specialization)	3
SBC	3
SBC	3
Elective	3
Total	15

SENIOR

FALL	Credits
CWL 390	4
CWL 450	3
CWL 487	4
CWL 499	1
300-level Elective (outside of specialization)	3
Total	15

SPRING	Credits
300-level Elective (outside of specialization)	3
CWL 499	3
Elective	3
Elective	3

Elective	3
Total	15

CWL Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/southampton/mfa/cwl/people

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

Digital Arts (DIA)

Minor in Digital Arts

Department of Art, College of Arts and Sciences

Program Advisor: Stephanie Dinkins
Email: stephanie.dinkins@stonybrook.edu

Office: 2225 Staller Center for the Arts
Phone: (631) 632-7250

Website: http://art.stonybrook.edu/

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), Computer Science (CSE), Engineering, Multi-disciplinary Studies (MTD), Music (MUS), 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:

- 1 Core "A"
- 1 Foundations Course "B"
- 1 Intermediate Course "C"
- 1 Additional Production Courses "C or D"
- 2 Additionnal Elective Courses "C,D or E"
- 1 Theory & Culture Course "E"

A. Core Courses:

- ARS 225 Introductory Digital Art

B. Foundations:

- ARS 205 Foundations in Visual Arts: Idea and Form
- ARH 207 Technologies of Representation

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 384 Art, Media and Technology
- ARS 425 Advanced New Media Art
- ARS 317 Interactive Media, Performance, and Installation
- MUS 340 Introduction to Music Technologies
- MUS 341 Sound Design

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 402 Documentary Media Art
- 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 2D Game Programming
- CSE 381 3D Game Programming
- ESE 123 Introduction to Electrical and Computer Engineering
- ESE 124 Computer Techniques for Electronic Design
- EST 205 Introduction to Technical Design: Innovation and Design Thinking
- ISE 108 Introduction to Programming
- ISE 208 Programming II
- ISE 332 Introduction to Visualization
- ISE 340/EST 310 Design of Computer Games
- MUS 344 Introduction to Audio Engineering

E. Theory and Culture Courses:

- ARH 208 History of Photography
- ARH 210 Modern Art and the Moving Image
- 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 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 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

Chair: Brian Phillips

Director of Undergraduate Studies: Hanna Nekvasil

Major Advisor: Hanna Nekvasil

Office: 255 Earth and Space Sciences
Phone: (631) 632-8201

Email: Hanna.Nekvasil@stonybrook.edu

Website: http://www.geosciences.stonybrook.edu/

Minors of particular interest to students majoring in Geology and Earth and Space Sciences: Environmental Studies (ENS), Marine Sciences (MAR), Engineering minors

Earth and Space Sciences (ESS)

Earth and Space Sciences is a broadly based multidisciplinary field combining geology, astronomy, atmospheric science, and marine science administered by the Department of Geosciences (see Geology major for departmental information). The major in Earth and Space Sciences is a diversified program in the natural sciences and mathematics aimed at fostering a basic understanding of the earth and space sciences; it also includes concentrated study in any one of the natural sciences or mathematics or interdisciplinary studies in environmental geoscience. Intended for those seeking a science-related career, the program is flexible in that it is designed to meet the needs of students who desire a more diverse liberal arts and sciences background. The various programs prepare students to choose careers in teaching, law, environmental science, secondary education, or research in private industry and government.

Requirements for the Major in Earth and Space Sciences (ESS)

The major in Earth and Space Sciences leads to the Bachelor of Arts degree. All courses offered for the major must be passed with a letter grade of C or higher.

Completion of the major requires approximately 61-73 credits.

Requirements for the Earth and Space Sciences Track

A. Introductory earth and space sciences courses

- GEO 103 The Earth Through Time and GEO 113 Historical Geology Laboratory
- GEO 122 Physical Geology or GEO 102 The Earth and GEO 112 Physical Geology Laboratory
- AST 101 Introduction to Astronomy
- AST 112 Astronomy Laboratory
- ATM 205 Introduction to Atmospheric Sciences

B. Upper-division earth and space sciences courses

At least four 300-400 level GEO, AST, or ATM courses (minimum of 3 credits each); at least one must include a laboratory.
Courses with STAS designation are excluded.

C. Introductory related science courses

1. MAT 131 and MAT 132 Calculus I, II. If student does not place into MAT 125 or 131 on the basis of the math placement examination, MAT 123 becomes an *additional* required course for the major. The following alternate beginning calculus sequences may be substituted for MAT 131 and MAT 132 in major requirements or prerequisites: MAT 125 and MAT 126 and MAT 127; or MAT 141 and MAT 142; or AMS 151 and AMS 161; 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.
2. PHY 121 Physics for Life Sciences; or PHY 131 and PHY 133 Classical Physics I and lab; or PHY 141 and PHY 133 Classical Physics I: Honors and lab; or PHY 125 and PHY 126 and PHY 133 (Note: PHY 121 is not accepted for the physics, atmospheric science, mathematics, or astronomy concentrations in D.)
3. CHE 131 (or CHE 129) and CHE 133 General Chemistry I with laboratory

4. Either 4a for students not choosing the physics concentration in D. below or 4b for students choosing the physics concentration in D.
   4a. Any two of the following groups
      1. PHY 122 Physics II for Life Sciences; (not accepted for atmospheric science, mathematics, or astronomy concentrations in D.) or PHY 132 and PHY 134 Classical Physics II and laboratory; or PHY 142 and PHY 134 Classical Physics II: Honors and lab; or PHY 126 and PHY 127 and PHY 134 Classical Physics B and C and lab
      2. CHE 132 and CHE 134 General Chemistry II with laboratory
      3. BIO 201 Fundamentals of Biology: Organisms to Ecosystems and BIO 204 Fundamentals of Scientific Inquiry in the Biological Sciences I
   4b. For students choosing the physics concentration
      1. One of MAT 205, MAT 203, or AMS 261 and one of MAT 305, MAT 303, or AMS 361 2. PHY 132 and PHY 134 Classical Physics II and laboratory; or PHY 142 and PHY 134 Classical Physics II: Honors with lab; or PHY 126 and PHY 127 and PHY 134 Classical Physics B and C with lab

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 for the 1-credit GEO 496 WRTD course along with a 300-400 level GEO course. Completion of the WRTD requirement requires that a 15 page paper written by the student receives a B or higher as determined by the instructor of the 300-400 level course. The SBC SPK requirement can be completed with GEO 497 with a grade of 'S'.

Requirements for the Earth Science Education Track

A. Introductory science courses

- GEO 103 The Earth Through Time and GEO 113 Historical Geology Laboratory
- GEO 122 Physical Geology OR GEO 102 The Earth and GEO 112 Physical Geology Laboratory
- AST 101 Introduction to Astronomy 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 (or CHE 129) and CHE 132 General Chemistry I and II (see note below)
- CHE 133 and 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 and PHY 126 Classical Physics B and PHY 133 Classical Physics Laboratory
- ATM 102 Weather and Climate

B. Elective Courses

At least 24 credits 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

Before graduation all students in the Earth Science Education Track must register for the 1-credit GEO 496 WRTD course along with a 300-400 level GEO course. Completion of the WRTD requires that a 15 page paper written by the student receives a B or higher as determined by the instructor of the 300-400 level course. The SBC SPK requirement can be completed with GEO 497 with a grade of S.

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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131/133	5
GEO 102	3
GEO 112	1
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 132/134	5
MAT 131	4
GEO 103	3
GEO 113	1
Total	17

SOPHOMORE

FALL	Credits
MAT 132	4
PHY 121 or PHY 131/PHY 133	4
GEO 306/366	4
SBC	3
Total	15

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

FALL	Credits
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

SPRING	Credits
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

Co-Chairs: Eva Carceles-Poveda, Juan Carlos Conesa

Director of Undergraduate Studies: Ting Liu

Undergraduate Program Coordinator: Victoria Judd

Office: S-601 Social and Behavioral Sciences
Phone: (631) 632-7540

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Website: http://www.stonybrook.edu/economics

Second Majors and Minors of particular interest to students majoring in Economics: Applied Mathematics and Statistics (AMS), Business (BUS, major only), 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 and in statistical methods by taking ECO 320 and 321. The remaining economics courses used to satisfy the major requirements focus on specific 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 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 obtain an offer for an internship through the Career Center or otherwise, and the permission of a faculty member to register for ECO 488 under their supervision. Students are strongly encouraged to consult with prospective faculty members before signing up for the internship to ensure the internship can be used as a basis for an analytical paper.

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 approximately 41-45 credits.

A. A minimum of 11 courses, at least ten 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, not including ECO 359 or ECO 459. Each of these must be taken for a minimum of three credits.
4. One additional course, either in economics (not including ECO 359 or ECO 459) 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 the major.

B. MAT 125 Calculus A (or MAT 130/MAT 125). If students do not place into MAT 125 on the basis of the math placement examination, MAT 123 or MAT 119/MAT 123 is a required course for the major.
or AMS 151 Applied Calculus I
or level 6 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 during their senior year, after having completed all (or most) of their upper-division major requirements. All students must do so by registering for the WRTD certified class ECO 359 unless they intend to complete a larger, more substantial, independent research project. Those seeking to complete a substantial independent research project should not register for ECO 359. They should instead seek a faculty member's approval to register for ECO 487 and obtain their WRTD certification by registering for the 0-credit ECO 459 class in the same semester. In exceptional cases, a paper completed as part of another upper division class might be used to satisfy the upper-division writing requirement as long as the class instructor and student agree to this and the student registers for ECO 459 at the same time.

For double majors, students need to fulfill the Economics upper-division writing requirement in addition to their other major upper-division writing requirement.

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 Undergraduate Committee. Students interested in graduating with honors will need to plan their studies well so they can produce an honors thesis of truly original content by the end of their graduation semester. Students will need to take upper division classes on topics of their interest and identify faculty members that are able and willing to guide them through a substantial research project. They should agree with the faculty member and register for ECO 487 in a subsequent semester and ensure that they and their advisor devote enough time on the project to bring it to the level required for the honors designation.

Honors in Economics will be awarded to graduating seniors who have achieved the following:

1. A grade point average of at least 3.5 in the five required courses (see A1 and A2 above), with no less than a B in any one of these courses.
2. A grade point average of at least 3.50 in five upper division electives in Economics (see A3 above).
3. Six credits in economics at the 400 level.
4. An honors thesis, submitted to the director of undergraduate studies for honors evaluation by the Undergraduate Committee.

Sample Course Sequence for the Major in Economics

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 122 or MAT 123 or AMS 151	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
MAT 125 or AMS 151	3-4
ECO 108	4
SBC	3
SBC	3
Total	17-18

SOPHOMORE

FALL	Credits
ECO 303	4
ECO 305	4
ECO 320	4
SBC	3
Total	15

SPRING	Credits
SBC	3

Upper-division ECO	3
SBC	3
Upper-division elective	3
Elective	3
Total	15

JUNIOR

FALL	Credits
Upper-division ECO	3
Upper-division ECO	3
Upper-division elective	3
SBC	3
SBC	3
Total	15

SPRING	Credits
Upper-division ECO	3
ECO elective or other approved course	3
Upper-division elective	3
ECO 321	4
SBC	3
Total	16

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: Sharon Pochron
Email: Sharon.pochron@stonybrook.edu
Program Office: E2361 Melville Library
Undergraduate Advisor: Nancy Black
Phone: (631) 632-9404
Website: https://www.somas.stonybrook.edu/

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 in Ecosystems and Human Impact (EHI)

Note: Effective Spring 2023, students may not declare the major in Ecosystems and Human Impact. Students may instead enroll in the Ecosystems and Human Impact track in the BA in Sustainability Studies.

A. Required Foundation Courses for Major (27-28 credits)

- 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/ENV 115 Chemistry, Life, and Environment (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)
- ECO 108 Introduction to Economics
- MAT 125 (or MAT 130/MAT 125) or MAT 131 Calculus or AMS 151. If students do not place into MAT 125 or MAT 131 or AMS 151 on the basis of the math placement examination, MAT 123 (or MAT 119/MAT 123) is a required course for the major.
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 201 Systems and Models (formerly offered as SBC 201)
- SUS 204 Population Studies (formerly offered as SBC 204)

B. Core Courses (24-25 credits)

- BIO 351 Ecology
- ENV 301 Sustainability of the Long Island Pine Barrens or SUS 401 Integrative Collaborative Systems Studies (formerly offered as SBC 401)
- ENV 304 Global Environmental Change or ATM 305 Global Atmospheric Change
- GSS 313/314 GIS Design and Applications I/GIS Laboratory or GIS 317 Geospatial Narratives
- SUS 301 Technical Writing and Communication (formerly offered as CSK 302)
- SUS 305 Collective Action and Advocacy (formerly offered as CSK 305)
- SUS 322 Human Ecology (formerly offered as EHI 322)
- SUS 326 Conservation Genetics (formerly offered as EHI 326)

C. Elective Course Groups (15-18 credits)
Other classes may be substituted with permission of undergraduate director

Group I: Technical Skills

Choose one of the following three courses:

- BIO 211 Statistics and Data Analysis (AMS 110, AMS 310, ECO 320 or POL 201 may be substituted for BIO 211)
- CSE 101 Introduction to Computers and Programming
- GSS 325 GIS Design and Applications II

Group 2: Solutions for Environmental Problems

Choose three courses from the following list. Students may take a three credit SUS 488, SUS 487, ANP 387, ANP 487, or ANT 487 with permission of their faculty advisor.

- ANP 307 Comparing Ecosystems in Madagascar
- ANP 326 Lemurs of Madagascar
- ANP 350 Field Methods in Primatology and Field Biology
- ANP 401 Pastoralism Under Pressure: Savannas, Society, and Sustainability in East Africa
- ANP 351 Biodiversity Assessment Methods for Tropical Field Research
- BIO 319 Landscape Ecology Laboratory
- BIO 352 Ecology Laboratory*
- BIO 353 Marine Ecology
- BIO 371 Restoration of Aquatic Ecosystems*
- ENV 340 Contemporary Topics in Environmental Science
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 313 Understanding Water Resources for the 21st Century
- MAR 315 Conservation Biology and Marine Biodiversity
- MAR 336 Marine Pollution*
- MAR 384 Diseases of Aquatic Organisms*
- MAR 388 Tropical Marine Ecology
- MAR 394 Environmental Toxicology and Public Health*
- SUS 313 Ecosystem Based Management (formerly offered as EHI 311)
- SUS 319 Preservation and Restoration of Ecosystems (formerly offered as EHI 310)
- SUS 340 Ecological and Social Dimensions of Disease (formerly offered as EHI 340)
- SUS 344 Sustainable Natural Resources (formerly offered as EHI 343)
- SUS 351 Design and Implement a Research Project in Ecotoxicology (formerly offered as EHI 350)
- SUS 352 Conduct and Communicate a Research Project in Ecotoxicology (formerly offered as EHI 351)

Group 3: History and Policy of Environmental Issues

Choose one of the following courses:

- AFS 374/SUS 374 Environment and Development in African History
- ANP 391 Ecosystem Diversity and Evolution
- ENS 311 Ecosystem Ecology and Global Environment*
- ENS 333 Environmental Law*
- MAR 340 Environmental Problems and Solutions
- MAR 392 Waste Management Issues*
- SOC 344 Environmental Sociology
- SUS 203 Interpretation & Critical Analysis (formerly offered as SBC 203)
- SUS 206 Economics and Sustainability (formerly offered as SBC 206)
- SUS 307 Environmental Economics and Management*
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 311 Disasters and Society a Global Perspective* (formerly offered as SBC 311)
- SUS 312 Environment, Society, and Health* (formerly offered as SBC 312)
- SUS 314 Civilizations and Collapse (formerly offered as EHM 314)
- SUS 316 Cuba and Sustainability (formerly offered as EHM 316)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 341 Environmental Treatises and Protocol
- SUS 350 Contemporary Topics in Sustainability

*Course has a pre-requisite that is outside the major.

D. Communications and Writing Requirement
The advanced writing component of the major in EHI requires registration in the 0-credit SUS 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 SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department.
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:
No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. 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 Cuba, 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.

Double Majors

Excluding ENV 301 (Sustainability of the Long Island Pine Barrens), SUS 301 (Technical Writing and Communication), SUS 305 (Collective Advocacy and Action), and SUS 401 (Integrative Collaborative Systems Studies), no more than 6 credits of 300-400 level course credits can be applied to two majors within the Sustainability Studies Program or the School of Marine and Atmospheric Sciences.

Minor in Ecosystems and Human Impact (EHI)

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.

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.

Requirements for the Minor in Ecosystems and Human Impact (EHI)

- 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 21-22 credits.

A. Required courses (12-13 credits):

- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 201 Systems and Models (formerly offered as SBC 201)

One of the following courses:

- ANP 120 Introduction to Biological Anthropology
- ENV 115 Chemistry, Life, and Environment (Note: CHE 129, 131, , or 152 may be substituted for CHE/ENV 115)
- GIS 313/GIS 314 GIS Design and Applications I and Laboratory or GSS 317 Geospatial Narratives

B. Electives (9 credits):
Choose three of the following courses:

- ANP 307 Comparing Ecosystems in Madagascar*
- ANP 326 Lemurs of Madagascar*
- ANP 350 Methods in Studying Primates*
- ANP 351 Biodiversity Assessment Methods for Tropical Field Research*
- ANP 391 Ecosystem Diversity and Evolution*
- ANP 401 Pastoralism Under Pressure: Savannas, Society, and Sustainability in East Africa
- BIO 319 Landscape Ecology Laboratory
- BIO 336 Conservation Biology
- BIO 351 Ecology

- BIO 352 Ecology Laboratory
- BIO 353 Marine Ecology
- BIO 371 Restoration of Aquatic Ecosystems
- ENV 301 Sustainability of the Long Island Pine Barrens
- ENV 304 Global Environmental Change or ATM 305 Global Atmospheric Change
- ENV 340 Contemporary Topics in Environmental Science
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 313 Understanding Water Resources for the 21st Century
- MAR 315 Conservation Biology and Marine Biodiversity
- MAR 336 Marine Pollution
- MAR 384 Diseases of Aquatic Organisms
- MAR 388 Tropical Marine Ecology
- MAR 394 Environmental Toxicology and Public Health
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 313 Ecosystem-Based Management (formerly offered as EHI 311)
- SUS 319 Restoration Ecology (formerly offered as EHI 310)
- SUS 322 Human Ecology (formerly offered as EHI 322)
- SUS 326 Conservation Genetics (formerly offered as EHI 326)
- SUS 340 Ecological and Social Dimensions of Disease (formerly offered as EHI 340)
- SUS 344 Sustainable Natural Resources (formerly offered as EHI 343)
- SUS 351 Design and Implement a Research Project in Ecotoxicology (formerly offered as EHI 350)
- SUS 352 Conduct and Communicate a Research Project in Ecotoxicology (formerly offered as EHI 351)

* These courses are offered as part of the Madagascar Study Abroad Program.

Sample Course Sequence for the Major in Ecosystems and Human Impact

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SUS 111	3
MAT 125, MAT 131, or AMS 151	3-4
Elective	3
Total	13-14

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE 129, CHE 131, or ENV 115	3-4
ECO 108	4
Elective	3
Total	14-15

SOPHOMORE

FALL	Credits

SUS 201	3
ANP 120	4
BIO 201/BIO 204	5
SUS 301	3
Total	15

SPRING	Credits
ENV 304 or ATM 305	3
Foreign Language or elective	3-4
SUS 322	3
SUS 326	3
Elective	3
Total	15-16

JUNIOR

FALL	Credits
technology elective (group 1)	3-4
SUS 305	3
solutions elective (group 2)	3
SUS 304	3
Elective	3
Total	15-16

SPRING	Credits
BIO 351	3
solutions elective (group 2)	3
solutions elective (group 2)	3
GSS 313/GSS 314	4
Elective	3
Total	16

SENIOR

FALL	Credits
Elective	3
Elective	3
Elective	3
EHI 487	6
Total	15

SPRING	Credits
issues elective (group 3)	3
SUS 401 or ENV 301	3
Elective	3

Elective	3
Internship	3
Total	15

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

Education and Teacher Certification

Programs in Education and Teacher Certification

Stony Brook's Teacher and Leader Education Program is a member in good standing of the Association of Advancing Quality in Educator Preparation (AAQEP).

Teacher and Leader Education is administered by the School of Professional Development.

Vice Provost for Continuing Professional and Executive Education: Peter Diplock

University Teacher Certification Officer: Susan Ross (susan.ross@stonybrook.edu)
Office Manager and Education Coordinator: Patricia Dixon (patricia.dixon@stonybrook.edu)

Address: S116 Social and Behavioral Sciences Building, Stony Brook, NY 11794-4310
Phone: See contact information for program directors
Email: See contact information for program directors
Website: http://www.stonybrook.edu/dtale

Secondary Education and Teacher Certification Programs in English; Foreign Languages (Chinese, French, 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 Distributed Teacher and Leader Education (D-TALE) programs 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, 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 the nationally accredited Distributed Teacher and Leader Education (D-TALE) program. D-TALE 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. D-TALE 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 Distributed Teacher and Leader Education program follows 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 Distributed Teacher and Leader Education program. For some courses, approval of the D-TALE 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 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 D-TALE 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 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.

Combined Bachelor's/Master's Programs leading to NYS Teacher Certification

Five-year bachelor's/master's programs are available in several academic departments. Some are joint programs with the Graduate School while most are with the School of Professional Development. Students are allowed to take up to fifteen (15) graduate credits that will count towards both their undergraduate and graduate requirements reducing the total time for completion of the master's degree.

The university allows undergraduate students enrolled in a combined program to use a maximum of 15 graduate credits toward the undergraduate portion of the accelerated degree.

Undergraduate Academic Plan	Graduate Academic Program	Maximum # of Shared Credit Allotment	UG & Grad Degrees Awarded	TEACH Recommendation
B.A. in Italian with Teacher Preparation option	MAT in Italian	15	Concurrently	After MAT awarded
B.A. in French with Teacher Preparation option	MAT in French	15	Concurrently	After MAT awarded
B.A. in Spanish with Teacher Preparation option	MAT in Spanish	15	Concurrently	After MAT awarded
B.S. in Chemistry with Teacher Preparation option	MAT in Chemistry	15	Concurrently	After MAT awarded
B.S. in Biology with Teacher Preparation option	MAT in Biology	15	Concurrently	After MAT awarded
B.S. in Earth Science	MAT in Earth Science	15	Concurrently	After MAT awarded
B.S. in Physics with Teacher Preparation option	MAT in Physics	15	Concurrently	After MAT awarded
B.S. in Mathematics	MAT in Mathematics	15	Concurrently	After MAT awarded
B.A. in History with Teacher Preparation option	MAT in Social Studies	15	Concurrently	After MAT awarded
B.A. in African Studies with Teacher Preparation	MAT in Social Studies	15	Concurrently	After MA awarded
B.A. in English with Teacher Preparation option	M.A. in English (Graduate School)	12	Concurrently	After MA awarded

B.A. in History with Teacher Preparation option	M.A. in History (Graduate School)	6	Concurrently	After MAT awarded
B.A. in Linguistics with Teacher Preparation option	M.A. in TESOL (Graduate School)	8	Concurrently	After MAT awarded
B.A. in Italian & Linguistics with Teacher Preparation option **	MAT in Italian	15	Concurrently	After MAT awarded
B.A. in French & Linguistics with Teacher Preparation option **	MAT in French	15	Concurrently	After MAT awarded
B.A. in Spanish & Linguistics with Teacher Preparation option **	MAT in Spanish	15	Concurrently	After MAT awarded

** Leads to two separate teaching licenses, Spanish/French/Italian Grades 7-12 and TESOL Pre-K- 12)

Applying to a Combined Bachelor's/Master's Program

Students must apply and be admitted to a combined degree program. The minimum requirements to apply include completion of at least 60 credits of college coursework and a grade point average of 3.0 or higher as an undergraduate student. Additional requirements may vary by program; contact the Graduate program for more information. All applications require approval from the undergraduate department, the corresponding Graduate Program Director and the University Teacher Certification Officer.

Matriculation into the Graduate Career

When an accelerated student has completed a minimum of 105 undergraduate credits, has taken the maximum allotted number of graduate credits (8 - BA/MA-TESOL; 15 – other combined teacher prep programs) as an undergraduate student, and has less than a full-time (12 credits) undergraduate course load needed to complete their Bachelor's degree requirements, they should matriculate into their Graduate career. Matriculation requires submission of the "SPD Change of Status" form. Students should consult with both their Undergraduate Program Director and their Graduate Program Director for advising and guidance on matriculation.

Graduation from the Combined Bachelor's/Master's Program and Teacher Certification

Students enrolled in one of Stony Brook University's combined teacher preparation programs will be eligible for graduation from both the BA or BS and MA or MAT degree at the same time. This includes completion of all degree requirements, including completion of all certification workshops (Child Abuse, School Violence, Substance Abuse and DASA). In addition, students must be awarded both their undergraduate and graduate degree programs in order to be eligible to receive an institutional recommendation on their NYSED TEACH account by the University Certification Officer and upon receipt of their FERPA release forms. All candidates must apply for their teaching license via their NYSED TEACH account and pass all the required NYS exams and complete the fingerprinting process in order for NYSED to issue their license.

Degrees with distinction are awarded at the undergraduate level only. Undergraduate coursework taken during the graduate career will calculate into the undergraduate GPA to determine distinction for Combined Degree Program students.

As per Graduate School policy, undergraduate courses DO NOT count towards graduate degree requirements. Also, per university policy, a student must spend at least one year in residency for the master's portion of the program. Additionally, state regulation requires that students must earn a minimum of 30 graduate credits for the master's portion of the program.

Glossary:

Combined Degree – Student will be awarded both their undergraduate and graduate degrees concurrently upon successful completion of both programs. Students will only be recommended for their initial/professional teaching license after both their degrees have been awarded and student has submitted their FERPA release forms and processing fee to the University Certification Office. This includes all five year teacher preparation programs including the BA/BS MAT programs with the School of Professional Development and the BA/MA in English, History and TESOL with the Graduate School.

Accelerated Degree- Student will be awarded their undergraduate degree upon successful completion of their undergraduate degree requirements. Stony Brook University does not currently offer accelerated degree programs that lead to teacher certification.

The following sections describe specific requirements for each of the University's Teacher Education Programs.

English Secondary Teacher Education Program

INTERIM PROGRAM DIRECTOR: Nicole Galante, 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, 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, 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, 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 or Italian Secondary Teacher Education Program

Students who wish to prepare for certification as secondary school teachers of French 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, 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 Dr. Kira Shultheiss.

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
Professional educational requirements:

1. PSY 327 Human Development in an Educational Context
2. SSE 350 Foundations in Education
3. LIN 344 Language Acquisition and Literacy Development
4. CEF 347 Introduction to Special Education
5. SCI 410 Pedagogy and Methods in Science Education I
6. SCI 449 Field Experience I (co-requisite SCI 410)
7. SCI 420 Pedagogy and Methods in Science Education II
8. SCI 450 Field Experience II (co-requisite SCI 420)
9. SCI 451 Supervised Student Teaching 7-9
10. SCI 452 Supervised Student Teaching 10-12
11. SCI 454 Student Teaching Seminar

To be eligible for SCI 410/SCI 449, students must have declared a major in biology, chemistry, earth and space science, or physics, added the teacher preparation program (TP) to the major, and have taken at least four science laboratory courses.

B. Supporting science competencies:

Candidates for NYS Teaching Certification in Biology, Chemistry, Earth and Space Science, and Physics are required to complete supporting competencies in each of the sciences in addition to their science major. The courses required in other sciences for the major **and** Teacher Preparation include the following, **but note that the program advisor for each science major may make modifications on an individual basis**:

Biology majors:

- Chemistry courses: See Requirements for Biology major

- Earth and Space Science courses: GEO 122 or GEO 102 & GEO 112 or GEO 103 & GEO 113, or AST 101 & AST 112 or AST 203, or ATM 102 or ATM 205
- Physics courses: See Requirements for Biology major

Chemistry majors:

- Biology courses: BIO 201 or BIO 202 (& BIO 204 or other BIO lab if completing the Biological Option)
- Earth and Space Science courses: GEO 122 or GEO 102 & GEO 112 or GEO 103 & GEO 113 or AST 101 & AST 112 or. AST 203, or ATM 102 or ATM 205
- Physics courses: See Physics courses required for Chemistry major

Earth and Space Science majors:

- Biology courses: BIO 201, BIO 202, BIO 204
- Chemistry courses: See courses required for Earth and Space Science TP or Geology major
- Physics courses: See courses required for Earth and Space Science TP or Geology major

Physics majors:

- Biology courses: BIO 201 or BIO 202, and BIO 204
- Chemistry courses:
  - *General Chemistry:* CHE 129, 130 & 132, or CHE 131 & 132, or CHE 141 & 142; or Molecular Science course CHE 152
  - Students are encouraged to take *General Chemistry Laboratory:* CHE 133 & 134, or CHE 143 & 144; or Molecular Science course CHE 154
- Earth and Space Science courses: GEO 122 or GEO 102 & GEO112, or AST 101 & AST 112, or AST 203 or ATM 205

C. To qualify for the General Science (grades 7-12) certification, candidates must complete a minimum of 18 semester hours in two or more sciences other than their major science. Additional elective courses in science may be needed to meet this requirement. Consult with Program Advisor or Teacher Preparation Advisor for more information.

D. OPTIONAL: To qualify for certification in another science, additional credits in the science are needed. Consult with the Teacher Preparation Advisor for more information.

Social Studies Secondary Teacher Education Program

PROGRAM DIRECTOR: Charles Backfish, M.A., 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 D-TALE 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/LANG SBC 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 311 Syntax
- LIN 301 Phonology
- LIN 307 Introduction to Sociolinguistics
- LIN 405 Writing in Linguistics
- 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 311
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 (1st 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**
Initial Licensure	Undergrad	Graduate	Undergrad	Graduate	Undergrad	Graduate
Intro to Human Development (UG); Human Development (Grad)	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^
Foundations of Educ. (U.G.)/; Educ. Theory & Pract. (Grad)	SSE 350	CEE 505	SSE 350	CEE 505	SSE 350	CEE 505
Intro to Spec. Ed. (U.G.)/Principles and Practices of Spec. Ed. (Grad)	CEF 347	CEF 547	CEF 347	CEF 547	CEF 347	CEF 547
Methods Courses	EGL 440 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, ITL, JPN, KOR, RUS, SPN €	FRN, 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**
Initial Licensure	Undergrad	Graduate	Undergrad	Graduate	Undergrad	Graduate
Intro to Human Development (UG); Human Development (Grad)	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^	PSY 327 @@	PSY 595 ^
Foundations of Educ. (U.G.)/; Educ: Theory & Pract. (Grad)	SSE 350	CEE 505	SSE 350	CEE 505	SSE 350	CEE 505
Intro to Spec. Ed. (U.G.)/Principles and Practices of Spec. Ed. (Grad)	CEF 347	CEF 547	CEF 347	CEF 547	CEF 347	CEF 547
Methods Courses	SCI 410 SCI 420	SCI 510 SCI 520	SSE 397 SSE 398	CEE 577 CEE 578	LIN 375 LIN 378	LIN 524 LIN 529
Field Experience	SCI 449 SCI 450	SCI 549 SCI 550	SSE 449 SSE 450	CEF 548 CEF 549	LIN 449 @ LIN 450 @	LIN 579 @
Literacy Course (for new certifications)	LIN 344	LIN 544	LIN 344	LIN 544	LIN 344	LIN 532 LIN 541
Student Teaching	SCI 451 SCI 452	SCI 551 SCI 552	SSE 451 SSE 452	CEQ 581 CEQ 582	LIN 451 LIN 452	LIN 581 LIN 582
Student Teaching Seminar	SCI 454	SCI 554	SSE 454	CEE 580	LIN 454	LIN 574
36 Credits in Content (U.G.); 15 Cr. Additional Content in MAT Degree Programs	BIO, CHM, ESS, PHY	BIO, CHM, ESS, PHY	AFS, ANT, ECO, HIS, POL, SOC (S.S. 48 cred)	See Footnote##	Linguistics	Linguistics
1 Yr. of Language	*	*	*	*	2 Yrs. of Language**	2 Yrs. of Language**
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

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

Interim Chair: Leon Shterengas

Undergraduate Program Director: Ridha Kamoua

Undergraduate Program Coordinator: Claire Desio

Office: 231 Engineering
Phone: (631) 632-8381

Email: ECEundergradCoordinator@stonybrook.edu

Website: 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 Circuits and VLSI, Communications, Signal Processing, and Networking, Nanoelectronics and Photonics or Power and Energy Systems. 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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Requirements for the Major and Minor in Electrical Engineering (ESE)

Acceptance into the Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completion of at least 11 credits of mathematics, physics, and electrical and computer engineering courses required for major (excluding ESE300 and ESE301),
- Earned a G.P.A. of 3.2 or higher in all mathematics, physics, and engineering courses (excluding ESE300 and ESE301) applicable to major requirements with no more than one grade less than B-,
- No courses required for the major have been repeated, and
- Completion of course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.
Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

Requirements for the Major

The curriculum begins with a focus on basic mathematics and natural sciences followed by courses that emphasize engineering science and bridging courses that combine engineering science and design. The series of courses culminates in a one-year design experience that integrates various engineering skills and knowledge acquired. Technical elective courses are also required according to the student's chosen specialization. The core sequence, technical electives, and additional courses may be chosen in consultation with a faculty advisor, taking into consideration the particular interest of the student.

Completion of the major requires approximately 100 credits.

1. Mathematics

- AMS 151, AMS 161 Applied Calculus I, II
- AMS 261 or MAT 203 Applied Calculus III
- AMS 361 or MAT 303 Applied Calculus IV
- AMS 210 or MAT 211 Linear Algebra

Note: The following alternate calculus course sequences may be substituted for AMS 151, AMS 161 in major requirements or prerequisites: (MAT 131 and MAT 132), or (MAT 125, MAT 126, and MAT 127).

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 course from CHE 131, CHE 152, ESG 198, BIO 202, BIO 203, PHY 251, AMS 301, ESE 122.

3. Freshman Introduction to Electrical Engineering

- ESE 123 Introduction to Electrical and Computer Engineering
- ESE 124 Programming Fundamentals

4. Core Courses

- ESE 118 Digital Logic Design
- ESE 224 Advanced Programming and Data Structures
- ESE 271 Electrical Circuit Analysis
- ESE 272 Electronics
- ESE 273 Microelectronic Circuits
- ESE 280 Embedded Microcontroller Systems Design I
- ESE 305 Deterministic Signals and Systems
- ESE 306 Random Signals and Systems
- ESE 315 Control System Design
- ESE 319 Electromagnetic Waves and Transmission Lines
- ESE 323 Modern Circuit Board Design and Prototyping
- ESE 324 Advanced Electronics Laboratory
- ESE 331 Semiconductor Devices
- ESE 342 Communication Systems

5. Specializations

Students must select one of the four specializations listed below by the end of the sophomore year.

a. Circuits and VLSI

b. Communications, Signal Processing, and Networking

c. Nanoelectronics and Photonics

d. Power and Energy Systems

Each specialization **requires 5 elective courses**. A list of acceptable electives can be found in the electrical and computer engineering undergraduate guide.

6. Design

- ESE 440 and ESE 441, Senior 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 Technical Communication for Electrical and Computer Engineers

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 after completion of ESE 280.

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:

ESE 118, ESE 271, ESE 272, ESE 273, ESE 300, ESE 301, ESE 305, ESE 315, ESE 323, ESE 331, ESE 342, ESE 440, ESE 441, Two ESE Technical Electives, ESE Specialization Courses, AMS 151, AMS 161 (or MAT 131, MAT 132), PHY 131, PHY 132, PHY 133, PHY 134

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 20 credits.

1. ESE 123 (4 credits)
2. ESE 271 (3 credits)
3. Four or five ESE courses for a total of at least 13 credits.

Note: Students may not take ESE 111, ESE 121, ESE 122, ESE 124, ESE 188 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102 (WRT)	3
AMS 151[1] (QPS)	3
PHY 131/133[2] (SNW)	4
ESE 123 (TECH)	4
Total	15

SPRING	Credits
First Year Seminar 102	1
AMS 161[1] (QPS)	3
PHY 132/134[2] (SNW)	4
ESE 118	4
AMS 210	3
Total	15

SOPHOMORE

FALL	Credits
AMS 361 (or MAT 303)	4
ESE 280	4
ESE 271	3
ESE 124	4
ESE 305	3
Total	18

SPRING	Credits
AMS 261 (or MAT 203)	4
ESE 273	3
ESE 272	4
ESE 224	4
ESE 306	3
Total	18

JUNIOR

FALL	Credits
ESE 331	3
ESE 323	3
ESE 319	3
ESE 342	3
ESE Elective	3
Total	15

SPRING	Credits
ESE Specialization Course	3
ESE 324	3
ESE 300	2
ESE 301 (STAS)	2
ESE Elective	3
ESE 315	3
Total	16

SENIOR

FALL	Credits
ESE 440*	3
CHE 131[3]	4
ESE Specialization Course	3
SBC	3

SBC	3
Total	16

SPRING	Credits
ESE 441*	3
ESE Elective	3
SBC	3
SBC	3
SBC	3
Total	15

All courses in **bold** must be passed with a minimum grade of C.

1. AMS 151 and AMS 161 can be replaced by (MAT 131 and MAT 132) or (MAT 131 and 171), or (MAT 125, MAT 126, and MAT 127) or (MAT 141 and MAT 142), or (MAT 141 and MAT 171).
2. PHY 131 and PHY 132 can be replaced by (PHY 125, PHY 126, and PHY 127), or (PHY 141 and PHY 142). Students taking the three semester sequence should take PHY 125, PHY 127 and PHY 126 in that order.
3. Students can also take one of the following courses: CHE 152, BIO 202, BIO 203, ESG 198, PHY 251, AMS 301 or ESE 122

* 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.

Electrical Engineering Online (EEO)

Major in Electrical Engineering (Online)

Department of Electrical Engineering, College of Engineering and Applied Sciences

Interim Chair: Leon Shterengas

Undergraduate Program Director: Thomas Robertazzi

Undergraduate Program Coordinator: Claire Desio

Office: 231 Engineering
Phone: (631) 632-8381

Email: bseeol@stonybrook.edu

Website: https://www.stonybrook.edu/commcms/eeonline/about.php

Electrical Engineering Online (EEO)

Electrical Engineering Online (EEO) leads to a Bachelor of Science (B.S.) degree.
This rigorous upper-level two-year program provides thorough training and education in the fundamentals of electrical engineering while students complete an entirely online degree program.
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 two program educational objectives **(PEOs):**

PEO 1: Our graduates should excel in engineering positions and career advancements in industry and other organizations that emphasize design and implementation of engineering systems and devices.

PEO 2: Our graduates should excel in professional developments including advanced degrees in engineering and related disciplines.

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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

More details about program educational objectives and outcomes can be found at http://www.ece.sunysb.edu/peos

Requirements for the Major in Electrical Engineering Online (EEO)

Admission Criteria for the Upper-Division Electrical Engineering Online Program

Qualified transfer students not currently matriculated at Stony Brook University who have indicated their interest in the major on their application, and have completed the required prerequisite courses for the EEO program, may apply to this upper-division (final two years of the Bachelor's degree) program through the SUNY application.

The following are minimum admission requirements:
1. A minimum 3.0 cumulative grade point average in the following courses, with no grade in any of them below C, from regionally accredited institutions or recognized by the Program on Noncollegiate Sponsored Instruction of the State of New York and recorded on official transcripts:

- College Calculus I
- College Calculus II
- College Calculus III
- Introduction to Differential Equations

2. A minimum grade of C in the following General Education Course from the Stony Brook Curriculum (SBC):
WRT Write Effectively in English: an English composition course judged to be equivalent to WRT 102 (U.S. equivalent writing course)

Acceptance into the Major

Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs follow the same admissions process as students in the AOI program.

**Note: Students pursuing a Bachelor of Engineering may not apply for a double major in the Electrical Engineering Online program. Students with a minor in Electrical Engineering may not pursue the Electrical Engineering Online program.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.

Applications for major admission are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completion of at least 9 credits of mathematics, physics, and electrical engineering online courses required for the major (excluding EEO 300 and EEO 302),
- Earned a G.P.A. of 3.00 or higher in all mathematics, physics, and engineering courses (excluding EEO 300 and EEO 302) applicable to major requirements with no more than one grade less than C.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.

Requirements for the Major

The major in Electrical Engineering Online leads to the Bachelor of Science degree. Completion of the major requires approximately 66 credits. In addition to the following major requirements, students must also complete the Stony Brook Curriculum general degree requirements.

1. Mathematics*

- MAT 131 Differential Calculus
- MAT 132 Integral Calculus
- MAT 203 Multivariable Calculus
- MAT 303 Differential Equations
- MAT 211 Linear Algebra

2. Natural Sciences*

- PHY 131/133 Calculus-based Physics I with Lab
- PHY 132/134 Calculus-based Physics II with Lab
- CHE 131 Chemistry I or PHY 251 Modern Physics

3. Required Courses:

- EEO 124 C or C++ Programming for Engineers*
- EEO 218 Digital Logic Design*
- EEO 219 Digital Logic Design Lab*

- EEO 224 Object Oriented Programming for Electrical and Computer Engineers*
- EEO 271 Electrical Circuit Analysis*
- EEO 301 Signals and Systems
- EEO 306 Random Signals
- EEO 311 Electronics II
- EEO 315 Electronics I
- EEO 319 Electromagnetic Waves and Transmission Lines
- EEO 331 Semiconductor Devices
- EEO 352 Electronics Lab I
- EEO 353 Electronics Lab II

4. Technical Electives (12 credits; four courses selected from the following):

- EEO 303 Digital Signal Processing
- EEO 304 Electronic Instrumentation & Operational Amplifiers
- EEO 314 MOS Transistor Modeling
- EEO 316 Integrated Electronic Devices and Circuits
- EEO 346 Computer Communications
- EEO 366 Design using Programmable Mixed-Signal Systems-on-Chip
- EEO 388 Foundations of Machine Learning
- EEO 414 Fundamentals of Low Noise Electronics for Sensors
- EEO 425 Electric Machinery & Energy Conversion
- EEO 470 Renewable Distributed Generation and Storage
- EEO 482 Power Systems Engineering

5. Open Electives (6 credits; selected in consultation with the program advisor)

6. Design

- EEO 440 Engineering Design I
- EEO 441 Engineering Design II

Note: EEO 440 and EEO 441 are engineering design project courses that must be carried out under the supervision of an Electrical and Computer Engineering faculty member.

7. Upper-Division Writing Requirement:

- EEO 300 Technical Communications for Electrical Engineers

8. Engineering Ethics

- EEO 302 Engineering Ethics and Societal Impact

*These courses are typically completed via transfer credit prior to matriculation.

Grading

All courses taken for the major must be taken for a letter grade. A grade of C or higher is required in all courses.

EEO Residency Requirement

In addition to the University residence and upper division requirements, the following courses must be earned in Stony Brook EEO courses:

1. EEO 440 and EEO 441
2. At least seven EEO required courses or technical electives (excluding EEO 300, EEO 302, EEO 440 and EEO 441).

Sample Course Sequence for the Major in Electrical Engineering Online

For more information about SBC courses that fulfill major requirements, click here.

JUNIOR

FALL	Credits
EEO 302 (STAS, CER, ESI)	3
EEO 301	4
EEO 315	3
EEO 352	3
MAT 211 (Linear Algebra)**	3

Total	16

SPRING	Credits
EEO 300	3
EEO 306	3
EEO 311	3
EEO 353	3
EEO 224	3
Total	15

SENIOR

FALL	Credits
EEO 440*	3
EEO 319	3
Technical Elective***	3
Technical Elective***	3
Open Elective****	3
Total	15

SPRING	Credits
EEO 441*	3
EEO 331	3
Technical Elective***	3
Technical Elective***	3
Open 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.

** MAT 211 is not available online. Refer to the transfer database for the most current evaluations.

*** Technical Electives from the following list: EEO 303, EEO 304, EEO 314, EEO 316, EEO 346, EEO 388, EEO 414, EEO 425, EEO 470 and EEO 482.

**** Open Electives should be selected in consultation with the program advisor.

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 Chemical Engineering, College of Engineering and Applied Sciences

Interim Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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 - Evaluating the Options
- 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 319 Electromagnetics and Transmission Line Theory **(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 Urban Systems
- SUS 344 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
Email: dale.drueckhammer@stonybrook.edu

Student Affairs Coordinator: Katherine Hughes

Office: 109 Chemistry
Phone: (631) 632-7886
Email: 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; G/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 (or MAT 119/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, CHE 358 Computing in Chemistry, or equivalent computer course

4. CHE 129/CHE 130, CHE 132 or CHE 131, CHE 132 General Chemistry or CHE 152 Molecular Science I
5. CHE 133, CHE 134 General Chemistry Laboratory or CHE 154 Molecular Science Lab I (CHE 199 General Chemistry Laboratory for Engineers acceptable with permission)
6. PHY 131/PHY 133, PHY 132/PHY 134 Classical Physics I, II and labs or PHY 141/133, 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
7. PHY 251/252 Modern Physics and Laboratory or ESG 281 An Engineering Introduction to the Solid State

Note: The following alternate calculus sequences may be substituted for MAT 131, MAT 132: MAT 141, MAT 142 or MAT 171 or MAT 125, MAT 126, MAT 127 or AMS 151, AMS 161. MAT 307 and MAT 308 may be substituted for MAT 203 and MAT 303, but only after consultation with the Mathematics Department.

B. Core Program

1. CHE 301, CHE 302 Physical Chemistry I, II
2. CHE 303 Solution Chemistry Laboratory
3. CHE 304 Chemical Instrumentation Laboratory
4. CHE 321 Organic Chemistry I or CHE 331 Molecular Science II
5. CHE 378 Materials Chemistry
6. ESM 325 Diffraction Techniques and Structure of Solids
7. ESG 332 Materials Science I: Structure and Properties of Materials
8. ESG 333 Materials Science II: Electronic Properties

C. Upper-Division Writing Requirement

Each student majoring in Engineering Chemistry must 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 322 or CHE 332 (organic), CHE 346 (biological), CHE 375 (inorganic), the laboratories CHE 383 or CHE 327 and CHE 328 or CHE 384, and one of the following: 1. CHE 487 (6 or more credits), 2. CHE 495-496, 3. CHE 357 and CHE 487 (3 or more credits), or 4. a research experience in the chemical sciences at another college, university, or government laboratory of at least 180 hours. Students who fulfill ACS requirements with an off-campus research experience must register for CHE 487 (0 credits). All students using CHE 487 to fulfill ACS requirements must prepare a written research report that will be evaluated by a Stony Brook Chemistry faculty member.

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

For more information about SBC courses that fulfill major requirements, click here.

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
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
CHE 378	3
ESG 281 or PHY 251/PHY 252	3-4
ESG 332	3
SBC	3
Total	16-17

SPRING	Credits
ESM 325	3
CHE 304	2

Upper-division SBC	3
SBC	3
SBC	3
Total	14

SENIOR

FALL	Credits
ESG 333	4
CHE 495	3
Upper-division SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
CHE 496	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 Science (ESG)

Major in Engineering Science

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Office: Engineering 231

Email: esg_undergradadvising@stonybrook.edu
Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

Minors of particular interest to students majoring in Engineering Science: Biomaterials (BES), Energy Science, Technology and Policy (NRG), Environmental Engineering (ENE), Manufacturing Engineering (MFE), Materials Science (ESM), Nanotechnology Studies (NTS)

Engineering Science (ESG)

The Department of Materials Science and Chemical 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. These 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, mechanical and 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 and Engineering, the Department offers minors in Biomaterials; 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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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, environmental materials engineering, and computational modeling of advanced materials. The Department also maintains a number of close collaborations with nearby Brookhaven National Laboratory's Center for Functional Nanomaterials and National Synchrotron Light Source. 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

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of "Q" in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- A cumulative g.p.a. of 3.00;
- 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;
- Received completed course evaluations for all transferred courses that are to be used to meet requirements for the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.
Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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; 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.

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:
a. The following alternate physics course sequences may be substituted for PHY 131/PHY 133, PHY 132/PHY 134: PHY 125, PHY 126, PHY 127, PHY 133, PHY134 Classical Physics A, B, C and Laboratories or PHY 141, PHY 142, PHY 133, PHY 134 Classical Physics I, II: Honors
b. 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 or CSE 114

4. Engineering Science

• ESG 100; ESG 201; ESG 312; ESG 375; ESG 420; ESM 450; ESM 460; and the following eight 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 four 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. To achieve an area of specialization in biotechnology, students must fulfill the following requirements:

1. The following two courses must be completed:

a. BIO 202 Fundamentals of Biology: Molecular and Cellular Biology
b. ESM 453 Biomaterials

2. Two courses from the following list:

• ESM 469 Polymer Engineering
• 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 Quantitative Human Physiology
• 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. To achieve an area of specialization in civil engineering, students must fulfill the following requirements:

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 Special Topics in Computer Science (Solid Modeling topic only)
• MEC 442 Intro to Experimental Stress Analysis
• MEC 455 Applied Stress Analysis
• EST 330 Natural Disasters
• EST 392 Engineering Economics
• ECO 373 Eco of Env & Natural Resources
• MAR 392 Waste Management Issues
• MAR 393 Waste Treatment Tech
• MEC 262 Engineering 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

Environmental engineering involves interdisciplinary research and technology design, deployment and operations related to: environmental protection and remediation, pollution, prevention, sustainable manufacturing, recycling and waste minimization, and protection of human health from environmental hazards. To achieve an area of specialization in environmental engineering, students must fulfill the following requirements:

1. Two required courses:

• BIO 201 Fundamentals of Biology: Organisms to Ecosystems
• CHE 312 Physical Chemistry for the Life Sciences (or CHE 301 Physical Chemistry I)

2. Two technical electives chosen from:

• ATM 205 Introduction to Atmospheric Sciences
• ATM 247 Atmospheric Structure and Analysis
• ATM 305 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
• ENV 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 316 Geochemistry of Surficial Processes
• MAR 301 Environmental Microbiology
• MAR 308 Environmental 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

Electronics engineering involves research, design and manufacturing of electronic materials of devices, from discrete components and systems to nanoscale circuitry. To achieve an area of specialization in electronics engineering, students must fulfill the following requirements:

1. Two required courses:

• ESM 336 Electronic Materials
• ESM 339 Microfabrication and Thin Film Processing of Advanced Materials

2. Two technical elective courses chosen from the following:

• ESE 118 Digital Logic Design
• ESE 304 Applications of Operational Amplifiers
• ESE 411 Analog Integrated Circuits
• ESE 315 Control System Design
• ESE 325 Modern Sensors
• ESE 330 Integrated Electronics
• ESE 272 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. To achieve an area of specialization in materials science and engineering, students must fulfill the following requirements:

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 339 Microfabrication and Thin Film Processing of Advanced Materials
• ESM 453 Biomaterials
• ESM 469 Polymer Engineering
• ESM 400 Research and Nanotechnology
• 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.

Mechanical and Manufacturing Engineering

This specialization addresses the rapidly changing technology in the mechanical engineering and manufacturing industries that requires a highly educated workforce with knowledge of mechanical properties of materials, materials processing, design, thermodynamics, statistics, and analysis. To achieve an area of specialization in mechanical and manufacturing engineering, students must fulfill the following requirements:

1. Two required courses:

• MEC 262 Dynamics
• MEC 310 Introduction to Machine Design

2. Two technical elective courses chosen from the following:

• AMS 310 Survey of Probability and Statistics
• ESM 339 Microfabrication and Thin Film Processing of Advanced Materials
• 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. To achieve an area of specialization in nanoscale engineering, students must fulfill the following requirements:

1. Two required courses:

• ESM 213 Introduction to Nanotechonology Studies
• ESM 336 Electronic Materials

2. Two technical elective courses chosen from the following:

• ESM 339 Microfabrication and Thin Film Processing of Advanced Materials
• ESM 469 Polymer Engineering
• 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 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 453 Biomaterials
• ESM 400 Research and Nanotechnology
• 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. This specialization 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
• ACC 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 320 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 455, 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

For more information about SBC courses that fulfill major requirements, click here.

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 (DIV, 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	3
Total	15

SPRING	Credits
AMS 361	4
CHE 132/134	5
ESG 302	3
SBC	3
Total	15

JUNIOR

FALL	Credits
ESG 312	4
ESG 300	0
ESG 332	3
MEC 260	3
SBC	3
ESM 212	3
Total	16

SPRING	Credits
ESG 316	4
ESM 335	3
MEC 363	3
Technical Elective #	4
SBC	3
Total	17

SENIOR

FALL	Credits
ESG 375	1
ESG 440*	3
ESM 450 (TECH)	3
ESG 420	3
Technical Elective #	3
ESG 333	3
Total	16

SPRING	Credits
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.

English (EGL)

Major and Minor in English

Department of English, College of Arts and Sciences

Chair: Benedict Robinson

Director of Undergraduate Studies: Susan Scheckel

Department Administrator: Margaret Hanley
Undergraduate Advisor: Margaret Hanley

Office: English Department, Humanities 2096

Phone: (631) 632-7400

Website: https://www.stonybrook.edu/english/

Minors of particular interest to students majoring in English: Foreign Languages, Journalism (JRN)

English (EGL)

The English Department at Stony Brook combines the high academic standards of a major research university with the intimacy of a liberal arts college. In small classes students have the opportunity to interact closely with faculty who are active scholars and writers. Students can choose among courses that range from ancient epic to contemporary global literature, and they can explore a wide range of themes, including gender studies; poetry and poetics; post-colonialism and immigration; disability studies; humanities and the environment; affect and memory; the relation of literature and science as well as of literature and art, theatre, music, film and digital media.

A degree in English from Stony Brook provides the foundation for success in many fields. Our graduates have pursued careers as lawyers, authors, teachers, doctors, social workers, professors, television writers, computer coders, business CEOs, advertising and public relations executives, publishers, librarians, restaurant owners, and district attorneys.

The Department also offers a BA English Education Program that leads to NYS Adolescence Education certification to teach English in grades 7-12, as well as four minors: English, Film and Screen Studies, STEM in Literature and Culture, and Theatre Arts.

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 42 credits.

A. Required Courses

1. EGL 204 Literary Analysis and Argumentation
2. 3 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 207 History of the English Language; EGL 217 (if not used above); EGL 218 American Literature II; EGL 224 20th-Century Literature in English; EGL 226 20th-Century American Literature; EGL 243 Shakespeare: The Major Works; EGL 260 World Mythology; EGL 274 African-American Literature
3. One EGL 100-, 200-, or 300-level elective not used to fulfill other requirements for the major.
4. Upper- Division Requirements (7 courses):
    1. Intensive Writing in the Discipline: EGL 301
    2. Senior Seminar: EGL 380
    3. Five electives from EGL 300-399 and 488 (3 credits of 488 may count toward the major). At least 1 course should be pre-1800.

Courses must include at least one in each of four topic areas. With permission of the department, students may use one course to satisfy up to two topic areas. Alternate courses may be substituted with permission of the program director.

1. 1. Genre or Media: courses may include EGL 303, EGL 325, EGL 328, EGL 360, EGL 361, EGL 362, EGL 364, EGL 363, EGL 385, EGL 386, EGL 387, EGL 389
   2. Single-Author: courses may include EGL 308, EGL 340, EGL 342, EGL 345, EGL 346
   3. Interdisciplinary Study of Literature: courses may include EGL 305, EGL 309, EGL 319, EGL 333, EGL 368, EGL 369, EGL 370, EGL 371, EGL 372, EGL 376, EGL 379, EGL 381, EGL 382
   4. Literary or Critical History: courses may include EGL 311, EGL 320, EGL 367, EGL 373, EGL 378

Notes on Section A:

1. 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. Three credits of EGL 488 may be used to apply toward upper-division electives for the major.
2. Students must earn a minimum of 9 upper division EGL credits at Stony Brook.
3. Among the seven 300-level courses from the courses numbered EGL 300-399, only one of the following courses can be used to satisfy requirements: 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.

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. 3 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 207 History of the English Language; EGL 217 (if not used above); EGL 218 American Literature II; EGL 224 20th-Century Literature in English; EGL 226 20th-Century American Literature; EGL 243 Shakespeare: The Major Works; EGL 260 World Mythology; EGL 274 African-American Literature
3. Upper Division Requirements (8 courses):
   1. EGL 301 Intensive Writing in the Discipline
   2. EGL 491 Honors Seminar: British Literature
   3. EGL 492 Honors Seminar: American or Anglophone Literature
   4. EGL 494 Honors Practicum: Research
   5. EGL 496 Senior Honors Project (0-3cr)
   6. Three electives from EGL 300-399 and 488 (3 credits of 488 may count toward the major). Among the upper-division courses, students must take at least one pre-1800 course.

The upper-division courses must fulfill the following categories. With permission of the department, students may use one course to satisfy up to two topic areas. Alternate courses may be substituted with permission of the program director.

1. Genre or Media: courses may include EGL 303, EGL 325, EGL 328, EGL 360, EGL 361, EGL 362, EGL 364, EGL 363, EGL 385, EGL 386, EGL 387, EGL 389
2. Single-Author: courses may include EGL 308, EGL 340, EGL 342, EGL 345, EGL 346
3. Interdisciplinary Study of Literature: courses may include EGL 305, EGL 309, EGL 319, EGL 333, EGL 368, EGL 369, EGL 370, EGL 371, EGL 372, EGL 376, EGL 379, EGL 381, EGL 382
4. Literary or Critical History: courses may include EGL 311, EGL 320, EGL 367, EGL 373, EGL 378

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.

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. Among the 300-level course, only one of the following courses can be used to satisfy requirements: EGL 385, 386, or 387.
4. 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

For more information about SBC courses that fulfill major requirements, click here.

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
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.

Environmental Design, Policy, and Planning (EDP)

Major and Minor in Environmental Design, Policy, and Planning

Director: Donovan Finn
Email: donovan.finn@stonybrook.edu
Undergraduate Advisor: Nancy Black
Program Office: E2361 Melville Library
Phone: (631) 632-9404
Website: https://www.somas.stonybrook.edu/

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)
Requirements for the Major in Environmental Design, Policy, and Planning (EDP)

A. Required Foundation Courses for Major (35 credits)

- AMS 102 Elements of Statistics
- CHE/ENV 115 Chemistry, Life, Environment (Note: CHE 115, 129, 131, or 152 may be substituted for CHE/ENV 115)
- ECO 108 Introduction to Economics
- GSS 105 Introduction to Maps and Mapping
- MAT 125 (or MAT 130/MAT 125) or MAT 131 or AMS 151. If students do not place into MAT 125 or MAT 131 or AMS 151 on the basis of the math placement examination, MAT 123 (or MAT 119/MAT 123) is a required course for the major.
- POL 102 Introduction to American Government
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 113 Physical Geography (formerly offered as SBC 113), or GEO 102 The Earth
- SUS 115 Introduction to Human Demography (formerly offered as SBC 115)
- SUS 201 Systems and Models (formerly offered as SBC 201)
- SUS 206 Economics and Sustainability (formerly offered as SBC 206)

B. Core Courses (30-31 credits)

- EDP 301 Urban Systems
- EDP 302 Sustainable Planning and Development
- EDP 303 Spatial Economics or SUS 362 Resilient Cities
- EDP 307 Site Planning and Design
- EDP 404 Environmental Design Project (see notes)
- ENS 333 Environmental Law
- GSS 313 GIS Applications and Design (or GSS 317 Geospatial Narratives)
- GSS 314 GIS Laboratory (only if taking GSS 313)
- GSS 325 GIS Design and Applications II
- SUS 200 Human Settlements: History and Future (formerly offered as SBC 200)
- SUS 301 Technical Writing and Communication (formerly offered as CSK 302)

C. Elective (3 credits)

Choose one of the following courses:

- AFS 374/SUS 374 Environment and Development in African History
- EDP 305 Risk Assessment and Sustainable Development
- EDP 487 Research in Environmental Design, Planning, and Policy (with permission)
- EDP 488 Internship in Environmental Design, Planning, and Policy (with permission)
- ENV 316 Coastal Zone Management
- SUS 303 Demographic Change and Sustainability
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 310 Migration, Development and Population Redistribution (formerly offered as SBC 310)
- SUS 311 Disasters and Society: A Global Perspective (formerly offered as SBC 311)
- SUS 312 Environment, Society and Health (formerly offered as SBC 312)
- SUS 316 Cuba and Sustainability (formerly offered as EHM 316)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 320 Utopia and Dystopia and the Environment in Literature and Culture (formerly offered as EHM 321)
- SUS 321 Ecology and Evolution in American Lit (formerly offered as SBC 321)
- SUS 322 Human Ecology (formerly offered as EHI 322)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 328 Ecofeminism, Literature & Film (formerly offered as EHM 322)
- SUS 329 Environmental Film, Media, Arts (formerly offered as EHM 325)
- SUS 350 Topics in Sustainability
- SUS 366 Philosophy of the Environment

D. Communications and Writing requirement
The advanced writing component of the major in EDP requires registration in the 0-credit SUS 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 SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department.
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. No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. 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 Cuba, 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.

Double Majors

Excluding SUS 301 Technical Writing and Communication, no more than 6 credits of 300-400 level course credits can be applied to two majors within the School of Marine and Atmospheric Sciences.

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.

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.

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. 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 21-22 credits.

A. Required courses (18 credits):

- EDP 301 The Built Environment I
- EDP 302 The Built Environment II
- GSS 105 Introduction to Maps and Mapping
- SUS 111 Introduction to Sustainability Studies (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 200 Human Settlements: History and Future (formerly offered as SBC 200)
- SUS 206 Economics and Sustainability (formerly offered as SBC 206)

B. Electives (3-4 credits):

Choose one of the following courses:

- EDP 303 Spatial Economics
- EDP 307 Theories and Design of Urban Settlements
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 362 Resilient Communities

Sample Course Sequence for the Major in Environmental Design, Policy, and Planning

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SUS 111 or ENS 101	3
MAT 125	3
SUS 113 or GEO 102	4
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SUS 200	3
AMS 102	3
POL 102	3
SBC	3
Total	16

SOPHOMORE

FALL	Credits
GSS 105	3
ECO 108	4
SUS 201	3
SBC	3

Elective	3
Total	16

SPRING	Credits
SUS 206	3
ENV 115	3
SUS 115	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits
EDP 301	3
EDP 302	3
ENS 333	3
SBC	3
Elective	3
Total	15

SPRING	Credits
EDP 307	3
GSS 313 / 314 or GSS 317	3-4
EDP elective	3
SBC	3
Elective	3
Total	15-16

SENIOR

FALL	Credits
GSS 325	3
SUS 362	3
SBC	3
Upper-division SBC	3
Elective	3
Total	15

SPRING	Credits
SUS 301	3
EDP 404	3
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.

Environmental Engineering (ENE)

Minor in Environmental Engineering

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Interim Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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 Engineering or BME 305 Biofluids* or CME 318 Chemical Engineering Fluid Mechanics* or MEC 364 Introduction to 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):

- ENV 301 Sustainability of the Long Island Pine Barrens
- ESG 332 Materials Science I: Structure and Properties of Materials
- 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: David Taylor
Email: david.j.taylor@stonybrook.edu
Undergraduate Advisor: Nancy Black
Program Office: E2361 Melville Library
Phone: (631) 632-9404
Website: https://www.somas.stonybrook.edu/

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 (EHM)

Requirements for the Major in Environmental Humanities

Note: Effective Spring 2023, students may not declare the major in Environmental Humanities. Students may instead enroll in the Environmental Humanities track in the BA in Sustainability Studies.

A. Required Foundation Courses for Major (30 credits)

- AMS 102 Elements of Statistics
- ANT 102 What Makes Us Human?
- GSS 105 Introduction to Maps and Mapping
- POL 102 Introduction to American Government
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 201 Systems and Models (formerly offered as SBC 201)
- SUS 202 Introduction to Environmental Humanities (formerly offered as EHM 202)
- SUS 203 Critical Analysis (formerly offered as SBC 203)
- Two of the following:
  - ATM 201 Introduction to Climate and Climate Change
  - BIO 113 General Ecology
  - BIO 115 Evolution and Society
  - CHE/ENV 115 Chemistry, Environment and Life (Note: CHE 129, 131, , or 152 may be substituted for CHE/ENV 115)
  - GEO 102 The Earth
  - MAR 101 Long Island Sound Science and Use
  - MAR 104 Oceanography
  - SUS 118 Introduction to the Natural History of Long Island (formerly offered as EHM 118)

B. Core Courses (12-13 credits)

- ENV 301 Sustainability of the Long Island Pine Barrens or SUS 401 Integrative Collaborative Systems Studies
- GSS 313/314 GIS Design and Applications I/GIS Laboratory or GIS 317 Geospatial Narratives
- SUS 301 Technical Writing and Communication (formerly offered as CSK 302)
- SUS 305 Collective Action and Advocacy (formerly offered as CSK 305)

C. Upper-Division Course Groups (24 credits)

Group 1: Natural Sciences

Choose one of the following:

- ENV 304 Global Environmental Change
- GEO 313 Understanding Water Resources for the 21st Century
- MAR 340 Environmental Problems and Solutions
- MAR 392 Waste Management Issues

Students are required to complete **21 credits total** from the courses of Groups 2, 3, and 4. Select **one course from each of Groups 2 and 3** and **two courses from Group 4.** The remaining three courses may be selected from any one area or spread across areas as is most relevant to the student. With the permission of the faculty advisor, students may do an independent study or research (SUS 487, SUS 488, or ANP 487) in place of 3 credits in groups 2, 3, or 4.

Other classes may be substituted with permission of undergraduate director.

Group 2: Writing and Literature

- EGL 394 Topics in Literary and Cultural Studies of Science and Technology
- SUS 320 Utopia and Dystopia in the Environment in Literature and Culture (formerly offered as EHM 321)
- SUS 321 Ecology and Evolution in American Literature (formerly offered as SBC 321)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 328 Ecofeminism, Lit, and Film (formerly offered as EHM 322)
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)

Group 3: Social Sciences

- AAS 352/HIS 352 Environmental History of China
- AFS 374/SUS 374 Environment and Development in African History
- ENS 333 Environmental Law
- HIS 302 Environmental History in a Global Perspective
- SOC 344 Environmental Sociology
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 314 Civilizations and Collapse (formerly offered as EHM 314)
- SUS 315 Ethnographic Field Methods (formerly offered as EHM 315)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 323 Environmental Justice (formerly offered as EHM 323)
- SUS 324 Human Geography and the Environment
- SUS 343 Age of the Anthropocene
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)
- SUS 386 The Maya (formerly offered as EHM 386)

Group 4: Digital Skills for the Humanities

- SUS 117 Design and Drawing (formerly offered as SBC 117)
- SUS 329 Environmental Film, Media, Arts (formerly offered as EHM 325)
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)

Optional Study Abroad Experience (4-6 credits, may be taken to apply to Groups 2, 3, or 4 with permission)

- ANP 307 Comparing Ecosystems in Madagascar
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 326 Lemurs of Madagascar
- ANP 391 Ecosystem Diversity and Evolution
- SUS 316 Cuba and Sustainability (formerly offered as EHM 316)

D. Upper-Division Writing Requirement

The advanced writing component of the major in EHM requires registration in the 0-credit SUS 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 SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department.
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:
No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. Course taken with the Pass/NC option may not be applied to the major.

Double Majors

Excluding ENV 301 (Sustainability of the Long Island Pine Barrens), SUS 301 (Technical Writing and Communication), SUS 305 (Collective Advocacy and Action), and SUS 401 (Integrative Collaborative Systems Studies), no more than 6 credits of 300-400 level course credits can be applied to two majors within the School of Marine and Atmospheric Sciences.

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 (EHM)

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 in Environmental Humanities (EHM)

At least 12 credits applied to the minor may not be applied to any major or other minor. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 21 credits.

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.

A. Required courses (12 credits)

- SUS 111 Introduction to Sustainability Studies (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 202 Introduction to Environmental Humanities (formerly offered as EHM 202)
- SUS 203 Interpretation and Critical Analysis (formerly offered as SBC 203)

One of the following courses:

- ATM 201 Introduction to Climate Change
- BIO 113 General Ecology
- BIO 115 Evolution and Society
- ENV 115 Chemistry, Life, Environment (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)
- MAR 101 Long Island Sound: Science and Use
- MAR 104 Oceanography
- SUS 118 Intro to the Natural History of Long Island (formerly offered as EHM 118)

B. Electives (9 credits)

Choose one of the following courses:

- GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
- SUS 117 Design and Drawing (formerly offered as SBC)
- SUS 329 Environmental Film, Media, Arts (formerly offered as EHM 325)

Choose two of the following courses:

- AFS 374/SUS 374 Environment and Development in African History
- ENS 333 Environmental Law
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 314 Civilizations and Collapse (formerly offered as EHM 314)
- SUS 315 Ethnographic Field Methods (formerly offered as EHM 315)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 320 Utopia and Dystopia in the Environment in Lit and Culture (formerly offered as EHM 321)
- SUS 321 Ecology and Evolution in American Literature (formerly offered as SBC 321)
- SUS 323 Environmental Justice (formerly offered as EHM 323)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 328 Ecofeminism, Lit, and Film (formerly offered as EHM 322)
- SUS 343 Age of the Anthropocene
- SUS 350 Contemporary Topics in Sustainability
- SUS 386 The Maya (formerly offered as EHM 386)

Sample Course Sequence for the Major in Environmental Humanities

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SBC 111	3
MAT 125, MAT 131, or AMS 151	3
GSS 105	3
AMS 102	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SUS 202	3
ANT 102	3
SBC course	3
POL 102	3
Total	16

SOPHOMORE

FALL	Credits
SUS 203	3
SUS 201	3
ATM 201 or BIO 113 or BIO 115 or CHE/ENV 115 or MAR 101 or MAR 104 or SUS 118	3
SBC course	3
SBC course	3
Total	15

SPRING	Credits
SUS 305	3
ATM 201 or BIO 113 or BIO 115 or CHE/ENV 115 or MAR 101 or MAR 104 or SUS 118	3
SBC course	3
Course Selection Group 2: Writing & Literature	3
SBC course	3
Total	15

JUNIOR

FALL	Credits
GSS 313/314	3
Core Course Selection Group 3: Social Sciences	3
Core Course Selection Group 4: Digital Skills for Humanities	3
SBC course	3
SBC course	3
Total	15

SPRING	Credits
Core Course Selection Group 4: Digital Skills for Humanities	3
SBC course	3
Core Course Selection Group 1, 2, or 3	3
SBC course	3
Elective	3
Total	15

SENIOR

FALL	Credits
Core Course Selection Group 1, 2, or 3	3
ENV 304 or GEO 313 or MAR 392	3
Upper-division SBC	3
Internship/Research Elective/Fieldwork	3
SBC course	3
Total	15

SPRING	Credits
ENV 301 or SUS 401	3
Core Course Selection Group 1, 2, or 3	3
SUS 301	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 Minor in Environmental Studies

School of Marine and Atmospheric Sciences (SoMAS)

Director: Tara Rider Undergraduate Advisor: Nancy Black Office: E2361 Melville Library
Phone: 631-632-9404
Email: nancy.black@stonybrook.edu
Website: 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.

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.

Completion of the major requires approximately 62 credits. Of these, no more than one course (4 credits) with a passing grade lower than C can be credited to the major.

Requirements for the Major in Environmental Studies

A. Foundation Courses (36 credits)

- 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 101 Prospects for Planet Earth or SUS 111 Introduction to Sustainability or MAR 104 Oceanography
- ENS 119/PHY 119 Physics for Environmental Studies or equivalent (see Note 1)
- MAT 125 (or MAT 130/MAT 125) or MAT 131 or MAT 141 or MAT 171 or AMS 151 Calculus. If students do not place into MAT 125 or MAT 131 or MAT 141 or MAT 171 or AMS 151 on the basis of the math placement examination, MAT 123 (or MAT 119/MAT 123) is a required course for the major.

- PHI 104 Moral Reasoning or PHI 105 Politics and Society
- POL 102 Introduction to American Government

B. Core Courses (14 credits)

- ATM 305 Global Atmospheric Change or ENV 304 Global Environmental Change
- ENS 311/BIO 386 Ecosystem Ecology and Global Environment or SUS 322 Human Ecology or SUS 324 Human Geography and the Environment
- MAR 340 Environmental Problems and Solutions or ENS 312 Population, Technology, and Environment
- ENS 301 Contemporary Environmental Issues and Policies or SUS 305 Collective Action and Advocacy
- At least two credits from one of the following courses: SUS 351 Design and Implement a Research Project in Ecotoxicology, SUS 352 Conduct and Communicate a Research Project in Ecotoxicology, ENS 487 Independent Research, or ENS 488 Internship (see Notes 2 & 3)

C. Concentration (12 credits)
Choose 4 courses with a 12 credit minimum from one of the following concentrations:
1. Conservation Biology/Biological Anthropology

- ANP 307 Comparing Ecosystems in Madagascar
- 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 353 Marine Ecology
- BIO 356 Applied Ecology and Conservation and Biology Lab
- Up to two of the following courses: MAR 373 Marine Apex Predators: Ecology & Conservation*, MAR 375 Marine Mammal and Turtle Rehabilitation, MAR 376 Biology & Conservation of Sea Turtles, MAR 377 Biology & Conservation of Seabirds
- SUS 326 Conservation Genetics

2. Marine Science, Marine or Terrestrial Ecology

- BIO 319 Landscape Ecology Lab
- BIO 351 Ecology
- BIO 352 Ecology Lab*
- BIO 353 Marine Ecology
- BIO 354 Evolution*
- BIO 371 Restoration of Aquatic Ecosystems*
- BIO 385 Plant Ecology
- EBH 359 Behavioral Ecology*
- ENV 316 Coastal Zone Management
- MAR 301 Environ. Microbiology*
- MAR 302 Marine Microbiology and Microbial Ecology*
- MAR 303 Long Island Marine Habitats
- MAR 304 Waves, Tides, and Beaches
- MAR 305 Experimental Marine Biology
- MAR 315 Marine Conservation
- MAR 320 Limnology
- MAR 333 Coastal Oceanography
- MAR 334 Remote Sensing
- MAR 336 Marine Pollution
- MAR 346 Marine Sedimentology
- MAR 349 Intro. to Biological Oceanography*
- MAR 352 Intro. to Physical Oceanography*
- MAR 354 Intro. to Geological Oceanography
- MAR 370 Marine Mammals*
- MAR 373 Marine Apex Predators: Ecology & Conservation
- MAR 375 Marine Mammal and Turtle Rehabilitation
- MAR 376 Biology & Conservation of Sea Turtles
- MAR 377 Biology & Conservation of Seabirds
- MAR 380 Ichthyology
- MAR 385 Principles of Fishery Biology and Management
- MAR 386 Ecosystem Science for Fisheries Management
- MAR 388 Tropical Marine Ecology

3. Environmental Law, Waste Management, and Public Policy

- AAS 352/HIS 352 Environ. History of China
- ENS 333/POL 333 Environmental Law
- ENV 316 Coastal Zone Management
- GEO 313 Understanding Water Resources
- HIS 302 Environ. History in Global Perspective
- MAR 336 Marine Pollution
- MAR 392 Waste Management Issues
- MAR 393 Waste Management Treatment Tech.
- MAR 394 Environ. Toxicology and Public Health
- PHI 364 Philosophy of Technology
- PHI 375 Philosophy of Law
- POL 320 Constitutional Law and Politics: US
- POL 351 Social Surveys in Contemporary Society
- POL 359 Public Policy Analysis
- SOC 344 Environmental Sociology
- SUS 305 Collective Action and Advocacy
- SUS 317 American Environmental History or HIS 365 Environ. History of N. America
- SUS 318 American Environmental Politics
- SUS 321 Ecology and Evolution in American Literature
- SUS 323 Environmental Justice
- SUS 325 Environmental Writing and the Media
- SUS 329 Environmental Film, Media, Arts
- SUS 344 Sustainable Natural Resources
- SUS 366/PHI 366 Philosophy of the Environment
- SUS 405 Environmental Sustainability in Tanzania

*These courses have additional prerequisites outside the major

D. Upper-Division Writing Requirement

The advanced writing component of the major in ENS requires registration in, and satisfactory completion of, the 0-credit MAR 459 or SUS 459 (S/U grading) along with enrollment in an approved advanced course that entails writing of either a term paper or a laboratory report. Completion of MAR 459 or SUS 459 with a grade of S will also result in fulfillment of the WRTD requirement. A list of preapproved courses can be obtained through the department.

Notes:
1. PHY 121 or PHY 125/PHY 126/PHY 133 or PHY 131/PHY 133 or PHY 141/PHY 133 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, ENV, EST, GEO, MAR, PHY, POL, SUS. In addition to other prerequisites, credit toward the major requires approval of the research topic by the SoMAS Director of Undergraduate Studies.
3. Two credits of any course numbered 488 or equivalent with one of the following designators: ANP, ANT, ATM, BCP, BIO, CHE, ECO, ENS, ENV, EST, GEO, MAR, PHY, POL, SUS. In addition to other prerequisites, credit toward the major requires approval of the internship by the SoMAS Director of Undergraduate Studies.
4. CHE 129/CHE 130 may be substituted for CHE 131.
5. AMS 110, AMS 310, BIO 211, ECO 320, POL 201, PSY 201, or SOC 202 may be substituted for AMS 102.

Double Majors

Excluding SUS 305 Collective Action and Advocacy, no more than 6 credits of 300-400 level course credits can be applied between the Environmental Studies major and another major.

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 can focus on issues of sustainability in Cuba, Ireland, Jamaica Madagascar, Tanzania, 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

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 upper-division courses required for the minor must be passed with a letter grade of C or higher.

Declaration of the Minor

The 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

2. ENS 101 Prospects for Planet Earth or SUS 111 Introduction to Sustainability
3. ENS 301 Contemporary Environmental Issues and Policies
4. SUS 351 Design and Implement a Research Project in Ecotoxicology OR SUS 352 Conduct and Communicate a Research Project in Ecotoxicology 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. Research or internship in ANP, ANT, ATM, BIO, CHE, ECO, ENV, GEO, MAR, POL, or SUS will be accepted with permission of the faculty director.
5. Two advanced courses chosen from the following:

- ANP 360 Primate Conservation
- ATM 397 Air Pollution and Its Control
- BIO 351 Ecology
- BIO 353 Marine Ecology
- CHE 310 Chemistry in Technology and the Environment
- ENV 316 Coastal Zone Management
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 315 Groundwater Hydrology
- GSS 355 Remote Sensing GIS Data
- SUS 311 Disasters and Society: A Global Perspective
- SUS 317 American Environmental History
- SUS 318 American Environmental Politics
- SUS 325 Environmental Writing and the Media
- SUS 326 Conservation Genetics
- SUS 344 Sustainable Natural Resouces
- SUS 366/PHI 366 Philosophy of the Environment
- Any upper division ENS or MAR course

Sample Course Sequence for the Major in Environmental Studies, BA

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
ENS 101 or SUS 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 or PHI 105	3
SBC	3
SBC	3
Total	16

SOPHOMORE

FALL	Credits
BIO 201	3
BIO 204	2
ECO 108	4
SBC	3
Elective	3
Total	15

SPRING	Credits
ENS 119	4
POL 102	3
AMS 102	3
SBC	3
Elective	3
Total	16

JUNIOR

FALL	Credits
ENV 304	3
MAR 340	3

ENS Concentration Course	3
SBC	3
Elective	3
Total	15

SPRING	Credits
ENS 301	3
ENS 311	3
ENS Concentration Course	3
SBC	3
Elective	3
Total	15

SENIOR

FALL	Credits
ENS 487 or ENS 488	2
ENS Concentration Course	3
SBC	3
Upper-division SBC	3
Upper-division elective	3
Total	14

SPRING	Credits
ENS Concentration Course	3
Upper-division SBC	3
Elective	3
Upper-division 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.

Ethnomusicology (ETH)

Minor in Ethnomusicology

Department of Music, College of Arts and Sciences

Chair: Christina Dahl

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

Website: https://www.stonybrook.edu/music/

Ethomusicology (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 Rock, Popular Music, and Society
- 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 102 What Makes Us Human?
- 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 (MUS 341 Sound Design)

Other performance/production options possible with UGPD permission.

1. **Seminar in Ethnography** (3 credits)

MUS 451 "Ethnographic Methods in Music" (Required)

Prerequisities: 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.

Film and Screen Studies (FSS)

Minor in Film and Screen Studies

Department of English, College of Arts and Sciences

Chair: Benedict Robinson

Director of Undergraduate Studies: Susan Scheckel

Department Administrator: Margaret Hanley Office: English Department, Humanities 2096

Phone: (631) 632-7400

Website: https://www.stonybrook.edu/english/

Film and Screen Studies

The Minor in Film and Screen Studies (FSS) allows#students to study cinema both as a specific art form with its own history#and language and as a medium that participates in the broader field of#literary and other cultural production.

The program encourages comparative thinking#and offers students the opportunity to engage critically with various issues, and encourages students to become reflective, sensitive, and avid viewers and readers about film and related media.

Requirements for the minor in Film and Screen Studies

All courses for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18 credits, with at least three courses at the upper-division level.

A. One Core Course (3 credits):

- EGL 220 Critical Approaches to the Cinema

B. One of the following courses (3 credits):

- CCS 200 Media History
- CCS 202 Film Genres
- CCS 203 Cinema History

C. Three of the following courses (9 credits):

- ARH 398 Topics in Film and Video Art
- ARS 326 Video Art: Narrative Forms
- ARS 329 Video Art: Experimental Forms
- ARS 425 Advanced New Media Art
- CCS 301 Cinema and Media Theory
- 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 391 Topics in African Cinema and Cultural Studies
- CCS 392 Topics in American Cinema and Cultural Studies
- CCS 393 Topics in European Cinema and Cultural Studies
- CCS 394 Topics in Asian Cinema and Cultural Studies
- CCS 401 Senior Seminar in Cinema & Cultural Studies
- CLT 335 Interdisciplinary Study of Film
- EGL 303 Genre or Media (when topic is film- or screen media-related)
- EGL/THR 325 Screenwriting
- EGL 390/3 Topics in Literary and Cultural Studies (when topic is film- or screen media-related)
- EGL 394 Topics in Literary and Cultural Studies of Science and Technology (when topic is film- or screen media-related)
- HUI 338 Images of Italian Americans in Film
- HUS 290 Latin American Cinema (formerly offered as HUS 390)
- SPN 405 Issues in Hispanic Cultural Studies (when topic is film- or screen media-related)
- SPN 420 Topics in Spanish and Latin American Cinema
- SUS 328 Ecofeminism, Literature & Film

- THR 403 Media: Theory and Criticism

D. One elective course (3 credits) chosen from the following:

- EGL 121 Global Film Traditions or EGL 194 Film: Mastering the Movies
- A 200-level film course, such as ARH 210 Modern Art and the Moving Image, AAS 222 Indian Cinemas and Cultures, AAS 232 Introduction to Asian American Fiction and Film, HUF 211 French Cinema, or HUR 241 Russian Cinema. With approval of Undergraduate Studies Director.
- A 300- or 400-level course listed in section C, when not used to apply to the 9 required credits of section C.

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

Filmmaking (FLM)

Minor in Filmmaking

Southampton Arts Programs

Undergraduate Program Director: Karen Offitzer
Email: karen.offitzer@stonybrook.edu Undergraduate Program Coordinator: Liz McRae
Email: Elizabeth.McRae@stonybrook.edu
Office: Melville Library, 3rd Floor

Website: https://www.stonybrook.edu/commcms/lichtenstein-center/

Filmmaking

The Minor in Filmmaking (FLM) invites students from all disciplines to engage in the power of the cinematic image and its relationship to storytelling. The undergraduate filmmaking minor at Stony Brook immerses students, hands-on, in the art of narrative filmmaking.
Students who want to tell stories on film need a firm understanding of the power of images and sounds, a solid grasp on how to develop a compelling storyline and the technical know-how to manipulate and transform these images in a way that can inform, educate and persuade audiences of the 21st century.
Created in the spirit of the innovative MFA in Film, a program with a "roll up your sleeves and dive in" approach, the undergraduate filmmaking courses help students develop the narrative, analytical and technical skills needed to make films that tell the stories they want to tell.
We begin with harnessing what students already know – their smartphones and their everyday interaction with social media and movies – and build their understanding of filmmaking through workshops that immerse them in screenwriting, film analysis from the professional filmmaker's perspective, cinematography, editing and production.
As visual literacy becomes increasingly necessary in a world of moving images, workshops in the craft of filmmaking enable students to develop their capacity for creative and critical thinking as well as the technical acuity necessary to create compelling stories and images as filmmakers.

Requirements for the minor in Filmmaking (FLM)

Declaration of the minor: Students should declare the minor in Filmmaking no later than the middle of their sophomore year, at which time they should consult with the directors of 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.
Students must earn a grade of C or better in all courses toward the minor. Completion of the minor Filmmaking requires 21 credits, distributed as follows:
A. Introductory Courses required of all minors (6 credits):

- FLM 101 Introduction to Filmmaking and Television: Visual Storytelling
- FLM 102 Introduction to Film and Television Composition: How Films and TV Shows Say What They Mean

B. Three Filmmaking Workshops chosen from the following (9 credits):

- FLM 201 Visual Storytelling Across the Disciplines
- FLM 203 Podcasting
- FLM 215 Scriptwriting for Film and TV*
- FLM 220 Documentary Filmmaking*
- FLM 221 Fiction Filmmaking*
- FLM 301 The Filmmaker's Toolbox: Cinematography, Sound and Editing
- FLM 302 Producing Practices for Film and TV*

*Students may repeat one of FLM 215, 220, 221, 302, 310, and 320 as topic changes, to a maximum of 6 credits per course.
C. One Film Survey Course for Filmmakers (3 credits):

- FLM 310 Story Analysis for Filmmakers and TV Writers*
- FLM 320 Topics in Film for Filmmakers and TV Writers*

Note: With the permission of the Director, students may select one 300-level film course from other departments at the university.

D. Capstone Project (3 credits)**
All students are required to take the capstone project course or its equivalent. Permission of the Director is required.

- FLM 402 Capstone Project

- In consultation with the Director, a filmmaking workshop at the 300- or graduate level (preferably a graduate FLM course offered in Manhattan) that builds on a project begun in a previous workshop, or an internship completed through enrollment in FLM 488, may satisfy this requirement.

**Note: Workshop courses taken to satisfy requirement B may not be used to also satisfy requirement D.

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 Languages and Cultural Studies; College of Arts and Sciences

Chair: Sarah Jourdain

Director of Undergraduate Studies: Franck Dalmas

Coordinator of the Program: Madeline Turan

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128
Phone: (631) 632-7440

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies

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 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 Intermediate French 1
- FRN 212 Intermediate French 2
- 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 Intermediate French 1
- FRN 212 Intermediate French 2
- 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.

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.

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 A. Emphasis on Language; B. Emphasis on Literature; or C. Emphasis on Francophone Studies. Transfer students must take at least six credits of French beyond the 100-level 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 for placement exam information.
Choose one of the three following areas of emphasis:

1. 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

2. 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

3. Emphasis on Francophone Studies (Studies of the French-speaking World)
   Requirements:

   - 9 credits of FRN beyond the 101/111/112 level (i.e. beyond [LANG])
   - 15 credits in Francophone-related course work, approved by the advisor. These could be courses in HUF, AFS, CWL, PHI, etc. All courses must relate to the French-speaking world, and all courses must be approved by the French advisor prior to enrollment.

Sample Course Sequence for the Major in French Language and Literature
For more information about SBC courses that fulfill major requirements, click here.

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

SOPHOMORE

FALL	Credits
FRN 311	3
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

SPRING	Credits
FRN 312	3
SBC	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

JUNIOR

FALL	Credits
FRN 395	3
FRN 411	3
One 300-level literature course	3
SBC	3
SBC	3
Total	15

SPRING	Credits
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

FALL	Credits
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

SPRING	Credits
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.

Geology (GEO)

Major and Minor in Geology

Department of Geosciences, College of Arts and Sciences

Chair: Brian Phillips

Director of Undergraduate Studies: Hanna Nekvasil

Major Advisor: Marine Frouin

Email: Marine.Frouin@stonybrook.edu

Office: 255 Earth and Space Sciences

Phone: (631) 632-8200

Website: 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 and GEO 113 Historical Geology Laboratory
- GEO 122 Physical Geology OR GEO 102 The Earth and GEO 112 Physical Geology Laboratory
- GEO 306 Mineralogy and GEO 366 Mineralogy Laboratory
- GEO 309 Structural Geology and GEO 369 Structural Geology Laboratory
- GEO 403 Sedimentation and Stratigraphy and GEO 463 Sedimentation and Stratigraphy Laboratory
- GEO 407 Igneous and Metamorphic Petrology and GEO 467 Igneous and Metamorphic Petrology Laboratory

B. Required courses in the related sciences

- AMS 151 Applied Calculus I and AMS 161 Applied Calculus II; or MAT 131 Calculus I and MAT 132 Calculus II; or MAT 125 and MAT 126 and MAT 127; or MAT 171. If students do not place into AMS 151 or MAT 125 or MAT 131 on the basis of the math

placement examination, MAT 123 becomes a required course for the major. 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.

- CHE 131 General Chemistry I and CHE 133 General Chemistry Laboratory
- CHE 132 General Chemistry II
- PHY 131 Classical Physics I and PHY 133 Classical Physics Laboratory; or PHY 141 and PHY 133, Honors Physics I and laboratory; or PHY 125 Classical Physics A and PHY 126 Classical Physics B and PHY 133 Classical Physics laboratory
- PHY 132 Classical Physics II or PHY 142 Honors Physics II or PHY 127 Classical Physics C
- 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 for the 1-credit GEO 496 WRTD course along with a 300-400 level GEO course. Completion of the WRTD requires that a 15-page paper written by the student receives a B or higher as determined by the instructor of the 300-400 level course. The SBC SPK requirement can be completed with GEO 497 with a grade of ‘S’.

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:

- BIO 353 Marine Ecology
- GEO 310 Introduction to Geophysics
- GEO 316 Geochemistry of Surficial Processes
- GEO 318 Engineering Geology and Coastal Processes
- MAR 304 Waves, Tides, and Beaches

Honors Program in Geology

To receive the Bachelor of Science in Geology with departmental honors, the student must satisfy all of the following, in addition to having completed all the degree requirements for the B.S. in Geology:
1. At least 3 credits of GEO 487, Senior Research in Geology, taken with Research Advisor.
2. Prepare and submit a written thesis that is deemed satisfactory by the Research Advisor.
3. Overall grade point average of at least 3.30 in all science courses numbered 300 or higher.

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 122 OR 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131/133	5
GEO 102	3
GEO 112	1
SBC	3
Total	16

SPRING	Credits
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

FALL	Credits
AMS 161	3
PHY 131/PHY 133	4
SBC	3
SBC	3
SBC	3
Total	17

SPRING	Credits
GEO 306/366	4
PHY 132/PHY 134	3(4)
SBC	3
SBC	3
SBC	3
Total	16(17)

JUNIOR

FALL	Credits
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: Sung Gheel Jang
Email: Sunggheel.jang@stonybrook.edu
Phone: (631) 632-9404
Office: E2361 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

At least 12 credits applied to the minor may not be applied to any major or other minor. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 18-19 credits.

Required courses (9-10 credits):

- 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)
- GSS 325 GIS Design and Applications II

Elective courses (select 9 credits from the following):

- GSS 309 GIS and Cartography
- GSS 323 GIS Database and Design
- 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 or MAR 334 Remote Sensing in the Environment or GEO 347 Remote Sensing
- GSS 360 LiDAR Remote Sensing
- 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)
- ATM 320 Problem Solving with Python
- BIO 319 Landscape Ecology Laboratory

Note: A maximum of six credits total of GSS 487 Geospatial Science Research and/or GSS 488 Geospatial Science Internship may be applied to the minor.

GSS Faculty

Faculty information for this program can be found at http://www.stonybrook.edu/commcms/gss/people.html

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

Globalization Studies and International Relations (GLI)

Major and Minor in Globalization Studies and International Relations, Institute for Globalization Studies, College of Arts and Sciences

Institute Director: Sophie Raynard-Leroy

Undergraduate Advisor: Jeremy Marchese

E-mail: gli@stonybrook.edu

Web address: https://www.stonybrook.edu/commcms/sbigs/

Other minors of particular interest to students majoring in Globalization Studies and International Relations: Africana Studies, Asian and Asian American Studies, China Studies, English, Environmental Humanities, French Language and Literature,
Hispanic Languages and Literature, History, History of Health, Science, and the Environment, International Studies, Italian Studies, Japanese Studies, Korean Studies, Latin American and Caribbean Studies, Middle Eastern Studies, Political Science, Russian Studies, South Asian Studies, Spanish Language and Literature, Sustainability Studies, Theatre, Women's and Gender Studies, Writing and Rhetoric.

Globalization Studies and International Relations (GLI)

The Globalization Studies and International Relations Major is an interdisciplinary program that combines academic perspectives from the humanities, social sciences, natural sciences, and engineering to study, research, and create knowledge on global and trans-regional issues. This program’s central objects of study are the emerging changes wrought to human communities by both historic and on-going processes of globalization. Globalization has brought a new level of complexity to traditional issues emerging from the interaction of human groups, cultural traditions, environmental, legal, economic and technological. This complexity has changed both the character of the challenges and also enabled new potential for solutions to them. The curriculum in this major encourages students to become critical examiners and engaged researches of these interactions by focusing on global flows of commodities, traditions, diseases, knowledge, technologies, and people. They will also focus on how these flows impact existing social, economic, and political inequalities.

As part of the major, students complete a set of core courses each combining theoretical and experiential components. Each student will choose a specific Global Interaction Area of their interest, and a Specialized Global Issues Track. These will become their areas and issues of specialization and expertise as they tackle the complex set of phenomena associated with globalization. Students are required to either participate in a semester abroad study program, or to complete a semester long internship in an institution, business, or government agency that engages directly with the student’s area and issues specializations. The program educates leaders and researchers in global issues, international service, diplomacy, and activism. We also prepare students to pursue graduate study in programs that train professionals in a wide variety of fields, from diplomacy and consultants, to research journalism and social entrepreneurship.

Requirements for the Major and Minor in Globalization Studies and International Relations (GLI)
Requirements for the Major in Globalization Studies and International Relations (GLI)

The major in Globalization Studies and International Relations leads to the Bachelor of Arts degree.

Completion of the major requires 45 credits. All courses offered for the major must be passed with a letter grade of C or higher.

1. Foundation Courses (15 credits)

- GLI 211 Perspectives in Globalization Studies and International Relations
- GLI 320 Global Cultural and Environmental Issues
- GLI 330 Global Political, Economic Issues
- GLI 340 Cross-Cultural Mediation and Conflict Resolution
- GLI 450 Capstone Senior Seminar

2. Language Study (9 credits)

- 9 credits above the 100 level, or demonstrated equivalent competency, in one language other than English.

3. Global Areas and Global Issues (21 credits; 9 from Global Interaction Areas and 12 from Specialized Global Issues Tracks)

1. Global Interaction Areas (9 credits: 3 at the 100/200 level, 6 credits taken in upper division courses [300-400 level]. Specific choice of courses are made through consultation with the advisor. Choice of specific courses is made
through consultation with the program advisor.
Areas to be defined by student in consultation with the program advisor. These areas should be defined according to specific global flows and historic interrelations rather than as traditional geographical areas.

   Some examples of these Global Interaction Areas (see Global Interaction Areas for courses):

   1. Pacific Rim (East-Asia, South-East Asia, East Russia, Australia, New Zealand, Western Americas)
   2. Indian Ocean world (South East Asia, South Asia, Australia, East Africa)
   3. Transatlantic (West Africa, Western Europe, North and South America)
   4. Mediterranean (Southern Europe, Northern Africa, Middle East)
   5. Eurasia (Central Asia, Europe)
   6. Americas (North and South America, Caribbean)
   7. Global Africa (Africa and African diaspora)
   8. Larger Middle East (North-Eastern Africa, Middle East, Eastern Mediterranean, Arabian Gulf)

b. Specialized Global Issues Tracks (12 credits: 6 at the 100 and 200 levels, 6 at the 300 and 400 levels):

   Choice of one of six clusters of coursework organized around a set of interrelated issues (see Global Issues Tracks)

1. Global Cities: Challenges and Realities of Accelerating Urbanization Processes
2. Human, Cultural, and Biological Migration: Global Diasporas and Ethnicities
3. Global Development and Sustainability: Environment, Well-Being, Economy, and Policy
4. Cultural and Political Representation: Global Narratives, Global Policies and their modes of dissemination.
5. Inequalities: Gender, Race, Class and Disability in a Global Context
6. Transnational Corporations, Trans-regional Institutions: Markets, Institutions, and Policies

Global Interaction Areas

AFRICA AND AFRICAN DIASPORA

- AFS 221: Introduction to Modern African History
- AFS 306: Gender and Public Health in Africa
- AFS 319: The Politics of Race
- AFS 340: Human Rights and Africa
- AFS 368 / HIS 368: Health and Disease in African History
- AFS 374: Environment and Development in African History
- AFS 383: The Global African Diaspora in Comparative Perspective
- AFH 329 / HUF 318: Pan-African Literature I
- AFH 330: Pan-African Literature II
- ANT 250: African Cultures Today
- ARH 328: Exhibiting Africa
- ARH 329: Arts of the African Diaspora
- HIS 221: Introduction to Modern African History
- HIS 346: Political and Social History of Africa
- HIS 350: Topics in African History
- HIS 369: Religion and Politics in Africa
- POL 337: The Politics of Africa
- SOC 365: Global Africa

ASIA

- AAS 201: Introduction to the Civilization of the Indian Subcontinent
- AAS 216: Introduction to Japanese Studies
- AAS 300: Intellectual History of East Asia
- AAS 305: The Pacific, Travel & Empire
- AAS 330: Language and Society in South Asia
- AAS 352: Environmental History of China
- AAS 379: Ethnicity and Ecology in China
- AAS 440: Inter-Asia Cultural Studies
- ARH 203: Arts of Asia
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 307: Silk Roads and Spice Routes: Travel, Exploration and Discovery in the Premodern World
- HIS 332: Postcolonial South Asia
- HIS 340: Topics in Asian History
- HIS 348: Colonial South Asia

- JPN 331: Social Sciences Topics in Japanese Studies
- JPN 332: Humanities Topic in Japanese Studies
- KOR 331: Social Science Topics in Korean Studies
- KOR 332: Humanities Topics in Korean Studies
- RUS 300 and 400 level courses

EUROPE

- FRN 300 and 400 level courses
- GER 300 and 400 level courses
- HIS 101: Ancient Mesopotamia to Early Modern Europe
- HIS 102: Modern European History, 18th c. to the Present
- HIS 248: Modern Europe, 1815-1914
- HIS 249: Modern Europe, 1914-1945
- HIS 250: The Second World War, 1939-1945
- HIS 251: Europe Since 1945
- HIS 334: Women and Gender in Pre-Modern European History
- HIS 360: Changing Families: US History to 1860
- HIS 391: Topics in Ancient and Medieval Europe
- HIS 392: Topics in Early Modern Europe
- HIS 393: Topics in Modern European History
- HUF 216: French Civilization through the Ages
- HUF 219: Modern France
- HUG 229: Germany Today
- HUI 216: Italian Civilization Through the Ages
- HUS 255: Modern Spain
- ITL 300 and 400 level courses
- POL 309: Politics in the European Union
- RUS 300 and 400 level courses
- SPN 415: Hispanic Cultures in Contact
- SPN 300 and 400 level courses

THE AMERICAS

- AFH 339 / ARH 329: Arts of the African Diaspora
- AFH 368: Caribbean and American Connections in Literature
- ANT 380 / AFS 380: Race and Ethnicity in Latin America and the Caribbean
- HIS 213: Colonial Latin America
- HIS 214: Modern Latin America
- HIS 216: History of U.S.-Latin American Relations
- HIS 380: Topics in Latin-American History
- HUS 254: Latin America Today
- HUS 261: Latin American Literature in a Global Context
- HUS 290: Latin American Cinema
- LAC 200: Introduction to Latin American and Caribbean Societies
- POL 214: Modern Latin America
- POL 216: History of U.S.-Latin American Relations
- SOC 364: Sociology of Latin America
- SPN 300 and 400 level courses

MIDDLE EAST: NORTH AFRICA AND SOUTH-WEST ASIA

- ARH 317: Islamic Art
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 307: Silk Roads and Spice Routes: Travel, Exploration and Discovery in the Premodern World
- SOC 386: State and Society in the Middle East

Global Issues Tracks

These are listed according to existing offerings that the student, in consultation with program advisor, will combine into thematic clusters.

HUMAN, CULTURAL, AND BIOLOGICAL MIGRATION: GLOBAL DIASPORAS AND ETHNICITIES

- AAS 305: The Pacific, Travel & Empire
- AFH 339 / ARH 329: Arts of the African Diaspora
- AFS 221: Introduction to Modern African History

- AFS 383: The Global African Diaspora in Comparative Perspective
- ANT 250: African Cultures Today
- EGL 249: African-American Literature and Music in the 19th and 20th Centuries
- EGL 274: African-American Literature
- HIS 307: Silk Roads and Spice Routes: Travel, Exploration and Discovery in the Premodern World
- HIS 397: Topics in History of U.S. Immigration and Ethnicity
- HUS 271: United States Latino Literature and Culture
- POL 310: Immigration and Refugee Politics

GLOBAL DEVELOPMENT AND SUSTAINABILITY: ENVIRONMENT, WELL-BEING, ECONOMY, AND POLICY

- AFS 306: Gender and Public Health in Africa
- AFS 368 / HIS 368: Health and Disease in African History
- AFS 374: Environment and Development in African History
- ANP 360: Primate Conservation
- ANT 350: Medical Anthropology
- ATM 201: Introduction to Climate and Climate Change
- ATM 237: World Climate and Atmosphere
- ATM 305: Global Atmospheric Change
- ATM 397: Air Pollution and Its Control
- BIO 103: Introduction to Biotechnology
- BIO 113: General Ecology
- BIO 353: Marine Ecology
- BIO 385: Plant Ecology
- BIO 386: Ecosystem Ecology and the Global Environment
- ENS 101: Prospects for Planet Earth
- ENS 301: Contemporary Environmental Issues and Policies
- ENS 311: Ecosystem Ecology and the Global Environment
- ENS 312: Population, Technology, and the Environment
- ENV 304: Global Environmental Change
- EST 102: Weather and Climate
- EST 201: Technological Trends in Society
- EST 291: Energy, Environment, and People
- EST 330: Natural Disasters: Societal Impacts and Technological Solutions
- GEO 101: Environmental Geology
- GEO 104: Ripples across the World: Global Effects of Natural Disasters
- GEO 105: Energy Resources for the 21st Century
- GEO 311: Geoscience and Global Concerns
- HIS 286: The Global History of Human Health
- HIS 302: Environmental History in Global Perspective
- MAR 315: Marine Conservation
- MAR 340: Environmental Problems and Solutions
- MAR 394: Environmental Toxicology and Public Health
- MEC 280: Pollution and Human Health
- PHI 366: Philosophy and the Environment
- PHY 237: World Climate and Atmosphere
- SOC 344: Environmental Sociology
- SUS 343: Age of the Anthropocene

CULTURAL AND POLITICAL REPRESENTATION: ART AND MEDIA IN A GLOBAL CONTEXT

- AAS 201: Introduction to the Civilization of the Indian Subcontinent
- AAS 216: Introduction to Japanese Studies
- AAS 250: Languages and Cultures of Asian Americans
- AAS 300: Intellectual History of East Asia
- AAS 305: The Pacific, Travel & Empire
- AAS 440: Inter-Asia Cultural Studies
- AFH 206: Great Books of the Black Experience
- AFH 249: African-American Literature and Music in the 19th and 20th Centuries
- AFH 339/ ARH 329: Arts of the African Diaspora
- AFH 368/ EGL 368: Caribbean and American Connections in Literature
- AFS 383: The Global African Diaspora in Comparative Perspective
- ANT 102: What Makes Us Human?
- ANT 230: Peoples of the World

- ANT 250: African Cultures Today
- ARH 391: Topics in Global Art
- CCS 202: Film Genres
- CCS 311: Gender and Genre in Film
- CCS 325: Culture in Context
- CCS 381: Topics in Cinema Studies
- CCS 395: Topics in Digital Technology and Culture
- CLT 101: Introduction to World Literatures
- CLT 335: Interdisciplinary Study of Film
- CLT 362: Literature and Ideas
- EGL 276/ WST 276: Feminism: Literature and Cultural Contexts
- EGL 369: Topics in Ethnic American Literatures and Cultures
- EGL 376: The Literature of Imperialism
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 369: Religion and Politics in Africa
- HIS 373: Global 1960s
- HUS 290: Latin American Cinema
- MUS 300: Music, Technology, and Digital Culture
- MUS 304: American Music
- PHI 364: Philosophy of Technology
- WST 301: Histories of Feminism
- WST 395: Topics in Global Feminism

INEQUALITIES: GENDER, RACE, AND CLASS IN A GLOBAL CONTEXT

- AAS 250: Languages and Cultures of Asian Americans
- AFH 206: Great Books of the Black Experience
- AFH 249: African-American Literature and Music in the 19th and 20th Centuries
- AFH 339/ ARH 329: Arts of the African Diaspora
- AFH 368/ EGL 368: Caribbean and American Connections in Literature
- AFS 319: The Politics of Race
- AFS 340: Human Rights and Africa
- ANT 102: What Makes Us Human?
- ANT 230: Peoples of the World
- CCS 311: Gender and Genre in Film
- EGL 249: African-American Literature and Music in the 19th and 20th Centuries
- EGL 274: African-American Literature
- EGL 276/ WST 276: Feminism: Literature and Cultural Contexts
- EGL 369: Topics in Ethnic American Literatures and Cultures
- EGL 376: The Literature of Imperialism
- HIS 332: Postcolonial South Asia
- HIS 348: Colonial South Asia
- HIS 397: Topics in History of U.S. Immigration and Ethnicity
- MUS 304: American Music
- WST 301: Histories of Feminism
- WST 395: Topics in Global Feminism

TRANSNATIONAL CORPORATIONS AND TRANSREGIONAL INSTITUTIONS: MARKETS, INSTITUTIONS, AND POLICIES

- AAS 379: Ethnicity and Ecology in China
- AFH 379 / PHI 379: Philosophy of Race
- AFS 221: Introduction to Modern African History
- AFS 319: The Politics of Race
- AFS 337: The Politics of Africa
- AFS 345: Culture and Gender: Women in Africa and the Caribbean
- AFS 346: Political and Social History of Africa
- AFS 350: Black Women and Social Change: A Cross-Cultural Perspective
- AFS 365: Global Africa
- CSE 301: History of Computing
- ECO 325: International Economics
- EST 201: Technological Trends in Society
- HIS 281: Global History and Geography
- HIS 300: Topics in Global History
- HIS 307: Silk Roads and Spice Routes: Travel, Exploration and Discovery in the Premodern World

- HIS 332: Postcolonial South Asia
- HIS 348: Colonial South Asia
- HIS 381: Global Commodity Histories, 1500-2000
- HIS 397: Topics in History of U.S. Immigration and Ethnicity
- PHI 367: Philosophy of War and Peace
- PHI 377: Contemporary Political Philosophy
- POL 103: Introduction to Comparative Politics
- POL 311: Introduction to International Law
- POL 313: Problems of International Relations
- POL 374 / SOC 374: Global Issues in the United Nations
- SOC 105: Introduction to Sociology
- SOC 248: Social Problems in Global Perspective
- SOC 348: Global Sociology

Requirements for the Minor in Globalization Studies and International Relations

The minor provides a focused view of global processes through the critical examination from a variety of disciplinary perspectives of the world's institutions, ideas, cultures, and historical traditions. Students develop the ability to examine the global and local repercussions of current social, cultural, political, and economic developments in the world by applying a variety of methods
from the sciences, humanities, and social sciences. The curriculum encourages students to become engaged researches in the global flows of commodities, knowledge, and people, and their impact over existing social, economic, and political inequalities.
The minor is open to all undergraduates regardless of academic major or place of residence. As part of the minor students should choose a Global Interaction Area and a Specialized Global Issue Track. Students are strongly encouraged to participate in study abroad programs. With the approval of the program advisor, credits earned for courses taken abroad may count toward fulfillment of the minor. In addition, the minor is part of the Undergraduate Academy for Globalization Studies and International Relations. Students are encouraged to actively participate in enrichment opportunities offered by the Academy.

Declaration of the Minor

The Globalization Studies and International Relations minor takes approximately 4 semesters (fall/spring) to complete. Students are encouraged to declare the 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 program advisor as soon as possible and plan their course of study for fulfillment of the requirements.

General GLI Minor Requirements

- Completion of the Minor requires 24 credits.
- All core courses must be taken at Stony Brook University.
- All courses required for the Minor must be passed with a letter grade of C or better.

Course Requirements for the Minor

1. GLI 211 Perspectives in Globalization Studies and International Relations
2. Two courses chosen from the following:

- GLI 320 Global, Cultural and Environmental Issues
- GLI 330 Global, Political, Economic Issues
- GLI 340 Conflict Resolution, Coalition Building, and Peacemaking

1. Two courses in a Global Interaction Area (6 credits: 3 credits at the 100/200 level, 3 credits taken at the 300 level). Areas must be defined in consultation with the Program Advisor and according to specific global flows and historic interrelations rather than as traditional geographical areas.

   Some examples of these Global Interaction Areas (see Global Interaction Areas):

- Pacific Rim (East-Asia, East Russia, Australia, New Zealand, Western Americas)
- Indian Ocean world (South East Asia, Australia,
- Transatlantic (West Africa, Western Europe, North and South America)
- Mediterranean (Southern Europe, Northern Africa, Middle East)
- Eurasia (Central Asia, Europe)
- Americas (North and South America, Caribbean)
- Global Africa (Africa and African diaspora)
- Larger Middle East (North-Eastern Africa, Middle East, Eastern Mediterranean)

1. Two courses in a Specialized Global Issue Track (see Global Issue Tracks ; 6 credits: 3 credits at the 100/200 level, 3 credits taken at the 300 level):

- Global Cities: Challenges and Realities of Accelerating Urbanization Processes

- Human, Cultural, and Biological Migration: Global Diasporas and Ethnicities
- Global Development and Sustainability: Environment, Well-Being, Economy, and Policy
- Cultural and Political Representation: Global Narratives, Global Policies and their modes of dissemination
- Colonial and Post-Colonial Globalizations: Gender, Race, and Class in a Global Context.
- Transnational Corporations, Trans-regional Institutions: Markets, Institutions, and Policies

1. Language Study (3 credits)

- 3 credits above the 100 level (or demonstrated equivalent competency) in one language other than English.

Note: Only with prior approval of the program advisor will study abroad be considered as a substitute for Requirement 3.

Sample Course Sequence for the Major in Globalization Studies and International Relations
For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
GLI 211	3
SPN 111	4
SBC	3
Elective	3
Total	17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SPN 112	4
SBC	3
Global Issue I	3
Global Interaction Area I	3
Total	16

SOPHOMORE

FALL	Credits
GLI 320	3
SPN 211	3
SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
SPN 212	3
Global Interaction Area II	3
SBC	3
Elective	3

Elective	3
Total	15

JUNIOR

FALL	Credits
GLI 330	3
Global Issue II	3
SPN 311	3
Elective	3
SBC	3
Total	15

SPRING	Credits
Internship	3
Global Interaction Area III	3
Global Issue III	3
SBC	3
Elective	3
Total	15

SENIOR

FALL	Credits
GLI 340	3
Global Issue IV	3
SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
GLI 450	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.

Health Science (HAV, HAN)

Major in Health Science

School of Health Professions

Information and program requirements for the major in Health Science may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Health Science, BS

Health Science (HAV, HAN)

Information and program requirements for the major in Health Science may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Health Science, BS

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

Chair: Kathleen M. Fallon
Director of Undergraduate Studies: Catherine Marrone
Business Administrator: Lori Glubiak

Academic Program Coordinator: Kelly A. Haller
Office: S-401 Social and Behavioral Sciences
Phone: (631) 632-7700

Email: Kelly.Haller@stonybrook.eduWebsite: http://www.stonybrook.edu/sociology

Health, Medicine, and Society (MHS)

The minor in Health, Medicine, and Society 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 choose 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 Medicine and Sociology
- SOC 201 Research Methods

2. Students are required to choose *two* of the following Sociology electives (6 credits):

- SOC 247/WST 247 Sociology of Gender
- SOC 248 Social Problems in a Global Perspective
- SOC 310 Racism and Ethnic Relations
- SOC 339 Sociology of Drugs and Alcoholism
- SOC 340 The Sociology of Human Reproduction
- SOC 344 Environmental Sociology
- 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 306 Gender and Public Health in Africa
- AFS 368/HIS 368 Health and Disease in African History
- AFS 374/SUS 374 Environment and Development in African History
- AFS 381/WST 381 AIDS, Race, and Gender in the Black Community
- ANT 260 How We Eat
- ANT 359 The Archaeology of Food
- BIO 350 Darwinian Medicine
- BIO 358 Biology and Human Social and Sexual Behavior
- ECO 327 Health Economics
- ENS 312 Population, Technology, and the Environment
- HIS 237 Science, Technology, and Medicine in Western Civilization I
- HIS 238 Science, Technology, and Medicine in Western Civilization II
- HIS 293 Disease in American History
- HIS 398 Topics in the History of Science, Medicine and Technology
- MEC 280 Pollution and Human Health

- PSY 333 Mood Disorders
- PSY 334 Autism Spectrum Disorders
- PSY 342 Psychology of Women's Health
- PSY 346 Health Psychology
- SUS 340 Ecological and Social Dimensions of Disease
- 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: Dr. Stella Tsirka
Email: styliani-anna.tsirka@stonybrook.edu

Phone: (631) 632-7440

Office: 2118 Humanities Building

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.

Hispanic Languages and Literature

Majors, minors and programs for Hispanic Languages and Literature are found in the Spanish (SPN) program section of the bulletin.

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

History (HIS)

Major and Minor in History

Department of History, College of Arts and Sciences

Chair: Sara Lipton

Director of Undergraduate Studies: Eric Zolov

Business Administrator: Erin Giuliano

Office: S-301 Social and Behavioral Sciences
Phone: (631) 632-7500

Email: erin.giuliano@stonybrook.edu

Website: http://www.stonybrook.edu/history

Minors of particular interest to students majoring in History: Africana Studies (AFS), International Studies (INT), Latin American and Caribbean Studies (LAC), Political Science (POL), Women's and Gender 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, Africa, 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 Mexico or India). Students design their own pathway through the major based on the selection of one of five possible thematic concentrations. HIS 301, a required methods class normally taken in a student's third year, is designed to hone the reading, writing, and research skills to prepare for success in the research-intensive capstone seminar (HIS 401). 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 posts full descriptions of course offerings on its website. 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 review the History Department website 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 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 and B 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

9 courses (27 credits) distributed as follows:

1. Choose one European history survey course: HIS 101 Ancient Mesopotamia to Early Modern Europe or HIS 102 Modern European History, 18th c. to the Present (3 credits)
2. Choose one United States history survey course: HIS 103 American History to 1877 or HIS 104 United States Since 1877 (3 credits)
3. Choose one 100- or 200-level survey course in a region or country outside the U.S. or Europe (3 credits)
4. Four additional HIS courses above the 100-level, with at least three at the 300-level (12 credits)
5. HIS 301 Reading and Writing History (must be taken prior to HIS 401)

6. HIS 401 Senior Colloquium

B. Thematic Cluster

A thematic cluster of 4 courses at the 200-level or above (minimum 2 courses at the 300-level) selected from the following thematic clusters: Arts, Ideas & Culture; Empires, Violence & Global Connections; Health, Science & Environmental Change; Law, Politics & Social Justice; Race, Religion, Gender & Sexualities (12 credits). See course lists below.

C. Upper-Division Writing Requirement: Satisfactory completion of HIS 401 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. No transferred course with a grade lower than C may be applied toward Requirement A.
2. HIS 447, HIS 487, HIS 488, HIS 495, HIS 496 may not be used to satisfy major or minor requirements.

History Courses by Thematic Cluster

Arts, Ideas & Culture

- HIS 201: The Ancient Near East
- HIS 202: Ancient Greece
- HIS 203: Ancient Rome
- HIS 204: Egypt of the Pharaohs
- HIS 206: Europe in the Age of Discovery, 1348-1789
- HIS 210: Soviet Russia
- HIS 212: Ancient History of Mesoamerica
- HIS 213: Colonial Latin America
- HIS 214: Modern Latin America
- HIS 218: Ancient, Medieval, & Early Modern South Asia
- HIS 219: Introduction to Chinese History and Civilization
- HIS 220: Japan in the Age of Courtier and Samurai
- HIS 223: Regional History of Africa
- HIS 225: Jewish History from Antiquity to the Middle Ages
- HIS 226: Modern Jewish History: Dilemmas of Difference
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 229: Victorian Britain
- HIS 235: The Heirs of Rome: The Early Medieval World, 300-1000
- HIS 236: The World of the Later Middle Ages, 1000-1500
- HIS 247: Modern Korea through Visual Culture
- HIS 256: Latin American Popular Culture
- HIS 261: Change and Reform in the United States, 1877-1919
- HIS 262: American Colonial Society
- HIS 263: Age of the American Revolution
- HIS 264: The Early Republic
- HIS 270: US in the World, 19th Century
- HIS 271: The United States in the World: the 20th Century
- HIS 273: U.S. History, 1900-1945
- HIS 274: U.S. History, 1945-2000
- HIS 285: Games, Burlesques, and Spectacles: Popular Culture in 19th-Century America
- HIS 303: The Crusades and Medieval Society
- HIS 304: Religion, Magic and Witchcraft in Early Modern Europe
- HIS 307 : Silk Roads and Spice Routes: Travel, Exploration, Discovery in Premodern World
- HIS 308: Britain and France in the Age of Revolution
- HIS 312: From Empire to Third Reich: Germany, 1890-1945
- HIS 315: Nazi Empire
- HIS 318: Modern European Intellectual History
- HIS 319: Assyrians, Babylonians, and Hittites
- HIS 320: Latino New York
- HIS 322: Origins of American Religious Liberty
- HIS 324: Lost Languages, Ancient Civilizations, and Decipherments
- HIS 327: The Arts as History

- HIS 328: History of New York City
- HIS 334: Women and Gender in Pre-Modern European History
- HIS 335: Social History of American Advertising
- HIS 336: Women and Gender in Modern European History
- HIS 337: History of Korea
- HIS 341: 20th-Century China
- HIS 344: Modern Japan
- HIS 351: Revolutionary China: Politics, Culture, and Power
- HIS 353: Postwar Japan
- HIS 379: Rebels & Revolutionaries: 1960s Latin America
- HIS 383: The World of Jane Austen; Jane Austen in the World
- HIS 385: Aztec Civilization
- HIS 386: The Maya
- HIS 387: Cuba: Island of Consequence

Empires, Violence & Global Connections

- HIS 201: The Ancient Near East
- HIS 202: Ancient Greece
- HIS 203: Ancient Rome
- HIS 204: Egypt of the Pharaohs
- HIS 206: Europe in the Age of Discovery, 1348-1789
- HIS 209: Imperial Russia
- HIS 210: Soviet Russia
- HIS 211: Early African History
- HIS 212: Ancient History of Mesoamerica
- HIS 213: Colonial Latin America
- HIS 214: Modern Latin America
- HIS 215: Long Island History
- HIS 216: History of U.S.-Latin American Relations
- HIS 218: Ancient, Medieval, & Early Modern South Asia
- HIS 219: Introduction to Chinese History and Civilization
- HIS 221: Introduction to Modern African History
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 229: Victorian Britain
- HIS 230: Britain since 1688: Four Nations in the World
- HIS 235: The Heirs of Rome: The Early Medieval World, 300-1000
- HIS 236: The World of the Later Middle Ages, 1000-1500
- HIS 239: From Columbus to Darwin: Investigating Nature, Medicine and Science in the Americas
- HIS 241: Nazi Genocide and the Holocaust
- HIS 247: Modern Korea through Visual Culture
- HIS 248: Modern Europe, 1815-1914
- HIS 249: Modern Europe, 1914-1945
- HIS 250: The Second World War, 1939-1945
- HIS 251: Europe Since 1945
- HIS 256: Latin American Popular Culture
- HIS 263: Age of the American Revolution
- HIS 264: The Early Republic
- HIS 265: Civil War and Reconstruction
- HIS 266: History of the United States West
- HIS 270: US in the World, 19th Century
- HIS 271: The United States in the World: the 20th Century
- HIS 273: U.S. History, 1900-1945
- HIS 274: U.S. History, 1945-2000
- HIS 281: Global History and Geography
- HIS 283: The History of Latinos in the United States
- HIS 287: Crime and Criminal Justice in the U.S.
- HIS 288: Wealth and Inequality in Early America
- HIS 289: Wealth and Inequality in America's Corporate Age
- HIS 293: Disease in American History
- HIS 302: Environmental History in Global Perspective
- HIS 303: The Crusades and Medieval Society
- HIS 307 : Silk Roads and Spice Routes: Travel, Exploration, Discovery in Premodern World

- HIS 308: Britain and France in the Age of Revolution
- HIS 312: From Empire to Third Reich: Germany, 1890-1945
- HIS 314: Indigenous-Settler Relations in the United States
- HIS 315: Nazi Empire
- HIS 319: Assyrians, Babylonians, and Hittites
- HIS 320: Latino New York
- HIS 322: Origins of American Religious Liberty
- HIS 323: Women of Color in the U.S.
- HIS 324: Lost Languages, Ancient Civilizations, and Decipherments
- HIS 325: Civil Rights and Black Power
- HIS 337: History of Korea
- HIS 338: Asian and Pacific Islanders in American History
- HIS 341: 20th-Century China
- HIS 344: Modern Japan
- HIS 346: Political and Social History of Africa
- HIS 348: Colonial South Asia
- HIS 351: Revolutionary China: Politics, Culture, and Power
- HIS 352: Environmental History of China
- HIS 353: Postwar Japan
- HIS 356: Zionism and the State of Israel
- HIS 361: Slavery and Freedom in the Making of the Atlantic
- HIS 362: Unsettled Decade: The Sixties
- HIS 364: Oceans Past: World History from a Maritime Perspective
- HIS 365: Environmental History of North America
- HIS 366: Carceral Studies: Histories of Policing, Prisons, and Surveillance
- HIS 375: American Politics and Diplomacy to 1898
- HIS 376: American Politics and Diplomacy, 1898-1945
- HIS 377: American Politics and Diplomacy Since 1945
- HIS 378: War and the Military
- HIS 379: Rebels & Revolutionaries: 1960s Latin America
- HIS 381: Global Commodity Histories, 1500-2000
- HIS 383: The World of Jane Austen; Jane Austen in the World
- HIS 385: Aztec Civilization
- HIS 386: The Maya
- HIS 387: Cuba: Island of Consequence
- HIS 388: Slavery in Latin America and the Caribbean
- HIS 389: Mexico: From Revolutions to Cartels, 1810-2020

Health, Science & Environmental Change

- HIS 206: Europe in the Age of Discovery, 1348-1789
- HIS 211: Early African History
- HIS 212: Ancient History of Mesoamerica
- HIS 215: Long Island History
- HIS 221: Introduction to Modern African History
- HIS 237: Science, Technology, and Medicine in Western Civilization I
- HIS 238: Science, Technology, and Medicine in Western Civilization II
- HIS 239: From Columbus to Darwin: Investigating Nature, Medicine and Science in the Americas
- HIS 264: The Early Republic
- HIS 266: History of the United States West
- HIS 281: Global History and Geography
- HIS 286: The Global History of Human Health
- HIS 293: Disease in American History
- HIS 295: History of North American Cities and Suburbs
- HIS 302: Environmental History in Global Perspective
- HIS 304: Religion, Magic and Witchcraft in Early Modern Europe
- HIS 314: Indigenous-Settler Relations in the United States
- HIS 321: Humans and Animals in the Modern World
- HIS 329: Environmental Disasters
- HIS 333: Suburbanism in International Perspective
- HIS 335: Social History of American Advertising
- HIS 352: Environmental History of China
- HIS 364: Oceans Past: World History from a Maritime Perspective

- HIS 365: Environmental History of North America
- HIS 368: Health and Disease in African History
- HIS 381: Global Commodity Histories, 1500-2000
- HIS 385: Aztec Civilization
- HIS 386: The Maya

Law, Politics & Social Justice

- HIS 201: The Ancient Near East
- HIS 210: Soviet Russia
- HIS 214: Modern Latin America
- HIS 216: History of U.S.-Latin American Relations
- HIS 223: Regional History of Africa
- HIS 226: Modern Jewish History: Dilemmas of Difference
- HIS 230: Britain since 1688: Four Nations in the World
- HIS 241: Nazi Genocide and the Holocaust
- HIS 248: Modern Europe, 1815-1914
- HIS 249: Modern Europe, 1914-1945
- HIS 250: The Second World War, 1939-1945
- HIS 251: Europe Since 1945
- HIS 261: Change and Reform in the United States, 1877-1919
- HIS 263: Age of the American Revolution
- HIS 265: Civil War and Reconstruction
- HIS 271: The United States in the World: the 20th Century
- HIS 274: U.S. History, 1945-2000
- HIS 277: The Modern Color Line
- HIS 280: The History of the U.S. Working Class
- HIS 282: African American History Since 1877
- HIS 283: The History of Latinos in the United States
- HIS 286: The Global History of Human Health
- HIS 287: Crime and Criminal Justice in the U.S.
- HIS 288: Wealth and Inequality in Early America
- HIS 289: Wealth and Inequality in America's Corporate Age
- HIS 295: History of North American Cities and Suburbs
- HIS 318: Modern European Intellectual History
- HIS 323: Women of Color in the U.S.
- HIS 325: Civil Rights and Black Power
- HIS 328: History of New York City
- HIS 329: Environmental Disasters
- HIS 331: Immigration in American History
- HIS 333: Suburbanism in International Perspective
- HIS 334: Women and Gender in Pre-Modern European History
- HIS 338: Asian and Pacific Islanders in American History
- HIS 339: Recent African American History
- HIS 345: Women and Gender in Chinese History
- HIS 346: Political and Social History of Africa
- HIS 348: Colonial South Asia
- HIS 350: Topics in African History
- HIS 352: Environmental History of China
- HIS 360: Changing Families: US History to 1860
- HIS 361: Slavery and Freedom in the Making of the Atlantic
- HIS 362: Unsettled Decade: The Sixties
- HIS 366: Carceral Studies: Histories of Policing, Prisons, and Surveillance
- HIS 369: Religion and Politics in Africa
- HIS 370: US Social History from 1860 to 1940
- HIS 371: Law and Society in American History, 1620-1877
- HIS 372: U.S. Constitutional History and Civil Rights
- HIS 374: Surveillance State: A History of U.S. Domestic Spying
- HIS 375: American Politics and Diplomacy to 1898
- HIS 376: American Politics and Diplomacy, 1898-1945
- HIS 377: American Politics and Diplomacy Since 1945
- HIS 378: War and the Military

- HIS 379: Rebels & Revolutionaries: 1960s Latin America
- HIS 388: Slavery in Latin America and the Caribbean
- HIS 389: Mexico: From Revolutions to Cartels, 1810-2020
- HIS 391: Topics in Ancient and Medieval Europe

Race, Religion, Gender & Sexualities

- HIS 211: Early African History
- HIS 213: Colonial Latin America
- HIS 215: Long Island History
- HIS 218: Ancient, Medieval, & Early Modern South Asia
- HIS 221: Introduction to Modern African History
- HIS 223: Regional History of Africa
- HIS 225: Jewish History from Antiquity to the Middle Ages
- HIS 226: Modern Jewish History: Dilemmas of Difference
- HIS 227: Islamic Civilization & Muslim Societies
- HIS 229: Victorian Britain
- HIS 235: The Heirs of Rome: The Early Medieval World, 300-1000
- HIS 236: The World of the Later Middle Ages, 1000-1500
- HIS 241: Nazi Genocide and the Holocaust
- HIS 247: Modern Korea through Visual Culture
- HIS 248: Modern Europe, 1815-1914
- HIS 249: Modern Europe, 1914-1945
- HIS 261: Slavery and Freedom in the Making of the Atlantic
- HIS 265: Civil War and Reconstruction
- HIS 277: The Modern Color Line
- HIS 282: African American History Since 1877
- HIS 283: The History of Latinos in the United States
- HIS 285: Games, Burlesques, and Spectacles: Popular Culture in 19th-Century America
- HIS 295: History of North American Cities and Suburbs
- HIS 303: The Crusades and Medieval Society
- HIS 304: Religion, Magic and Witchcraft in Early Modern Europe
- HIS 307 : Silk Roads and Spice Routes: Travel, Exploration, Discovery in Premodern World
- HIS 314: Indigenous-Settler Relations in the United States
- HIS 318: Modern European Intellectual History
- HIS 320: Latino New York
- HIS 322: Origins of American Religious Liberty
- HIS 323: Women of Color in the U.S.
- HIS 325: Civil Rights and Black Power
- HIS 327: The Arts as History
- HIS 328: History of New York City
- HIS 331: Immigration in American History
- HIS 334: Women and Gender in Pre-Modern European History
- HIS 335: Social History of American Advertising
- HIS 336: Women and Gender in Modern European History
- HIS 338: Asian and Pacific Islanders in American History
- HIS 339: Recent African American History
- HIS 345: Women and Gender in Chinese History
- HIS 346: Political and Social History of Africa
- HIS 350: Topics in African History
- HIS 353: Postwar Japan
- HIS 356: Zionism and the State of Israel
- HIS 360: Changing Families: US History to 1860
- HIS 361: Slavery and Freedom in the Making of the Atlantic
- HIS 362: Unsettled Decade: The Sixties
- HIS 366: Carceral Studies: Histories of Policing, Prisons, and Surveillance
- HIS 369: Religion and Politics in Africa
- HIS 370: US Social History from 1860 to 1940
- HIS 372: U.S. Constitutional History and Civil Rights
- HIS 374: Surveillance State: A History of U.S. Domestic Spying
- HIS 383: The World of Jane Austen; Jane Austen in the World
- HIS 385: Aztec Civilization
- HIS 386: The Maya

- HIS 388: Slavery in Latin America and the Caribbean
- HIS 391: Topics in Ancient and Medieval Europe

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 a thematic cluster (Arts, Ideas & Culture; Empires, Violence & Global Connections; Health, Science & Environmental Change; Law, Politics & Social Justice; Race, Religion, Gender & Sexualities). 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.

The minor, which requires 21 credits, consists of a two-course Introductory survey in a student's particular geographic and/or temporal area of interest, followed by four courses in a Thematic area of history chosen from one of the clusters noted above. A final course can be used either to deepen a particular area of interest or explore a new subject. No grade lower than "C" may be applied to the minor and at least twelve of the 21 credits must be taken at Stony Brook. At least 9 of the 21 credits must be upper-division.

1. Two courses in any survey sequence at the 100- or 200-level
2. Four courses in one of the following Thematic clusters: Arts, Ideas & Culture; Empires, Violence & Global Connections; Health, Science & Environmental Change; Law, Politics & Social Justice; Race, Religion, Gender & Sexualities (see course list above)
3. One course in any area at the 300 level or above

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

For more information about SBC courses that fulfill major requirements, click here.

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

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
HIS 102 or HIS 104	3
HIS 200-level course outside of Europe or U.S.	3
SBC	3

SBC	3
Total	16

SOPHOMORE

FALL	Credits
HIS 200 elective	3
HIS 300 elective	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
HIS 300 elective	3
HIS 300 elective	3
Elective	3
SBC	3
SBC	3
Upper-division elective	3
Total	18

JUNIOR

FALL	Credits
HIS 301 or Theme Course *	3
HIS Theme Course *	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
HIS 301 or Theme Course *	3
HIS Theme Course *	3
HIS Theme Course or SBC	3
SBC or other requirement	3
SBC or other requirement	3
Total	15

SENIOR

FALL	Credits
HIS 301 or 401 **	3
Theme Course *	3
SBC or other requirement	3

SBC or other requirement	3
SBC or other requirement	3
Total	15

SPRING	Credits
HIS 401	3
Theme Course *	3
Theme Course or SBC *	3
SBC or other requirement	3
SBC or other requirement	3
Total	15

* List of themes and corresponding courses here

** Pre-requisite for HIS 401 is HIS 301

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

History of Health, Science, and the Environment (HSE)

Minor in History of Health, Science, and the Environment

Department of History, College of Arts and Sciences

Chair: Paul Gootenberg

Director of Undergraduate Studies: Eric Zolov

Assistant to the Chair: Erin Giuliano

Office: S-301 Social and Behavioral Sciences
Phone: (631) 632-7500

Email: erin.giuliano@stonybrook.edu

Website: http://www.stonybrook.edu/commcms/history

History of Health, Science, and the Environment

This minor explores the historical context of health, science and disease. Nature is within us and all around us. Human habitats—starting with our multi-species bodies—are only partly under human control. Inversely, the environment "out there" is deeply influenced by humans and their technologies. History provides extensive evidence for these trans-human relationships. This minor allows students to explore this multi-level interplay—from the molecular level to the planetary—in a variety of times and places.

Requirements for the minor in History of Health, Science, and the Environment

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:

1. Three courses in the student's interest at the 100 or 200 level selected from the list below (9 credits)
2. Four courses in the student's interest at the 300 or 400 level selected from the list below (12 credits) (Note: HIS 447, 487, 488, or 495–496 may not be applied to the minor.)

- AFS 374 Environment and Development in African History
- HIS 238 Science, Technology, and Medicine in Western Civilization II
- HIS 286 The Global History of Human Health
- HIS 302 Environmental History in Global Perspective
- HIS 329 History of Industrial Hazards
- HIS 352 Environmental History of China
- HIS 365 Environmental History of North America
- HIS 368 Health and Disease in African History
- HIS 386 The Maya
- HIS 398 Topics in the History of Science, Technology and Medicine

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: James Rossie

Email: humanevolbio@stonybrook.edu

Office: S-521 Social & Behavioral Sciences Bldg

Assistant to the Director: Melissa Cohen

Email: melissa.j.cohen@stonybrook.edu

Office: Life Sciences Building, Room 645

Phone: (631) 632-8604
Website: http://www.stonybrook.edu/commcms/anthropology/undergraduate/bs-human-evolutionary-biology

Minors of particular interest to students majoring in Human Evolutionary Biology: China Studies (CNS), Ecosystems and Human Impact (EHI), Environmental Studies (ENS), Health Medicine & Society (MHS), History (HIS), Japanese Studies (JNS), Korean Studies (KOR), Middle Eastern Studies (MES), Sustainability Studies (SUS)

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 59 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 475, 476, 488, 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 130/MAT 125) or MAT 131 Calculus or MAT 141 Honors Calculus I or MAT 171 Accelerated Single Variable Calculus or or AMS 151 Applied Calculus I

  . 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 higher on the basis of the math placement examination, MAT 123 is a required course for the major.
- 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 401, ANP 404, ANP 405, ANP 406, ANP 407, ANP 410, ANT 417, ANT 418, ANT 419, ANT 420, EBH 401, EBH 404, 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 101 Human Biology
- ANP 250 Forensic Anthropology
- ANP 300 Human Anatomy
- ANP 321 Primate Evolution
- ANP 404 Human Osteology
- ANP 405 Human Evolution in the Headlines
- ANP 407 Building Bones: Bone Development and Evolution
- ANP 410 Comparative Primate Anatomy
- ANT 104 Introduction to Archaeology
- ANT 268 Archaeology of Human Origins
- ANT 273 The Unstoppable Species?
- ANT 277 Origin of Art
- ANT 290 Science and Technology in Ancient Society
- ANT 357 The Agricultural Revolution
- ANT 358 The Origins of Social Inequality: First Cities
- ANT 417 Primitive Technology
- ANT 418 Stone Tools in Human Evolution
- 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 Ecological Genetics
- 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 202 People and Pups: Dog Behavior and Human-Canine Relationships
- ANP 220 Controversies in Human Biology and Behavior
- ANP 401 Pastoralism under pressure: Savannas, societies, and sustainability in East Africa
- 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 404 Evolution of Parenting
- EBH 405 Life History and Development
- POL 375 The Political Animal
- 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 Paleoecology (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 in the Turkana Basin
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 326 Lemurs of Madagascar
- ANP 350 Methods in Studying Primates
- ANP 351 Biodiversity Assessment Methods for Tropical Field Research
- ANP 360 Primate Conservation
- ANP 387 Independent Biodiversity Research Project in Madagascar
- 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 101 Human Biology
- ANP 202 People and Pups: Dog Behavior and Human-Canine Relationships
- ANP 220 Controversies in Human Biology and Behavior
- ANP 300 Human Anatomy
- ANP 321 Primate Evolution
- ANP 401 Pastoralism under pressure: Savannas, societies, and sustainability in East Africa
- ANP 404 Human Osteology

- ANP 405 Human Evolution in the Headlines
- ANP 407 Building Bones: Bone Development and Evolution
- ANP 410 Comparative Primate Anatomy
- ANT 104 Introduction to Archaeology
- ANT 268 Archaeology of Human Origins
- ANT 273 The Unstoppable Species?
- ANT 277 Origin of Art
- ANT 290 Science and Technology in Ancient Society
- ANT 357 The Agricultural Revolution
- ANT 358 Ways to Civilization
- ANT 377 Animal Tool Use
- ANT 417 Primitive Technology
- ANT 418 Stone Tools in Human Evolution
- ANT 419 Zooarchaeology
- EBH 325 Evolution of Sex
- EBH 331 Hormones and Behavior
- EBH 362 Evolution of Social Complexity
- EBH 404 Evolution of Parenting
- EBH 405 Life History and Development
- POL 375 The Political Animal
- 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
BIO 201	3
MAT 125	3
CHE 131	4
SBC	3
Total	17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
BIO 202	3
ANP 201	3
SBC	3
SBC	3
Total	15

SOPHOMORE

FALL	Credits
BIO 204 (or EBH 204 following spring)	2-3
EBH 302	3
EBH 200	3
EBH 230	4
SBC	3
Total	15-16

SPRING	Credits
EBH 204 (or BIO 204 previous fall)	3
EBH subfield	3

EBH subfield	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
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

EBH Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/ecoevo/_people/

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

Industrial Engineering (IND)

Minor in Industrial Engineering

Department of Technology and Society, College of Engineering and Applied Sciences

Interim Chair: Klaus Mueller

Undergraduate Program Director: Kevin Moriarty

Undergraduate Program Coordinator and Advisor: Elizabeth Petersen

Office: 231 Engineering

Phone: (631) 632-8381

Email: tsm_advising@stonybrook.edu

Website: http://www.stonybrook.edu/est

Industrial Engineering

The Industrial Engineering minor is designed for students who wish to obtain a more thorough understanding of how engineering concepts can influence an organization and affect systems. The minor in Industrial engineering encompasses technological management decision-making dealing with optimal utilization of operational systems, people, methods, materials, machines, and energy. It addresses operational objectives of socio-technical applications and policy. Industrial engineers determine how to optimize systems for maximum efficiency, effectiveness, throughput, safety, or some other objective of importance to the system. This is accomplished using engineering methods, techniques, principles, and practices. The Industrial Engineering minor is different from other engineering fields as it emphasizes quantitative, economic, and computer-aided approaches to production and service management problems.

Requirements for the minor in Industrial Engineering

Admission to the Industrial Engineering minor requires completion of Calculus I and Calculus II (or equivalents) with a grade of C or higher, and a cumulative grade point average of 2.50 or higher.

The Industrial Engineering minor requires completion of six courses (18 credits). The minor must include at least three courses (9 credits) that are not used to satisfy the requirements of the student's major(s) or other minors.

The Industrial Engineering minor may result in courses with prerequisites for some of the chosen courses meeting the minor requirements. Students who are not in majors that require these prerequisites must plan to take them in addition to the minor requirements.

Each course taken to satisfy the requirements for the minor must be completed with a grade of C or higher.

Required Courses (12 credits)

EST 280 Fundamentals of Industrial Engineering: Industrial Engineering & Management Practices
EST 342 Industrial Engineering Ops Research, or AMS 341 Operations Research I: Deterministic Models
EST 392 Engineering Economics
AMS 310 Probability & Statistics (or equivalent)

Elective Courses (6 credits)
AMS 315 Data Analysis
AMS 342 Operations Research II: Stochastic Models
ESM 455 Materials and Processes in Manufacturing Design
EST 305 Applications Software for Information Management

EST 326 Management for Engineers
EST 391 Technology Assessment
EST 393 Project Management

MEC 203 Engineering Graphics and CAD
MEC 325 Manufacturing Processes

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

Information Systems (ISE)

Major and Minor in Information Systems

Department of Computer Science, College of Engineering and Applied Sciences

Chair: Samir Das

Undergraduate Program Director: Ahmad Esmaili

Undergraduate Program Coordinators: Sara Gergen and Noelle Pluschau

Office: 231 Engineering Building
Phone: (631) 632-8470

Email: csugcomm@cs.stonybrook.edu

Website: http://www.cs.stonybrook.edu

Information Systems (ISE)

The Information Systems major, which is housed in the Department of Computer Science, prepares its graduates to design and build computerized data processing and decision support systems. The program is technically oriented, emphasizing the design and implementation aspects of large-scale information systems as well as the more traditional managerial and organizational issues, and it balances development of system engineering skills with learning to deliver reliable systems on time and within budget. Throughout the program, students are exposed to diverse application areas ranging from traditional business, finance, and accounting through telecommunications, networks, multimedia, and database management, to computer-aided design and industrial production management systems.

Requirements for the Major and Minor in Information Systems (ISE)

Acceptance into the Information Systems Major

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students in majors and pre-majors outside of Computer Science and Information Systems may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of "Q" in the instance of a first offense.

Area of Interest in CSE and ISE and CSE majors

Applications for major admission from AOI students and CSE majors are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Completed CSE 114; AMS 151, MAT 125, MAT 131 or MAT 141; and either WRT 102 or ISE 218. All courses taken to satisfy major admission requirements must be completed with a grade of B- or higher and with a GPA of 3.00 or higher in these courses. For students who have completed both ISE 218 and WRT 102, the higher of the two grades is used when determining major admission.
- Transfer students who have completed the equivalent of WRT 102 or ISE 218 at another school with a grade of B- or higher do not need to retake these courses. Students who have transfer credit towards any of the other required courses must speak to the Undergraduate Program Director to determine courses needed for major entry.
- Repeated at most one of the courses listed above.
- Earned a cumulative grade point average of 3.00 or higher.
- Completed course evaluations for all transferred courses that are to be used to meet requirements of the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students who apply late will follow the process for students outside of Computer Science and Information Systems. Declared Computer Science majors may switch to the Information Systems major after exceeding the one-year timeline for admission, provided they meet the criteria stated above.

Students Outside of Computer Science and Information Systems

Applications for major admission are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

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 Introduction to Object-Oriented Programming
- CSE 214 Data Structures
- ISE 218 Fundamentals of Information Technology

2. Upper Division Courses:

- ISE 312 Social, Legal, and Ethical Issues in Computing
- ISE 305 Database Design and Practice
- ISE 316 Introduction to Networking or CSE 310 Computer Networks
- ISE 320 Information 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 125, MAT 126)
2. AMS 161 Applied Calculus II or MAT 132 Calculus II or MAT 127 Calculus C or CSE 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. ECO 108 Introduction to Economics
b. ACC 210 Financial Accounting

1. Two of the following:

- ACC 214 Managerial Cost Analysis and Applications
- ESE 201 Engineering and Technology Entrepreneurship
- BUS 115 Introduction to Business
- BUS 215 Introduction to Business Statistics
- BUS 220 Introduction to Decision Sciences
- BUS 294 Principles of Management

2. Two of the following:

- BUS 330 Principles of Finance
- BUS 346 Operations Management
- BUS 348 Principles of Marketing
- BUS 353 Entrepreneurship
- BUS 355 Investment Analysis
- BUS 356 Financial Analysis with Excel
- 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 Economics
- EST 393 Project Management
- ECO 326 Industrial Organization
- 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 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 Analysis with Excel
- 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)
- BME 205 Clinical Challenges of the 21st Century
- CSE 377 Introduction to Medical Imaging
- ECO 327 Health Economics
- HAN 202 Anatomy and Physiology II
- 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. ESE 442 Recent Advances in Communications and Wireless Networks or 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 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 Systems Engineering Management, Elements of Product Design and Development
- EST 364 How to Build a Startup

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 CSE 101 with a grade of B- or higher and possess a cumulative grade point average of 3.00 or higher. Students who have transfer credit toward the required course must speak to the Undergraduate Program Director to determine the course needed for minor entry. Admission is competitive and contingent upon program capacity. The minor requires seven courses totaling at least 22 credits as outlined below:

1. CSE 101 Computer Science Principles
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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

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

SPRING	Credits
First Year Seminar 102	1
WRT 102 (WRT)	3
CSE 114 (TECH)	4
AMS 161	3
SBC course	3
SBC course	3
Total	17

SOPHOMORE

FALL	Credits
ISE 218	3
AMS 210 (STEM+)	3
CSE 214	4
SBC	3
Elective	3
Total	16

SPRING	Credits
ISE 320	3
Specialization course	3
Elective	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
ISE 305	3
AMS 310 or ECO 320	3
Specialization course	3
SBC	3

SBC	3
Total	15

SPRING	Credits
ISE 312 (STAS, CER, & ESI)	3
CSE 310	3
ISE Elective	3
Specialization course	3
Specialization course	3
SBC	3
Total	18

SENIOR

FALL	Credits
ISE 300 (SPK, WRTD)	3
ISE Elective	3
ISE Elective	3
Specialization course	3
SBC	3
Total	15

SPRING	Credits
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.

Italian American Studies (IAM)

Interdisciplinary Minor in Italian American Studies

Department of Languages and Cultural Studies; College of Arts and Sciences

Chair: Sarah Jourdain

Director of Undergraduate Studies: Franck Dalmas

Coordinator of the Minor: Irene Marchegiani

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128
Phone: (631) 632-7440

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies/

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. Two (2) 200-level HUI courses
2. One (1) Italian (ITL) course at any level
4. HUI 390 Humanities Topics in Italian-American Studies
5. Two (2) additional HUI courses at the 300-level
6. One (1) elective course chosen with the approval of the Director of Italian American Studies. Examples include: ARH 204 Arts of Europe and the Americas; CCS 325 Culture in Context; GLI 330 Global, Political and Economic Issues; HUI 331 Italian Literature in Translation; ITL 311 Italian Conversation and Composition.

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

Chair: Sarah Jourdain

Director of Undergraduate Studies: Franck Dalmas

Coordinator of the Program: Irene Marchegiani

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128
Phone: (631) 632-7440

Email: irene.marchegiani@stonybrook.edu

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies/

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 https://www.stonybrook.edu/commcms/llrc/placement_challenge_exams/challenge_exam.html for placement exam information.

A. Concentration in Language and Literature
1. Required courses:

- ITL 211 Intermediate Italian 1
- ITL 212 Intermediate Italian 2
- ITL 311 Italian Conversation and Composition 1
- ITL 312 Italian Conversation and Composition 2
- 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 1
- ITL 212 Intermediate Italian 2
- ITL 311 Italian Conversation and Composition 1
- ITL 312 Italian Conversation and Composition 2
- 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 21-27 credits, depending on language placement. See https://www.stonybrook.edu/commcms/llrc/placement_challenge_exams/challenge_exam.html for placement exam information.

A. Emphasis on Language

- ITL 211 Intermediate Italian 1
- ITL 212 Intermediate Italian 2
- ITL 311 or ITL 312 Italian Conversation and Composition 1 or 2
- 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 1
- ITL 212 Intermediate Italian 2
- ITL 311 or ITL 312 Italian Conversation and Composition 1 or 2
- 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)

For more information about SBC courses that fulfill major requirements, click here.

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.

Japanese Studies (JNH)

Minor in Japanese Studies

Department of Asian and Asian American Studies, College of Arts and Sciences

Director of the Minor: Eva Nagase, Asian and Asian American Studies

Business Administrator: Theresa Spadola

Administrative Assistant: Lynne Foerster

Office: 1046 Humanities

Phone: (631) 632-4030

Website: http://www.stonybrook.edu/asianandam

Japanese Studies (JNH)

In completing the minor in Japanese Studies, students take a series of courses centering on the history and civilization of Japan while keeping in view Japan's close ties with China and Korea. Students choose courses for the minor with the approval of the director of the minor.

Requirements for the Minor in Japanese Studies (JNH)

All courses offered for the minor must be passed with a letter grade of C or higher.

Completion of the minor requires 18-19 credits.

1. JPN 211 or JPN 212 Intermediate Japanese I or II
2. Five of the following:

- AAS 216 Introduction to Japanese Studies
- AAS 219/HIS 220 Introduction to Japanese History and Civilization
- 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 343/HIS 344 Modern Japan
- AAS 344 Acquisition of Asian Languages
- AAS 353/HIS 353 Postwar Japan
- AAS 382/RLS 382 Japanese Buddhism
- AAS 385 Translation Studies of Asian Languages
- 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)
- ANT 311 Immersion in Another Culture (appropriate topic only)
- JPN 212 Intermediate Japanese II (if not used in requirement 1)
- 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 and JPN 212 because of previous Japanese language proficiency are required to take an extra course from Requirement 2 in order to satisfy Requirement 1.
2. JPN 212 may not count toward Requirement 1 and Requirement 2.
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

Chair: Christina Dahl

Director of Undergraduate Studies: Deborah Heckert

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts
Phone: (631) 632-7330

Email: Perry.Goldstein@stonybrook.edu

Website: https://www.stonybrook.edu/music/

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, or MUS 320
3. Performance:
Six semesters (6 credits) in any combination of the following courses:
MUS 189 Beginning Jazz Improvisation

MUS 235 Introduction to African Drumming
MUS 264 Big Band Jazz Ensemble
MUS 267 Jazz Combo
MUS 335 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 Communication and Journalism

Dean: Dr. Laura Lindenfeld

Associate Dean and Director of Undergraduate Studies: Irene Virag
Office: Melville Library N-4004
Phone: (631) 632-7403

Website: http://www.stonybrook.edu/journalism

Email: socjadvising@stonybrook.edu

Advising: Visit SoCJ Undergraduate Advising for program resources and ways to connect with an advisor.

Journalism (JRN)

The state-of-the-art accredited journalism program at Stony Brook University is designed to prepare students for careers in today's fast-paced, highly competitive media landscape. The streamlined curriculum requires 45 credits of JRN courses and offers an easy-to-navigate pathway to graduation.

The program focuses on digital journalism but holds fast to traditional journalistic values and skills that imbue an understanding of the role of the press in a democratic society and a passion for the public interest. The curriculum also provides the intellectual underpinnings students need to progress to graduate or professional degree programs.

It is designed to ensure that students build competencies in a sequential fashion. They will hone skills in journalistic storytelling and production, starting with two required digital journalism courses and a writing course. In turn, these prepare students for one of three upper-level digital journalism courses – specializing in text, audio or video, depending on their interests and ambitions. These courses offer advanced opportunities to mix sound, images and words into compelling multimedia packages. Students will also practice using social media as a reportorial tool and a presentation platform. Majors complete their production training in the senior capstone course, JRN 490, which satisfies the university's experiential learning requirement.

The remaining required coursework provides a rich variety of challenging courses that explore news literacy, media law and ethics, mass communication history, the economics of media, global issues in journalism and data-driven storytelling. Students must also take two upper division three-credit journalism electives.

In addition, an 18-credit interdisciplinary concentration will provide students with an in-depth look at a specific academic area of their choosing. Students have the option of pursuing a minor or double major.

Through these experiences, journalism majors should develop into ethical, well-educated, well-spoken, resourceful, independent critical thinkers who understand the technical, cultural and intellectual challenges facing modern media.

Requirements for the Major and Minor in Journalism (JRN)

Transfer students

Transfer courses will be evaluated individually for journalism equivalency by the Undergraduate Director.

Requirements for the Major

The major in journalism leads to the Bachelor of Arts degree. **Students must earn a letter grade of C or higher in all required courses, including courses in the concentration, and Satisfactory or S in JRN internships, independent studies and workshops for these to count toward the major.** Students may enroll in multiple internships up to 6 credits each. The total number of credits from all internships combined may not exceed 12. Variable-credit courses such as internships and independent studies must be taken for three credits or multiple courses must add up to three credits to count as a journalism elective. Otherwise, students must take another three-credit elective. Students may apply up to 6 credits from JRN internships and/or independent studies to the major and a total of 12 credits to general graduation requirements.

Students who earn final grades of C- or lower twice in the same journalism course, or in three different journalism classes, will be dropped from the major. A finding of academic dishonesty in any journalism or mass communication course will result in a failing grade for that course. It can also result in dismissal from the journalism program or expulsion from the university.

Journalism majors are not permitted to declare a second major or minor in Mass Communication. They may double major in Communication, but cannot get credit for the same electives. They may minor in Communication and Innovation.

Students may select one of four pre-designed concentrations created to explore broad topics – Public Affairs/Public Policy, Diversity and American Society, Global Issues and Perspectives, and Science and The Environment. Consult the undergraduate director to discuss a multidisciplinary concentration. At least nine credits, or three classes, of the 18 credits required of all concentrations must be at the upper-division level. Check prerequisites. Many of these courses also count toward SBC requirements. For a course to count toward the concentration, it must be passed with a grade of C or higher.

All journalism students should see a departmental advisor to plan their course programs. The following courses are required of all journalism majors; an asterisk denotes an online course:

1. Required Courses (36 credits):

- JRN 101 News Literacy
- COM 106 Introduction to Mass Media*
- JRN 116 Introduction to Digital Journalism
- COM 208 History of Mass Communication*
- JRN 216 Intermediate Digital Journalism
- JRN 217 Journalistic Reporting and Writing (*this course can be taken before, after or in the same semester as* JRN 216)
- JRN 301 The Business of News
- JRN 303 Global Issues in Journalism
- JRN 305 Mass Communication Law and Ethics*
- POL 102 Introduction to American Government

Choose one of the following advanced skills courses, which must be completed before students can move on to JRN 490*: Senior Capstone Project, which requires U3/U4 standing:*

- JRN 311 Advanced Digital Journalism – Text
- JRN 312 Advanced Digital Journalism – Audio
- JRN 313 Advanced Digital Journalism – Video

After completing JRN 311 , JRN 312, *or* JRN 313, *all majors must complete the following 400-level required course:*

- JRN 490 Senior Capstone Project

2. Required Electives (9 credits):

Students must complete two three-credit upper-division electives. Junior or Senior standing is required. Not all electives will be offered every semester. If students opt to take a variable credit course to complete their elective requirement, a minimum of 3 credits must be selected - or multiple courses must add up to three credits. Otherwise, students must take another three-credit elective. Students should consult their major advisor before enrollment for the semester begins.

Students can choose two courses from the following electives:

- COM 306 Modes of Media Criticism
- COM 307 Critical Media Theory
- COM 316 Mass Comm Research Methods
- COM 317 Mass Communication Theory
- JRN 319 Image of the Journalist in Popular Culture
- JRN 333 Business Reporting
- JRN 334 Science and Health Reporting
- JRN 335 Reporting in New York City
- JRN 336 Sports Reporting
- JRN 337 Introduction to Narrative Journalism
- JRN 339 Foreign Reporting
- JRN 340 Beat Reporting
- COM 346 Race, Class and Gender in Media
- JRN 363 Magazine Writing
- JRN 364 Advanced Reporting
- COM 365 Talking Science
- JRN 366 The Press & the Presidency
- JRN 367 Opinion Journalism
- JRN 390 Special Topics: Issues in Contemporary Journalism
- JRN 413 Journalisms in the Global South
- COM 415 Data Analysis and Storytelling
- JRN 433 Journalistic Book and Serial Narrative Production
- JRN 434 Photojournalism
- COM 436 Environmental Communication
- JRN 435 Journalism Without Walls

- JRN 438 Weathercasting and Environmental Reporting
- JRN 487 Independent Study (requires permission)
- JRN 488 Internship (requires permission)
- JRN 489 Specialized Internship (requires permission)

3. Upper-Division Writing Requirement

Successful completion of JRN 490, the Senior Capstone Project, will satisfy the SBC WRTD requirement as well as the Journalism major upper-division writing requirement.

4. Concentration in Outside Area

Students must declare a second major, a minor, or multidisciplinary concentration.

Students may select one of four pre-designed concentrations created to explore broad topics – Public Affairs/Public Policy, Diversity and American Society, Global Issues and Perspectives, and Science and The Environment. Students may design an 18-credit interdisciplinary concentration in an academic subject of their choosing. Consult the undergraduate director to discuss a customized multidisciplinary concentration. At least nine credits, or three classes, of the 18 credits required of all concentrations must be at the upper-division level. Check prerequisites. Many of these courses also count toward SBC requirements. With the permission of the undergraduate director, students may select courses other than the pre-approved courses listed below. For a course to count toward the concentration, it must be passed with a grade of C or higher.

The pre-designed multidisciplinary concentrations are as follows (complete 6 courses in any one area).

Science and the Environment

Students study trends, acquire foundational 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.

- ATM 102 Weather and Climate (also as EST 102)
- ATM 237 Topics in World Climate/Atmosphere (Individual Topics need approval) (also as PHY 237)
- BIO 103 Intro to Biotech
- BIO 113 General Ecology
- BIO 115 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 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.

- 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
- 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 287 History of Crime & Criminal Justice in U.S.
- 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 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 Racism and Ethnic 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 (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. See Bulletin course descriptions for details and 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 348 Principles of Marketing
- ECO 108 Intro to Economics
- ECO 303 Intermediate Microeconomics Theory
- ECO 305 Intermediate Macroeconomics Theory
- 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 339 Recent African American History (also as AFS 339)
- 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 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.

- 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 Global Africa (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)

Requirements for the Minor

Completion of the minor in Journalism requires 21 credits. Students must earn a letter grade of C or higher in all journalism courses and Satisfactory or S in JRN internships, independent studies and workshops for these to count toward the minor.

1. The following courses (12 credits) are required of minors:

- JRN 101 News Literacy
- COM 106 Introduction to Mass Media
- JRN 116 Introduction to Digital Journalism
- COM 208 History of Mass Media

2. Three journalism electives (9 credits) at or above the 300 level are required. Please check the above list under the "Requirements for the Major" for options. Electives require U3/U4 standing to enroll.

Minors are welcome to take additional journalism courses, but should consult with the Undergraduate Director.

Sample Course Sequence for the Major in Journalism

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102	3
JRN 101	3
SBC	3
SBC	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
COM 106	3

JRN 116	3
POL 102	3
SBC	3
SBC	3
Total	16

SOPHOMORE

FALL	Credits
COM 208	3
JRN 216	3
Multidisciplinary concentration**	3
SBC	3
SBC	3
Total	15

SPRING	Credits
JRN 217	3
Multidisciplinary concentration**	3
SBC	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
JRN 301	3
COM 305*	3
JRN 311 OR JRN 312 OR JRN 313	3
Multidisciplinary concentration**	3
SBC	3
Total	15

SPRING	Credits
JRN 303	3
Multidisciplinary concentration**	3
Upper-division JRN elective	3
SBC	3
SBC	3
Total	15

SENIOR

FALL	Credits

COM 415	3
Multidisciplinary concentration**	3
SBC	3
SBC	3
SBC	3
Total	15

SPRING	Credits
JRN 490	3
Multidisciplinary concentration**	3
SBC	3
SBC	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.

*Denotes an online course.

**Denotes courses for the required concentration or courses that count toward a minor or second major. Concentrations require 18 credits or six courses. Some minors and most second majors may require more credits. Please see an advisor.

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

Acting Director of the Minor: Sara Lipton

Email: sara.lipton@stonybrook.edu

Business Administrator: Erin Giuliano

Office: S-301 Social and Behavioral Sciences
Phone: (631) 632-7500

Website: https://www.stonybrook.edu/commcms/history/

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: Heejeong Sohn, Asian and Asian American Studies

Administrative Assistant: Lynne Foerster

Business Administrator: Theresa Spadola

Office: N5520 Melville Library
Phone: (631) 632-7311
Website: https://www.stonybrook.edu/commcms/korean/

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. 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.

Requirements for the minor:

1. Korea-focused courses chosen from the following (9 credits)

- KOR 331Social Sciences Topics in Korean Studies
- KOR 332Humanities Topics in Korean Studies
- KOR 426Structure of Korean
- AAS 217Introduction to Korean Culture
- AAS/HIS 247Modern Korean Through Visual Culture
- AAS 321Korean Literature
- AAS 323Language and Society in Korea
- AAS 324Language and Society in North Korea
- AAS/HIS 337History of Korea
- AAS 400Seminar in Korean Studies
- ARH 355 Modern and Contemporary Art of Korea

2. Three courses chosen from 2A and/or 2B (9 credits)

2A Korean Language Courses:

- KOR 111Elementary Korean I
- KOR 112Elementary Korean II
- KOR 120Elementary Korean for Heritage Speakers
- KOR 211Intermediate Korean I
- KOR 212Intermediate Korean II
- KOR 220Intermediate Korean for Heritage Speakers
- KOR 311Advanced Korean I
- KOR 312Advanced Korean II
- KOR 411Advanced Korean III
- KOR 412Advanced Korean IV

2B Korea-related Courses:

- KOR 475 Undergraduate Teaching Practicum I
- KOR 476 Undergraduate Teaching Practicum II
- KOR 487 Supervised Research in Korean Studies
- KOR 488 Internship
- AAS 240Confucianism and Daoism
- AAS 300Intellectual History of East Asia
- AAS/HIS 340 Topics in Asian History (appropriate topic only)

- AAS 344Learning of Asian Languages (appropriate topic only)
- AAS 385Translation Studies of Asian Languages (appropriate topic only)
- AAS 391Humanities Topics in AAS (appropriate topic only)
- AAS 392Social Science Topics in AAS (appropriate topic only)
- AAS 401 Seminar in Asian Studies (appropriate topic only)
- AAS 440Inter-Asia Cultural Studies
- ARH 203 Arts of Asia

Note:

1. 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.
2. Only one course graded with the S/U credit option may be used toward the minor requirements.
3. Students may be allowed to take more Category 1 courses than Category 2 courses if they wish. Consult with the program director about this option.

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

Department of Languages and Cultural Studies (AMR, ARB, CCS, CLL, CLS, CLT, CST, EUR, FLA, FRN, GER, HUE, HUF, HUG, HUI, HUR, ITL, LAT, RUS)

College of Arts and Sciences

Chair: Sarah Jourdain

Director of Undergraduate Studies: Franck Dalmas

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128

Phone: (631) 632-7440

Email: franck.dalmas@stonybrook.edu

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies/

Majors in French and Italian and Minors in Classics, French, Italian, Italian American Studies, Russian

Department of Languages and Cultural Studies (AMR, ARB, CCS, CLL, CLS, CLT, CST, EUR, FLA, FRN, GER, HUE, HUF, HUG, HUI, HUR, ITL, LAT, RUS)

The Department of Languages and Cultural Studies fosters teaching and research in modern and classical 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 languages of the world. 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 World 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: Classics, French, Italian, Italian American 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 numerous exchange programs during the academic year and in the summer in France, Germany, Italy and Russia. See 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.

Latin American and Caribbean Studies (LAC)

Minor in Latin American and Caribbean Studies

Latin American and Caribbean Studies Center, College of Arts and Sciences

Director: Lori Flores

Administrative Assistant: José Manuel Baeza-Zúñiga
Phone: (631) 632-7517
Email: lacs@stonybrook.edu
Website: https://www.stonybrook.edu/commcms/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 HUS 250 Caribbean Cultures 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
- HUS 261 Latin American Literature in a Global Context
- HUS 271 United States Latino Literature and Culture
- HUS 272 Science, Technology, and the Environment in Latin America
- HUS 290 Latin American Cinema
- JRN 390 Journalism and Truth
- LIN 240 Spanish in the USA
- SPN 392 The Culture and Civilization of Latin America
- SPN 410 Theory in Contexts
- SPN 415 Hispanic Cultures in Contact
- SPN 420 Topics in Latin American Cinema
- SPN 435 Topics in Latin American Literature, Colonial Period-Present
- The following topics courses may also be used when the topic is appropriate:
  - EGL 372 Topics in Women and Literature
  - HUS 261 Latin American Literature in a Global Context
  - 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
- ANT 201 Peoples of South America
- ECO 335 Developing Economics
- SUS 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 389 Modern Mexico
- 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.

Liberal Arts

Information regarding the Interdisciplinary Major in Multidisciplinary Studies is found in the MTD program section.

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

Linguistics (LIN)

Major and Minor in Linguistics

Department of Linguistics, College of Arts and Sciences

Chair: Francisco Ordonez

Director of Undergraduate Studies: Marie K. Huffman

Assistant to the Chair: Brian Frank

Office: S-201 Social and Behavioral Sciences
Phone: (631) 632-7777

Website: http://www.linguistics.stonybrook.edu

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 in Linguistics

The major in Linguistics leads to the Bachelor of Arts degree. Requirements for TESOL certification are detailed following the Linguistics minor and honors program listings.

Completion of the major requires 39 credits in linguistics and two semesters, or the equivalent, of a foreign language in addition to the University's language proficiency requirement. All linguistics courses offered for the major must be passed with a letter grade of C or higher.

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 4 must be upper-division (LIN 355and/or LIN 356may be taken up to two times for this requirement. LIN 344, 454, 475, 476, 488 and 495 may not be used for elective credit)
7. Two semesters of foreign language, or the equivalent, after completing DEC Entry Skill 3/LANG, or the equivalent. These may be either in the same language with which the entry skill was met, or in one or two other languages.

8. LIN 405 Writing in Linguistics: In the junior or senior year, students must successfully complete LIN 405, a two-credit course. LIN 405 satisfies the Stony Brook Curriculum (SBC) learning objective WRTD.

Notes:
1. Students may count up to two linguistics-related courses from other departments toward the Linguistics major, with prior permission of the Director of Undergraduate Studies.

Requirements for the Minor in Linguistics

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 355 and/or LIN 356 may be taken up to two times for this requirement. LIN 344, 454, 475, 476, 488 and 495 may not be used for elective credit)

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. Fields with which linguistics has special affinities include: anthropology, psychology, English, foreign languages, philosophy, and computer science.

3. With department approval, a maximum of one 3 credit course taken in another department may be applied as a LIN minor elective.

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. Prospective applicants must consult with the Director of TESOL Teacher Preparation and Certification TESOL Certification Director and the Undergraduate Director in Linguistics as early as possible in their academic careers to ensure completion of the program requirements in a timely manner. Academic requirements for admission to this program are a major in Linguistics, completion of LIN 101, and LIN 201 and/or LIN 311 with a grade of C or higher, an overall GPA of 3.0 and a GPA in the major of 3.0. Students wishing to apply should consult the department website for application deadlines and a full list of required application materials. Students must maintain a minimum GPA of 3.0 in order to remain in the program.
See also information on Teacher preparation programs, TESOL teacher education program.

Requirements for Initial Certification
A. Linguistics courses:

- LIN 101 Human Language
- LIN 201 Phonetics
- LIN 301 Phonology
- LIN 307 Introduction to Sociolinguistics
- LIN 311 Syntax
- LIN 405 Writing in Linguistics
- LIN 431 Structure of an Uncommonly Taught Language
- Three additional 3 credit linguistics courses, one of which must be upper division. (LIN 355 and/or LIN 356 may be taken up to two times for this requirement. LIN 344, 454, 475, 476, 488 and 495 may not be used for elective credit).
- Two years of college-level study of a language or languages other than English. Completion of Skill 3/LANG satisfies the first year of this requirement. The additional year may be in the same, or one or two other languages.

3. Students must maintain a 3.0 g.p.a. overall and a 3.0 g.p.a in the major in order to remain in the program. Students electing TESOL may not take any courses required for certification for Pass/No Credit.

4. Professional educational requirements:
5. PSY 327 Introduction to Human Development
6. CEF 347 Introduction to Special Education
7. SSE 350 Foundations of Education
8. LIN 344 Language Acquisition and Literacy Development
9. LIN 375 TESOL Pedagogy: Theory and Practice
10. LIN 378 Content-based Language and Literacy Development
11. LIN 449 Field Experience I (1 credit co-requisite of LIN 375)
12. LIN 450 Field Experience II (1 credit co-requisite of LIN 378)
13. LIN 451 Supervised Student Teaching in TESOL (grades P-6)
14. LIN 452 Supervised Student Teaching in TESOL (grades 7-12)
15. LIN 454Managing Instruction, Assessment, and Resources

Five-Year Accelerated B.A./M.A. Program with Teacher Certification in Teaching English to Speakers of Other Languages (TESOL)

In addition to the regular B.A. program in Linguistics with teacher certification and the regular M.A. in TESOL, the Linguistics department offers a five-year accelerated B.A./M.A. degree program with concentration in TESOL. 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 admissions essay;
3. Recommendations from two linguistics faculty members;
4. Interviews with the Undergraduate Director in Linguistics and the Director of the TESOL program.

Five-Year Accelerated B.A./M.A.T. Degrees in Linguistics and Language

Stony Brook Linguistics offers three B.A-M.A.T. programs for students specializing in linguistics and a foreign language

- Five-year program in Linguistics and French
- Five-year program in Linguistics and Italian
- Five-year program in Linguistics and Spanish

These 5-year programs allow students to complete a BA with a double major in Linguistics and French, or Linguistics and Italian, or Linguistics and Spanish, plus an MAT in French, Italian, or Spanish, as well as dual certification in ESL/ENL (grades K-12) and French, Italian, or Spanish (grades 7-12). This program can be completed in 5 years with careful planning. For more information, please consult: https://www.stonybrook.edu/commcms/spd/graduate/ba_mat_esl/index.php.

Sample Course Sequence for the Major in Linguistics

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
LIN 101	3
Foreign language 111	4
SBC	3
Total	14

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SBC	3

Foreign language 112	4
LIN 201	4
Total	15

SOPHOMORE

FALL	Credits
LIN 307	3
Foreign language 211	3
LIN 345	3
SBC	3
SBC	3
Total	15

SPRING	Credits
LIN 356	3
LIN 311	4
Foreign language 212	3
SBC	3
SBC	3
Total	16

JUNIOR

FALL	Credits
LIN 330	3
LIN 301	4
SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	16

SPRING	Credits
LIN 405	2
LIN 431	4
Upper-division SBC	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SENIOR

FALL	Credits
LIN 425	3
Upper-division Elective	3
Upper-division Elective	3

SBC	3
SBC	3
Total	15

SPRING	Credits
LIN 426	3
Upper-division Elective	3
Upper-division Elective	3
Upper-division 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.

Manufacturing Engineering (MFE)

Minor in Manufacturing Engineering

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Interim Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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 Methods
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
- ESM 339 Microfabrication and 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: David Black Undergraduate Advisor: Nancy Black Office: E2361 Melville Library
Phone: (631) 632-9404
Email: nancy.black@stonybrook.edu
Website: 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 decaring 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 a minimum of 69 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 (40 credits)

- AMS 102 or AMS 110 Statistics
- ATM 201 Introduction to Climate and Climate Change
- BIO 201 Organisms to Ecosystems
- BIO 202 Molecular and Cellular Biology or BIO 203 Cellular and Organ Physiology
- CHE 131/CHE 133, CHE 132/CHE 134 General Chemistry and Lab (see Note 1)
- GEO 122 Physical Geology or GEO 102/GEO 112 The Earth/Physical Geology Laboratory
- MAR 104 Oceanography
- MAR 105 Introduction to Oceanography Laboratory
- MAT 125 (or MAT 130/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 (or MAT 119/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 3)

2. Core Courses (20 credits)

- MAR 349 Biological Oceanography
- MAR 351 Introduction to Ocean Chemistry
- MAR 352 Introduction to Physical Oceanography
- MAR 354 Introduction to Geological Oceanography
- ATM 320 Problem Solving with Python
- GSS 313/GSS 314 GIS Design and Application I/GIS Laboratory

3. Focus Area (Choose one, 9 credits minimum)

A. Marine Ecology & Conservation

- MAR 305 Experimental Marine Biology (required)
- BIO 342/BIO 343 Invertebrate Zoology/Invertebrate Zoology Laboratory or BIO 351 Ecology
- BIO 353 Marine Ecology
- MAR 301 Environmental Microbiology or MAR 302 Marine Microbial Ecology
- MAR 303 Long Island Marine Habitats
- MAR 315 Marine Conservation
- MAR 320 Limnology
- 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
- SUS 326 Conservation Genetics
- MAR 487 Research or MAR 488 Internship (maximum of three credits for the major)

B. Environmental Health

- CHE 321 Organic Chemistry (see Note 4)
- ENV 320 Chemistry for Environmental Scientists
- MAR 301 Environmental Microbiology or MAR 302 Marine Microbial Ecology
- MAR 308 Environmental Instrument Analysis
- MAR 336 Marine Pollution
- MAR 340 Environmental Problems and Solutions
- MAR 384 Diseases of Aquatic Organisms
- MAR 392 Waste Management Issues
- MAR 393 Waste Treatment Technologies
- MAR 394 Environmental Toxicology and Public Health
- MAR 487 Research or MAR 488 Internship (maximum of three credits for the major)

C. Coastal Processes

- ENV 316 Coastal Zone Management
- GSS 325 GIS Design & Applications II
- GSS 354 Geospatial Science for the Coastal Zone
- MAR 304 Waves, Tides and Beaches
- MAR 333 Coastal Oceanography
- MAR 334 Remote Sensing of the Environment
- MAR 487 Research or MAR 488 Internship (maximum of three credits for the major)

Other courses may be substituted with department approval.

4. Upper-Division Writing Requirement

The advanced writing component of the major in MAR requires registration in, and satisfactory completion of, the 0-credit MAR 459 (S/U grading) along with enrollment in an approved advanced course that entails writing of either a term paper or a laboratory report. Completion

of MAR 459 with a grade of S will also result in fulfillment of the WRTD requirement. A list of preapproved courses can be found at http://www.somas.stonybrook.edu/education/undergraduate/ .

Notes:
1. CHE 129/130 may be substituted for CHE 131. CHE 152 may be substituted for CHE 131+132.
2. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 may be substituted for MAT 125, MAT 126
3. The first semester of any calculus-based Physics with lab can be substituted, such as PHY 131/PHY 133 or PHY 141 or PHY 142.
4. CHE 331 may be substituted for CHE 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 8th 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)

Intended primarily for science majors, the minor assumes completion of basic courses in mathematics, physics, chemistry, biology, or geology. At least 12 credits applied to the minor may not be applied to any major or other minor. No more than one three-credit course 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. 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
CHE 131	4
CHE 133	1
MAT 125	3
MAR 104	3
Total	15

SPRING	Credits

First Year Seminar 102	1
WRT 102	3
CHE 132	4
CHE 134	1
MAT 126	3
MAR 105	1
SBC	3
Total	16

SOPHOMORE

FALL	Credits
BIO 201	3
ATM 201	3
GEO 102	3
GEO 112	1
SBC	3
SBC	3
Total	16

SPRING	Credits
BIO 202 or BIO 203	3
AMS 102	3
ENS 119/PHY 119	4
SBC	3
SBC	3
Total	16

JUNIOR

FALL	Credits
MAR 351	3
GSS 313	3
GSS 314	1
MAR Elective	3
SBC	3
Elective	3
Total	16

SPRING	Credits
MAR 349	4
MAR 354	3
MAR elective	3
Upper-division SBC	3
MAR 459	0

Total	13

SENIOR

FALL	Credits
MAR 352	3
MAR 305 or MAR elective	3
Upper-division SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
ATM 320	3
Upper-division SBC	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.

Marine Vertebrate Biology (MVB)

Major in Marine Vertebrate Biology

School of Marine and Atmospheric Sciences (SoMAS)

Director: Joseph Warren Undergraduate Advisor: Nancy Black
Office: E2361 Melville Library
Phone: (631) 632-9404
Email: nancy.black@stonybrook.edu
Website: 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 approximately 68 credits. Of these no more than one course (4 credits) with a passing 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 (or MAT 125/MAT 130), MAT 126 Calculus (See Note 1). If students do not place into MAT 125 or MAT 131 on the basis of the math placement examination, MAT 123 (or MAT 119/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, or PHY 121, MAR 352 (see Note 2)
- AMS 102 or AMS 110 Statistics or equivalent

2. Zoology and Marine Vertebrate Core (13 credits)

- BIO 344 Chordate Zoology or ANP 300 Human Anatomy or HAN 200 Human Anatomy and Physiology for Health Science I
- BIO 354 Evolution or BIO 320 Genetics or BIO 321 Ecological 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 (12-16 credits)

- MAR 349 Biological Oceanography or MAR 303 Long Island Marine Habitats or MAR 388 Tropical Marine Ecology

Three electives from below:

- BIO 328 Mammalian Physiology
- BIO 342 Invertebrate Zoology
- BIO 351 Ecology
- BIO 353 Marine Ecology
- EBH 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 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 388 Tropical Marine Ecology*
- MAR 394 Environmental Toxicology and Public Health
- MAR 487 Research or MAR 488 Internship (maximum of three credits can be used for required elective)

* These courses can be used as electives if not used as an alternative to MAR 349.

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, and satisfactory completion of, the 0-credit MAR 459 or SUS 459 (S/U grading) along with enrollment in an approved advanced course that entails writing of either a term paper or a laboratory report. Completion of MAR 459 or SUS 459 with a grade of S will also result in fulfillment of the WRTD requirement. A list of preapproved courses can be found at http://www.somas.stonybrook.edu/education/undergraduate/. Successful completion of BIO 459 will also be accepted for MVB majors.

Notes:
1. MAT 131, MAT 132 or MAT 141, MAT 142 or MAT 171 or AMS 151, AMS 161 may be substituted for MAT 125, MAT 126.
2. PHY 125, PHY 126/PHY 133, PHY 127/PHY 134 or PHY 131/PHY 133, PHY 132/PHY 134 or PHY 141/PHY 133, PHY 142/PHY 134 may be substituted for the two-semester physics sequences listed above. MAR 352 may also be substituted for PHY 127 / PHY 134 or PHY 132 / PHY 134 or PHY 142 / PHY 134 .
3. BIO 207 may be substituted for BIO 205.
4. CHE 129/CHE 130 may be substituted for CHE 131. CHE 152 may be substituted for CHE 131+CHE 132.
5. CHE 331 may be substituted for CHE 321.
6. CHE 152, CHE 154, CHE 331 may be substituted for CHE 131/CHE 132/CHE 133/CHE 134/CHE 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 8thsemester (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

For more information about SBC courses that fulfill major requirements, click here.

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	3
BIO 204	2
AMS 110	3
CHE 321	4
SBC	3
Total	15

SPRING	Credits
BIO 202	3
BIO 205	2
ENS/PHY 119	4
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
BIO 203	3
BIO 354	3
MAR Biology Elective	3
SBC	3
Elective	3
Total	15

SPRING	Credits
MAR 349	4
MAR Vertebrate Core Elective	3
MAR Biology Elective	3
SBC	3
Elective	3
Total	16

SENIOR

FALL	Credits
MAR 352	3
MAR Vertabrate Core Elective	3
SBC	3
Upper-division SBC	3
Elective	3
Total	15

SPRING	Credits
BIO 344	4
MAR Biology Elective	3
SBC	3
Upper-division SBC	3
Upper-division elective	3
Total	16

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

Mass Communication (CMM)

Major and Minor in Mass Communication

School of Communication and Journalism

Dean: Dr. Laura Lindenfeld

Associate Dean and Director of Undergraduate Studies: Irene Virag

Office: Melville Library N-4004

Phone: (631) 632-7403

Website: http://www.stonybrook.edu/journalism

Email: socjadvising@stonybrook.edu

Advising: Visit SoCJ Undergraduate Advising for program resources and ways to connect with an advisor.

Mass Communication (CMM)

Communication affects everything we know, or think we know, about ourselves and our society. The major and minor in Mass Communication help students become informed consumers of news and information, and more effective communicators. Students develop an awareness of mass communication as a discipline and expand their understanding of mass media and media systems. The skills and knowledge they gain complement any academic field or profession, and demonstrate to prospective employers their proficiency in a highly desired area.

Requirements for the Major and Minor in Mass Communication (CMM)

Transfer students

Transfer courses will be evaluated individually for mass communication equivalency by the Undergraduate Director.

Requirements for the Major

The major in Mass Communication leads to the Bachelor of Science degree. **Students must earn a letter grade of C or higher in all mass communication courses** and Satisfactory or S in COM internships, independent studies and workshops for these to count toward the major. Students may enroll in multiple internships up to 12 credits each. The total number of credits from all internships combined may not exceed 12. In addition, students must complete a **9-credit interdisciplinary** concentration of upper division classes (300 or 400 level). Mass Communication majors must satisfy all Stony Brook Curriculum (SBC) requirements and accrue a **total of 120 credits**.

Completion of the major requires a minimum total of **36 mass communication credits, and a minimum of 72 non-mass communication credits**.

All mass communication students should see a departmental advisor to plan their course programs. The following courses are required of all mass communication majors; an asterisk (*) denotes an online course:

1. **Required Courses (24 credits):**

- JRN 101 News Literacy
- COM 106 Introduction to Mass Media*
- COM 120 Fundamentals of Public Speaking*
- COM 207 Media Writing
- COM 208 History of Mass Communication*
- COM 305 Mass Communication Law & Ethics*
- COM 415 Data Analysis and Storytelling
- COM 491: Mass Communication Senior Project

2. **Choose one of the following paired methods and theory sequences (6 credits)**

- COM 306 Methods of Media Criticism
- COM 307 Critical Media Theory

Or

- COM 316 Mass Comm Research Methods
- COM 317 Mass Communication Theory

3. **Choose two of the following electives (6 credits)**

- JRN 301: The Changing Business of News
- JRN 319: The Image of the Journalist in Popular Culture
- COM 346: Race, Class, and Gender in Media
- JRN 363: Magazine Writing
- COM 365: Talking Science
- JRN 366: Press and the Presidency
- COM 399: Special Topics in Mass Communication
- JRN 413: Journalism of the Global South
- JRN 433: Journalistic Book and Serial Narrative Production
- COM 487: Independent Study
- COM 494: Mass Communications Internship

4. **Upper- Division Writing Requirement**

Successful completion of COM 491 Senior Capstone Project will satisfy the SBC WRTD requirement as well as the Mass Communication major upper-division writing requirement.

Requirements for the Minor

The following courses (9 credits) are required of mass communication minors; an asterisk (*) denotes an online course:

- COM 106 Introduction to Mass Media*
- COM 120 Fundamentals of Public Speaking*
- COM 305 Mass Communication Law & Ethics*

Three electives (9 credits) at or above the 300 level are required; an asterisk (*) denotes an online course.

Students may choose from the following (all three-credit courses):

- COM 306: Methods of Media Criticism
- COM 307: Critical Media Theory
- COM 316: Mass Comm. Research Methods
- COM 317: Mass Communication Theory
- JRN 301: The Changing News Business
- JRN 319: The Image of the Journalist in Popular Culture
- JRN 346: Race, Class, and Gender in Media
- JRN 363: Magazine Writing
- COM 365: Talking Science
- JRN 366: Press and the Presidency
- COM 399: Special Topics: Issues in Mass Communication
- JRN 413: Journalisms of the Global South
- COM 436 Environmental Communication

CMM Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/journalism/about/fac-staff#/dean's%20office

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

Materials Science (ESM)

Minor in Materials Science

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Interim Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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. ESM 150 Materials of the Modern World

2. Two of the following:
ESG 332 Materials Science I: Structure and Properties of Materials (see Note)
ESG 333 Materials Science II: Electronic Properties
ESM 339 Microfabrication and Thin Film Processing of Advanced Materials

3. Two of the following:
ESM 325 Diffraction Techniques and Structure of Solids
ESM 335 Strength of Materials
ESM 453 Biomaterials
ESM 455 Materials and Processes in Manufacturing Design
The course not completed for Requirement 2 (ESG 332, 333, ESM 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 453 Biomaterials
ESM 469 Polymer Engineering
CHE 301 Physical Chemistry I

CHE 302 Physical Chemistry II
CHE 351 Quantum Chemistry
2. One of the following:
ESM 475 Undergraduate Teaching Practicum
ESG 487 Cooperative Research in Technological Solutions
ESM 488 Cooperative Industrial Practice
ESM 499 Research in Materials Science

No more than two non-ESM courses may count toward the minor. ESG core courses cannot be used to meet requirements for both the ESG major and the ESM minor.
Note: Students may use ESG 332 toward the minor in Materials Science only if it is not a required course in the student's major.

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

Mathematics (MAT)

Major and Minor in Mathematics

Department of Mathematics, College of Arts and Sciences

Chair: Scott Sutherland
Director of Undergraduate Study: Olga Plamenevskaya
Assistant to chair: Lynne Barnett Email for general inquiries: upd@math.stonybrook.edu Website: http://www.math.stonybrook.edu/
Office: Mathematics P143
Phone: (631) 632-8247

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. Students can select one of the following options:

- Regular mathematics major
- Mathematics major with Advanced Track program
- Mathematics major with the Secondary Teacher Education option

Requirements for regular mathematics major.

1. Single-variable Calculus: Either MAT 131 and MAT 132, or MAT 125 (or MAT 130/MAT 125) and MAT 126 and MAT 127, or AMS 151 and AMS 161. 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 (or MAT 119/MAT 123) is a required course for the major.
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 MAT 220 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.
3. Preparation in the language and logic of mathematics: this requirement can be met by either passing MAT 200 or MAT 250 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.)
4. One course in computer literacy: MAT 331 or PHY 277 or CSE 101 or CSE 110 or CSE 114 or ESG 111 or LIN 120 or LIN 335 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 8.
5. Advanced linear algebra course: MAT 310 or MAT 315.
6. A course in abstract algebra: MAT 312 or MAT 313.
7. Analysis: Students not in the Secondary Teacher option must satisfy all three items below:
    1. MAT 319 or 320
    2. MAT 342
    3. One more course in analysis, to chosen from MAT 322, MAT 324, MAT 341

Secondary Teaching students need only satisfy item 1 above (MAT 319 or MAT 320).

1. Four mathematics-related courses beyond those taken to satisfy Requirements 5, 6, and 7 (three will suffice if all of them are MAT courses), to be chosen from the following list. Note that MAE 330 and MAT 331 may be used to satisfy both requirement 4 as well as requirement 8.

- 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
- AST 346, AST 347, CHE 301, CHE 302, CHE 351, CHE 353, ECO 320, ECO 321, ECO 348, LIN 361, PHY 301, PHY 302, PHY 303, PHY 306, PHY 308, PHY 405, PHY 408, PHI 330, ESE 315, ESE 319, or ESE 337

9. Writing requirement: 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 211and to enroll directly in MAT 310.
5. Six credits of graduate MAT courses may be used in place of undergraduate courses in Requirement 7.

Advanced Track program

The advanced track program is intended for better prepared students, who already have credit for Calculus I, Calculus II (or AP Calculus BC). The courses in the program are more rigorous and concentrate on logic and proofs rather than on computational methods. This program allows students to take graduate classes in their senior year (or possibly even in their junior year). In particular, this program is recommended for students considering graduate school in Mathematics.

List of required courses for Advanced Track program is different from the regular Mathematics major and is given below.

1. Single-variable Calculus: Either MAT 131 and MAT 132, or level 9 on Math Placement exam, or AP Calculus BC credit (with score 4 or 5). This requirement must be satisfied before enrolling in Advanced Track program.
2. Introductory Linear algebra: MAT 211 or MAT 307
3. Preparation in the language and logic of mathematics: MAT 250 (recommended) or MAT 200

4. Advanced Linear algebra: MAT 315
5. Analysis: MAT 320 and MAT 322
6. Abstract algebra: MAT 313 and MAT 314
7. Complex analysis, MAT 342
8. A course in differential equations: MAT 308 or MAT 303
9. One course in computer literacy (see requirement 4 of regular math major)
10. Four mathematics-related courses beyond those taken to satisfy Requirements 1 through 7 (three will suffice if all of them are MAT courses), to be chosen from the list given in requirement 8 of the regular math major. Note that MAT 331 may be used both here and in requirement 9.
11. Writing requirement: 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.

A suggested sequence of courses for the first two years of study for students in Advanced Track program is given below. (This sequence assumes that the student already has credit for Calculus I, Calculus II).

Semester 1: MAT 220, MAT 250

Semester 2: MAT 320, MAT 315

Semester 3: MAT 322, MAT 313

Semester 4: MAT 314, MAT 308

The remaining semesters will be used to satisfy the remaining Advanced Track requirements (MAT 342, computer literacy requirement, elective courses) and SBC requirements, and graduate level classes.

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 (or MAT 130/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 or MAT 315
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.

Math Placement Exam Score	Placement into…	SBC
1	MAP 101 advised, MAP 103 possible	
2	MAP 103	
2+	MAT 118 or Statistics or MAT 119+MAT 123	
3	MAT 122 or MAT 123	
3+	MAT 130+MAT 125	
4	MAT 125; MAT 200	
5	MAT 131 or AMS 151	
6	MAT 126	QPS
7	MAT 132 or AMS 161; MAT 211 or AMS 210; MAT 250	QPS
8	MAT 127	QPS
9	Beyond 100-level calculus	QPS

Levels 1 through 3 can be achieved by a sufficiently high score on Part I, and levels 3+ through 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 or SBC requirement QPS; this evaluation does not depend on the result of the placement examination.

Sample Course Sequence for the Major in Mathematics

For more information about SBC courses that fulfill major requirements, click here.

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

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

Mechanical Engineering (MEC)

Major and Minor in Mechanical Engineering

Department of Mechanical Engineering, College of Engineering and Applied Sciences

Interim Chair: Jon Longtin

Undergraduate Program Director: Carlos Colosqui

Undergraduate Program Coordinator and Advisor: Samantha Robinson

Email: mechanicalengineeringundergrad@stonybrook.edu Office: 231 Engineering
Phone: (631) 632-8381
Website: 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:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

3. An ability to communicate effectively with a range of audiences.

4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inlcusive environment, establish goals, plan tasks, and meet objectives.

6. An ability to develop and conduct approrpriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Mechanical Engineering (MEC)

Requirements for Acceptance to the Major in Mechanical Engineering

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of "Q" in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- PHY 131 or PHY 126 or PHY 127 or their equivalents,
- One MEC course required for the major and taken at Stony Brook,
- Earn 10 or more credits of mathematics, physics, and engineering courses that are taken at Stony Brook and satisfy the Major's requirements,
- Obtain a grade point average (G.P.A.) of at least 3.2 in major courses with no more than one grade below B-, and
- No courses required for the major have been repeated.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.

Non-CEAS Students and Double Major Applicants
Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

Requirements for the Major in Mechanical Engineering (MEC)

The major in Mechanical Engineering leads to the Bachelor of Engineering degree.

Completion of the major requires approximately 107 credits.

1. Mathematics

a. MAT 131, MAT 132 Calculus I, II
b. AMS 261 Applied Calculus III or MAT 203 Calculus III with Applications
c. AMS 361 Applied Calculus IV: Differential Equations or MAT 303 Calculus IV with Applications
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

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 Instrumentation and Solid Mechanics Laboratory
- MEC 317 Thermal Sciences and Fluid Mechanics Laboratory

4. Mechanical Engineering

- MEC 101 Freshman Design Innovation
- MEC 102 Engineering Computing and Problem Solving
- MEC 203 Engineering Graphics and CAD
- MEC 220 Practical Electronics for Mechanical Engineers
- MEC 225 Fundamentals of Machining Practices or MEC 226 Modern 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 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. Upper-Division Writing and Engineering Ethics

- MEC 300 Professional Conduct for Engineers

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 441 is required for the B.E. degree.

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
- 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: No course substitutions or transfer courses are permitted for the MEC minor, i.e. students must take the MEC offering of these courses. Other MEC 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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 102 (WRT)	3
MEC 101	3
MAT 131 (QPS)	4
PHY 131/133 (SNW)	4
SBC	3
Total	18

SPRING	Credits
First Year Seminar 102	1
MAT 211 or AMS 210	3
MEC 102	2
MAT 132	4
PHY 132 & 134 (SNW)	4
SBC	3
Total	17

SOPHOMORE

FALL	Credits
MAT 203	4
ESG 198 or CHE 131 or CHE 152	3-4
MEC 203	3
MEC 220	3
MEC 260	3
Total	16-17

SPRING	Credits
MAT 303	4
Basic Science Elective**	3
MEC 262	3
MEC 363	3
EST 392 (SBS)	3
Total	16

JUNIOR

FALL	Credits
ESG 332	3
MEC 225	1
MEC 301	3
MEC 310	3
MEC 316 (TECH)	2
MEC 364	3
MEC 300 (STAS)	2
Total	17

SPRING	Credits
SBC	3
MEC 305	3
MEC 317 (TECH)	2
MEC 320	3
MEC 325	3
MEC 410	3
Total	17

SENIOR

FALL	Credits
MEC 411	4
MEC 422	3
MEC 440*	3
Technical elective #1	3
SBC	3
Total	16

SPRING	Credits
MEC 441*	3
Technical elective #2	3
Technical elective #3	3
SBC	3

SBC	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/Art/Culture (MAC)

Major in Media/Art/Culture

Department of Art, College of Arts and Sciences

Chair: Linda O'Keeffe

Director of Undergraduate Studies: Izumi Ashizawa

Assistant to the Chair: Laura Sisti

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

Website: https://www.stonybrook.edu/commcms/art/

Minors of particular interest to students majoring in Media/Art/Culture: Studio Art, Digital Art, Art History

Media/Art/Culture

Media/Art/Culture is a specialized interdisciplinary curriculum that brings together art history, film and media history, and photography, film and digital media studio practice. The program offers courses informed by histories of media, technology, and art, explored through specific social and cultural formations. Students engage critically with diverse topics and issues at the intersection of digital art, media, technology, and culture. Students acquire practical skills to create innovative work in digital media, including writing, photography, video, sound, interactive, computational and internet-based media. Coursework emphasizes cross-disciplinary, project-based, and collaborative learning; students practice working in teams and using forms of design thinking that will help prepare them to contribute in a wide range of contemporary workplaces.

From introductory to upper-level courses, students will build a portfolio of critical and creative work. The senior year capstone course is advised by faculty members. In this course, students work on projects in small and large groups that allow students to leverage their fluency in the history, theory, and practice of digital media, while gaining valuable full-scale development skills. With a flexible format, this final project is also aimed to support students' next steps: it could be submitted in applying to graduate programs, used in a grant proposal for an art project or exhibition, or shared as a work sample in a job interview. Graduating students will be able to pursue a range of paths, working in artistic, historical, technological, and media contexts.

Degree Requirements - Media/Art/Culture

The Major in Media/Art/Culture leads to the Bachelor of Arts degree. Completion of the major requires 12 courses, or 36 credits in total. All courses for the major in Media/Art/Culture must be passed with a letter grade of C or higher, or a grade of S. Please note that enrollment in any course is contingent on requirements stated in the undergraduate course catalog, and some upper-division courses require lower-level prerequisites.

Introductory courses provide students with the opportunity to gain exposure to media arts history, theory and practice, providing foundational knowledge and proficiencies, enabling realization of critical and creative thinking into outcomes. Intermediate courses critically engage with contexts, methods, processes (analysis and application) of the languages of media. Students also have the opportunity to select special topics courses, or electives outside of the department, expanding the learning experience.

The following completed requirements lead to a Bachelor of Arts degree with a major in Major in Media/Art/Culture:

1. Core Foundations Courses:
   At least three courses (9 credits) from amongst the following, with a minimum of one course from Art Practice and one course from Art History and Criticism:

Art Practice Courses:

- ARS 225: Introduction to Digital Art
- ARS 281: Introductory Photography

Art History and Criticism Courses:

- ARH 207: Digital Media: History/Theory
- ARH 208: History of Photography
- ARH 210: Modern Art and the Moving Image

2. Elective Intermediate Courses - Eight upper division courses (300/400 level) total in either ARS or ARH (24 credits), with at least one course (3 credits) from each of the two divisions:

Art Practice Courses:

- ARS 317: Interactive Media, Performance, and Installation
- ARS 324: Digital Arts: Design
- ARS 325: Digital Arts: Print
- ARS 326: Video Art: Narrative Forms
- ARS 327: Digital Arts: Web Design and Culture
- ARS 328: Digital Arts: Animation
- ARS 329: Video Art: Experimental Forms
- ARS 381: Color and Light Photography
- ARS 382: Analog Black and White Photography
- ARS 384: Art, Media and Technology
- ARS 390: Topics in Studio Art*
- ARS 401: Critical Issues Seminar*
- ARS 402: Documentary Media Art
- ARS 425: Advanced New Media Art
- ARS 475: Undergraduate Teaching Practicum I*
- ARS 476: Undergraduate Teaching Practicum II*
- ARS 481: Advanced Photography
- ARS 487: Advanced Directed Projects in Studio Theory and Practice*
- ARS 488: Internship*
- ARS 491: Special Topics in Studio Theory and Practice*
- ARS 492: Special Topics in Studio Theory and Practice*
- ARS 495: Senior Honors Project in Studio Art*

Art History and Criticism Courses:

- ARH 336: The Computer and the Arts
- ARH 348: Contemporary Art
- ARH 391: Topics in Global Art*
- ARH 395: Topics in Visual Culture
- ARH 397: Topics in Photography
- ARH 398: Topics in Film and Video Art
- ARH 400: Seminar in Art History & Criticism*
- ARH 475: Undergraduate Teaching Practicum I*
- ARH 476: Undergraduate Teaching Practicum II*
- ARH 487: Independent Reading & Research in Art*
- ARH 488: Internship*
- ARH 495: Senior Honors Project in ARH*

3. Advanced Capstone Class- One course (3 credits)

- ARH 407: Seminar in Media, Art, and Culture**

* Pre-approval by Director of Undergraduate Studies and Faculty Advisor required.

Additional ARS and ARH Topics courses (300 and 400-level) can be used with the permission of the Undergraduate Director by petition if the topic is deemed pertinent to the MAC major.

Additional courses outside the Art Department can be used with the permission of the Undergraduate Director by petition if the topic is deemed pertinent to the MAC major.

Additional Notes:

1. No more than three credits from any internship (488) may be applied to the major.
2. No more than three credits from any teaching practicum or independent research (ARS 475/476 or ARH 487/488) may be applied to the major. Teaching practicums are supervised undergraduate TA experiences.
3. No more than three credits from ARH/ARS 487 may be applied to the major.

Sample Course Sequence for the Major in Media/Art/Culture

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3

ARS 225	3
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
ARH 207	3
ARH 208	3
SBC	3
Elective	3
Total	16

SOPHOMORE

FALL	Credits
ARS 324	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
ARH 336	3
ARS 326	3
SBC	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits
ARS 327	3
ARH 348	3
Elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits
ARH 391	3

ARH 395	3
Elective	3
SBC or Elective	3
SBC or Elective	3
Total	15

SENIOR

FALL	Credits
ARS 384	3
Upper-Division Elective	3
SBC or Elective	3
SBC or Elective	3
Elective	3
Total	15

SPRING	Credits
ARH 407	3
Upper-Division Elective	3
SBC or Elective	3
SBC or Elective	3
SBC or Elective	3
Total	15

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

Middle Eastern Studies (MES)

Minor in Middle Eastern Studies

College of Arts and Sciences

Director of the Minor: Robert Hoberman, Linguistics

Email: 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 chosen from courses on the Middle East or Muslim societies, 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. 6 credits in courses from other minor topic areas in Middle Eastern studies

Note:
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 386 State and Society in the Middle East
ARB 111, ARB 112 Elementary Arabic or ARB 211, ARB 212 Intermediate 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
ARB 111, ARB 112 Elementary Arabic or ARB 211, ARB 212 Intermediate 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
ARB 111, ARB 112 Elementary Arabic or ARB 211, ARB 212 Intermediate 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

Office: E-3310 Melville Library
Phone: (631) 632-7080

Program Advisor: Catherine Marrone, Sociology

Program Coordinator: Diane West

Email: mtdmajor@stonybrook.edu

Website: 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 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.

Music (MUS)

Major and Minor in Music

Department of Music, College of Arts and Sciences

Chair: Christina Dahl

Director of Undergraduate Studies: Deborah Heckert

Assistant to the Chair: Martha Zadok

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts
Phone: (631) 632-7330

Email: martha.zadok@stonybrook.edu

Website: https://www.stonybrook.edu/music/

Minors of particular interest to students majoring in Music: Jazz (JAZ), Anthropology (ANT), Art History (ARH), English (EGL), History (HIS), Philosophy (PHI)

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 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 Timbre 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 235 Intro to African Drumming
- 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 271 Stony Brook Camerata
- MUS 335 Advanced African Drumming
- 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

For more information about SBC courses that fulfill major requirements, click here.

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

FALL	Credits
MUS 221	2
MUS 142	1
MUS 323	3
MUS 351	4
Performance Study	2
Ensemble	1-2
SBC	3
Total	16-17

SPRING	Credits
MUS 331	2
MUS 421	1
MUS 352	4
Performance Study	2
Ensemble	1-2
SBC	3
SBC	3
Total	16-17

JUNIOR

FALL	Credits
MUS 422	3
MUS 450	4
Performance Study	2-4
Ensemble	1-2
SBC	6
Total	16-19

SPRING	Credits
Performance Study	2-4
Ensemble	1-2

Upper-Division Music elective*	3
SBC	9
Total	15-18

SENIOR

FALL	Credits
Performance Study	2-4
Ensemble	1-2
SBC	3
SBC	3
SBC	3
SBC	3
Total	15-18

SPRING	Credits
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

Chair: Perry Goldstein

Director of Undergraduate Studies: Deborah Heckert

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts
Phone: (631) 632-7330

Email: Perry.Goldstein@stonybrook.edu

Website: https://www.stonybrook.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

Chair: Christina Dahl

Director of Undergraduate Studies: Deborah Heckert

Undergraduate Secretary: Germaine Berry

Office: 3304 Staller Center for the Arts
Phone: (631) 632-7330

Website: https://www.stonybrook.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
- MUS 208 Introduction to Music Technology (formerly offered as CDT 208; pre-requisite for all courses in Section 3)

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:

- MUS 340 or MUS 341
- Two courses chosen from the following:
  - MUS 300 Music, Technology, Digital Culture
  - MUS 344 Audio Engineering
  - MUS 437 Electronic Music

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 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

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

Nanotechnology Studies (NTS)

Interdisciplinary Minor in Nanotechnology Studies

Department of Materials Science and Chemical Engineering, College of Engineering and Applied Sciences

Chair: Dilip Gersappe

Undergraduate Program Director: Gary P. Halada

Undergraduate Program Coordinator and Advisor: Samantha Riccardi

Email: esg_undergradadvising@stonybrook.edu

Office: 231 Engineering

Phone: (631) 632-8381

Website: https://www.stonybrook.edu/matscieng/

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.

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:

For all majors, except for Chemical and Molecular Engineering (CME):

1. ESM 213 Introduction to Nanotechnology Studies

2. Two semesters (at least 6 credits) of independent research (299, 499 or 488). Research topics must be approved by the director of the NTS minor 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. ESM 339 Microfabrication and Thin Film Processing of Advanced Materials
   c. PHY 472 Solid State Physics
   d. ESE 331 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

Other upper division technical elective courses may be substituted with permission of the director of the minor.

4. ESM 400 Research and Nanotechnology

For students who are majoring in Chemical and Molecular Engineering (CME):

1. Completion of the three course requirement for the specialization in Nanotechnology (for the CME major)

2. Two semesters (at least 6 credits) of independent research (299, 499 or 488). Research topics must be approved by the director of the NTS minor for courses to be accepted to the NTS minor.

3. ESM 400 Research and Nanotechnology

Notice: As all courses are not offered every semester, please check the schedule of courses for current scheduling information.

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

Native American and Indigenous Studies (NAI)

Minor in Native American and Indigenous Studies

Department of Hispanic Languages and Literature, College of Arts and Sciences

Initiative Director: Joseph M. Pierce

Email: joseph.pierce@stonybrook.edu

Office: 1139 Humanities

Phone: (631) 632-7461

Website: https://www.stonybrook.edu/nais/

Native American and Indigenous Studies

The minor in Native American and Indigenous Studies offers students a curriculum focusing on the historical, political, cultural, linguistic and artistic contributions of Indigenous Peoples from across Turtle Island (North America), Abiayala (Latin America), and globally.

Requirements for the Minor in Native American and Indigenous Studies (NAIS)

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.

Requirements

- NAI 101 Introduction to Native American and Indigenous Studies (3 credits)

and at least two additional NAI courses (6 credits) such as:

- NAI 211 Native American Literature, Culture and Art
- NAI 221 Native American Peoples and Environmental Justice

- EXP+ (This SBC can be fulfilled through an experiential learning component of an NAI course or related course, or through NAI 488 (Internship).

Students are required to choose four electives from among NAI courses and related courses offered by other programs (12 credits).

Topics will vary from semester to semester. Approved courses include:

- ANT 102 What Makes Us Human?
- ANT 203: Native Americans
- ANT 230: Peoples of the World
- EGL 376: The Literature of Imperialism
- EGL 378: Contemporary Native American Fiction
- EGL 379: Native American Texts and Contexts
- HIS 213: Colonial Latin America
- HIS 314: Indigenous-Settler Relations in the United States
- HIS 338: Asian and Pacific Islanders in American History
- HIS 385: Aztec Civilization
- HIS 386: The Maya
- HUS 150: Latin American Indigenous Peoples
- LAN 111: Uncommonly Taught Language I, Algonquian
- LAN 112: Uncommonly Taught Language II, Algonquian
- SOC 110: Fire Ecology, Climate Change, & Indigenous Knowledge

Additional elective courses may be approved at the discretion of the Director of NAIS.

Sample Course Sequence for the Major in Asian and Asian American Studies
For more information about SBC courses that fulfill major requirements, click here.

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

SPRING	Credits
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

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

SPRING	Credits
Intermediate Asian language II	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

JUNIOR

FALL	Credits
Concentration: 1st course	3

Concentration: 2nd course	3
SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
Concentration: 3rd course	3
Concentration: 4th course	3
SBC	3
Elective	3
Elective	3
Total	15

SENIOR

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

SPRING	Credits
One upper-division elective in AAS	3
Elective	3
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.

Major in Nursing (HNI/HNC)

School of Nursing

Information and program requirements for the major in Nursing may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/nursing/index.php

School of Nursing

Information and program requirements for the major in Nursing may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/nursing/index.php

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

Email: Harold.Metcalf@stonybrook.edu

Website: http://www.physics.sunysb.edu/Physics/

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 Electromagnetic Waves and Transmission Lines

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.

Philosophy (PHI)

Major and Minor in Philosophy

Department of Philosophy, College of Arts and Sciences

Chair: Anthony Steinbock

Director of Undergraduate Studies: Joseph Lemelin
Assistant to the Chair: Alissa Betz
Undergraduate Coordinator: Lisa-Beth Platania
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Phone: (631) 632-7570
Website: http://www.stonybrook.edu/philosophy/

Minors of particular interest to students majoring in Philosophy: Art History (ARH), Studio Art (ARS), Biology (BIO), Computer Science (CSE), English (EGL), History (HIS), Journalism (JRN), Linguistics (LIN), Mathematics (MAT), Physics (PHY), Political Science (POL), Religious Studies (RLS), Women's and Gender 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

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

For more information about SBC courses that fulfill major requirements, click here.

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 116	3

SBC	3
SBC	3
Elective	3
Total	16

SOPHOMORE

FALL	Credits
PHI 220	3
PHI 264	3
SBC	3
Elective	3
Elective	3
Total	15

SPRING	Credits
PHI elective, 200-level or above	3
PHI 300	3
SBC	3
Elective	3
Elective	3
Total	15

JUNIOR

FALL	Credits
PHI elective, 200-level or above	3
PHI 306	3
Elective	3
Upper-division SBC	3
Upper-division SBC	3
Total	15

SPRING	Credits
PHI 395 and PHI 459	3
Upper-division elective	3
Upper-division elective	3
Upper-division Elective	3
Upper-division Elective	3
Total	15

SENIOR

FALL	Credits
PHI 368	3
PHI 401	3

SBC	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
PHI 372	3
PHI elective, 200-level or above	3
Upper-division 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.

Physics (PHY)

Major and Minor in Physics

Department of Physics and Astronomy, College of Arts and Sciences

Chair: Chang-Kee Jung

Department Administrator: Nathan Leoce-Schappin

Director of Undergraduate Studies: Dominik Schneble

Assistant to the Director: Diane Diaferia

Astronomy Coordinator: Michael Zingale

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Phone: (631) 632-8036, 632-8100

Website: httphttps://www.stonybrook.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 65 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 (or MAT 119/MAT 123) is a required course for the major.
2. One of the following: AMS 261 Applied Calculus III or MAT 307 Multivariable Calculus with Linear Algebra.
3. One of the following: AMS 361 Applied Calculus IV: Differential Equations or MAT 308 Differential Equations with Linear Algebra.
4. One of the following: MAT 211 Introduction to Linear Algebra or AMS210 Applied Linear Algebra or both MAT 307 Multivariable Calculus with Linear Algebra and 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, 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, 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, 230, 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:** 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:** 201, 380, 381, and 401

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 (three credits each, excluding PHY 475)
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 approximately 20 physics, chemistry or engineering credits beyond the 100 level.

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

and 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:

The following two courses:

- PHY 300 Waves and Optics
- PHY 303 Mechanics

One of the following:

- PHY 251/252 Modern Physics; ESG 281 An Engineering Introduction to the Solid State

One of the following:

- PHY 301 Electromagnetic Theory; ESE 319 Electromagnetics and Transmission Line Theory

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

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

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

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

SOPHOMORE

FALL	Credits
PHY 251/PHY 252	4
PHY 277	3
MAT 307	4
SBC	3
SBC	3
Total	17

SPRING	Credits
PHY 300	4
MAT 308	4
SBC	3
SBC	3
SBC	3
Total	17

JUNIOR

FALL	Credits
PHY 301	3
PHY 303	3
PHY-related elective	3
MAT 341	3
SBC	3
Total	15

SPRING	Credits
PHY 306	3
PHY 308	3
PHY 335	3
MAT 342	3
SBC	3
Total	15

SENIOR

FALL	Credits
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.

Political Science (POL)

Major and Minor in Political Science

Department of Political Science, College of Arts and Sciences

Chair: Leonie Huddy

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Department Office Suite: S-701 Social and Behavioral Sciences

Website: http://www.stonybrook.edu/polsci/

Minors of particular interest to students majoring in Political Science: Africana Studies (AFS), Applied Mathematics and Statistics (AMS), Anthropology (ANT), Environmental Studies (ENS), Globalization Studies and International Relations (GLI), History (HIS), 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
  - 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.
  - 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 Asian and Asian American Studies (AAS), Africana Studies (AFS), Anthropology (ANT), Business (BUS), Economics (ECO), Globalization Studies and International Relations (GLI), History (HIS), Journalism (JRN), Philosophy (PHI), Psychology (PSY), Sociology (SOC), or Women's, Gender, and Sexuality Studies (WST) (and not crosslisted with a political science course or included within a 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 POL 201 Introduction to Statistical Methods in Political Science with a grade of C or higher. We will accept the following equivalent courses for POL 201: AMS 102, AMS 110, BIO 211, BUS 215, ECO 320, 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. Students will submit to the department's director of undergraduate studies a portfolio including papers written for upper-division courses in political science at Stony Brook University, totalling 15 pages. The copies of the papers should be those that include the grade an summary comments by the course instructor(s). 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.
Students should consult with the department Undergraduate Program Coordinator to ensure that their plan for completing the Political Science 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 Political Science Writing Requirement is consistent 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

Programs of Study
Comparative Politics and International Relations

POL 214, 216, 305, 308, 309, 311, 313, 334, 336, 337, 338, 339, 350, 371, 374, 380. Also,
PHI 367. Also 287, 390, 401, 447, 487, and 495 when the topic is appropriate.

American Government, Law, and Public Policy

POL 317, 318, 319, 320, 322, 323, 324, 325, 327, 328, 330, 332, 333, 336, 344, 347, 349, 350, 351, 352, 353, 359, 365, 366, 367, 368, 369, 371. Also, PHI 277, PHI 375, and PHI 377. Also 287, 390, 401, 447, 487, and 495 when the topic is applicable.

Political Behavior and Political Psychology

POL 270, 317, 318, 323, 344, 346, 347, 348, 349, 350, 351, 352, 353, 367, 368, 369, 371, 373, 375. Also, PHI 379. Also 287, 390, 401, 447, 487, and 495 when the topic is applicable.

Honors Program

Departmental majors with a 3.70 g.p.a. in political science courses and a 3.40 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 Director of Undergraduate Studies describing the research project that is to be the subject of the honors thesis. If the project is approved by the Director of Undergraduate Studies, 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 the sponsor. 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.
Completion of the minor requires 21 credits distributed as follows:

1. Two introductory POL courses selected from 101, 102, 103, and POL 201. We will accept the following equivalent courses for POL 201: AMS 102, AMS 110, BIO 211, BUS 215, ECO 320, PSY 201, or SOC 202.
2. Five POL courses numbered 200 or higher (excluding POL 201), of which at least three must be at the upper-division level. At least three of the courses must be in one of the programs of study listed above.

Notes:
1. No more than three credits of courses with Satisfactory/Unsatisfactory grading may be applied to the minor. Neither POL 475 nor POL 476 may be used toward the minor.
2. All courses except POL 488 must be taken for a letter grade.
3. No grade less than C may be used to fulfill minor requirements.

4. At least nine credits must be taken in courses offered by the Political Science Department at Stony Brook or cross-listed by the Department.
5. Only transfer courses with a grade of C or higher may be accepted toward the minor.

B.A./M.A. Accelerated Degree Program in Public Policy

In the accelerated B.A./M.A. in Public Policy, students complete the B.A. in Political Science and the M.A. in Public Policy in five years. To be eligible for admission, students must be:

- a major in political science at Stony Brook
- have completed 60 credits toward their degree
- have a minimum GPA of 3.0.
- have two courses (six credits) remaining in the "Study Within the Area of the Major, Political Science electives" during their senior year.

In the program, students take up to two graduate courses (six credits) during their senior year which also count towards the POL major's "Political Science elective" requirement. 500-level public policy POL courses may be applied to:

- The Political Science elective program of study requirement, and will count under the American Government, Law, and Public Policy program, and/or,
- The Political Science elective open credit requirement (not confined to a program of study).

Upon admission to the program, the student takes two courses in their senior year, one each semester. Generally, students should begin with fundamental courses such as policy analysis (POL 535) but with approval from the MA in Public Policy program director they can choose any master's courses in public policy (POL 500 – POL 559). Students then complete the remaining master's courses during the fifth year.

Sample Course Sequence for the Major in Political Science

For more information about SBC courses that fulfill major requirements, click here.

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

SPRING	Credits
POL 300-level	3
Introductory course in related area	3
Introductory course in related area	3
SBC	3
SBC	3
Total	15

JUNIOR

FALL	Credits
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

SPRING	Credits
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

FALL	Credits
POL Upper-division elective	3
POL Upper-division elective	3
SBC	3
Upper-division elective	3
Upper-division elective	3
Total	15

SPRING	Credits
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.

Polysomnographic Technology (HHO)

Major in Polysomnographic Technology

School of Health Technology and Management

Information and program requirements for the major in Polysomnographic Technology may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Polysomnographic Technology, BS

Polysomnographic Technology (HHO)

Information and program requirements for the major in Polysomnographic Technology may be found in the Health Sciences Bulletin, available online at http://www.stonybrook.edu/hsbulletin/schools/health-tec-management/degrees-programs.php#Polysomnographic Technology, BS

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: Peter Khost

Undergraduate Program Director: Patricia Medved

Staff Assistant: Adam Schultheiss

Email: adam.schultheiss@stonybrook.edu

Office: 2005 Humanities
Phone: (631) 632-7390

Website: 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 375 Technical Communication
- WRT 380 Advanced Research Writing: Theories, Methods, Practices
- WRT 381 Advanced Analytic and Argumentative Writing
- WRT 382 Grant 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 https://www.stonybrook.edu/commcms/writrhet/people/people.php

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

Chair: Joanne Davila

Director of Undergraduate Studies: Anne Moyer

Assistant to the Chair: Cynthia Forman

Undergraduate Program Coordinator**:** Diane DeSimone

Email: diane.desimone@stonybrook.edu

Office: PSY B 109A

Phone: (631) 632-7802

Undergraduate Academic Advisors: Sarah Naqvi-Syed and Danielle Percoco

Email: sarah.naqvi-syed@stonybrook.edu or danielle.percoco@stonybrook.edu

Office: PSY B 109 or (631) 632-7853

Phone: (631) 632-7812

Website: https://www.stonybrook.edu/commcms/psychology/index.html

Minors of particular interest to students majoring in Psychology: Africana Studies (AFS), Women's and Gender 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, AMS 102, AMS 110, AMS 310, BUS 215, ECO 320, POL 201, SOC 202 or another statistics course approved by the department
- PSY 310 Research and Writing in Psychology

2. Survey Courses in Psychology
One course from Group A, one from Group B, and a third course from Group A or B:

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 201, PSY 273, PSY 283, PSY 310, PSY 399, PSY 447, PSY 475, PSY 476, PSY 487, PSY 488, PSY 495-496, the discontinued PSY 300, and 200-level survey courses used to satisfy requirement #2.
2. Four more courses from among advanced courses numbered PSY 301 to 383, excluding PSY 310.

For the B.S. student:

1. One course numbered 200 or higher, excluding PSY 201, PSY 273 , PSY 283, PSY 310, PSY 399, PSY 447, PSY 475, PSY 476, PSY 487, PSY 488, PSY 495-496, the discontinued PSY 300, and 200-level survey courses used to satisfy requirement #2.
2. A laboratory course (PSY 380-383; PSY 386; PSY 389).
3. An advanced statistics (PSY 301 or AMS 315) or one of the following courses (PSY 355; PSY 356; PSY 368; BIO 334; BIO 338). The same BIO course cannot be used to fulfill the Biology concentration requirement.
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.

4. Upper-Division Writing Requirement

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.

5. 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 one course from the following: AMS 101, MAT 118 , MAT 122, MAT 123 (or MAT 119/MAT 123), MAT 125 (or MAT 130/MAT 125), MAT 126, MAT 131, MAT 132 or any higher AMS, CSE, or MAT course approved by the department. Note: PSY 201 (or equivalent introductory statistics course) 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. *Note: ANP 101, HAN 200, or HAN 202 may be used as a substitute to fulfill this requirement.*
3. Philosophy: Any one-semester PHI course
4. Social Sciences: Any one-semester ANT, HIS, POL, or SOC 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 1)
- Applied Mathematics and Statistics (AMS)
- Biology (BIO) (see Note 1)
- Computer Science (CSE)
- Economics (ECO)
- History (HIS)
- Linguistics (LIN)
- Marketing (MKT) (requires completion of two required courses: BUS 348 Principles of Marketing and BUS 448 Marketing Strategy; one elective from: BUS 334 Consumer Advertising and Promotion or BUS 302 Social Media Marketing Strategy or BUS 378: Marketing Ethics, Public Policy, & Social Change;and another elective from: BUS 359 Consumer Behavior or BUS 358 Marketing Research or independent study in research BUS 487)
- Mathematics (MAT) (see Note 1)
- Philosophy (PHI) (see Note 1)
- Political Science (POL) (see Note 1)

- Sociology (SOC) (see Note 1)
- Women's, Gender, and Sexuality Studies (WST)
- Writing (requires completion of WRT 305 Writing for the Health Professions or WRT 380 Advance Research Writing plus three other upper-division writing courses)

Note 1: 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 119/MAT 123, MAT 123, MAT 125 (or MAT 130/MAT 125), MAT 131, MAT 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. Select two of the following lecture courses: BIO 201, 202, 203
2. Select two of the following lab courses: BIO 204, 205, 207

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 selected from the following five choices:

1. Biology: Two BIO or biology-related courses selected from the following: BIO 208, 302, 310, 312, 314, 315, 317, 320, 321, 325, 327, 328, 332, 334, 335, 336, 337, 338, 339, 350, 351, 354, 358, 359, 361, BCP 401. The following course pair counts as ONE course: HBM 320 & 321.

2. Chemistry: CHE 131/133, CHE 132/134. *Note: CHE 129+130 (together) may be used as a substitute for CHE 131*
3. Mathematics: Two courses selected from MAT courses numbered 200 or above; and 300-level AMS courses except AMS 310, 312, 315.
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-109). Additional meetings should be scheduled periodically to review progress toward fulfilling Department requirements.
4. Psychology courses may be repeated only ONE time.

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.
Departmental majors with a 3.50 g.p.a. in psychology courses, with a 3.20 cumulative g.p.a, and with the agreement of a faculty mentor to supervise the student’s independent project may apply to enroll in the Psychology 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 Psychology Department describing the research project that is to be the subject of the honors thesis. If the project is approved by the Department, the student may enroll in PSY 495 and PSY 496 in the fall and spring semesters of the senior year, respectively. The student's major paper or research project must be completed no later than two weeks prior to the end of the second semester and submitted to the Department. If the honors program is completed with distinction and the student has achieved a 3.5 g.p.a. in all psychology courses taken in the senior year, honors are conferred.
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 two semesters. 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)

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
PSY 103	3
SOC or ANT or POL course**	3
SBC	3
LANG Part 1	3-4
Total	16-17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
PSY Group A (220 or 230 o 240) OR PSY Group B (250 or 260)	3
PHI course	3
MAT course*	3-4
LANG Part 2	3-4
Total	16-18

SOPHOMORE

FALL	Credits
PSY Group B (if Group A taken) OR Group A (if Group B taken)	3
Course for outside concentration (#1)	3
Statistics course***	3
SBC	3
SBC	3
Total	15

SPRING	Credits
PSY Group A or B course	3
PSY 200 and above elective	3
SBC	3
BIO course	3-4
SBC	3
Total	15-16

JUNIOR

FALL	Credits
PSY Upper-division elec. (301 to 384)	3
Course for outside concentration (#2)	3
PSY Upper-division elective (301-384)	3

Upper-division elective	3
SBC	3
Total	15

SPRING	Credits
PSY Upper-division elective (301-384)	3
Upper-division course for outside concentration (#3)	3
PSY Upper-Division elective (301-384)	3
Upper-division elective	3
SBC	3
Total	15

SENIOR

FALL	Credits
PSY 310	4
Upper-division for outside concentration (course #4)	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	16

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, 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: PSY 201, AMS 102, AMS 110, AMS 310, BUS 215, ECO 320, POL 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
LANG Part 1	3-4
Total	16-19

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
LANG Part 2	3-4
SBC	3
Total	16-18

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 Upper-division elective (301-384)	3
PSY Group A or B	3
PSY 200 and above elective****	3
BIO 201, 202, or 203, and 205	5
SBC	3
Total	17

JUNIOR

FALL	Credits
PSY advanced laboratory (380 or 382 or 386 or 389)	4
Science sequence concentration elective	3-5
PSY Upper-division elective***	3
Upper-division elective	3
SBC	3
Total	16-18

SPRING	Credits
PSY 301, PSY 355, PSY 356, PSY 368 or AMS 315	3
Science sequence concentration elective	3-5
Upper-division elective	3

SBC	3
SBC	3
Total	15-17

SENIOR

FALL	Credits
PSY 310*	4
Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	16

SPRING	Credits
PSY Upper-division elective****	3
Upper-division elective	3
Upper-division elective	3
SBC	3
Total	12

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, AMS 110, AMS 310, BUS 215, ECO 320, POL 201, or SOC 202.

*** BIO 334 or BIO 338 may be used here only if it is not used in a BIO concentration.

**** 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.

Real Estate and Insurance (REI)

Minor in Real Estate and Insurance

College of Business

Dean: Haresh Gurnani
Associate Dean: Danling Jiang
Director of Undergraduate Studies: Christine Pitocco
Office of Student Services: 109 Harriman Hall
Phone: (631) 632-7171
Email: cobundergraduate@stonybrook.edu
Website: http://www.stonybrook.edu/business

Real Estate and Insurance (REI)

The Real Estate and Insurance minor is designed to provide students with an opportunity to complement their major studies with knowledge of both the real estate and insurance industries. This minor prepares students for various employment opportunities in both fields. This minor is designed to provide students with a higher level of understanding and the professional skills needed to be successful in either industry.

Requirements for the Minor in Real Estate and Insurance (REI)

Students may apply to the Real Estate and Insurance minor at any time during their academic career if their cumulative grade point average is 3.20 or higher. Business and non-business majors may complete the Real Estate and Insurance minor.
Completion of the minor requires 18 credits.

Required Courses:

BUS 333: Introduction to the Business of Real Estate
BUS 376: Risk Management & Insurance I

Pick Four Electives:

BUS 317: Estate & Financial Planning
BUS 355: Investment Analysis
BUS 377: Risk Management & Insurance II
BUS 406: Real Estate Finance
BUS 408: Foundations of Property and Casualty Insurance
BUS 488: Internship

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 Real Estate and Insurance Minor
Students may apply a maximum of nine transfer credits toward the Real Estate and Insurance Minor.

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

Religious Studies (RLS)

Minor in Religious Studies

Department of Asian and Asian American Studies, College of Arts and Sciences

Program Director: William Chittick

Administrative Assistant: Lynne Foerster

Business Administrator: Theresa Spadola

Office: 1046 Humanities
Phone: (631) 632-4030

Website: https://www.stonybrook.edu/commcms/asianamerican/

Religious Studies (RLS)

The minor 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 social sciences. Designed for flexibility in meeting students' interests and needs, the Religious Studies program offers a minor 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.

More information and advising in regard to the minor in Religious Studies are available through the program director.

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 must be taken for a letter grade. The program is designed to ensure an encounter with the variety of world religions and a grasp of problems of method and the critical use of sources in the study of religion. At the discretion of the director of the minor, courses that cover religious topics in other fields (such as AAS, HIS, and PHI) can also be
counted. Courses that count toward the minor include the following:

- RLS 101 Western Religions
- RLS 102 Eastern Religions
- RLS 240 Confucianism and Daoism
- RLS 256 Hinduism
- RLS 260 Buddhism
- RLS 270 Christianity
- RLS 280 Islam
- RLS 287 Islam in China
- RLS 366 Feminine Spirituality
- RLS 367 Meditation and Enlightenment
- RLS 368 Yoga: Theory and Practice
- RLS 380 Islamic Classics
- RLS 382 Japanese Buddhism
- RLS 387 Islam and Confucianism
- RLS 444 Experiential Learning
- RLS 447 Readings in Religious Studies
- RLS 459 Write Effectively in Religious Studies
- RLS 475 Undergraduate Teaching Practicum

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 Professions

Information and program requirements for the major in Respiratory Care may be found in the Health Sciences Bulletin, available online at http://sb.cc.stonybrook.edu/hscbulletin/

Respiratory Care

Information and program requirements for the major in Respiratory Care may be found in the Health Sciences Bulletin, available online at http://sb.cc.stonybrook.edu/hscbulletin/

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

Chair: Sarah Jourdain

Director of Undergraduate Studies: Franck Dalmas

Coordinator of the Minor: Anna Geisherik

Assistant to the Chair: Elizabeth Tolson

Office: Humanities 2128

Phone: (631) 632-7440

Website: https://www.stonybrook.edu/commcms/languages-cultural-studies/

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 18 credits, and 9 of the 18 credits must be at the 300 level or above.

1. Language study (6 credits)
   - All Russian minors must take at least 6 credits of Russian language (RUS) courses. Students without background in Russian language will take introductory Russian, either RUS 111-112 (Elementary Russian I & II) or RUS 101 (Intensive Elementary Russian). Those with previous Russian language study, including heritage speakers, must take 6 credits of higher level Russian language courses. Consult the Russian Coordinator for appropriate placement.
2. Russian-focused electives (12 credits)
   - Two electives selected from HUR courses;
   - Two additional electives selected from HUR/RUS courses not applied in Part A, Language Study. Up to 2 elective courses may be in language study. One relevant course from another department (GLI, HIS,HUE, LIN) may be applied as an elective with permission of the Russian Coordinator. Examples of such courses are GLI 330, GLI 340, HIS 210, HIS 295, HUE 269, HUE 392, LIN 356 (prerequisites may apply). Study Abroad in St. Petersburg can provide 3-6 credits of electives.

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.

STEM in Literature and Culture (SLC)

Minor in STEM in Literature and Culture

Department of English, College of Arts and Sciences

Chair: Benedict Robinson

Director of Undergraduate Studies: Susan Scheckel

Department Administrator: Margaret Hanley
Office: English Department, Humanities 2096

Phone: (631) 632-7400

Website: https://www.stonybrook.edu/english/

STEM in Literature and Culture (SLC)

The minor in STEM in Literature and Culture uses the medium of literature to take on social issues and ethical dilemmas specifically related to fields in science, technology, engineering, mathematics, and medicine. Students consider the philosophical and emotional challenges and opportunities that define what it means to be "human," analyze complex life questions, think imaginatively, and express their insights through writing and public speaking.
STEM majors benefit from this minor by gaining understanding of the particular methods of English studies (literature, rhetoric, performance) that enhance their scientific, medical, engineering, and mathematical knowledge, both substantively and expressively.

Requirements for the minor in STEM in Literature and Culture

Completion of the minor requires 18 credits.* Students majoring in English may not use credits applied toward the major to apply toward the minor in STEM in Literature and Culture.

The two following core courses (6 credits):

- EGL 130: Science, Technology and Literature
- EGL 250: Introduction to English Studies for STEM Majors

Two 300-level EGL courses selected from the following four courses (6 credits):

- EGL 319: Ecology and Evolution in American Literature
- EGL 370: Literature and Ethics
- EGL 389: Science Fiction
- EGL 394: Topics in Literary and Cultural Studies of Science and Technology

One EGL elective (200 or 300 level course) selected from the following (3 credits):

- EGL 210: Literature, Medicine, and Ethics
- EGL 290: What is Public Health? A Humanities Approach
- EGL 303: Genre or Media (e.g. Science Literacy)
- EGL 375: Literature in English in Relation to Other Disciplines
- EGL 381: Advanced Analytic and Argumentative Writing
- EGL 390: Topics in Literary and Cultural Studies

One Elective Outside EGL, selected from the following (3 credits):

- ARH 106: Art & Science

- PHI 112: Technology & Modern Life
- PHI 113: Philosophical Engineering
- PHI 268: Science, Technology, and Society
- PHI 362: Philosophy of Biology

*The English Department Undergraduate Program Director may make discretionary substitutions for these courses.

SLC Faculty

Faculty information for this program can be found at https://www.stonybrook.edu/commcms/english/people/index.php#DepartmentFaculty

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

Information and program requirements for the major in Social Work may be found in the Health Sciences Bulletin, available online at http://sb.cc.stonybrook.edu/hscbulletin/

Social Work

Information and program requirements for the major in Social Work may be found in the Health Sciences Bulletin, available online at http://sb.cc.stonybrook.edu/hscbulletin/

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

Chair: Kathleen M. Fallon
Director of Undergraduate Studies: Catherine Marrone

Business Administrator: Lori Glubiak

Academic Programs Coordinator: Kelly A. Haller

Social Behavioral & Science Bldg. S. 401

Stony Brook, NY 11794-4356

(631) 632-7700

kelly.haller@stonybrook.edu

Website: http://www.stonybrook.edu/sociology

Minors of particular interest to students majoring in Sociology: Anthropology (ANT), Health, Medicine and Society (MHS), 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) 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 including social welfare and social work. Many of our successful students pursued careers in advertising, marketing, and business management. Some graduates continue 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). We find many of our majors are successful in pursuing law programs and health professions fields, including medical school, nursing school and the clinical health sciences.

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 (of which 15 credits must be upper division) 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, of which 6 credits must be upper division) 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. This requirement is met through SOC 361, the required Historical Development of Sociological Theory course, which also satisfies the SBC WRTD requirement.

Notes for Transfer Students:

1. The Department of Sociology requires that transfer students take at least 12 credits in sociology in residence at Stony Brook to complete the sociology major.
2. No transferred sociology course with a grade lower than C is accepted for credit in the major.

Honors Program

The honors program is open to seniors majoring in Sociology who have maintained a g.p.a. of 3.50 in the major and 3.20 overall, and who have completed or are in the process of completing the methods and statistics requirement and the upper-division writing requirement. Students should apply for the honors program before the beginning of their senior year. With the approval of the sponsoring faculty member, the student must submit a written proposal for a major paper or research project to be completed during the senior year. Acceptance into the honors program depends on the approval of the proposal by the Department.

In the senior year, the student enrolls in SOC 495 during the first semester and SOC 496 during the second semester, for a total of six credits. The student's major paper or research project must be completed no later than four weeks prior to the end of the second semester, to allow for possible revisions. It is read and evaluated by a committee consisting of the student's sponsor, one other Sociology faculty member, and one faculty member from another department.

If the honors program is completed with distinction and the student has achieved a 3.50 gpa in all sociology courses and a 3.2 overall, honors are conferred.

Sample Course Sequence for the Major in Sociology

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
SOC 105	3
LANG 111	4
SBC	3
SBC	3
Total	17

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
SOC elective	3
LANG 112	4
SBC	3
SBC	3
Total	17

SOPHOMORE

FALL	Credits
SOC 202 or AMS 102	3
SBC	3

SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
SOC 201	3
Social science concentration	3
SBC	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits
SOC 361	3
SOC Upper-division elective	3
Social science concentration (upper-division)	3
Upper-division elective	3
SBC	3
Total	15

SPRING	Credits
SOC Upper-division elective	3
Social science concentration (upper-division)	3
SBC	3
SBC	3
Upper-division elective	3
Total	15

SENIOR

FALL	Credits
SOC Upper-division elective	3
SOC Upper-division elective	3
Upper-division elective	3
Upper-division elective	3
Elective	3
Total	15

SPRING	Credits
SOC Upper-division elective	3
Upper-division elective	3
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.

South Asian Studies (SOA)

Interdisciplinary Minor in South Asian Studies

Department of Asian and Asian American Studies, College of Arts and Sciences

Interim Director of the Minor: Sthaneshwar Timalsina

Administrative Assistant: Lynne Foerster

Business Administrator: Theresa Spadola

Office: 1046 Humanities
Phone: (631) 632-4030

Website: https://www.stonybrook.edu/commcms/asianamerican/

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)

The minor in South Asian Studies consists of six courses (18 credits), three of which (nine credits) must be at the lower-division level, and another three of which (nine credits) must be at the upper-division level. All courses must be completed with a letter grade of C or higher.

At the discretion of the director of the minor, courses not listed below that have a substantial component relating to South Asian Studies may also be counted.

1. Lower-division courses (9 credits)

- AAS 110 Appreciating Indian Music
- AAS 201 Introduction to the Civilization of the Indian Subcontinent
- AAS 209 Indian Classical Dance
- 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)
- AAS 218 Ancient, Medieval, & Early Modern South Asia
- AAS 222 Indian Cinemas and Cultures
- AAS/LIN 250 Languages and Cultures of Asian Americans
- AAS/RLS 256 Hinduism
- AAS/RLS 260 Buddhism
- AAS/RLS 280 Islam
- ARH 203 Arts of Asia
- HIN 111 Elementary Hindi I

- HIN 112 Elementary Hindi II
- HIN 211 Intermediate Hindi I
- HIN 212 Intermediate Hindi II
- HIS 227 Islamic Civilization & Muslim Societies
- SKT 111 Elementary Sanskrit I
- SKT 112 Elementary Sanskrit II

2. Upper-division courses (9 credits):

- AAS 320 Literature of India
- AAS 326 Indian Mythology
- AAS 327 Great Epics of India: Ramayana and Mahabharata
- AAS 330 Language and Society in South Asia
- AAS 334 English in Asia
- AAS 338 Contemporary India: History, Politics and Diplomacy
- AAS/HIS 340 Topics in Asian History (appropriate topic only)
- AAS 357 India's Foreign Policy
- AAS/RLS 367 Meditation and Enlightenment
- AAS 368 Yoga: Theory and Praxis
- AAS/RLS 380 Islamic Classics
- AAS 391 Humanities Topics in Asian and Asian American Studies
- AAS 392 Social Science Topics in Asian and Asian American Studies
- AAS 401 Senior Seminar in Asian and Asian American Studies
- AAS 447 Directed Readings
- AAS/PHI 472 Topics in Asian Philosophy (I)
- AAS 473 Orientalism
- AAS 487 Supervised Research
- ANT 311 Immersion in Another Culture (appropriate topic only)
- EGL 373 Literature in English from Non-Western Cultures
- EGL 374 English Literature in Relation to Other Literatures
- HIS 300 Topics in Global History (appropriate topic only)
- HIS 302 Environmental History in Global Perspective
- HIS 332 Postcolonial SOuth Asia
- HIS 348 Colonial South Asia
- LIN 431 Analysis of an Uncommonly Taught Language (appropriate topic only)
- THR 313 Asian Theatre and Drama

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

Spanish Language and Literature (SPN)

Major and Minor in Spanish Language and Literature

Department of Hispanic Languages and Literature, College of Arts and Sciences

Chair: Paul Firbas

Director of Undergraduate Studies: Victor Roncero-López

Office: 1055 Humanities Building
Phone: (631) 632-6935

Website: http://www.stonybrook.edu/commcms/hispanic/

Minor of particular interest to students majoring in Spanish: 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 33-42 credits, depending on language placement. See https://www.stonybrook.edu/commcms/llrc/placement_challenge_exams/challenge_exam.html for placement exam information. A double major requires 30-36 credits. (See notes 1 and 2, below).
Required Courses:

A. Intermediate Spanish Language Courses:

There are several ways to satisfy this requirement. Please choose one of the four options listed below depending on your proficiency and/or interests:

1. SPN 211 Intermediate Spanish I, SPN 212 Intermediate Spanish II (6 credits)
2. SPN 214 Intermediate Medical Spanish I, SPN 215 Intermediate Medical Spanish II (6 credits)
3. SPN 213 Intermediate Spanish for Speakers of Spanish (3 credits)
4. equivalent proficiency satisfied through permission of the department or through the placement or the challenge exam.

B. Required Advanced 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
- SPN 393 Introduction to Hispanic Linguistics
- Three courses from:
  - SPN 384: Introduction to Latin American Literature and Culture I (formerly SPN 395)
  - SPN 385: Introduction to Latin American Literature and Culture II (formerly SPN 396)
  - SPN 386: Introduction to Latin American Literature and Culture III
  - SPN 387: Introduction to Spanish Literature and Culture I (formerly SPN 397)
  - SPN 388: Introduction to Spanish Literature and Culture II (formerly SPN 398)
  - SPN 389: Introduction to Spanish Literature and Culture III

C. Elective Advanced Courses in Hispanic Linguistics, Literature, and Culture:

- Five additional courses in upper-division SPN courses chosen in consultation with the Departmental advisor. 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. S/U graded courses such as SPN 475 and SPN 488 do not count towards fulfillment of this requirement.

D. 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. Students with enough language proficiency to satisfy requirement A will complete a total of 36 credits. Students who need to take SPN 211 and SPN 212 or SPN 214 and SPN 215 will complete a total of 42 credits. Students with Spanish-speaking background can begin the major by taking SPN 213 or SPN 310, depending on their Spanish written proficiency.

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 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 1 below).

A. Intermediate Spanish Language Courses:

There are several ways to satisfy this requirement. Please choose one of the four options listed below depending on your proficiency and/or interests:

1. SPN 211 Intermediate Spanish I, SPN 212 Intermediate Spanish II (6 credits)
2. SPN 214 Intermediate Medical Spanish I, SPN 215 Intermediate Medical Spanish II (6 credits)
3. SPN 213 Intermediate Spanish for Speakers of Spanish (3 credits)
4. equivalent proficiency satisfied through permission of the department or through the placement or the challenge exam.

B. Required Advanced Courses (9 credits):

- 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. Elective Advanced Courses (9 credits):

- THREE other upper-division (i.e., 300-level or higher) SPN courses, one of which must be at the 400 level. S/U graded courses such as SPN 475 and SPN 488 do not count towards fulfillment of this requirement.

Notes:

1. Students with enough language proficiency to satisfy requirement A will complete a total of 18 credits. Students who need to take SPN 211 and SPN 212 or SPN 214 and SPN 215 will complete a total of 24 credits. Students with Spanish-speaking background can begin the Minor by taking SPN 213 or SPN 310, depending on their Spanish written proficiency.

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.

Sample Course Sequence for the Major in Spanish

For more information about SBC courses that fulfill major requirements, click here.

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

FALL	Credits
SPN 400-level elective	3
SPN 400-level elective	3
SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
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: Sharon Pochron
Email: sharon.pochron@stonybrook.eduUndergraduate Advisor: Nancy Black
Program Office: E2361 Melville Library
Phone: (631) 632-9404
Website: https://www.somas.stonybrook.edu/

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. Common Foundation Courses (15-17 credits)

- AMS 102 Elements of Statistics or AMS 110 Probability and Statistics in the Life Sciences or BIO 211 Statistics and Data Analysis
- CHE 115/ENV 115 Chemistry, Life, Environment (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)
- SUS 111 Introduction to Sustainability Studies or ENS 101 Prospects for Planet Earth
- SUS 113 Physical Geography or GEO 102 The Earth
- SUS 201 Systems and Models

B. Common Core Courses (12-13 credits)

- ATM 201 Introduction to Climate and Climate Change or ENV 304 Environmental Global Change or SUS 343 Age of the Anthropocene
- GSS 313/314 GIS Design and Applications I/GIS Laboratory or GSS 317 Geospatial Narratives
- SUS 301 Technical Writing and Communication or COM 365 Talking Science
- SUS 305 Collective Action and Advocacy or SUS 323 Environmental Justice

C. Capstone Course (3 credits)

One course selected from the choices below:

- ENV 301 Sustainability of the Long Island Pine Barrens
- SUS 352 Conduct and Communicate a Research Project in Ecotoxicology
- SUS 390 Environmental Humanities Capstone
- SUS 401 Integrative, Collaborative Systems Project
- SUS 487 Research in Sustainability
- SUS 488 Internship in Sustainability

D. Tracks (Choose one, 39-40 credits)

1. **Ecosystems and Human Impact**

Required Foundation Track Courses:

- 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*
- ECO 108 Introduction to Economics

- MAT 125 (or MAT 130/MAT 125) or MAT 131 or AMS 151. If students do not place into MAT 125 or MAT 131 or AMS 151 on the basis of the math placement examination, MAT 123 (or MAT 119/MAT 123) is a required course for the major.
- SUS 204 Population Studies

Upper Division Track Electives

Seven courses (at least 21 credits) from the choices below:

- ANP 307Comparing Ecosystems in Madagascar
- ANP 350Field Methods in Primatology and Field Biology
- ANP 351 Biodiversity Assessment Methods for Tropical Field Research
- ANP 401 Pastoralism Under Pressure: Savannas, Society, and Sustainability in East Africa
- BIO 319Landscape Ecology Laboratory
- BIO 351Ecology
- BIO 352Ecology Laboratory*
- BIO 371Restoration of Aquatic Ecosystems*

- ENS 311/BIO 386 Ecosystem Ecology and Global Environment*
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 313 Understanding Water Resources for the 21st Century
- GSS 325 GIS Design and Applications II
- MAR 303 Long Island Marine Habitats
- MAR 315 Marine Conservation
- MAR 320 Limnology*
- MAR 336 Marine Pollution*
- MAR 340 Environmental Problems and Solutions
- MAR 388 Tropical Marine Ecology
- MAR 394 Environmental Toxicology and Public Health*
- SUS 319 Preservation and Restoration of Ecosystems
- SUS 322 Human Ecology
- SUS 326 Conservation Genetics
- SUS 340 Ecological and Social Dimensions of Disease
- SUS 344 Sustainable Natural Resources
- SUS 350 Contemporary Topics in Sustainability
- SUS 351 Design Ecotoxicology Research
- SUS 405 Environmental Sustainability in Tanzania

2. **Environmental Humanities**

Required Foundation Track Courses:

- ANT 102 What Makes Us Human?
- GSS 105 Introduction to Maps and Mapping
- MAR 104 Oceanography
- PHI 104 Moral Reasoning or PHI 105 Politics and Society
- SUS 202 Introduction to Environmental Humanities
- SUS 203 Interpretation and Critical Analysis

Upper Division Track Electives

Seven courses (at least 21 credits) from the choices below:

- ENS 333/POL 333 Environmental Law*
- GSS 325 GIS Design and Applications II
- HIS 302 Environmental History in a Global Perspective
- HIS 352/AAS 352 Environmental History of China
- MAR 355 Coastal Cultural Experience
- MAR 356 Maritime Traditions of New England
- SOC 344 Environmental Sociology
- SUS 314 Civilizations and Collapse
- SUS 316 Cuba and Sustainability
- SUS 317 Environmental History of North America
- SUS 320 Utopia and Dystopia and the Environment in Literature and Culture
- SUS 321 Ecology and Evolution in American Literature
- SUS 324 Human Geography and the Environment
- SUS 325 Environmental Writing and the Media

- SUS 328 Ecofeminism, Literature, and Film
- SUS 350 Contemporary Topics in Sustainability
- SUS 362 Resilient Communities
- SUS 366/PHI 366 Philosophy of the Environment
- SUS 405 Environmental Sustainability in Tanzania

3. **Societies, Economics, and Governance**

Required Foundation Track Courses:

- BIO 201 Fundamentals of Biology: Organisms to Ecosystems
- ECO 108 Introduction to Economics
- MAT 125 (or MAT 130/MAT 125) or MAT 131 or AMS 151. If students do not place into MAT 125 or MAT 131 or AMS 151 on the basis of the math placement examination, MAT 123 (or MAT 119/MAT 123) is a required course for the major.
- POL 102 Introduction to American Government
- SUS 115 Introduction to Human Demographics or SUS 204 Population Studies
- SUS 200 Human Settlement: History and Future
- SUS 206 Economics and Sustainability

Upper Division Track Electives

Six courses (at least 18 credits) from the choices below:

- EDP 303 Spatial Economics
- EDP 305 Risk Assessment and Sustainable Development
- ENS 311/BIO 386 Ecosystem Ecology and Global Environment*
- ENS 333/POL 333 Environmental Law
- ENV 316 Coastal Zone Management
- ENV 339 Economics of Coastal and Marine Ecosystems
- GEO 304 Energy, Mineral Resources, and the Environment
- GEO 313 Understanding Water Resources for the 21st Century
- GSS 325 GIS Design and Applications II
- GSS 350 Applied Spatial Data Analysis
- HIS 302 Environmental History in a Global Perspective
- HIS 352/AAS 352 Environmental History of China
- MAR 392 Waste Management Issues*
- POL 310 Immigration and Refugee Politics
- POL 359 Public Policy Analysis
- SOC 344 Environmental Sociology
- SUS 302 Integrative Assessment Models
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Management
- SUS 316 Cuba and Sustainability
- SUS 317 Environmental History of North America
- SUS 318 American Environmental Politics
- SUS 324 Human Geography and the Environment
- SUS 340 Ecological and Social Dimensions of Disease
- SUS 350 Contemporary Topics in Sustainability
- SUS 362 Resilient Communities
- SUS 366/PHI 366 Philosophy of the Environment*
- SUS 405 Environmental Sustainability in Tanzania

*Has a prerequisite outside of the major/track and/or requires CHE 129, 131, or 152.
Other classes may be substituted with permission of undergraduate director.

E. Communications and Writing Requirement

The advanced writing component of the major in SUS requires registration in the 0-credit SUS 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 SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department.

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:
No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. Courses 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 Cuba, 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.

Double Majors

Excluding ENV 301 (Sustainability of the Long Island Pine Barrens), SUS 301 (Technical Writing and Communication), SUS 305 (Collective Advocacy and Action), and SUS 401 (Integrative Collaborative Systems Studies), no more than 6 credits of 300-400 level course credits can be applied to two majors within the School of Marine and Atmospheric Sciences.

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.

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.

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. 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.

A. Required introductory courses:

- SUS 111 Introduction to Sustainability Studies or ENS 101 Prospects for Planet Earth
- SUS 206 Economics and Sustainability

And one of the following four courses:

- PHI 104 Moral Reasoning
- SUS 115 Introduction to Human Demography
- POL 102 Introduction to American Government
- CHE/ENV 115 Chemistry, Life, Environment (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)

B. Required three courses from the following:

- EDP 303 Spatial Economics
- 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
- ENV 310 Sustainable and Renewable Energy in Costa Rica or SUS 316 Cuba and Sustainability
- ENV 340 Contemporary Topics in Environmental Science*
- GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
- SUS 306 Business and Sustainability
- SUS 307 Environmental Economics and Management
- SUS 309 Global Environmental Politics
- SUS 310 Migration, Development and Population Redistribution
- SUS 311 Disasters and Society: A Global Perspective
- SUS 312 Environment, Society, and Health
- SUS 313 Ecosystem-Based Management
- SUS 317 Environmental History of North America
- SUS 318 American Environmental Politics
- SUS 321 Ecology and Evolution in American Literature
- SUS 401 Integrative, Collaborative Systems Studies
- SUS 341 Environmental Treatises and Protocols

- SUS 350 Contemporary Topics in Sustainability*
- SUS 366 Philosophy of the Environment

*An Internship with significant practical experience [SUS 488 Internship] or an approved research project [SUS 487 Research] may be substituted for SUS 350 or ENV 340.

Sample Course Sequence for the Major in Sustainability Studies

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
MAT 125	3
ENS 101 or SUS 111	3
SUS 113 or GEO 102	3
SBC	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
CHE/ENV 115	3
AMS 102	3
POL 102	3
SBC	3
Total	16

SOPHOMORE

FALL	Credits
ECO 108	4
SUS 200	3
SUS 201	3
SBC	3
Elective	3
Total	16

SPRING	Credits
BIO 201	3
SUS 115	3
SUS 206	3
SBC	3
Elective	3
Total	15

JUNIOR

FALL	Credits

SUS 305	3
Upper-division track elective	3
Upper-division track elective	3
SBC	3
Elective	3
Total	15

SPRING	Credits
SUS 343	3
Upper-division track elective	3
Upper-division track elective	3
SBC	3
Elective	3
Total	15

SENIOR

FALL	Credits
GSS 313/GSS 314	4
Upper-division track elective	3
Upper-division track elective	3
SBC	3
Elective	3
Total	16

SPRING	Credits
SUS 301	3
SUS 401	3
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.

Technological Systems Management (TSM)

Major and Minor in Technological Systems Management

Department of Technology and Society, College of Engineering and Applied Sciences

Interim Chair: Klaus Mueller

Undergraduate Program Director: Kevin Moriarty

Undergraduate Program Coordinator and Advisor: Elizabeth Petersen
Office: 231 Engineering
Phone: (631) 632-8381
Email: tsm_advising@stonybrook.edu

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 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 in Technological Systems Management (TSM)

Acceptance into the Major in Technological Systems Management

Qualified freshman and transfer students who have indicated their interest in the major on their applications may be admitted directly as a degree major or as a pre-major. Pre-majors are placed into the Area of Interest (AOI) program and to be eligible for the degree, they must be admitted to and declare the major. The requirements and application process for matriculation are detailed below. Students admitted to other programs within the College of Engineering and Applied Science (CEAS) follow the same admissions process as students in the AOI program. Students in programs outside of CEAS (non-CEAS students) and double major applicants may apply for admission to the degree program following a separate process, outlined below.

Intellectual honesty and academic integrity are cornerstones of academic and scholarly work. The department may table any applications for major/minor admission until academic judiciary matters are resolved. An academic judiciary matter will be identified by a grade of “Q” in the instance of a first offense.
Area of Interest and Other CEAS Students (excluding double major applicants)
Applications for major admission from AOI and other CEAS students are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who submit their application on time will be admitted if they meet the following requirements:

- Calculus I and Calculus II (or equivalents) and the natural sciences requirement with grades of C or higher;
- Earned a cumulative grade point average of 2.80;
- Received completed course evaluations for all transferred courses that are to be used to meet requirements for the major.

Students must complete these requirements no later than one year after they enroll in the first course that applies towards major entry. Students must apply for admission by the application deadline immediately following completion of the above requirements, but no later than the one year limit. Admission of AOI students and other CEAS students who apply late will follow the process of Non-CEAS Students and Double Major Applicants below.
Non-CEAS Students and Double Major Applicants

Applications for major admission from non-CEAS students and double major applicants are reviewed twice per year and must be received by January 5 for Spring admission and June 5 for Fall admission. Students who do not meet the requirements for AOI admission above will not be considered. Fulfilling the requirements does not guarantee acceptance. Admission is competitive and contingent upon program capacity.

Requirements for the Major in Technological Systems Management (TSM)

Students must complete a specialization. Specializations are drawn from programs in natural science, engineering and applied science, environmental studies or may be defined by the department. (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

B. Natural Sciences

At least one of the following natural science courses:
BIO 201, CHE 131, GEO 304, GEO 311, GEO 313, GEO 315, PHY 131, PHY 141

One additional natural science course selected from above or the following list:
BIO 202, BIO 203, CHE 132, ENS 101, EST/ATM 102, GEO 101, GEO 102, MAR 104, PHY 132, PHY 125, PHY 126, PHY 127 or PHY 142. Note: or any other natural science course with permission of the department.

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, or in the department defined specialization of Information and Communication Technologies for Development. At least three courses, totaling at least nine credits, must be at the 300 or 400 level. Specializations in the areas of Computer Science and Information Systems are slightly different. (See "Prescribed Areas of Specialization" below for the specializations with course options.)

*Note: All 21 credits must be unique without any overlap in requirements: A, B, D or E and specialization course options require prior approval.

D. Technological Systems Management

1. Required courses (11)

1. EST 194 Decision-making
2. EST 202 Introduction to Science, Technology, and Society Studies
3. EST 304 Communication for Engineers and Scientists
4. EST 331 Engineering Ethics
5. EST 391 Technology Assessment
6. EST 392 Engineering Economics
7. EST 393 Project Management
8. EST 440 Interdisciplinary Research Methods
9. EST 441 Interdisciplinary Senior Project
10. One skills-information course:
    EST 110 The Digital Generation: Investigating AI Ethics, Social Impact and Real-World Applications
    EST 240 Visual Rhetoric
    EST 291 Energy, Environment and People
    EST 305 Applications Software for Information Management
    EST 325 Technology in the Workplace
    EST 326 Management for Engineers
    EST 339 Benevolent Computing
    EST 342 Industrial Engineering, Intro to Operations Research I
    EST 344 Technical Writing
    EST 364 How to Build a Startup

11. One design course:
    EST 100 The Digital Generation: Mastering Multimedia Tools That Shape Our World
    EST 205 Introduction to Technological Design: Innovation and Design Thinking
    EST 207 Interaction Design
    EST 209 Introduction to Italian Design: Theory and Practice
    EST 221 Multimedia for Online Content Platforms
    EST 310 Design of Computer Games
    EST 323 Human-Computer Interaction

EST 327 Systems Engineering Management, Elements of Product Design and Development

2. Electives (3) EST 100 The Digital Generation: Mastering Multimedia Tools That Shape Our World EST 106 The Digital Generation: Creating a Professional Web Presence EST 110 The Digital Generation: Investigating AI Ethics, Social Impact and Real-World Applications EST 201 Technological Trends in Society EST 204 Modern Digital Technology and Innovation EST 205 Introduction to Technological Design: Innovation and Design Thinking EST 207 Interaction Design EST 209 Introduction to Italian Design: Theory and Practice EST 221 Multimedia for Online Content Platforms EST 230 Information and Communications Technology for Sustainable Development EST 240 Visual Rhetoric and Information Technology EST 280 Fundamentals of Industrial Engineering EST 291 Energy, Environment, and People EST 305 Applications Software for Information Management EST 310 Design of Computer Games EST 320 Comm Technology Systems EST 323 Human Computer Interactions EST 325 Technology in the Workplace EST 326 Management for Engineers EST 327 Systems Engineering Management, Elements of Product Design and Development EST 339 Benevolent Computing EST 342 Industrial Engineering, Intro to Operations Research I EST 364 How to Build a Startup EST 371 Data Science Management EST 372 The Mobile Revolution in Development EST 389 Special Topics in Technological Systems Management EST 475 UG TA EST 488 Internship in TSM EST 499 Research in TSM 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 courses below the 300 level 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.
- Elective course options may not be offered each term. Students should plan accordingly.

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.

Prescribed Areas of Specialization

Specialization in Computer Science
A specialization in the area of Computer Science also requires completing at least 21 credits (nominally, seven courses). Four introductory courses are required; this rigorous sequence of courses will provide students with a good background to complete the upper division courses for the specialization. Students who specialize in Computer Science may not specialize in Information Systems.

Students specializing in Computer Science must take the following four courses:

1. CSE 101 Computer Science Principles
2. CSE 114 Introduction to Object-Oriented Programming
3. CSE 214 Data Structures
4. ISE 218 Fundamentals of Information Technology
*Students with demonstrated programming experience may substitute a course from the special topics sequence CSE 190-191-192 for CSE 101, with permission of the Computer Science Department Undergraduate Committee and with prior approval.

Students must also select three courses from the following list:

- ISE 305 Database Design and Practice
- One of: CSE 310 Computer Networks or ISE 316 Introduction to Networking
- CSE 337 Scripting Languages
- CSE 373 Analysis of Algorithms
- Up to two courses from CSE 390-CSE 391-CSE 392 Special Topics with prior approval.

Specialization in Information Systems
A specialization in Information Systems also requires completing at least 21 credits (nominally, seven courses). Four introductory courses are required; this rigorous sequence of courses will provide students with a good background to complete the upper division courses for the specialization. Students who specialize in Information Systems may not specialize in Computer Science.

Students specializing in Information Systems must take the following four courses:

1. CSE 101 Computer Science Principles
2. CSE 114 Introduction to Object-Oriented Programming
3. CSE 214 Data Structures
4. ISE 218 Fundamentals of Information Technology
*Students with demonstrated programming experience may substitute a course from the special topics sequence CSE 190-191-192 for CSE 101, with permission of the Computer Science Department Undergraduate Committee and with prior approval.

Students must also select three courses from the following list:

- ISE 305 Database Design and Practice
- One of: CSE 310 Computer Networks or ISE 316 Introduction to Networking
- ISE 321 Introduction to Network Administration
- ISE 331 Fundamentals of Computer Security
- Up to two courses from CSE 390-CSE 391-CSE 392 Special Topics with prior approval.

Sample Course Sequence for the Major in Technological Systems Management

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
EST 202 (TECH)	3
AMS 151 (QPS)	3
Natural Science 1 (SNW)	4
Total	14

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
EST 194	3
AMS 161	3
Natural Science 2 (SNW)	4
Total	14

SOPHOMORE

FALL	Credits
EST Design	3
EST 304	3
Specialization course	3
Elective	3
SBC course	3
Total	15

SPRING	Credits
EST Skills - Info	3
EST Spec. Elective	3
Specialization course	3
SBC course	3
SBC course	3
Total	15

JUNIOR

FALL	Credits

EST 331	3
EST 391 (STAS)	3
EST Spec. Elective	3
Specialization course	3
Elective	3
Elective	3
Total	18

SPRING	Credits
EST 392 (SBS)	3
EST 393	3
Specialization course	3
Specialization course (300-400)	3
Elective	3
Total	15

SENIOR

FALL	Credits
EST 440*	3
EST Spec. Elective	3
Specialization course (300-400)	3
SBC course	3
Elective	3
Total	15

SPRING	Credits
EST 441*	3
Specialization course (300-400)	3
Elective	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.

Television Writing (TVW)

Minor in Television Writing

Southampton Arts Programs

Undergraduate Program Director: Karen Offitzer

E-mail: karen.offitzer@stonybrook.edu

Undergraduate Program Coordinator: Liz McRae

Email: Elizabeth.McRae@stonybrook.edu

Office: Melville Library, 3rd floor, N3017

Website: https://www.stonybrook.edu/commcms/lichtenstein-center/

Television Writing (TVW)

The minor in TV Writing offers students a creative path toward enhanced engagement with subjects in their major field of studies. Students will explore creating stories for the world of episodic and narrative television, learn to analyze current trends, and engage in creative and intellectual exploration of the issues and emotions that excite them. The minor is designed for students who wish to develop their creativity and expand their writing abilities while pursuing other studies.

The minor in TV Writing is offered in conjunction with the minor in Filmmaking through the undergraduate Creative Writing and Film Program. TV Writing minors graduate with a SPEC SCRIPT and a REVISED PILOT SCRIPT, building a strong portfolio of creative work. In addition, students will learn how to pitch themselves and their stories to producers and networks. Students will be guided in storytelling techniques designed to harness their imagination as they create compelling, authentic, and original stories for today's audiences.

Requirements for the Minor in Television Writing

Declaration of the minor: Students should declare the Television Writing Minor no later than the middle of their sophomore year, at which time they should consult with the directors of 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. Students must earn a grade of C or better in all courses toward the minor. Completion of the minor in TV Writing requires 21 credits, distributed as follows:

A. Introductory courses required of all minors (9 credits)

- FLM 101 Introduction to Filmmaking and Television: Visual Storytelling
- FLM 102 Introduction to Film and Television Composition: How Films and TV Shows Say What They Mean
- FLM 215 Scriptwriting for Film and TV (must take Topic: TV Writing)

B. Advanced TV Writing Workshop (TVW 220) and ONE additional Advanced Workshop (6 credits)

- FLM 201 Visual Storytelling Across the Disciplines
- FLM 203 Podcasting
- TVW 220 Advanced TV Writing
- TVW 221 The Writers Room
- FLM 302 Producing Practices for Film and TV

C. One Survey Course for Filmmakers (3 credits)

- FLM 310 Story Analysis for Filmmakers and TV Writers
- FLM 320 Topics in Film for Filmmakers and TV Writers

*With the permission of the undergraduate minor director, students may select one 300 level survey course from other departments at the University.

D. Capstone Project (3 credits)

All students are required to take the capstone project course or equivalent. Permission of the director is required.

- FLM 402 Capstone Project or equivalent: may complete an internship (FLM 488) to satisfy this requirement with permission of the director.

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

Theatre Arts (THR)

Minor in Theatre Arts

Department of English, College of Arts and Sciences

Chair: Nick Mangano

Director of Undergraduate Studies: Nick Mangano

Assistant to the Chair: Ed Quinn

Office: 2224 Staller Center for the Arts
Phone: (631) 632-7300
Email: nick.mangano@stonybrook.edu

Website: https://www.stonybrook.edu/commcms/theatre-arts/

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 with a minor in Theatre Arts.

Students who graduate with a minor in Theatre Arts 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 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 18-19 credits.

A. Foundation Courses (6-7 credits)

Choose two (2) of the following:

- THR 100 – Performing & Performance
- THR 101 – Introduction to Theatre
- THR 103 – Introduction to Theatre Design
- THR 104 – Play Analysis
- THR 105 – Acting I
- THR 107 – The Broadway Musical
- THR 115 – Stagecraft (4 cr.)
- THR 201 – Theatre History I
- THR 214 – The Theatre of Baseball
- THR 216 – Introduction to Visual Interpretation

B. Upper-Division Electives (12 credits)

Twelve (12) upper-division credits to be chosen from courses in theatre (THR) or theatre-related courses in other departments, such as but not limited to English, Art, Classics, Creative Writing, Liberal Arts, Media Arts, Music, or Women's and Gender Studies, with the approval of the Director of the Theatre Minor and host program. Elective courses may include, but are not limited to:

- THR 312 – American Theatre & Drama
- THR 315 – Theatre History: Classical Age
- THR 316 – Theatre History: Modern Era
- THR 319 – AIDS Drama, 1980s & 90s
- THR/EGL – 325 Screenwriting
- THR 328/EGL 328 – Documentary Theatre Creation
- THR 326/EGL 387 – Playwriting
- THR/ARH 334 – Performance Art I
- THR/ARH 344 – Performance Art II
- THR 335 – The Musicals of Stephen Sondheim
- THR 337 – Advanced Technical Theatre
- THR 351 – Special Topics in Performance
- THR 354 – Topics in Theatre
- THR 355 – Media and Production Design
- THR 403 – Media: Theory and Criticism
- THR 487 – Independent Research
- THR 488 – Internship (Staller Center)
- THR 447 – Readings in Theatre Arts
- THR 484 – Projects in Theatre
- EGL 345 – Shakespeare I
- EGL 346 – Shakespeare II
- EGL 362 – Drama in English

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

Turkana Basin Institute Origins Semester Abroad Themed Path (TBO)

SBC Integrated Course Cluster

Director: Jason Lewis

Email: 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.

Turkana Basin Institute Origins Summer Field School Themed Path (TBS)

SBC Integrated Course Cluster

Director: Jason Lewis

Email: 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

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.

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: Liz Montegary
Undergraduate Program Director: Nancy Hiemstra

Assistant to the Chair: Jackie Donnelly
Office: Humanities 2048
Phone: (631) 632-1967

Website: 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), 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.

1. Core Courses

2. WST 102Introduction 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
3. 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)

1. Electives
2. 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 331 Japanese Literature in the Feminine Domain
- AAS 372 Family, Marriage, & Kinship in China
- 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
- 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
- CCL 315 Gender & Sexuality in Ancient Greek Literature
- CCS 311 Gender & Genre in Film
- CCS 327 Topics in Histories of Culture (approved topics: "Queer Fictions of History; “Hormones & Behavior;” other topics when appropriate)
- CLT 122 Images of Women in Literature
- CLT 123 Sin & Sexuality in Literature
- 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 367 Contemporary Afro-American Literature (when topic appropriate)
- 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;" other topics when appropriate)
- 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;” “The World of Jane Austen;” other topics when appropriate)
- HIS 394 Topics in History of Human Reproduction
- 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")
- HIS 402 Colloquium in European History (approved topic: "Women, Militants, & the Vote")
- HIS 414 Colloquium in American History (approved topic: "Sex & Death in American Murders")
- 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 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 304 Sociology of the Family
- 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;" “Gender in Africa;” other topics when appropriate)
- SOC 394 Special Topics (approved topic: "Globalization, Gender, Migration;” “Gender & International Development;” other topics when appropriate)
- SOC 395 Topics in Sci, Tech, & Society (approved topic: “Perverts, Pimps, & Pills;” other topics when appropriate)
- SPN 410 Theory in Contexts (approved topic: "Money, Sex, & Power")
- WSE 187 Women in the Laboratory
- WSE 242 Society & Gender in Science & Engineering

1. 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. The following courses are approved to replace WST 395, 398, or 399)

Approved Replacements for WST 395

- AAS 307 Women in US-Asian Relations
- HIS 431 Women in Modern Japan
- JPN 332 Japanese Literature in the Feminine Domain
- SOC 391 Gender in Africa
- SOC 394 Gender & International Development
- WST 334 Women, Work & Family in Modern Europe
- WST 360 Women in Premodern Europe
- WST/AFS 350 Black Women & Social Change
- WST/AFH/EGL 382 Black Women’s Literature of the Diaspora
- WST/HIS 345 Women & Gender in Chinese History

Approved Replacements for WST 398

- HIS 300 Race, Gender, Rights in U.S. Legal
- HIS 396 Women of Color in American History
- WST/EGL 372 Black Women Writers
- WST/HUI 237 Images of Italian-American Women
- WST 391/HUI 390/EGL369 Italian-Amer & Afri-Amer Women’s Literature

Approved Replacements for WST 399

- ANT 295 Sex & Human Nature
- CCS 325 Making Bodies Fit
- EGL 390 Queer Studies: Race, Gender, & Sexuality in Literature
- HIS 394 AIDS & Social History
- POL 391 Sexualities & Politics

- SOC 391 Sociology of Sexuality
- WST 111 Intro to Queer Studies in the Humanities
- WST 112 Intro to Queer Studies in the Social Sciences
- WST 394 Special Topic: “Psychology of Reproduction”
- WST 394 Special Topic: “Women, Science, Fiction, & Reproduction”
- WST/AFS 381 AIDS, Race, Gender in the Black Community
- WST/EGL 390 Queer Studies: Theorizing Race, Gender, & Sexuality
- WST/HIS 374 Historical Perspectives on Gender Orientation
- WST/SOC 340 Sociology of Human Reproduction

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 on the Women’s, Gender, and Sexuality Studies Department Website at the start of pre-registration each semester.
3. At least two WST topics courses (taught by WGSS faculty or affiliated instructors) must be used in satisfying Requirement B.
4. No more than six credits from WST 447 (Directed Readings) and WST 487 (Independent Project) may be applied toward the major.
5. No more than 3 credits of WST 475 (Undergraduate Teaching Practicum I) may be counted towards a WST Major.
6. No more than 6 credits of WST 488 (Internship) may be counted towards a WST Major.
7. Any course listed as -or cross-listed with- WST may count as an Elective (Requirement C). Other courses may count as qualifying electives if at least half the course content addresses issues concerning women, gender, and/or sexuality. Students may seek advance approval from tThe Undergraduate Program Director, who can review a course syllabus to determine if the course qualifies as an acceptable Elective. Availability of Elective courses depends on individual departments.

Students majoring in WST may choose an additional WST specialization (this is not required for the Major): in Gender, Sexuality, and Public Health, OR Gender and Social Change.

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 WGSS Department website. Upon request, the Undergraduate Program Director can review a course syllabus to determine if the course qualifies as an acceptable course for this specialization.
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.

- 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 WGSS Department website. Upon request, the Undergraduate Program Director can review a course syllabus to determine if the course qualifies as an acceptable course for this specialization.

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
- 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 WST 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 102Introduction 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.
2. No more than 3 credits of WST 488 (Internship) may be counted towards a WST Minor
3. No more than 3 credits of WST 475 (Undergraduate Teaching Practicum I) may be counted towards a WST or Minor

Sample Course Sequence for the Major in Women's and Gender Studies

For more information about SBC courses that fulfill major requirements, click here.

FRESHMAN

FALL	Credits
First Year Seminar 101	1
WRT 101	3
WST 102	3
SBC	3
SBC	3
Elective	3
Total	16

SPRING	Credits
First Year Seminar 102	1
WRT 102	3
WST 103	3
SBC	3
SBC	3
Elective	3
Total	16

SOPHOMORE

FALL	Credits
WST 291	3
SBC	3
SBC	3
SBC	3
Elective	3
Total	15

SPRING	Credits
Major elective	3
SBC	3
SBC	3
Elective	3
Elective	3
Total	15

JUNIOR

FALL	Credits
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 and Rhetoric
Program in Writing and Rhetoric, College of Arts and Sciences

Director: Peter Khost

Assistant to the Director: Jilleen May

Staff Assistant: Adam Schultheiss

Email: adam.schultheiss@stonybrook.edu

Office: 2005 Humanities
Phone: (631) 632-7390

Website: http://www.stonybrook.edu/writrhet

Writing and Rhetoric (WRT)

The Program in Writing and Rhetoric offers two minors in writing: the Minor in Writing and Rhetoric and The Professional Writing Minor. The Program also offers courses that fulfill the University's English Composition requirement and provides a variety of 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 and Rhetoric

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 and rhetoric 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 and Rhetoric (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 and rhetoric minor allows students a high degree of flexibility in choosing coursework that suits their interests and schedules.

Requirements for the Minor in Writing and Rhetoric

Completion of the writing and rhetoric 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 and rhetoric 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 375 Technical Communication
- WRT 380 Advanced Research Writing
- WRT 381 Advanced Analytic and Argumentative Writing
- WRT 382 Grant 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 Undergraduate Program Director for 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.