

# Graduate Bulletin

Spring 2025



## Requirements for Admissions

- Requirements
- GPA for Admission
- Graduate Record Examination GRE
- English Proficiency Requirements
- Health Records

## Requirements for Admission

Admission to the Graduate School requires that the applicant have the preparation and ability that — in the judgment of the program and the Graduate School — are sufficient to enable satisfactory progress in the degree program or certificate. A U.S. bachelor's degree or the equivalent is required (for example, a four-year/120 credit hour accredited program) with a minimum overall grade point average of 3.0 on a 4.0 scale. The student must present evidence that such a degree will be awarded by the time graduate work is to begin.

Students who already hold an advanced academic degree from any university may not earn a second degree from Stony Brook University at the same level in the same disciplinary field (e.g., if you have an MS in Computer Science, you cannot also earn a Stony Brook MS in Computer Science).

Application for admission to the Graduate School is made to a specific program for a designated degree or certificate. Additional admission requirements are listed in each program's section of this publication. To be considered for admission, all applicants must submit a completed application online as well as the following documentation to the graduate program:

- Applicants must submit an official transcript from their undergraduate college or university attended showing bachelor's degree conferral. Applicants must also submit an official transcript from each college or university relating to graduate-level work, regardless of whether a degree was conferred.

Official transcripts are valid when they are issued by the school you attended. They have an official seal/stamp and an official signature by an appropriate academic administrative officer. They are sealed by the university. Official electronic transcripts, sent by authorized delivery agents, are also accepted. Photocopied documents are NOT official. Final transcripts state that a degree has been conferred and provide the date of conferral.

In addition to submitting official original documents in the native language, applicants with international credentials must submit an official English translation of all coursework showing a complete course by course record, GPA, degree, and institution, in addition to the original documents. SBU graduate admissions personnel will evaluate coursework, GPA, degree requirements, and institutional equivalence. In some instances where the coursework, degree equivalency, GPA, and/or institution cannot be verified, a course-by-course evaluation from one of Stony Brook University's approved NACES members listed below, may be requested from the applicant.

- a. World Education Services (WES)
- b. International Education Evaluations, Inc. (IEE)
- c. Education Credential Evaluators (ECE)

Unofficial copies for both domestic and international credentials are acceptable for an admission decision to be made. If admitted, the applicant must submit final official transcripts/evaluations. To be deemed official, transcripts must be sent directly from the college/university or evaluation agency via mail or through an approved transcript delivery service.

- Three letters of recommendation
- Statement of purpose
- The GRE General Test is required by several Graduate School programs. Please refer to the admissions requirement information about your specific program of interest. You can also view a list of programs that require the GRE test in Admissions FAQs under Test Scores. Scores for the Graduate Record Examination (GRE) General Test sent directly from ETS (photocopies are not acceptable).
- Documented proficiency in English for international students (see the English Proficiency Requirements for Non-Native Speakers of English below for details).

To fill out an application, students must go to [www.grad.sunysb.edu](http://www.grad.sunysb.edu) and create an online account. A nonrefundable application must be charged via credit card when submitting the online application. All applicants are required to pay the application fee. Exceptions can be found under Waiver of Application Fee.

Early application is suggested for students seeking financial support. To receive full consideration for admission with financial support, complete admission and financial aid applications should be filed by *January 15* for the fall semester and *October 1* for the spring semester. Admission decisions are made by programs. Late applications will be accepted but will be considered only by the programs where openings still exist.

An offer of admission to graduate study at Stony Brook is for a specific semester. An applicant who is accepted to a program and is unable to enroll for the semester specified should request a deferment of admission from the primary department or program. If the request is granted, the student will be sent a new offer of admission for the subsequent semester, and the Graduate School will be notified accordingly.

Students who do not enroll within 12 months of the original offer of admission must submit a new application and fee.

International students must submit a new “Request for Certificate of Eligibility and Declaration and Certification of Finances” form to request an updated Form I-20 or IAP-66 valid for the updated semester of admission. Unused Forms I-20 or IAP-66 must first be returned. For more information, please see the Visa and International Services site.

- Grade Point Average for Admission
- Graduate Record Examination GRE
- English Proficiency Requirements
- Health Records

### Graduate Record Examination

The GRE General Test is required by several Graduate School programs. Please refer to the admissions requirement information about your specific program of interest. You can also view a list of programs that require the GRE test in Admissions FAQs under Test Scores.

Applicants who have taken the GRE should request that [Educational Testing Service](#) forward scores directly to the Graduate School (the Stony Brook code is 2548). When required, failure to submit GRE scores with the completed application will prevent the review of student applications by the program. Photocopies are not acceptable. To register for the GRE, please see [www.ets.org](http://www.ets.org).

### Grade Point Average for Admission

An applicant must have a minimum undergraduate cumulative grade point average of 3.00 on a 4.00 point scale, where A=4.00, A-=3.67, B+=3.33, B=3.00, B-=2.67, C+=2.33, C=2.00, C-=1.67 and D+=1.33, D=1.00, D-=.67 and F=0.00. If the student attends a college that only gives Passes or Credits for the first year of study then these grades will be evaluated as C for GPA admission purposes unless the student provides actual grades.

### English Proficiency Requirements for Non-Native Speakers of English

#### English Language Requirements

All students who are not native or primary speakers of English must demonstrate proficiency in English to be admitted to the Graduate School. Stony Brook University has established overall minimum English language competency requirements for admission to graduate study and additional, more stringent **speak** competency requirements for PhD applicants as well as master's students who serve as Teaching Assistants. Students may be conditionally admitted without meeting some admission requirements, but *under no circumstances may students teach in a class or laboratory until they have met Stony Brook University's **speak** competency requirements.*

A native speaker of English is someone who learned English as a child and uses English as his or her primary language at home. A primary speaker of English may speak a language other than English at home but has developed native fluency as a result of using English exclusively in most social and educational contexts.

All students must declare their native language as part of the admission process. Intentional misrepresentation by a student of his or her native language is academic dishonesty and is grounds for dismissal from the graduate school.

#### English Proficiency Requirements for Admission:

There is no need to submit an English language proficiency test if:

- you hold a degree such as a high school diploma, bachelors, masters, or PhD from an institution where the primary instruction was in English
- you are a US citizen (or US National) or Permanent Resident
- you served as a Teaching Assistant at an institution where the primary instruction was in English

English language proficiency test results will be considered as part of the review process for admission for any applicant who submits test results as part of their application. If the scores are below the stated requirements, an offer of admission cannot be extended.

To be considered for admission, an applicant who is not a native or primary speaker of English or do not qualify to be exempt from a language proficiency exam based on their answers to the application questions listed above, must present a minimum score for either the TOEFL or IELTS tests, as defined below. Students who fail to meet this requirement must enroll in a course at the Intensive English Center (IEC) and achieve satisfactory grades before admission to graduate study. At the request of the program, conditional admission may be offered to students who do not meet minimal language requirements for admission. Note: Students whose scores on either of these tests are more than two years old must retake the test.

- IELTS: Overall score of 6.5, with no subsection recommended to be below 6
- TOEFL iBT: Overall score of 90 for doctoral applicants and 80 for master's applicants.

**NOTE: DUOLINGO WILL NO LONGER BE ACCEPTED AS A LANGUAGE PROFICIENCY TEST SCORE AFTER THE SPRING 2025 ADMISSION CYCLE**

For international students, in response to the closure of testing centers due to the Novel Coronavirus, Stony Brook University has temporarily approved the use of the Duolingo English test in place of the in-person TOEFL and IELTS proficiency exams.

The exam costs \$49 (USD) and may be taken from any computer that has a camera, audio, and reliable internet. The exam portion of the Duolingo English test contains a series of speaking, reading, writing and listening exercises. Following the exam, there is an interview portion that will ask you to respond to various prompts in 30 to 90 seconds. The exam takes about 45 minutes to complete and you will need either a passport, driver's license, or national or state ID to show the camera. The score results are generally received within a few days of exam completion.

A minimum score of 105 is required for Master's applicants. A minimum score of 110 is required for PhD applicants. PhD's and students who will serve as Teaching Assistants scores must be assessed by the Writing and Rhetoric Department to determine OAE placement (see below).

Information on preparing for the Duolingo exam can be found [here](#).

#### ***English Speaking Proficiency Requirements to Serve as a Teaching Assistant:***

Supervised college-level teaching is required for the award of any doctoral degree at Stony Brook, and occasionally master's students serve as teaching assistants. Eligibility for any student serving as a Teaching Assistant is contingent upon the candidate's ability to speak English proficiently. All prospective Teaching Assistants who are not native or primary speakers of English must achieve a minimum score on the Speaking subsection of the Internet-based TOEFL or IELTS. The TOEFL iBT is administered at centers throughout the world several times each year; applicants should forward their scores directly to the Graduate School (the Stony Brook code is 2548). Further information is available by contacting the Education Testing Service, Princeton, New Jersey 08540, USA, or at [www.toefl.org](http://www.toefl.org). Information on the IELTS test can be found at [www.ielts.org](http://www.ielts.org).

All applicants who fail to achieve the minimum score on one of these tests will not be allowed to serve as a Teaching Assistant. This includes *all* doctoral students and all master's students who will be assigned as a Teaching Assistant.

Students who will have a teaching role at the University and whose speaking test scores do not meet our minimum standards for teaching will be assigned to an Oral Academic English (OAE) course. NOTE: OAE courses are remedial and cannot be counted toward degree requirements or degree completion from any program.

<b>TOEFL iBT Speak</b>	<b>TOEFL Essentials Speak</b>	<b>IELTS Speak</b>	<b>Course Requirement</b>	<b>Result</b>
23-30	10+	7 or Higher	none	Eligible to TA
21-22	8-9	6.5	OAE 594	Eligible to TA
18-20	6-7	6	OAE 592	Eligible to run recitation and lab sessions and/or grade
15-17	4-5	5-5.5	OAE 590	Not eligible to TA

#### **Health Records**

All accepted students are required by New York State law to file a completed health history and physical examination with the Student Health Service. Transfer students may submit copies of their health forms from their former schools provided they contain the information required by the Student Health Service and are less than two years old.

#### **Offers**

- Offers of Admission
- Offers of Financial

#### **Support Offers of Admission**

Offers of admission to a specific program for a specific semester and year are sent by graduate programs following the evaluation of applications. Offers of admission for a fall semester are not valid for a previous summer term. Such offers are limited to the conditions included and are subject to the final approval of the Dean of the Graduate School. If specific application documents are missing, the applicant has deficiencies to remove upon arrival, or the cumulative GPA is below 3.00 on a 4.00 scale, the offer will be conditional upon fulfilling all remaining requirements. Offer letters will indicate a deadline date for accepting or declining the offer. As a member of the Council of Graduate Schools, Stony Brook University gives all doctoral applicants until at least April 15th to reply to an offer of admission.

#### **Offers of Financial Support**

Offers of financial support may also be sent by graduate programs following the evaluation of applications. Such offers are always subject to approval by the Graduate School and are conditional on the existence of adequate funds to provide this support.

Financial support to a graduate student may be provided in form of a State appointment or a Research Foundation (RF) appointment. Teaching assistantships and Graduate assistantships are State appointments and are governed by the GSEU contract with the State of New York. Research assistantship appointments are made via the Research Foundation and are governed by the RA Union contract with the Research Foundation. Research Assistantships are funded by grants.

The campus establishes a minimum academic year stipend for state appointments. All appointments (TA, GA, RA) are subject to a campus maximum stipend level. In order for a stipend appointment amount to exceed the prescribed maximum, the employing department must obtain written approval from the Dean of the Graduate School.

Students are entitled to know the conditions under which offers of financial support are made, and to expect that explicit commitments of support will be honored, subject to conditions that are stated explicitly at the time of offer.

Consequently, both letters of admission with support and subsequent offers of renewed support should specify:

- Amount of financial support, including tuition scholarship if applicable.
- Nature of support - teaching assistant (TA), graduate assistant (GA), or research assistant (RA).
- Period for which support is given.
- Level of support - e.g., full, three-quarters, one-half.
- Time and/or effort involved at level of offered support for graduate or teaching assistant, or certifiable percent of effort for research assistant.
- Academic and assistantship obligations corresponding to the level of support. A written description should be provided before the obligations begin.
- Conditions for renewal of support.

### **Renewal of Support**

Subject to the University's policies on the maximum time for which a student may be supported, a department's first obligation for support must be to continuing graduate students in accordance with the conditions stated in the initial letter of offer and subject to the existence of adequate funding. These students must be making satisfactory academic progress, be in good academic standing, and have satisfactorily carried out their academic and assistantship responsibilities as teaching and graduate assistants. The same principles apply to graduate research assistants, recognizing also that reappointment is subject to available external funding and to applicable Research Foundation policies. Offers of continued appointment and support are to be made in writing.

Support may be terminated if a student's academic progress or performance of assistantship responsibilities is unsatisfactory. Support should not be terminated in the middle of an academic year unless student status is withdrawn, the student fails to meet the assigned responsibilities of the assistantship, or all degree requirements have been completed. In the event that external funds with which a graduate research assistant is supported terminated before the end of the period of appointment, departments should make their best efforts to identify alternative support sufficient to allow the student to complete the academic year.

It is the joint responsibility of each graduate student and his/her department or program director to expedite the progress of the student through his/her graduate career. That progress should not be delayed to meet instructional or professional needs of departments beyond those responsibilities assigned to the student.

Unless expected amounts, levels and terms of continuing support are specified in the initial letter of offer, amounts and levels beyond the first year are not to decrease below the original offer unless the reduction is requested by the student or is mutually agreed upon by the student and the department. Any such reductions below the institutional minimum will be accompanied by a corresponding reduction in the student's academic and assistantship obligations.

Financial support may be increased beyond the minimum level offered provided the increase does not derive from decreases in the amount of support already committed to other students below the institutional minimum. Any conditions, restrictions or limitations on increases above the University minimum are to be stated explicitly in the letter of offer or renewal.

### **International Students**

#### **F-1/J-1 International Student Documentation**

Each person planning to study, teach or engage in research in the United States is required to have the appropriate immigration status for that activity. The immigration documents for F-1 and J-1 student status are issued by Visa and Immigration Services at Stony Brook University based on receipt of required supporting documentation, including evidence of admission, English language proficiency, and proof of financial support for the program of study. Non-immigrant students are responsible for obtaining and maintaining the appropriate immigration status for their stays in the United States.

Upon application to Stony Brook University, Visa and Immigration Services will email applicants information on how to log in to access VIS and submit the electronic request for a Form I-20/DS-2019. Requests are processed upon BOTH admission to the academic department and clearance by the Graduate School.

Government regulations require that international students attend the institution that issued the I-20/DS-2019 used for entry into the United States. Transfers between institutions may be possible if a student can show that he or she reported to the original institution with the appropriate clearance.

Please contact Visa and Immigration Services for any questions related to I-20/DS-2019 issuance or transfers.

### **Non-Matriculated Status (GSP)**

Any person holding a bachelor's degree, its equivalent, or an advanced degree from an accredited institution of higher learning and has a cumulative GPA of 2.5 or higher is eligible to be considered for admission to the University as a non-matriculated graduate student. Such students may enroll in graduate courses through the Graduate School as non-degree students after submitting a completed application. Non-degree students who later wish to pursue a graduate degree will need to make a formal application for admission to the specific program and may transfer a maximum of 12 credits taken in non-matriculated status to the graduate degree program or 6 to a graduate certificate program.

### **Transfer of Credit**

A maximum of 12 credits may be transferred from another institution to a master's program and a maximum of 6 credits from another institution may be transferred to a certificate program to Stony Brook with the approval of the program and the Graduate School provided that they have not been used toward the satisfaction of any degree or certificate requirements here or at another institution. A candidate for the doctoral degree may only transfer those graduate credits that are relevant to the learning outcomes of the Stony Brook graduate program. Review and approval of course content will be carried out by the appropriate program committee.

### **Transfer from Non-Matriculated Status**

Students transferring from non-matriculated status at Stony Brook, are limited to a maximum of 12 graduate credits for master's degrees and 9 credits for certificates. Students must be formally matriculated into a degree program before the petition to transfer is submitted. All graduate courses completed in non-matriculated status will be counted as part of the total graduate grade point average (GPA).

### **Transfer from Other Institutions**

A candidate for the master's degree may petition to transfer a maximum of 12 graduate credits from another institution toward their master's degree requirements. A candidate for an advanced graduate certificate may petition to transfer a maximum of 6 graduate credits from another institution toward their advanced graduate certificate. These credits must be from an institution authorized to grant graduate degrees by recognized accredited commissions and meet the following guidelines:

- Credits must not have been used to fulfill the requirements for either a baccalaureate or another advanced degree or certificate.
- Credits must not be more than five years old at the time the student is admitted to graduate study at Stony Brook. Acceptance of courses older than five years are contingent upon support of the program director and approval by the Graduate School or School of Professional Development.
- Credits must clearly be graduate level in order to be considered for transfer.
- Credits must carry the grades of A or B. "Pass" or "Satisfactory" grades are not transferable unless these grades can be substantiated by the former institution as B (3.0) or better.
- Grades earned in transferred courses are not counted as part of the overall GPA at Stony Brook.
- Work from one master's degree is not transferable to a second one.

### **Transfer from Non-US institutions**

Courses taken at institutions outside the United States: College-level courses completed outside the United States and recorded on official transcripts will be evaluated for transfer credit, provided that the institution where the courses were taken is accredited by the Ministry of Education in that country. International transfer students who have completed college level courses outside the United States may be requested to submit proof of accreditation by the Ministry of Education or provide a WES evaluation.

### **Transfer Between Primary and Secondary Programs**

A maximum of 12 graduate credits from Stony Brook, which were earned in a primary program prior to a student being accepted into a secondary program, can be applied to the secondary program. Credits applied to the degree requirements of a primary program cannot be applied toward the degree requirements of a secondary program.

A maximum of 9 graduate credits from Stony Brook, which were earned in a primary program prior to the student being accepted into a certificate program, can be applied to the certificate program. Credits applied to the degree requirements of a primary program (not a certificate) can be applied toward the certificate requirements.

### **Special Circumstances**

- Waiver of Application Fee
- Readmission
- Conditional Admission
- Secondary Program

### Application Fee Waiver

The application fee for admission to the Graduate School is \$100. All applicants are required to pay the application fee which is non-refundable. Exceptions are limited to:

- Applicants who re-apply for admission within one academic year of declining an official offer of admission. Please attach a copy of the offer letter and a copy of the email declining admission to the application before submission. These items are needed for review and approval
- Students who are U.S. citizens and have current documentation from a financial aid administrator of an appropriate college or university official substantiating that they are currently enrolled and that the payment of the application would create a financial hardship (complete financial information for the current academic year must be provided, including total cost of education and amount and types of financial aid received). To qualify, applicants must include the necessary documentation listed above at the time of application submission review. These items are needed for review and approval.
- Current students who have a fellowship/scholarship through EOP, HEOP, SEEK, McNair, Project 1000, AGEP, CSTEP, LSAMP, and AMSNY. To qualify, applicants must have a letter or email from the appropriate agency sent to the Graduate School attached to the application upon submission for review and approval of the application fee waiver request.
- Veterans of the United States Military Service, currently on Active Duty or members of the National Guard or Reserves are exempt from paying the application fee. NOTE: Before fee waiver is applied, veterans must be vetted through the Office of Veteran Affairs at Stony Brook University and must submit a copy of their discharge paperwork (DD Form 214) with their application submission for review and approval of the application fee waiver request.

If you do not meet the criteria above, you are not eligible for an admissions fee waiver.

Students who do not enroll within 12 months of the original offer of admission must submit a new application and fee.

### Readmission

Graduate students who have interrupted their attendance at Stony Brook by withdrawing from a semester(s) or by taking a Leave of Absence must be readmitted to reactivate their graduate career. The student initiates the process by submitting a completed "Readmission" form to their program. The form can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu).

- Students returning from a currently approved Leave of Absence are generally guaranteed readmission.
- Students not on an official Leave of Absence must pay a \$500 readmission fee.
- International students must also submit a new financial affidavit and be cleared by an international student advisor before the readmission process can be concluded.

If the program approves the request, the readmission form is submitted to the Graduate School for final approval.

The program or the Graduate School may set specific requirements to be fulfilled by the readmitted student during the first year of their readmission. Readmission will be revoked for students who do not fulfill these requirements.

Students who withdraw from the University must reapply with a new application in order to return.

### Conditional Admission

In exceptional cases where certain admission requirements are not met or the undergraduate preparation is inadequate, an applicant may be admitted conditionally. Such applicants will be considered on probation during the first semester. Program recommendation and Graduate School approval are required for conditional admission.

- Students admitted conditionally for a low cumulative GPA must earn an overall graduate average of at least a B (3.0) during the first semester of enrollment to be permitted to continue. In this case, the student is considered to have achieved regular status.
- A student admitted conditionally because of a low cumulative GPA who fails to earn a B (3.0) average in the first semester will not be permitted to reenroll. Both the student's program and the Graduate School may set conditions that the student must satisfy during the early period of graduate work.

### Change of Graduate Program and/or Academic Level

Should a student wish to change programs or academic levels following admission and matriculation, a "Change of Graduate Program and/or Academic Level" form must be submitted to the Graduate School/School of Professional Development with original signatures by both prior and new department or program chairs and advisors. The form can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu). In addition, international students who seek to change their program must obtain approval of an international student advisor.

Students must submit this form to the Graduate School before the first day of classes of the first semester indicated for the New Degree Program/Level. Forms received after this date will be denied.

### Secondary Program and Advanced Graduate Certificate

Should a student wish to add a secondary program or an Advanced Graduate Certificate to his or her primary program of study, a "[Permission to Enroll in a Secondary Degree or Secondary Certificate Program](#)" form must be submitted to the Graduate School with original signatures



by both the primary and new Graduate Program Directors. Final approval rests with the Graduate School/School of Professional Development. International students are required to obtain approval of an international student advisor.

Students who complete the published requirements for a second degree/certificate without obtaining this approval in advance are NOT eligible to receive the degree.

A maximum of 12 graduate credits from Stony Brook, which were earned in a primary program prior to a student being accepted into a secondary program, can be applied to the secondary program. For Advanced Graduate Certificates, students can apply a maximum of 9 credits from Stony Brook earned in a primary program prior to being accepted into the certificate program. Credits applied to the degree requirements of a primary program cannot be applied towards the degree requirements of a secondary program. Credits applied to a primary program can be applied towards the requirements of an Advanced Graduate Certificate.

The time limit for a degree program remains that same when adding a secondary certificate. A student must complete the certificate within the time limit for the degree program completion.

Students accepted into two doctoral programs must complete two independent dissertations, with separate and independent examining committees and based on separate and independent research or scholarship, in order to earn both doctoral degrees.

Academic Level

### Full-Time Students

Students admitted for full-time study to the Graduate School are required to register for a minimum of nine credit hours per semester, although some programs may require enrollment in additional credits. Responsibility for certifying the full-time status of graduate students rests with the Office of the Registrar. Incoming full-time graduate students are classified as G1, G2, G3, or G4 depending on the program to which they have been admitted and their previous graduate training.

- G1 or C1 - First year master's or advanced graduate certificate student who has completed less than twenty-four graduate credits.
- G2 or C2 - Advanced master's or advanced graduate certificate student who has completed twenty-four or more graduate credits.
- G3 - First year PhD graduate student who has completed less than twenty-four graduate credits.
- G4 - Advanced PhD graduate student who has completed twenty-four or more graduate credits.
- G5-Advanced student enrolled in a doctoral degree program that has been advanced to candidacy for the doctoral degree by Day 10 of a semester or term.

To be considered full-time during a non-completion summer or winter semester, all students must register for zero (0) or more graduate credits. To be eligible for graduation during a summer or winter semester, all doctoral students and international masters students must register for at least one graduate credit (e.g. GRD 700 or GRD 800, as appropriate). To be eligible for graduation during a summer or winter term, domestic masters students must register for at least zero graduate credits. Students who do not register in a summer or winter for graduate credits cannot have full-time status and will not be eligible for graduation.

A G1 will be automatically converted to a G2 when the student has completed and received grades for 24 or more graduate credits at Stony Brook; a G3 will be automatically converted to a G4 when the student has completed and received grades for 24 or more graduate credits at Stony Brook; Incompletes are not completed credits. The conversion of G4 to G5 is an administrative change that is done by the program and the Graduate School upon advancement to candidacy.

The maximum number of credits a Graduate Student may register for is 18. If students wish to enroll for more than 18 graduate credits, they must get the permission of their Graduate Program Director and the Graduate School. Once they have received written permission they will be allowed to register for more than 18 graduate credits at the Registrar's Office.

### Part-Time Students

Incoming part-time students admitted to the Graduate School will register for no more than eight credit hours per semester. Programs may, in consultation with the dean of the Graduate School, regulate the proportion of part-time students in their graduate program.

Part-time students are classified as G1, G2, G3, or G4 depending on the program to which they have been admitted and their previous graduate training.

- The academic level of a G1 or G3 student who has completed 24 credits of coursework at Stony Brook is changed to G2 or G4, respectively.

### Part-Time Enrollment

Graduate students may be eligible to register part-time in their last semester if the number of credits needed to complete the program is less than a full-time load. If part-time enrollment is authorized for this reason, the student MUST graduate at the end of that particular term. All graduate students must be enrolled in a graduate course during the semester that they graduate, adhering to the restrictions outlined above and in the Degree Candidacy Policy.

International students should contact the [Visa and Immigration Services office](#).

Domestic students who hold a Graduate/Teaching Assistantship on campus should have their Graduate Program Coordinator contact the Graduate School with a request for part-time enrollment.

**Change of Primary Program**

Should a student wish to change their graduate programs or academic levels following admission and matriculation, a Change of Academic Level/Program form must be submitted to the Graduate School with original signatures by both prior and new Graduate Program Directors and advisors. The form can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu). In addition, international students who seek to change their program must obtain approval of an international student advisor.

Students must submit this form to the Graduate School before the first day of classes of the first semester indicated for the New Degree Program/Level. Forms received after this date will be denied.

**Accelerated Bachelor's/Master's Programs**

Five-year bachelor's/master's programs are available in several academic departments. Some are joint programs between two departments or colleges. Students are allowed to take a specified number of graduate credits that will count towards both their undergraduate and graduate requirements; subsequently reducing the total time for completion of the master's degree.

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. However, the approved maximum credit allowance varies by program. Please consult with the appropriate program for approved maximum credit allowance.

**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.

### **Applying to an Accelerated Bachelor's/Master's Program**

Students must apply and be admitted to an accelerated 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 both the undergraduate department and the corresponding Graduate Program Director.

### **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 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 "Application to Graduate School for the Accelerated Bachelors/Master's Degree" form and an admission letter signed by the Graduate Program Director to the Graduate School. Students should consult with both their Undergraduate Program Director and their Graduate Program Director for advising and guidance on matriculation.

As part of the Accelerated Program, students can continue working on their Bachelor's degree requirements as a Masters student. The Bachelor's degree will be awarded once all requirements are met. 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 Accelerated 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.

## Overview

Overview It is possible to learn without being educated. Learning merely implies the amassing of knowledge. An educated person is much more than a receptacle for facts. He or she is able to present those facts to others with grace and clarity, and to manipulate and juxtapose them with a broader base of knowledge in order to gain new insights. Finally, an educated person never ceases to test his or her knowledge against the highest standards of scholarship and to develop new ways of thinking about the facts that he or she encounters or uncovers in the course of a lifetime. Education at the graduate level clearly implies the amassing of knowledge beyond that gained in an undergraduate degree, but the nature of the knowledge and the ways in which it is gained and used are also significantly different. It is expected that graduate students will gain detailed knowledge about a more specialized field than at the undergraduate level. The process of acquiring that knowledge is also much more independent and more reliant upon the initiative of the student. In spite of the necessarily specialized nature of the new knowledge, at Stony Brook graduate students are expected to maintain a broad perspective on their studies, such that they are able to take part in scholarly discourses in the broadest possible range of disciplines. Graduate students are, therefore, responsible for extracurricular self-education within and beyond their own fields of study; the mere satisfaction of the technical requirements for a degree is not sufficient to make one an educated person. With education comes responsibility. Stony Brook demands the highest level of scholarly ethics from all members of the academic community. Graduate students must make themselves aware of the ethical issues of academia in general, and of their own fields in particular. No degree candidate can be considered fully educated who lacks an appreciation of these values and a dedication to upholding them. The requirements in this section are the minimal ones mandated by the Graduate School; the individual graduate programs may set additional requirements. The Dean of the Graduate School in individual instances may choose to waive specified requirements. A petition for such a waiver must be submitted and endorsed by the Graduate Program Director, who shall append the reasons for believing that the requested waiver does not violate the spirit of the regulations. Any changes in requirements will apply only to students who first matriculate in their particular program after the change is approved and communicated to students at the time of admission. The University reserves the right to alter these regulations without notice.

## Advanced Graduate Certificate

- Introduction
- Courses and Grade Point Average
- Language Proficiency
- Enrollment Requirements
- Certificate Completion
- Degree Application
- Registration
- Program Recommendation
- Time Limit
- Standards

## Advanced Graduate Certificate Introduction

The Graduate School and School of Professional Development offer a wide variety of Advanced Graduate Certificates. These can be taken after completing a bachelor's, master's, or other advanced degree. Certificates are designed around specialized areas of focus for targeted study within a field. Certificate programs can be taken concurrently with another program or some are stand alone programs (see program page for details). A certificate is a good option for someone who may not want to complete the full credit requirements for a degree program, but would like to develop a solid background and skills in a specialized field.

## Courses and Grade Point Average

A student must achieve a 3.0 overall GPA in all graduate courses taken at Stony Brook to receive a certificate.

Calculation of the grade point average (GPA) includes all courses taken at Stony Brook as a graduate student numbered 500 and above. Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are excluded from the computation.

A graduate student who has changed primary program may request a restart of GPA in considering possible waiver of academic probation. The GPA for the new program will be calculated from the beginning of the semester in which the change of program became effective. A graduate student who has graduated and is readmitted into a new degree or certificate program may request a restart of GPA. Program approval is necessary before any restart request is submitted to the Graduate School. Courses taken before the restart of GPA cannot be used towards a second degree or certificate.

## Language Proficiency

Although the Graduate School does not require proficiency in a foreign language for certificate programs, programs oversee their own foreign language requirements and the evaluation of proficiency. Students must comply with program requirements.

To be granted an advanced graduate certificate at Stony Brook, a student must have been admitted to and enrolled in the appropriate certificate program for at least one semester.

Students must apply for graduation via SOLAR in accordance with published deadlines. If degree/certificate requirements are not met, students must reapply for any subsequent awarding periods using the Change of Graduation Date form found on the Graduate School web site.

## Registration

Degree candidates must be registered in the semester they intend to graduate. Students who intend to graduate in the spring or fall must register for at least one graduate credit. Students who intend to graduate in the summer can register for zero credits, but it still must be a graduate-level course.

### Program Recommendation

When all program requirements are completed, the graduate program director may recommend to the dean of the Graduate School that the Advanced Graduate Certificate be granted.

### Time Limit

The Graduate School and School of Professional Development have no established time limits for advanced graduate certificates. However, programs offering certificates may choose to enforce time limits for completion (most are 3 years maximum). Please see the program page directly for information on time limits for specific advanced graduate certificates. There are no enforced time limits for.

In the event a program enforces a time limit, the Request for Waiver of Graduate Time Limit form can be found by selecting the forms link from the Graduate School website. These petitions require the approval of the student's advisor and graduate program director. Requests for a time limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the dean of the Graduate School, who may impose additional requirements.

### Standards

Appreciation of the ethical questions and adherence to the highest ethical standards of the discipline are required.

### Masters

- Introduction
- Courses and Grade Point Average
- Language Proficiency
- Teaching
- Enrollment Requirements
- Thesis and Comprehensive Examination
- Degree Application
- Registration
- Program Recommendation
- Time Limit
- Standards

### Introduction: Degrees of Master of Arts, Master of Business Administration, Master of Fine Arts, Master of Music, and Master of Science

Master of Arts, Master of Business Administration, Master of Fine Arts, Master of Music, and Master of Science are advanced degrees implying the acquisition of knowledge and skills beyond those required for a baccalaureate.

• Some of these degrees may be taken enroute to a doctoral degree, while others are terminal. • All master's degrees imply the recognition of their holders as skilled practitioners of their disciplines.

• In order to be awarded a master's degree, it is necessary to demonstrate a grasp of advanced knowledge through coursework and the ability to learn independently and to communicate effectively with one's peers.

• The granting of the master's degree is based upon the completion of any special program requirements in addition to the items listed below.

### Courses and Grade Point Average

A student must achieve a 3.0 overall GPA in all graduate courses taken at Stony Brook to receive a degree. A minimum of 30 to 60 credits of graduate work is required to receive a master's degree.

Calculation of the grade point average (GPA) includes all courses taken at Stony Brook as a graduate student numbered 500 and above. Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are excluded from the computation.

A graduate student who has changed primary program may request a restart of GPA in considering possible waiver of academic probation. The GPA for the new program will be calculated from the beginning of the semester in which the change of program became effective. A graduate student who has graduated and is readmitted into a new degree or certificate program may request a restart of GPA. Program approval is necessary before any restart request is submitted to the Graduate School. Courses taken before the restart of GPA cannot be used towards a second degree or certificate.

### Language Proficiency

Although the Graduate School does not require proficiency in a foreign language for the master's degree, programs oversee their own foreign language requirements and the evaluation of proficiency. Students must comply with program requirements.

### Teaching

All doctoral students at Stony Brook University must complete at least one semester of practicum in teaching under supervision, however some departments also require at least one semester of practicum in teaching under supervision for master's students. The form this practicum takes may differ by discipline. The experience might include making seminar or class presentations, assisting in laboratories, or leading discussion sessions. Grading experience by itself

will not be considered sufficient for satisfaction of this requirement. Faculty are responsible for providing informal feedback and formal evaluation.

Following (or in some cases, concurrent with) proper training through a teaching practicum and after having fulfilled other requirements for teaching (e.g., demonstration of spoken English proficiency for non-native speakers of English), a graduate student may serve as a teaching assistant (TA) in courses at Stony Brook University, where the instructor of record is a faculty member.

Graduate students at G4 level or below cannot be designated as the Instructor of Record for any course offered at Stony Brook University. They will be appointed as Teaching Assistants. In addition, there must be a designated faculty supervisor who serves as the Instructor of Record for the course. In the absence of any other faculty Instructor of Record for a course, this designation shall revert to the department Chair.

To be granted a master's degree at Stony Brook, a student must have been admitted to and enrolled in the appropriate degree program for at least one semester.

### **Thesis and Comprehensive Examination**

- The requirement for the thesis and comprehensive examination varies from program to program. Some programs require a thesis and others require a comprehensive examination, while some require only a master's paper.
- For specific requirements, refer to each program's section of the Graduate Bulletin.
- Masters students should confirm with their program if they are required to file their thesis with the Graduate School.
- If a thesis is to be filed with the Graduate School, it must be prepared according to the Guidelines for the Preparation of Theses and Dissertations available on the Graduate School website and it must be submitted to the Graduate School by the posted deadline.
- Multiple authorship of a thesis is not permissible.

### **Degree Application**

Students must apply for graduation via SOLAR in accordance with published deadlines. Doctoral students who intend to receive a master's degree during the course of their doctoral career must apply for graduation online at the Graduate School web site. If degree requirements are not met, students must reapply for any subsequent awarding periods using the Change of Graduation Date form found on the Graduate School web site.

### **Registration**

Degree candidates must be registered in the semester they intend to graduate. Students who intend to graduate in the spring or fall must register for at least one graduate credit. Students who intend to graduate in the summer or winter can register for zero credits, but it still must be a graduate-level course.

### **Program Recommendation**

When all program requirements are completed, the graduate program director may recommend to the dean of the Graduate School that the master's degree be granted.

### **Time Limit**

The following guidelines apply to all first-time matriculated students enrolled in the Graduate School.

- Full-time students must complete all degree requirements within three years.
- Part-time and School of Professional Development students must complete all degree requirements within five years.

In exceptional cases where the program cannot be completed within these periods, students may petition for an extension of the time limit. Petitions forms are available on the Graduate School Web site and require the approval of the student's advisor and graduate program director. Requests for a time-limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the dean of the Graduate School, who may impose additional requirements.

The Request for Waiver of Graduate Time Limit form can be found by selecting the forms link from the Graduate School website. These petitions require the approval of the student's advisor and graduate program director. Requests for a time limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the dean of the Graduate School, who may impose additional requirements.

### **Standards**

Appreciation of the ethical questions and adherence to the highest ethical standards of the discipline are required.

### **Ph.D.**

- Introduction
- Courses and Grade Point Average
- Language Proficiency
- Preliminary Examination
- Advancement to Candidacy
- Dissertation and Dissertation Defense
- Dissertation Examining Committee
- Teaching
- Residence Requirements

- Degree Application
- Registration
- Program Recommendation
- Time Limit
- The Master of Philosophy Degree

### Introduction to The Ph.D. Degree

The degree of Doctor of Philosophy was historically the first degree to be conferred by universities. It is granted in recognition of a candidate's high level of scholarly competence and demonstrated ability to conduct and report significant research independently and effectively. "Doctor" is the Latin Word for "teacher." "Philosophy" in its broadest definition means "all knowledge." The modern sense of the title "Doctor of Philosophy" refers to one who comprehends all knowledge in his or her chosen field and has mastered an area of specialization. He or she has added in a significant way to that body of knowledge and has transmitted the new knowledge, thus teaching the world something new. A person who has received the doctorate has mastered appreciation of the ethical questions and has adhered to the highest ethical standards of the discipline. It is further expected that the future work of the candidate for the Ph.D. will maintain and uphold the same standards of scholarship demanded for the degree, so the title and its meaning continue to apply.

The three requirements for the PhD are assessed in the final defense of a dissertation.

- The dissertation should demonstrate significant original work.
- The final dissertation should be presented with clarity of thought and excellence of exposition that make it suitable for publication as a book or a series of papers in learned journals.
- The dissertation should demonstrate a breadth and depth of the candidate's knowledge beyond the confines of his or her own research and is also critically assessed in the defense and at various examinations during the student's studies.

Admission to the Graduate School does not automatically qualify a student as a candidate for the PhD. degree. Formal recommendation of advancement to candidacy for the PhD. degree must be made to the Graduate School by the program after a review of the student's performance in courses, independent study, and program examinations. A candidate for the PhD. degree engages in research leading to a dissertation. Listed below are the minimal requirements mandated by the Graduate School. The individual programs may set additional requirements.

### Courses and Grade Point Average

The student will follow an approved program of courses determined to meet his or her needs and to satisfy program requirements. A student must achieve a minimum 3.0 overall GPA in graduate courses taken at Stony Brook in order to receive a doctoral degree.

Calculation of the grade point average (GPA) includes all courses taken at Stony Brook as a graduate student numbered 500 and above. Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are excluded from the computation.

Grading System: See Academic Regulations/ Grading System

A graduate student who has changed primary program may request a restart of GPA in considering possible waiver of academic probation. The GPA for the new program will be calculated from the beginning of the semester in which the change of program became effective. A graduate student who has graduated and is readmitted into a new degree or certificate program may request a restart of GPA. Program approval is necessary before any restart request is submitted to the Graduate School. Courses taken before the restart of GPA cannot be used towards a second degree or certificate.

### Language Proficiency

Although the Graduate School itself does not require proficiency in a foreign language for the PhD. degree, programs oversee their own foreign language requirement and evaluation of proficiency. Students must comply with program requirements. The proficiency examination must usually be passed before permission is given to take the preliminary examination.

### Preliminary Examination

The purpose of the preliminary examination is to ascertain the breadth and depth of the student's preparation and to appraise readiness to undertake significant original investigation.

- At the discretion of the program, the preliminary examination may be oral, written, or both, and may consist of a series of examinations.
- The committee is appointed by the Graduate Program Director.
- The preliminary examining committee must include at least two faculty members from the program and may include one or more members from outside the University or program.
- Results of the preliminary examination will be communicated to the student as soon as possible and to the Graduate School within one week of the completion of the examination.
- A repetition of the preliminary examination, upon failure, may be scheduled at the discretion of the program. The dean of the Graduate School must approve a second repeat.

### Advancement to Candidacy

Admission to the Graduate School does not automatically qualify a doctoral student as a candidate for the doctoral degree. Formal recommendation, executed by the Graduate Program Director, of advancement to candidacy for the doctoral degree must be made to the Graduate School after a review of the student's performance in courses, independent study, and program examinations.

A candidate for the doctoral degree engages in research or scholarship leading to a dissertation. Advanced students may enroll in up to 3 credits per full academic semester (Fall/Spring) in courses that are directly related to the student's dissertation or provide relevant professional development without prior approval. In addition, students who were approved to work concurrently towards a secondary degree program or advanced graduate certificate prior to advancement to candidacy can also register for courses to satisfy the approved secondary program/certificate. A student's time limit to complete the primary degree program will not be extended due to enrollment in other courses leading to a secondary program/certificate or professional development.

Listed below are the minimal requirements for advancement to candidacy mandated by the Graduate School. The individual programs may set additional requirements.

A student may be advanced to candidacy (G5 status) after completing all Graduate School and program requirements other than the dissertation or its equivalent, with the following restrictions:

- Students on academic probation cannot be advanced to candidacy.
- Students must be G4 at the time of request for advancement.
- Students must have grades assigned for all courses in all previous semesters of graduate study.
- Advancement to candidacy is granted by the Dean of the Graduate School upon recommendation of the Graduate Program Director.
- Students must be advanced to candidacy for one academic year and may defend their dissertation during their second semester of advancement. An academic year is defined as the Fall and Spring semesters, in either order, that immediately precede the semester of defense. Students in the DMA program may be advanced for one semester prior to their final recital and graduation semester. Summer and winter terms do not count as semesters for purposes of advancement to candidacy.
- Requests for advancement to candidacy must be received by the Graduate School from the program by day 5 of classes for the advancement to take effect that same semester. Advancements received by the Graduate School after the published deadline date will not take effect until the next semester or term.

### **Dissertation and Dissertation Defense**

A dissertation is required for the Ph.D. degree. It must convey in a clear and convincing manner the results of an original and significant scholarly investigation. Students are strongly encouraged to consult with their graduate program director when selecting an appropriate advisor and their dissertation committee members. The dissertation must be prepared according to the Guidelines for the Preparation of Theses and Dissertations.

All dissertations should be written in English. Exceptions will be considered if it is integral to the purpose of that dissertation that it be in a language other than English. Requests for exceptions should come directly in writing from the dissertation advisor, the program director, or the department chair to the Dean of the Graduate School. The dissertation abstract and the majority of the dissertation defense must be in English. Multiple authorship of a dissertation is not permissible.

Examination of the dissertation involves a formal oral defense. This event will be conducted by the dissertation examining committee and will not be chaired by the primary advisor of the dissertation. The formal defense must be announced publicly at least three weeks in advance and is open to all interested members of the University community. All candidates must provide the Graduate School with a dissertation abstract, as well as other relevant details, at least three weeks in advance of the proposed event. The Doctoral Defense Announcement form is available on the Graduate School Website. The Graduate School will be responsible for advertising the defense to the University community.

All dissertation defenses must take place on campus. At the program's discretion, committee members may participate in a dissertation defense virtually. However, the primary dissertation advisor (as listed on the Defense Committee Appointment form) or equal co-advisors, and the chairperson must be physically present at the defense. Additionally, the student must be physically present at their dissertation defense. A list of those members who will be attending virtual must be indicated on the Defense Committee Appointment form and sent to the Graduate School prior to the defense date. Any exceptions from this practice will require approval from the Dean of the Graduate School.

The examination that follows the public defense may be either open to the public or closed, at the discretion of the dissertation examining committee. For the student to satisfy degree requirements, all members of the dissertation committee must sign the signature page of the completed dissertation. The signatures indicate unanimous approval of the dissertation and its defense.

The student has three months following a successful defense to submit the final version of their dissertation to the Graduate School. The semester the student submits the dissertation will be the semester that the degree will be awarded. A student may register for no more than one additional semester following the successful defense of the dissertation.

### **Dissertation Examining Committee**

The dissertation must be approved by a committee appointed by the Dean of the Graduate School upon recommendation of the student's graduate program director. The dissertation committee must be constituted such that it provides independent evaluation and expert advice on the dissertation. The overriding purpose for service on a dissertation committee is the development of the student and their dissertation project. Other professional interests that committee members may have in the dissertation work of students (including intellectual property or publication interests) must be secondary to the interests of the student.

The Graduate School recognizes that programs may have different needs depending on the size of the faculty, the interdisciplinarity of the field, among other factors. Thus, programs may maintain additional policies that extend the requirements listed here; however, these additional requirements must be publicly available.

The dissertation committee must consist of a minimum of four people and must include:

- a chairperson of the defense, who is internal to the student's degree program;



- the dissertation advisor(s) (at least one who is internal to the student's degree program);
- a member with no conflict of interest in relationship to the student (often, but not always, someone external to the program or university).
- one additional member

The role of the chairperson is to ensure that the dissertation has been prepared according to the requirements of the student's graduate program, and to manage the proceedings of the dissertation defense, ensuring that an appropriate opportunity for public questions and responses is allowed. In order to ensure that the chairperson of the dissertation committee is able to fulfill these roles, they must be a member of the student's graduate program.

The role of the dissertation advisor(s) is to provide intellectual guidance to the student throughout the preparation of the dissertation. Students may have a single faculty advisor; a primary advisor and a secondary co-advisor; or co-advisors with equal responsibilities to the student. In order to ensure that the student is given guidance consistent with the expectations of their graduate program, at least one of the advisors must be a member of the students' graduate program.

The role of the member with no conflict of interest in relationship to the student is to ensure an impartial assessment of the dissertation and they must be free from direct personal, financial, business, professional, or intellectual property relationships with the student. Programs may endorse a policy that requires that this member be external to the university.

The role of the additional member is to increase the breadth and/or depth of expertise of the committee evaluating the dissertation.

All members of the dissertation examining committee must have demonstrated expertise relevant to the student's dissertation so as to be able to understand, criticize, and contribute to the dissertation and the quality and significance of the work presented there-in. To avoid questions regarding objective evaluation of the dissertation, no member of the committee may have a family, romantic, business, or otherwise close personal relationship with the student.

Each program must maintain a consistent and published policy on the allowed roles of affiliate program faculty based on the degree to which affiliate faculty are integrated into the program. In the absence of a published program policy, affiliate program faculty may serve as a dissertation advisor, but cannot serve as the chairperson of the defense.

Faculty that leave the program and/or the institution may continue to sit on any committees to which they were already appointed; such members must still comply with the policies of Stony Brook University, including the requirement that their service on the dissertation committee serves the interests of the student. Should the departing faculty member be the dissertation advisor, they may continue in that role, but a co-advisor internal to the program must be appointed. Should the departing faculty member be the chair, a new committee chair must be appointed.

Since the dissertation defense is such a significant milestone in a student's career, the Graduate School strongly prefers that all committee members attend in person. The student, the chairperson, and the primary dissertation advisor (as listed on the Defense Committee Appointment form) must be physically present at the defense. In the case when there are equal co-advisors, they all must be present. At the program's discretion, the third and fourth committee members may participate in a dissertation defense remotely. A list of those members who will be attending remotely must be indicated on the Defense Committee Appointment form and sent to the Graduate School prior to the defense date.

Requests to appoint a Dissertation Committee must be submitted by the student's graduate program (not by the student or members of the committee); the appointment request may be submitted any time after the student has advanced to candidacy, but must be received by the Graduate School no less than four weeks prior to the date of the defense. Any proposed changes to an approved committee must be submitted in writing by the program and must receive Graduate School approval before going into effect.

## Teaching

All doctoral students at Stony Brook University must complete at least one semester of practicum in teaching under supervision. Some departments also require at least one semester of practicum in teaching under supervision for master's students. The form this practicum takes may differ by discipline. The experience might include making seminar or class presentations, assisting in laboratories, or leading discussion sessions. Grading experience by itself will not be considered sufficient for satisfaction of this requirement. Faculty are responsible for providing informal feedback and formal evaluation.

Following (or in some cases, concurrent with) proper training through a teaching practicum and after having fulfilled other requirements for teaching (e.g., demonstration of spoken English proficiency for non-native speakers of English), a graduate student may serve as a teaching assistant (TA) in courses at Stony Brook University, where the instructor of record is a faculty member.

An advanced graduate student may act as the instructor of record for an undergraduate course offered at Stony Brook University only if he or she is appointed to an adjunct faculty position as a lecturer. No student shall be appointed to such a position until he or she has been advanced to candidacy in a doctoral degree program. It is not required that such students be enrolled in full time status, although this is recommended. Appointment procedures follow the same process as regular faculty appointments.

Graduate students at G4 level or below cannot be designated as the Instructor of Record for any course offered at Stony Brook University. They will be appointed as Teaching Assistants. In addition, there must be a designated faculty supervisor who serves as the Instructor of Record for the course. In the absence of any other faculty Instructor of Record for a course, this designation shall revert to the department Chair.

## Residence Requirements

At least two consecutive semesters of full-time graduate study at Stony Brook University in the program granting the degree are required. The purpose of the residence requirement is to ensure that the graduate student participates in the professional life of the program beyond class attendance. Some program residence requirements may vary from the Graduate School norm and are described in the individual program requirements for the degree. Unless specified, however, the Graduate School regulation takes precedence.

Research for the dissertation will normally be conducted at Stony Brook under the direct guidance of the faculty of the student's PhD program. Facilities at Stony Brook University, Brookhaven National Laboratory, Cold Spring Harbor Laboratory, regional hospitals, other institutions on Long Island, or the libraries of New York City are all considered to be on-campus for the purposes of dissertation work. For on-campus dissertation research, Students should register for ### 699 (where ### refers to their program designator).

When a student's research would be facilitated at an off-campus location not covered under the preceding paragraph, he or she must obtain approval from the dissertation advisor, Graduate Program Director, and the Dean of the Graduate School. When a major portion of a student's research will take place off-campus but in the United States and/or U.S. territories they should register for ### 700 for the relevant semesters. When a major portion of their research will take place outside of the United States and/or U.S. territories they should register for ### 701. Other information and requirements regarding these courses may be obtained from the Graduate School.

### **Degree Application**

The student must apply for graduation online at the [Graduate School](#) Web site in accordance with published deadlines. This includes doctoral students who intend to receive a master's degree during the course of their doctoral career. If degree requirements are not met, students must reapply for any subsequent awarding periods using the Change of Graduation Date form found on the Graduate School web site.

### **Registration**

Degree candidates must be registered in the semester they intend to graduate. Students who intend to graduate in the spring or fall must register for at least one graduate credit. Students who intend to graduate in the summer or winter can register for zero credits, but it still must be a graduate-level course.

### **Program Recommendation**

When all program requirements are completed, the graduate program director may recommend to the dean of the Graduate School that the PhD. degree be granted.

### **Time Limit**

- The time limit for a doctoral degree is seven years for a student who has a previous graduate degree or 24 credits of graduate study in such a degree program.
- For all other students, the time limit for a doctoral degree is seven years after completion of 24 graduate level credits at Stony Brook University.

In exceptional cases where the program cannot be completed within these periods, students may petition for an extension of the time limit. The [Request for Waiver of Graduate Time Limit form](#) can be found by selecting the forms link from the [Graduate School](#) Web site. These petitions require the approval of the student's advisor and graduate program director.

Requests for a time limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the dean of the Graduate School, who may impose additional requirements.

### **The Master of Philosophy Degree**

The degree of Master of Philosophy is intended as a formal recognition of what is informally known as "ABD" status. This degree is normally reserved for students who have advanced to candidacy in a Ph.D. program but are unable to complete the remaining requirements. The degree implies educational achievements well beyond those required for a regular master's degree.

The Master of Philosophy degree is available in every program that awards the Ph.D. Requirements for the M. Phil. are identical to those for the Ph.D., except that the submission and defense of the dissertation are not required.

Students must be advanced to candidacy for one full year before receiving a Master of Philosophy degree.

### **Doctorate of Musical Arts**

- Introduction
- Course and Grade Point Average
- Contract Towards Candidacy
- Language Proficiency
- Advancement to Candidacy
- Doctoral Recital
- Teaching
- Residence Requirement
- Degree Application
- Registration
- Program Recommendation
- Time Limit

### **Introduction to the Doctor of Musical Arts Degree**

The degree of Doctor of Musical Arts is the only nonclinical doctoral degree offered at Stony Brook other than the Ph.D. The fundamental requirements for

the D.M.A. are essentially those for the Ph.D. with the exception that the scope of the original work and the scale of the research are somewhat reduced.

The requirements for expertise within the subject area and for clear exposition are equal to those for the Ph.D. In the case of the D.M.A., clarity of exposition is demonstrated through the medium of recital.

Admission to the Graduate School does not automatically qualify a student as a candidate for the D.M.A. degree. Formal recommendation of advancement to candidacy for the D.M.A. degree must be made to the Graduate School by the Music program after a review of the student's performance in courses, independent study, and program examinations.

The requirements listed below are the minimal ones mandated by the Graduate School. The Music program may set additional requirements.

### **Course and Grade Point Average**

The student will follow a program of courses determined to meet his or her needs and to satisfy the program requirements. A student must achieve a minimum 3.0 overall GPA in graduate courses taken at Stony Brook in order to receive the D.M.A. degree.

Calculation of the grade point average (GPA) includes all courses taken at Stony Brook as a graduate student numbered 500 and above. Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are excluded from the computation.

Grading System: See Academic Regulations/ Grading System

A graduate student who has changed primary program may request a restart of GPA in considering possible waiver of academic probation. The GPA for the new program will be calculated from the beginning of the semester in which the change of program became effective. A graduate student who has graduated and is readmitted into a new degree or certificate program may request a restart of GPA. Program approval is necessary before any restart request is submitted to the Graduate School. Courses taken before the restart of GPA cannot be used towards a second degree or certificate.

### **Contract Towards Candidacy**

The student must fulfill the specific requirements of an approved contract toward candidacy.

### **Language Proficiency**

Although the Graduate School does not require proficiency in a foreign language, the Music program oversees their own foreign language requirements and the evaluation of proficiency. Students must comply with their program requirements (see the Music section of the Graduate Bulletin).

### **Advancement to Candidacy**

A student may advance to candidacy after completion of the following requirements:

- Completion of three of the four public recitals;
- Completion of the two graduate seminars or proseminars required for the generation of doctoral essays and completion of two MUS 695 courses with a grade of B or better to work on revisions for each essay;
- Completion of requirements C through I of the Music section of the Graduate Bulletin.
- Students on academic probation cannot be advanced to candidacy.
- Students must be classified as a G4 at the time of request.
- Advancement to candidacy is granted by the Dean of the Graduate School upon recommendation of the Graduate Program Director.
- DMA students may advance to candidacy one semester prior to graduation.

### **Doctoral Recital**

The student must demonstrate a distinguished level of performance in the doctoral recital. A recording of the recital is to be kept permanently in the University Library.

Please also see Residency Requirements for information on Residency for Doctoral Recitals.

### **Teaching**

All doctoral students at Stony Brook University must complete at least one semester of practicum in teaching under supervision. The form this practicum takes may differ by discipline. The experience might include making seminar or class presentations, leading discussion sessions or grading. Grading experience by itself will not be considered sufficient for satisfaction of this requirement. Faculty are responsible for providing informal feedback and formal evaluation. Following (or in some cases, concurrent with) proper training through a teaching practicum and after having fulfilled other requirements for teaching (e.g., demonstration of spoken English proficiency for non-native speakers of English), a graduate student may serve as a teaching assistant (TA) in courses at Stony Brook University, where the instructor of record is a faculty member.

An advanced graduate student may act as the instructor of record for an undergraduate course offered at Stony Brook University only if he or she is appointed to an adjunct faculty position as a lecturer. No student shall be appointed to such a position until he or she has been advanced to candidacy in a doctoral degree program. It is not required that such students be enrolled in full time status, although this is recommended. Appointment procedures follow the same process as regular faculty appointments.

Graduate students at G4 level or below cannot be designated as the Instructor of Record for any course offered at Stony Brook University. They will be appointed as Teaching Assistants. In addition, there must be a designated faculty supervisor who serves as the Instructor of Record for the course. In the

absence of any other faculty Instructor of Record for a course, this designation shall revert to the department Chair.

### **Residence Requirement**

At least two consecutive semesters of full-time graduate study at Stony Brook University in the program granting the degree are required. The purpose of the residence requirement is to ensure that the graduate student participates in the professional life of the program beyond class attendance. Some program residence requirements may vary from the Graduate School norm and are described in the individual program requirements for the degree. Unless specified, however, Graduate School regulation pertains.

Research for the dissertation will normally be conducted at Stony Brook under the direct guidance of the faculty of the student's PhD program. Facilities at Stony Brook University, Brookhaven National Laboratory, Cold Spring Harbor Laboratory, regional hospitals, other institutions on Long Island, or the libraries of New York City are all considered to be on-campus for the purposes of dissertation work. For on-campus dissertation research, Students should register for ### 699 (where ### refers to their program designator).

When a student's research would be facilitated at an off-campus location not covered under the preceding paragraph, he or she must obtain approval from the dissertation advisor, Graduate Program Director, and the Dean of the Graduate School. When a major portion of a student's research will take place off-campus but in the United States and/or U.S. territories they should register for ### 700 for the relevant semesters. When a major portion of their research will take place outside of the United States and/or U.S. territories they should register for ### 701. Other information and requirements regarding these courses may be obtained from the Graduate School.

### **Degree Application**

The student must apply for graduation online at the Graduate School website in accordance with published deadlines. If degree requirements are not met, students must reapply for any subsequent awarding periods.

### **Registration**

Degree candidates must be registered in the semester they intend to graduate. Students who intend to graduate in the spring or fall must register for at least one graduate credit. Students who intend to graduate in the summer can register for zero credits, but it still must be a graduate level course.

### **Program Recommendation**

When all program requirements are completed, the Graduate Program Director may recommend to the Dean of the Graduate School that the D.M.A. degree be granted.

### **Time Limit**

The candidate must satisfy all requirements for the D.M.A. degree within seven years after completing 24 graduate level credits at Stony Brook University.

- The Request for Waiver of Graduate Time Limit form can be found by selecting the forms link from the Graduate School website. These petitions require the approval of the student's advisor and graduate program director.
- Requests for a time-limit extension must be filed before the limit is exceeded and must contain a significant justification.
- The final decision rests with the Dean of the Graduate School, who may impose additional requirements.

### **Awarding Degrees**

Degree candidates must be registered in the semester they intend to graduate. Students who intend to graduate in the spring or fall must register for at least one graduate credit. Students who intend to graduate in the summer can register for zero credits, but it still must be a graduate-level course.

When all requirements have been completed, the Graduate Program Director will certify to the Dean of the Graduate School and recommend that the degree be awarded. Degrees are awarded three times a year: May, August, and December. A formal ceremony, however, takes place only at the May commencement. To be eligible for a degree, a student must have completed all University requirements, all program degree requirements, satisfied any provisional admission requirements, submitted the appropriate manuscripts, obtained all University clearances, and have maintained matriculation according to the regulations outlined under the section "Maintaining Matriculated Status," elsewhere in this Bulletin.

Students may elect to print their preferred/chose name on the diploma.

### **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. Masters students must have been in their last semester; PhD students must have been advanced to candidacy.
4. The graduate program director and the dissertation committee for PhD students must provide a letter of recommendation in support of the request.

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

### **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.

**Waiver of Regulations**

The Dean of the Graduate School in individual instances may waive specified requirements. A petition for such a waiver must be endorsed by the Graduate Program Director, who shall append the reasons for believing that requested waiver would not result in a breach of the spirit of the regulations.

## Overview

- Organization of Graduate Education at Stony Brook
- The Graduate Council
- The Department/Program
- Program Rules
- Graduate Program Directors
- Maintenance of Public Order
- University Student Conduct Code
- Bias-Related Crime Prevention
- Tobacco-Free University

All programs, regulations, and schedules of dates are subject to change or withdrawal depending on the availability of funds and the approval of programs by appropriate state authorities. It is the student's responsibility to be aware of University, Graduate School regulations, policies, and procedures as set forth in this Bulletin and in all official campus publications and notices.

## Organization of Graduate Education at Stony Brook

Under the direction of the provost, Graduate School administration rests with the dean and the administrative staff of the Graduate School in conjunction with the Graduate Council.

### The Graduate Council

The membership of the council includes one representative from the library, one professional employee, and two representatives each from the faculty of the Health Sciences Center, the College of Engineering and Applied Sciences, the Division of Humanities and Fine Arts, the Division of Social and Behavioral Sciences, and the Division of Natural Sciences. One of the two Health Sciences Center representatives must be from Basic Health Sciences. Additional members include two graduate students chosen by the Graduate Student Organization. Elected faculty members serve for three years with staggered terms. The chairperson and the secretary of the Graduate Council are elected by the council. Among other duties detailed in the "Faculty By-Laws," the council must approve all graduate programs before their submission to the SUNY System Administration Office and the State Department of Education.

### The Department/Program

Each department exercises a large measure of responsibility for its graduate programs. Under the general responsibility of the departmental chairperson, each department has a graduate program director who administers graduate activities. Each program also has an appeals and grievances committee comprised of equal numbers of faculty and graduate student members. Individual programs select graduate applicants and recommend them for admission to the dean of the Graduate School. The programs are responsible for the nomination of students and applicants for fellowships, traineeships, assistantships, and tuition scholarships, as well as for the administration of graduate programs, including coursework, supervised research, teaching assistantships, and graduate examinations. It is the program that certifies to the Graduate School that the student has completed all degree requirements. Graduate programs not housed in specific departments are governed by interdepartmental faculty committees chaired by a graduate program director. For purposes of graduate education, they function as do departments in other disciplines.

### Program Rules

All PhD programs must have a **set of program bylaws or rules** that establish the governance structures for the program as well as the rights and responsibilities of faculty and students. These rules should be available in one or more documents to current and prospective faculty and students. Programs are free to craft their own bylaws/rules, but they are expected to be consistent with University policy, Graduate School policy, and the Guidance on PhD program bylaws/rules.

Since it is a privilege to be a member of the graduate program faculty, this privilege should be reserved for those that are actively engaged in scholarly activity, graduate teaching/mentoring, and/or programmatic activities. It is essential that guidelines, policies, and practices be in place for:

- Program faculty selection and review;
- Revocation of program faculty status, which may include probationary periods;
- Faculty grievance procedures;
- Ethical treatment of graduate students.

### Graduate Program Directors

It is the prerogative of the faculty members of any graduate program at the Stony Brook University to recommend a Graduate Program Director to the Graduate School. The Dean of the Graduate School may accept the nomination or, after consultation with Academic Deans and/or the Provost, reject the nomination. The Graduate School will collaborate in monitoring the function of the Graduate Program Directors. The Dean of the Graduate School may remove a Graduate Program Director after consultation with the Department Chair, Unit Head, Academic Dean, and/or the Provost.

It is the policy of the Graduate School that the Graduate Program Director shall normally be chosen from a program's Full Professors. Any exceptions to this policy must be explained and justified to the Dean of the Graduate School. In cases in which there is an associate director or its equivalent, that position shall be filled from among the tenured faculty. Again, the Dean of the Graduate School will evaluate requests for exceptions to this policy.

### **Maintenance of Public Order**

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

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

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

### **University Student Conduct Code:**

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

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

To obtain a copy of the Conduct Code or Alcohol Policy, see:

<https://studentaffairs.stonybrook.edu/ucs/docs/universitystudentconductcode.pdf>

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

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

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

### **Bias-Related Crime Prevention**

For more information please visit the University Police Department website at:

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

[http://naples.cc.sunysb.edu/Admin/HRSForms.nsf/pub/UPDD0006/\\$file/UPDD0006.pdf](http://naples.cc.sunysb.edu/Admin/HRSForms.nsf/pub/UPDD0006/$file/UPDD0006.pdf)

### **Tobacco-Free University**

Effective January 1, 2016, Stony Brook University will become 100 percent tobacco free. This includes all tobacco and smoke/vapor-producing products. For more information regarding the policy, please visit:

<http://www.stonybrook.edu/commcms/tobaccofree/>

### **Registration Requirements**

- Registration
- Course and Credit Enrollment
- Course Changes
- Graduate students in Undergraduate courses
- Undergraduate students in Graduate courses
- Add/Drop and Withdraw Policy

### **Registration**

All students enrolled in the Graduate School in any program, whether in residence or absentia, must register each fall and spring for at least one graduate credit until all degree requirements have been met. All students must follow specific registration requirements for the semester in which

they graduate, including summer and winter semesters. A student is not considered to have registered until enrollment is posted on SOLAR and arrangements regarding tuition and fees have been made with the Bursar's Office.

- Students who hold a TA, GA, RA, fellowship, or tuition scholarship must be registered as full-time students by day 15 of classes each semester.
- All doctoral students that will complete all degree requirements and graduate during a summer or winter session must register for at least one graduate credit. GRD 800: Doctoral Completion, will be offered every summer and winter sessions for these students. Please refer to the Graduate Financial Support Section of the Graduate Bulletin for Financial Information.
- International masters students that will complete all degree requirements and graduate during a summer or winter session must register for at least one graduate credit. GRD 700: Masters Completion, will be offered every summer and winter session for these students.
- International students who are not registered as full-time students need to complete and have approved a Reduced Course Load Request through Visa and Immigration Services. For a Reduced Course Load to be approved during a final semester of study, special requirements must be met. Please consult with Visa and Immigration Services to determine how to satisfy all immigration requirements.
- Students failing to register before the first day of classes or before late registration begins may still register during the first 15 days of the semester, but will be charged a late fee.
- Students who have not been granted an official Leave of Absence by the dean of the Graduate School and have not yet registered will be considered to have withdrawn from the University.
- Students are responsible for making sure they are registered on time. Programs or individual faculty members do not have authority to waive these rules.

### Course and Credit Enrollment

The majority of credits taken during any semester must apply toward a student's primary degree program. Failure to comply with the guidelines below will result in the tuition scholarship being rescinded for the semester, and the student will be responsible to pay the tuition for that semester.

- All students must have prior permission from their department/program to take any courses outside of their primary degree plan, with the exception of GRD 700 or GRD 800 taken during a summer or winter semester where all degree requirements will be met and the student will graduate.
- Tuition scholarships only apply to courses that fulfill degree requirements in the program providing the scholarship. A student with a full-time nine-credit tuition scholarship from a primary program may take a course in a secondary program. However, if a student with a nine-credit tuition scholarship from their primary program wishes to take a course in a secondary program, it must be in addition to the nine credits applying toward the primary program during the same semester. Tuition scholarships may be applied to students enrolled in one credit of GRD 700 or GRD 800, during summer or winter semesters, when all degree requirements will be met and the student will graduate, if the student meets the eligibility conditions outlined in the Graduate Financial Support Section of the Graduate Bulletin.

The maximum number of credits a Graduate Student may register for is 18. If students wish to enroll for more than 18 graduate credits, they must get the permission of their Graduate Program Director and the Graduate School. Once they have received written permission they will be allowed to register for more than 18 graduate credits at the Registrar's Office.

### Course Changes

The add/drop period to have no "W" recorded 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 first day of classes of three-week winter sessions.

For SPD online students, the add/drop period to have no "W" recorded begins on the first day of classes and ends at the close of business (4PM) on the fifth business day of classes of the fall or spring semester. However, SPD online students have access in SOLAR to withdrawal from individual courses through the fifteenth day of classes (4PM).

When a student withdraws from a class or the semester after the posted academic calendar deadline date, tuition is charged based on the Tuition Liability schedule found on the academic calendar. This information is available on the Registrar's website. Tuition liability starts after the seventh day of the semester counting Saturday and Sunday.

Before the first day of classes, all classes can be dropped via SOLAR. After the first day, a withdrawal form is required. See the entries "Withdrawal from the University" in this Bulletin for more information withdrawing from all courses.

At the end of the add/drop period, from days 11 to 15, students may swap courses by petition through the Graduate School or SPD. A "W" and tuition liability will not be incurred only if an even number of credits are added and dropped in a single transaction (i.e., a swap of 12 credits for 12 credits). NOTE: This is not for SPD online students.

After the registration deadlines pass, all registration related matters require a "[Retroactive Add, Drop, or Registration](#)" form to be submitted and approved by the Graduate School or SPD.

Graduate Students Registering for Undergraduate Classes



Graduate students may take undergraduate courses with the approval of their adviser and Graduate Program Director and the approval of the appropriate undergraduate faculty and Director of Undergraduate Studies. Undergraduate courses do not count towards a graduate student's full-time status and are not counted for credit. Undergraduate credits cannot be used towards graduate degree requirements for any graduate level program. Since tuition scholarships do not cover the tuition for undergraduate courses, all graduate students are responsible for undergraduate tuition costs.

Additional requirements may apply for international students. Undergraduate coursework does not count towards full-time enrollment for international graduate students. All international graduate students should contact Visa and Immigration Services before enrolling in an undergraduate course.

#### Undergraduate Students Registering for Graduate Classes

Upon request of the Graduate Program Director and with the approval of the instructor of a graduate course, the Dean of the Graduate School may authorize the admission of undergraduates of exceptional ability to graduate courses. Graduate courses taken while an undergraduate remain part of the undergraduate record except for students in approved accelerated, five-year bachelor's/master's programs, or students who have already been accepted for future graduate study at Stony Brook University.

Undergraduate students who have been admitted to the Graduate School at Stony Brook may apply a maximum of six 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.

Courses numbered 500 and above cannot be used to satisfy distribution or proficiency requirements for undergraduates. See [Permission for Undergraduate Students to enroll in Graduate Courses](#) if you are not in an accelerated, five-year bachelor's/master's. See [Permission for Undergraduate Students an Accelerated Bachelors/Masters Degree Program to Enroll in Graduate Courses](#) if you are in an accelerated, five-year bachelor's/master's program. Requests must be processed by the fifth day of classes for the semester of enrollment.

#### Graduate Financial Support

- Offers of Financial Support
- Graduate Tuition Scholarship Eligibility
- Graduate Student Employment Limitations

#### Graduate Tuition Scholarship Eligibility

Graduate students must be full time, matriculated students to be eligible to receive Graduate Tuition Scholarship (GTS) funds. Graduate students on an approved Reduced Course Load for Final Semester of Study may be eligible to receive Graduate Tuition Scholarship (GTS) funds. Enrollment in undergraduate level courses does not contribute to full time status and tuition charges relating to undergraduate courses are not covered by GTS funds. Failure to enroll appropriately by either Day 15 (fall/spring), Day 5 (summer) or Day 2 (winter) of classes will result in loss of GTS.

Graduate tuition scholarships may be offered according to the following schedule only.

- # Prior to advancement (G3 or G4 status), doctoral students with full stipend support will receive a full tuition scholarship at in-state or out-of-state rate, subject to the residency requirements described below. Doctoral students with partial stipend support will receive a partial tuition scholarship that is pro-rated to their level of support at in-state or out-of-state rate, subject to the residency requirements described below.
- # Doctoral students advanced to candidacy (G5 status) will receive a full tuition scholarship at in-state or out-of-state rates, subject to the residency requirements described below, if they have maintained full-time support through all semesters prior to advancement. Support will be prorated for doctoral students who have received partial support. Students who were admitted with full stipend support, but who for extenuating circumstances did not receive support for one or more semesters before advancement, can petition the Graduate School Dean for a full or partial exception.
- # Master's students with full stipend support will receive full GTS at in-state rate only.
- # Master's students with partial stipend support will receive a partial tuition scholarship that is pro-rated to their level of support at in-state rate.
- # Doctoral students enrolled in one credit of GRD 800 during the summer or winter semester that they will complete all degree requirements and graduate will receive GTS support for that one credit of enrollment at the in-state or out-of-state rates, subject to the residency requirements described below, if they have maintained full-time support through all semesters prior to advancement. Support will be pro-rated for doctoral students who have received partial support.
- # International master's students appointed as teaching assistants, graduate assistant or research project assistants and enrolled in one credit of GRD 700 during the summer or winter semester that they will complete all degree requirements and graduate will receive GTS support for that one credit of enrollment at the in-state rate only, if they have maintained full-time support through all semesters prior to graduation. Support will be pro-rated for international masters students who have received partial support at the in-state rate only.
- # Graduate students who do not receive stipend support are not eligible for tuition scholarships.
- # Tuition scholarships may only be used to address tuition costs incurred during the regular academic year (i.e., the fall and spring semesters) or during a Final Semester of Study that is a summer or winter semester. When the Final Semester of Study is a summer or winter semester, all eligibility criteria and enrollment regulations above must be met. Tuition scholarships may not be used to offset non-Final Semester of Study summer (or winter) session tuition costs or charges other than tuition during any academic semester.
- # GTS recipients will receive an accompanying broad-based fee scholarship. Coverage will be in direct relation to the proportion of the student's GTS.
- # The GTS will cover up to 12 credits for first-year students who have completed less than twenty-four credits of graduate studies (G1 or G3 status), 9 credits for all other students (G2, G4 and G5 status) and 1 credit for Students Enrolled in a Final Semester Semester of Study (if those students have under-enrolled). Exceptions will be made for G2 or G4 students enrolled in advanced graduate certificate programs.

## Residency requirements

All eligible graduate students are required to obtain New York State residency in order to benefit from in-state tuition rates. Generally, NYS residency can be achieved **by the start of your second year of study** for domestic students who previously resided outside NYS. Thus, out-of-state tuition will only be provided for doctoral students in their first year of study. Failure to obtain NYS residency status in the timeframe outlined above may result in tuition liability for doctoral students since GTS awards will be limited to the NYS tuition rate after the **first year of study**. Beginning in the second **year** of study, GTS recipients who are eligible to receive New York State residency but who do not obtain NYS residency will be billed for the difference between the in-state and out-of-state rates. International doctoral students who are not eligible for NYS residency, will not be billed for the tuition difference.

Supported G5 students who are unable to maintain New York State residency because of out-of-state work or research are eligible for an out-of-state GTS.

**To be eligible for resident tuition in your second year, it is important that you take steps to make New York State your documented residence as soon as you arrive in New York.**

<http://www.stonybrook.edu/commcms/bursar/residency/index.php>

## Leaves and Withdrawals

- Leave of Absence
- Unofficial Leave of Absence
- Withdrawal from the University
- Unauthorized Withdrawal

### Leave of Absence

Graduate students may request a leave of absence by submitting a Request for Leave of Absence form to the graduate program director. This form can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu). If the graduate program director approves the request, the form is then forwarded to the Graduate School. The final decision on all leave of absences is made by the Dean. Leaves of absence are subject to the following conditions.

- They may be granted for one semester or year at a time, and are renewable upon request for a maximum of two years. At the end of this two- year period, a leave of absence will be terminated and the student will be considered to have withdrawn from the university.
- The student must have been registered for the previous semester.
- International students must obtain approval of an international student advisor.
- Any semester in which a student is on an approved leave of absence does not count in the calculation of the student's time limit for degree completion.
- A student on leave will not be able to use University facilities, submit any work towards a degree, or consult with their advisor.

Leaves of absence are processed on the date in which they are received at the Graduate School and subject to the registration and tuition liability deadlines outlined on the Academic Calendar.

- Military leaves of absence will be granted for the duration of obligated service to students in good standing.
- A student on academic probation may be granted a leave of absence with the understanding that reenrollment is subject to conditions imposed by the Graduate School and the program. These conditions will be specified in writing at the time the leave is approved.
- Students planning to return from leaves should complete a Readmission Form for Graduate Students, which can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu). Students should submit this form to their program for departmental approval by the chair or director. The program then forwards this form to the Graduate School for final approval and processing. Students are advised to begin the readmission process preferably two months in advance of the term for which they wish to register.
  - Students returning from a currently approved Leave of Absence are generally guaranteed readmission.
  - Students not on an official Leave of Absence must pay a \$500 readmission fee.
  - International students must submit a new financial affidavit and be cleared by an international student advisor before readmission can be approved.

The program or the Graduate School may set specific requirements to be fulfilled by the readmitted student during the first year of their readmission. Readmission will be revoked for students who do not fulfill these requirements.

More information regarding access to systems after taking a leave of absence or withdrawal from the University can be found [here](#).

### Medical Leave of Absence

- Planned medical leaves of absence can be requested following the general Leave of Absence policy above, but a certified doctor's note justifying the request must be submitted together with the Request for Leave of Absence form.
- Unplanned medical leaves of absence can be requested at any point during the semester and also require a certified doctor's note justifying the request. Leaves can be granted until the end of the current semester or for the entire year. With approval of the graduate program director, G5 students can also be granted a shorter leave.
- Leaves of absence are processed on the date in which they are received at the Graduate School and subject to the registration and tuition liability deadlines outlined on the Academic Calendar.
- Questions pertaining to health insurance coverage for students on or going on a medical leave should be directed to Student Health Services.

### **Involuntary Leave of Absence**

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](#).

### **Unofficial Leave of Absence**

A student who does not enroll consecutively each fall and spring semester and does not submit the Request for Leave of Absence form prior to the start of the semester they do not intend to enroll, will be placed on an unofficial leave of absence and endanger prospects of readmission to the Graduate School. The student will be placed on an unofficial leave of absence and if approved for readmission, will be required to pay the \$500 readmission fee before they become eligible to enroll.

Part-time students are allowed one year (two consecutive semesters: Fall and Spring) of no enrollment before they are placed on an unofficial leave of absence.

### **Withdrawal from the University**

The process of withdrawing from the University is a formal procedure that the student must initiate. A student finding it necessary to withdraw from the University must submit a letter of intention to the graduate program director and the Graduate School.

- Students may withdraw from the University up to the last day of classes; however, financial liability to the University still remains. Permission may be granted by the Graduate School by submitting a completed Retroactive Withdrawal form, which can be downloaded at [www.grad.sunysb.edu](http://www.grad.sunysb.edu).
- Students are urged to discuss all withdrawals with their graduate program director and academic advisor before such an action is taken. International students must discuss withdrawals with an international student advisor before initiating the process as a withdrawal may jeopardize their immigration status.
- A student who leaves the University without obtaining an official withdrawal may forfeit the privilege of honorable withdrawal and endanger prospects of readmission to the Graduate School. Such students will be reported as having failed all courses for which they were registered the semester they left the University.

More information regarding access to systems after taking a leave of absence or withdrawal from the University can be found [here](#).

### **Unauthorized Withdrawal**

A student who leaves the University without obtaining an official withdrawal may forfeit the privilege of honorable withdrawal and endanger prospects of readmission to the Graduate School. Such students will be reported as having failed all courses for which they were registered the semester they left the University.

### **Grading Policies**

- Grading System
- I (Incomplete)
- S/U (Satisfactory/Unsatisfactory)
- R (Registered)

- NR (No Record)
- Change of Grade
- Auditing

### Grading System

The following grading system will be used for graduate students: A (4.0), A- (3.67), B+ (3.33), B (3.00), B- (2.67), C+ (2.33), C (2.00), C- (1.67), F (0.00). Graded/Pass/No Credit (G/P/NC) and grades of D are not approved grades for graduate students.

- A student's permanent academic record must reflect a final grade or a withdrawal grade for each course in which he or she is enrolled.
- If a student receives an incomplete (I) grade and the final grade has not been reported by the scheduled deadline, or if the deadline has not been appropriately extended, an I/F grade will be recorded. This will calculate towards the term and cumulative GPA's as an F.
- Courses that are designated in the Bulletin as "may be repeated for credit" may be taken more than once for credit and all grades earned will be used to calculate in the GPA for probation or graduation purposes.

All other courses can only be repeated at the discretion of the instructor of the course and the student's Graduate Program Director, and they may only be repeated once. A permission form is required to enroll in a course that is being repeated. Only the most recent attempt/grade will count towards the grade point average, but both attempts and both grades will appear on the official transcript.

- A student's official transcript will show all grades received. A student's transcript shall reflect the cumulative GPA as calculated for probation and graduation.

Final grades for all courses are the responsibility of the instructor of the course and represent his or her best judgment of the performance of the individual student. While the judgment of the instructor is not an academically appealable matter, there may be circumstances in which a student may appeal to have a grade re-evaluated. In all such cases, the request for re-evaluation must be made in writing within four calendar weeks of the notification of the final grade by the Registrar.

### I (Incomplete)

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.

### S/U (Satisfactory/Unsatisfactory)

A grade of S (Satisfactory) indicates passing work (equivalent to the grade of B or higher) in those courses so designated by the program and approved by the Graduate Council where the usual mode of evaluation is impractical. A grade of U (Unsatisfactory) indicates unsatisfactory work. S/U grades are not calculated as part of a student's cumulative or semester GPA. Courses that are usually offered on a S/U basis are so indicated in the graduate class schedule published for each term.

### R (Registered)

R is assigned to indicate attendance during the first semester in a year-long course. The final grade will be assigned after the completion of two semesters.

### NR (No Record)

An instructor may assign a grade of NR only for students who have never, to the instructor's knowledge, participated in the course in any way. A NR grade can remain on the students record or may be resolved through either the formal petition process to withdraw the course from a student's record or an assignment of a different grade by the instructor.

### Change of Grade

Grades appearing on a student's academic record may not be changed after one calendar year from the start of term in which the grade was incurred.

- A final grade may not be changed on the basis of work completed after a term has ended.
- A final grade appearing on a student's academic record at the time of graduation cannot be changed to any other grade subsequent to the awarding of the degree. This includes processing a course withdrawal or cancellation. This rule includes students who have been awarded a

master's degree while in the process of obtaining a PhD. No grades associated with any prior earned master's, certificate or other SBU degree can be changed once the degree has been awarded.

Grade changes that involve changing one grade to another, changing an incomplete to a letter grade after the first day of classes, or changing an incomplete to a letter grade after an extension has expired, must be approved by the Graduate School.

### **Auditing**

Auditing is permitted by special arrangement between student and instructor. No record is kept of such courses.

### **Education Opportunities**

- Inter-University Doctoral Consortium
- SUNY Exchange Program

#### **Inter-University Doctoral Consortium**

The Inter-University Doctoral Consortium (IUDC) is comprised of several universities in and around New York City, including Columbia, CUNY, Fordham, New School University, Princeton, and Rutgers. Eligible graduate students in the arts and sciences will be able to register for some courses at these institutions for Stony Brook credit, and library privileges will also be extended to participants while registered. Interested students should contact their graduate program director.

- Students may only register for courses not available at their home institution.
- Students will pay appropriate tuition and fees at their home institution.
- Consortium registration is intended for advanced doctoral candidates and is restricted to graduate courses.

#### **SUNY Exchange Program**

When the special educational needs of a doctoral student at one SUNY institution or the graduate center of CUNY can be served best by taking courses at another unit of the SUNY system or at the Graduate Center of CUNY, the student should obtain an application from the program director to apply for admission to take the desired courses at the host institution.

- The recommendation from the program should state that the student has the proper prerequisites and that, if the courses are successfully completed, credit for them will be accepted toward the degree.
- The statement from the program director requires approval from the dean of the Graduate School. The approval will then be sent to the dean of the Graduate School of the host institution, who will clear it with the department concerned.

When approval is obtained, the student will be admitted to take the courses requested.

- The student will pay appropriate tuition and fees at the host institution. If the student has a tuition scholarship at Stony Brook, that scholarship will be recognized by the host institution. At the completion of courses, the host institution will, on request, send a transcript to Stony Brook.

#### **Evaluation**

- Academic Evaluation
- Assistantship Evaluation

#### **Academic Evaluation**

While graduate students are expected and encouraged to work in a progressively independent manner, they are entitled to periodic assessment of their progress in a manner that contributes to their academic and professional growth. The Graduate Program Director is responsible to ensure this evaluation takes place. The evaluation is particularly necessary for students whose continued financial support depends on maintaining satisfactory academic progress under conditions where formal courses are no longer required. To facilitate this process, each department or program is to establish, with graduate student participation, clear criteria in writing for evaluating graduate student progress.

The Graduate School mandates that the appropriate college dean is to ensure that the criteria are established and put into effect. Because the criteria will vary among programs and will change as students' advance toward their degrees, the relationship of these criteria to academic and professional achievement at each stage of development should be clear. With criteria in place, the academic progress of all students, beyond formal course work, is to be evaluated at least once during each academic year. This applies to all students, including those who have advanced to candidacy.

To optimize the benefits of the process, a written report is to be prepared. The report is to be signed by both the evaluator(s) and the student to acknowledge that both have reviewed the report. A student who has failed to achieve reasonable progress is to be notified in writing in a timely manner of specific deficiencies, acceptable remedies, and the consequences of not remediating the deficiencies. The student may submit a formal response that will be attached to the evaluation. A copy of the signed report is to be given to the student and the original placed in the student's departmental file.

On an annual basis, the Graduate School Dean may request student evaluation files from programs for review.

Evaluation of Assistantship Performance

---

The appropriate academic and assistantship obligations of teaching and graduate assistants as they relate to levels of support are defined by the departments and, in the case of graduate research assistants, faculty advisors.

For reasons analogous to those given for the need for academic evaluations, graduate students are entitled to periodic assessment of their performance in their assistantship roles. Departments are to make the criteria for assessing assigned responsibilities available in writing to students in these positions (teaching assistants, graduate assistants, and graduate research assistants). To optimize the benefits of the process a written report is to be prepared for each student. The report is to be signed by both the evaluator(s) and the student to acknowledge that both have reviewed the report. A student who has inadequately fulfilled assistantship responsibilities is to be notified in writing in a timely manner of specific deficiencies, acceptable remedies, and the consequence of not remedying the deficiencies. The student may submit a formal response that will be attached to the evaluation. A copy of the signed report is to be given to the student and the original placed in the student's departmental file. The absence of a report will be construed as a positive evaluation.

### **Advancement and Degree Candidacy**

- Advancement to Candidacy
- Degree Candidacy

#### **Advancement to Candidacy**

Admission to the Graduate School does not automatically qualify a doctoral student as a candidate for the doctoral degree. Formal recommendation, executed by the Graduate Program Director, of advancement to candidacy for the doctoral degree must be made to the Graduate School after a review of the student's performance in courses, independent study, and program examinations.

A candidate for the doctoral degree engages in research or scholarship leading to a dissertation. Advanced students may enroll in up to 3 credits per full academic semester (Fall/Spring) in courses that are directly related to the student's dissertation or provide relevant professional development without prior approval. In addition, students who were approved to work concurrently towards a secondary degree program or advanced graduate certificate prior to advancement to candidacy can also register for courses to satisfy the approved secondary program/certificate. A student's time limit to complete the primary degree program will not be extended due to enrollment in other courses leading to a secondary program/certificate or professional development.

Listed below are the minimal requirements for advancement to candidacy mandated by the Graduate School. The individual programs may set additional requirements.

A student may be advanced to candidacy (G5 status) after completing all Graduate School and program requirements other than the dissertation or its equivalent, with the following restrictions:

- Students on academic probation cannot be advanced to candidacy.
- Students must be G4 at the time of request for advancement.
- Students must have grades assigned for all courses in all previous semesters of graduate study.
- Advancement to candidacy is granted by the Dean of the Graduate School upon recommendation of the Graduate Program Director.
- Students must be advanced to candidacy for one academic year and may defend their dissertation during their second semester of advancement. An academic year is defined as the Fall and Spring semesters, in either order, that immediately precede the semester of defense. Students in the DMA program may be advanced for one semester prior to their final recital and graduation semester. Summer and winter terms do not count as semesters for purposes of advancement to candidacy.
- Requests for advancement to candidacy must be received by the Graduate School from the program by day 5 of classes for the advancement to take effect that same semester. Advancements received by the Graduate School after the published deadline date will not take effect until the next semester or term.

#### **Degree Candidacy**

All degree candidates must register for at least one graduate credit in their degree program in the semester in which the degree is awarded, with the exception of domestic masters students that graduate during a summer or winter semester, who can enroll in a zero credit graduate course. Summer and winter doctoral degree candidates must register for at least one graduate credit (e.g. GRD 800). Summer and winter international masters degree candidates must register for at least one graduate credit (e.g. GRD 700). Students on approved Leaves of Absence do not register for those semesters for which a leave has been granted; however, they must be readmitted and register for the semester in which the degree is awarded.

### **Probation, Conduct and Grievances**

- Academic Probation
- Standards of Academic Conduct
- Academic Honesty and Scholarly Misconduct
- Appeals and Grievance Procedures
- Academic Dismissal
- Claims of Discrimination
- Use of Generative Artificial Intelligence Tools

#### **Academic Probation**

When a student's cumulative graduate GPA falls below B (3.0) for grades earned in courses numbered 500 and above taken at Stony Brook, the student shall be placed on probation.

- If the student's overall GPA has been raised to B (3.0) by the end of the next semester of enrollment after being first notified of probation, the student will be returned to regular status.
- Students may be on probation for a maximum of two semesters.
- A student on academic probation who fails to achieve a 3.0 cumulative GPA by the end of the second semester on probation will usually not be permitted to re-enroll.
- A student who has changed a registered area of graduate studies may, upon the request of the new program, have their record treated as two separate records. The GPA for the new area of graduate studies may be calculated from the beginning of the semester in which the change became effective.
- A student enrolled part time who has accumulated six semester credits with a cumulative average below 3.0 will have two semesters, or six additional credits (whichever comes first) to bring their cumulative GPA to 3.0.
- Temporary grades (I and NR), missing grades and those grades for which no numerical equivalents are defined (P, S, U, and R) are not calculated in determining the eligibility for academic probation.

Programs may have additional requirements as specified in program literature. Failure to meet these requirements may result in academic probation.

### **Standards of Academic Conduct**

The University expects all students to cooperate in developing and maintaining high standards of scholarship and conduct. Graduate students come under rules and regulations outlined in the Grievances and Appeals section of the online Bulletin.

Students are expected to meet academic requirements outlined in this Bulletin and financial obligations as specified in Financial and Residential Information in order to remain in good standing. Certain non-academic rules and regulations must also be observed. The University wishes to emphasize the policy that all students are subject to the rules and regulations of the University currently in effect, or which, from time to time, are put into effect by appropriate authorities. Students, in accepting admission, indicate their willingness to subscribe to, and be governed by, these rules and regulations. They also acknowledge the right of the University to take such disciplinary action, including suspension and/or expulsion, as may be deemed appropriate. University authorities will take action in accordance with due process. For detailed information about the University's Conduct Code and Maintenance of Public Order, visit:

<http://studentaffairs.stonybrook.edu/stu/policies.html>

### **Academic Honesty and Scholarly Misconduct**

The University expects all students to cooperate in developing and maintaining high standards of scholarship and conduct. Graduate students come under rules and regulations outlined in the Grievances and Appeals section of the Bulletin.

Students are expected to meet academic requirements outlined in this Bulletin and financial obligations as specified in Financial and Residential Information in order to remain in good standing. Certain non-academic rules and regulations must also be observed. The University wishes to emphasize that all students are subject to the rules and regulations of the University currently in effect, or which, from time to time, are put into effect by appropriate authorities. Students, in accepting admission, indicate their willingness to subscribe to, and be governed by, these rules and regulations. They also acknowledge the right of the University to take such disciplinary action, including suspension and/or expulsion, as may be deemed appropriate. University authorities will take action in accordance with due process.

Intellectual honesty is the cornerstone of all academic and scholarly work. Therefore, the University views any form of academic or scholarly dishonesty as a serious matter. Instructors are required to report all allegations of academic or scholarly dishonesty to their Graduate Program Director and the student's home Graduate Program Director if different. Furthermore, Graduate Program Directors must report all incidents in which a student is found guilty to the Dean of the Graduate School. Additional details on procedures for hearings and other functions at the judiciary processes are available in the Grievances and Appeals section of the Bulletin.

Graduate students must strictly observe professional standards, academic honesty, and proper scholarly conduct in coursework, examinations, research, written reports and in proper professional treatment of laboratory animals, research subjects, clients, or patients encountered in the process of graduate education.

For more information, please visit <http://www.stonybrook.edu/policy/policies.shtml?ID=210>

### **Grievance and Appeals Procedure**

Stony Brook University and its Graduate School encourages the prompt resolution of suspected academic misconduct violations and grievances as they arise. The following procedures are designed to provide a well-defined orderly, yet flexible structure that reflects the overall uniqueness



of graduate education and the graduate student-faculty relationship. Any member of the academic community may refer a suspected violation of academic integrity directly to the relevant Graduate Program, the Graduate School and/or the Academic Judiciary Office.

## **I. Faculty Grievances Against Graduate Students**

Allegations of academic or professional misconduct including plagiarism, cheating, disallowed collaborations on academic class assignments and take-home exams, will be adjudicated in the following manner.

Upon identification of a suspected violation of academic integrity, a resolution of the alleged grievance should be sought through a conference between the relevant parties. When accusations of misconduct are brought against a student, the initial step should be a meeting between the instructor (or another appropriate faculty member, for example the chair of a qualifying exam committee if misconduct is alleged on such an exam), the student and a representative(s) of the relevant Graduate Program(s). The purpose of this meeting is for the faculty member to describe the misconduct and for the student to respond to the accusation. Any evidence/documentation should be provided in writing to all parties prior to the meeting. The faculty member should also be prepared to recommend an appropriate sanction, however, to ensure equity the Graduate Program representative(s) can adjust the sanction as necessary. Both the student and faculty member may request the presence of an additional person at this conference (e.g., the graduate advocate, the graduate program director, or department chair). If the student acknowledges responsibility and accepts the suggested sanction, the faculty member should report the case and the outcome to the Graduate School. If the misconduct occurred in a program different from the one in which the student is enrolled, the Graduate School will inform the degree program of the accusation and resolution. Formal documentation, including the complaint and evidence should be retained by all relevant parties.

Sanctions will be proportional to the offense:

- For first offenses in a course, the sanctions will be limited to the course and could include no credit for the assignment in question to failure of the course.
- For first offenses in intermediate milestone degree requirements not related to courses (including but not limited to qualifying or comprehensive exams), possible sanctions include failing the exam, academic suspension, and/or dismissal from the program.
- For first offenses related to final degree requirements (proposals and exams for advancement to candidacy, preparation and defenses of theses and dissertations), possible sanctions include failing the exam, suspension, and/or dismissal from the program.

If the faculty member and student are unable to arrive at a resolution, the matter will be referred to the Graduate School within two weeks by the Graduate Program (GPD, Chair, GPC). If the student chooses to submit an appeals statement, the student must submit the statement via email to the Dean of the Graduate School. Both parties should provide the Dean with any documentation that they think is relevant to the case including any previous academic judiciary decisions. A copy of the student's appeal statement and any relevant submitted documentation will be provided to the accuser and to the Graduate Council Appeals Committee (GCAC). The Graduate Council Appeals Committee (GCAC) will consist of an equal number of graduate students and faculty. Faculty members, including the committee chair, will be appointed by the Graduate Council. Graduate student members will be appointed by the Graduate Student Organization. A senior staff member of the Graduate School (Associate Dean or Assistant Dean) will normally serve as a non-voting member of the GCAC. The standard of evidence used by the committee is "clear and convincing." Students may be found responsible for the accusation on the basis of direct evidence, circumstantial evidence, or a combination of the two. The committee will make a judgment, by majority vote, of whether the student is responsible or not responsible for the accusation brought against them. The committee will recommend a sanction to the Dean of the Graduate School who is responsible for ensuring that the proposed sanction is consistent and equitable with the Graduate School policy. The Dean (or designee) will notify all parties of the outcome.

Appeals can be reconsidered based on new evidence that was not available at the time of the hearing. A new appeal must be submitted within seven (7) business days of the original hearing committee's decision. The disposition of the Dean is final.

If the appeal process results in a determination of misconduct against a student in a program different from the one in which the student is enrolled, the Graduate School will inform the degree program of the accusation and resolution.

Students who are found responsible for academic integrity violations will have a Q placed on their transcript. To remove the Q, students will complete coursework on academic integrity.

Students found responsible for more than one academic integrity violation may be subject to additional penalties up to and including suspension and dismissal. Under these circumstances, their transcripts will be marked with a permanent Q designation.

## **II. Student Grievances against Faculty or other Members of the Academic Community**

Graduate students may present grievances against faculty and other members of the academic community if they believe that: 1) they were subjected to a violation, misinterpretation or inequitable application of a University or Graduate Program regulation, policy, or procedure, or 2) they were treated unfairly or inequitably to established academic policy governing or affecting graduate students at Stony Brook University. Students should attempt to resolve the matter through discussion with the instructor, the graduate program director, and department chairperson.

If that is unsuccessful, students may submit a grievance via email to the Dean of the Graduate School. There must be a valid grievance, with evidence, showing course discrepancies with the department/ instructor's policy and what was stated in the course syllabus or other violation/ misinterpretation of University policies. A grievance must be filed within one calendar year from the date of the alleged offense, however, upon demonstration of good cause, this deadline can be extended by the Graduate Program Director, Department Chair, College or School Dean or Dean of the Graduate School.

The Program Grievance and Appeals Committee (GAC) will review the grievance to determine whether it has sufficient supporting grounds and will issue a Letter of Decision to all relevant parties. The Program Grievance and Appeals Committee will be established under the following guidelines:

- Equal proportion of graduate students and faculty.
- Faculty chosen in any way that accords with general policy of the program, but may not include faculty named in an individual grievance case or party to it in some compromising way.
- Student members chosen by the students in the program without faculty interference, but may not include students named in the grievance case or party to it in some compromising way.
- The committee may be of any reasonable size but not fewer than four members.
- Typically, the grievance committee will be an ad hoc committee, distinct from the Graduate Studies Committee or a standing sub-committee of the Graduate Studies Committee.

If the Program Grievance and Appeals Committee finds that sufficient supporting grounds exist, a resolution of the alleged grievance should be sought through a conference between the relevant parties. Both the student and academic community member may request the presence of an additional person at this conference (e.g., the graduate advocate, the graduate program director, or department chair). If the student's grievance is upheld at the conference, the resolution (i.e., the measures taken to redress the student's grievance) must be documented and reported to the Academic Integrity Office, the Department Chair, Academic Dean, and the Dean of the Graduate School.

If the conference does not yield a resolution, the case will be forwarded to the Dean of the Graduate School.

The Dean and the Graduate Council Appeal Committee (GCAC) 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 the United University Professions (the faculty-staff union) or GSEU (the Graduate Student Employees Union). The Dean and Graduate Council Appeals Committee (GCAC) considers only claims of clearly improper academic practices; they will not intervene in disagreements about an instructor's intellectual judgment. Following the hearing, the committee will make a determination, by majority vote, of whether the grievance is sustained. If the grievance is sustained, the committee will also make a recommendation for how the grievance will be rectified. When faculty or other academic community members are found responsible, the outcome will be reported to the Department Chair, Academic Dean, and the Dean of the Graduate School.

The determination of the committee may only be appealed in the event of a significant departure from the procedure described above or based on new evidence that was not available at the time of the hearing. If either party believes that these procedures have not been followed, they may appeal to the Dean of the Graduate School. The disposition of the Dean is final.

### **III. Student Grievances with Respect to Academic Progress, Dismissal and Authorship**

If students believe that their degree progress has not been appropriately evaluated, they may bring a grievance against their program. As examples, students may bring a grievance if they do not understand the basis on which they have failed a major academic milestone or if they believe that they have been inappropriately dismissed from the Graduate School. In addition, students may raise issues pertaining to attribution and/or authorship only related to degree progress (e.g. not related to research projects outside of academic requirements). Grievances that have exhausted all previously established programmatic procedures should be reported directly to the Dean of the Graduate School.

For issues related to academic progress, the initial step should be a meeting between the student and the individual(s) who made the judgments (for example, the students' mentor or the chair of a qualifying exam committee or dissertation committee) and a representative(s) of the Graduate Program(s). The student and faculty member may request the presence of an additional person at this conference (e.g., the graduate advocate, the graduate program director, or department chair). If the initial conference does not produce a satisfactory resolution, the student may initiate an appeal to the Graduate Council Appeals Committee (GCAC). Note that the GCAC will only adjudicate grievances associated with academic progress, dismissals, and authorship associated with degree progress.

For issues related to authorship students should also try to resolve issues through an initial meeting with relevant parties. The student and other individuals may request the presence of an additional person at this conference (e.g., the graduate advocate, the graduate program director, or department chair). If the initial conference does not produce a satisfactory resolution, the student may initiate an appeal to the GCAC.

If either of the relevant parties wish to appeal either the process or disposition of a grievance adjudicated at the programmatic level, a written appeal of the program's decision must be presented to the Dean of the Graduate School within two weeks of the decision. The Dean will forward the case to the Graduate Council Appeals Committee (GCAC), who will then advise the Dean on the disposition of the case. The Dean's disposition of the case will be forwarded in writing to the relevant parties and to the Program Director, Department Chair and/or Academic Dean, as appropriate.

Students who believe that they have been inappropriately dismissed from Graduate School may file an appeal with GCAC.

The Graduate Council Appeals Committee (GCAC) will consist of an equal number of graduate students and faculty. Faculty members, including the committee chair, will be appointed by the Graduate Council. Graduate student members will be appointed by the Graduate Student Organization. A senior staff member of the Graduate School (Associate Dean or Assistant Dean) will normally serve as a non-voting member of the GCAC.

The goal of the GCAC is to resolve and/or adjudicate grievances and appeals as fairly and expeditiously as possible. The GCAC may consider appeals either on technical issues of procedure or substantive issues. In addition to addressing specific appeals brought to it by the Dean, the GCAC may recommend changes in policies of the program or University.

The person who is appealing to the GCAC is responsible to state clearly and concisely the nature of the grievance and the cause for request of an appeals hearing. Criteria for assessing the initial standing of an appeal include those policies addressed in the Graduate Bulletin or in published and approved program handbooks or guidelines.

Cases referred to the GCAC will be adjudicated in the following manner.

- Upon receiving a written appeal, the chair of the GCAC will convene a meeting of the full committee. This initial full meeting of the GCAC will usually occur within two weeks of receipt of the appeal, or as soon as the committee can be convened if classes are not in session.
- All GCAC members will have equal access to all documents and information. The Graduate School will appoint a faculty/staff member to assist the GCAC in obtaining, reproducing and disseminating the relevant information.
- The proceedings of the GCAC are confidential. Since information concerning an appeal may be of sensitive, highly personal and confidential nature, such information must not be disseminated outside the committee, except as necessary to the Graduate Student Advocate.
- The person who is filing the appeal must communicate with the GCAC only through its chair, and all such communications must be in writing. The GCAC will arrange for an interpreter or similar assistance if it deems that such aid would be useful.
- Upon reaching a decision, the GCAC will issue a report with its recommendations to the Dean of the Graduate School. The report should present the rationale for its recommendation(s). The substance of any dissent must be included in the text of the report.

The Dean of the Graduate School will review the GCAC's recommendations and issue a decision. The decision of the Dean of the Graduate School is final.

## Appendix A

**Program Grievance and Appeals Committee Membership:** The Graduate Program Director (or Department Chair) will form a Program Grievance Committee that will be comprised of no fewer than two faculty members and two graduate students. A larger number of participants may be necessary as long as the ratio of faculty to graduate students is maintained. A non-voting member (such as the Graduate Program Director) may be included to ensure equity across multiple cases. One faculty member will be designated as the chair of the Program Grievance Committee. All individual parties can request, without stipulating a reason, the replacement of one member of the Program Grievance Committee within five days of being notified of the committee composition.

**Confidentiality:** Once a Grievance Committee is formed (at any level), the relevant parties and the committee members have the obligation to maintain the confidentiality of the proceedings and of all materials presented during the proceedings. A breach of confidentiality may subject the individual to charges of misconduct.

## Academic Dismissal

Dismissal from the Graduate School can be requested by Departments or Programs in cases where there exist requirements beyond those of the Graduate School for the maintenance of good academic standing. In any such case the following requirements are made of the program:

- All such requirements must be stated clearly in writing and given to each student enrolled in the program. Any requirements not so publicized may not be enforceable.
- No student may be dismissed for poor academic or research performance by any program unless he or she has been on program probation or has received two consecutive semesters of unsatisfactory performance evaluations from the program immediately preceding the dismissal.
- Students must be notified in writing when they are placed on program probation, with a copy of the letter sent to the Graduate School. The letter of notification must be received by the student before the first day of classes of the semester in which the probation takes effect, and it must state the reason(s) for the probation, the possible consequences of the probation and the possible remedies for it.
- Students may be dismissed without having been placed on probation as described above, only in cases where they fail to pass required examinations or milestones as stated in published departmental policy, or in cases of proven academic dishonesty.
- Notifications of dismissal from the University will come from the Dean of the Graduate School and will be made to the student in writing, explaining the reasons for the dismissal. The student will have seven days to respond to this letter before the dismissal is processed and the student is blocked from further registration.
- Students may be dismissed or placed on probation by programs for reasons of academic or research performance only. All other disciplinary matters must be referred to the appropriate office of the University.

A graduate degree may be revoked in cases of academic or professional misconduct by a student during the course of his or her studies. The results of departmental/program hearings are forwarded to the department chair/program director who will forward this to the Dean of the Graduate School with a recommendation concerning any penalties. The Dean of the Graduate School will consult as needed with the Graduate Council. The Dean will determine and implement penalties and may recommend to the President that the degree be revoked. The Board of Trustees of the State University of New York revokes the degree. If the degree is revoked, the degree notation on the official transcript will be removed and replaced by a statement explaining the reason of the revocation.

## Claims of Discrimination

If a graduate student feels that they have been discriminated against on any basis, that person should contact Stony Brook University's Office of Equity and Access (OEA) for information, documentation and reporting procedures.

DOCUMENT WARNING: ".\\..\\.\\.\\.current/regulations//sb/graduatebulletin/current/regulations/academic\_probation/generative\_ai.pcf" not available!

## Transcripts and Records

- Transcripts
- Student Educational Records

### Transcripts

Students who wish to have Stony Brook transcripts forwarded to another institution or agency, or to themselves for their own use, must visit [How to Order Official Transcripts](#) on the Registrar's website for instructions. *Students in the School of Medicine or the School of Dental Medicine must order transcripts by contacting their school. School of Medicine at (631) 444-2341; School of Dental Medicine (631) 632-8901.*

### Student Educational Records

The Family Educational Rights and Privacy Act allows current or former students to inspect and review their educational records. Students are also accorded the right to a hearing in order to question the contents of their educational records. Written consent of students may be required before personally identifiable information about them will be released from their educational records as provided by law. Specific guidelines and procedures are contained in the Policy Manual of the University, T-507, Family Educational Rights and Privacy Act. A copy of this manual is available in the Reference Room of the Melville Library. After administrative remedies available at the University have been exhausted, inquiries or complaints may be filed with the Family Educational Rights and Privacy Act Office, Department of Health and Human Services, 330 Independence Avenue, S.W., Washington, DC 20201. Applicants or students may waive their rights to inspect confidential letters or statements of recommendation.

## Calendar and Absences

- Academic Calendar
- Equivalent Opportunity/Religious Absences

### Academic Calendar

Stony Brook University operates on a semester system, with fall registration occurring during the last week of August. The fall semester usually starts the first week of September and finishes before December 25. The spring semester usually begins the last week of January and finishes the third week of May. The last week of each semester is devoted to final examinations. In addition to these two semesters, classes are offered during a January Winter Session term and two Summer Session terms. Visit the [Registrar's Office](#) Web site for a detailed academic calendar.

### Equivalent Opportunity/Religious Absences

As students may be unable to attend classes on certain days because of religious beliefs, section 224-a of the Educational Law provides that:

- 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 religious beliefs, to attend classes or to participate in any examination, study, or work requirements on a particular day or days.
- Any student in an institution of higher education who is unable, because of religious beliefs, to attend classes on a particular day or days, be excused from any examination or any study or work requirements.
- 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 religious beliefs, an equivalent opportunity to make up any examination, study, or work requirements that he or she may have missed because of such absence on any particular day or days. No fees shall be charged by the institution for making available to the said student such equivalent opportunity.
- If classes, examinations, study, or work requirements are held on Friday after 4:00 pm or Saturday, similar or makeup classes, examinations, study or work requirements 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 held on other days.
- 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 students because of their availing themselves of the provisions of this section.
- Any student who is aggrieved by the alleged failure of any faculty or administrative official 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.
- As used in this section, the term "institution of higher education" shall mean schools under the control of the Board of Trustees of the State University of New York, the Board of Higher Education of the City of New York, or any community college.

**Accounting and Analytics, MS****College of Business****Dean**

Haresh Gurnani, Harriman Hall

**Associate Dean for Programs**

Danling Jiang, Harriman Hall

**MBA Program Directors**

Lily Blocker, Harriman Hall

Gary Sherman, Harriman Hall

**MSF Program Director**

Dmytro Holod, Harriman Hall

**MSAA Program Director**

Cecilia (Qian) Feng, Harriman Hall

**MSDA Program Directors**

Aaron Kim, Harriman Hall

Herbert Lewis, Harriman Hall

**Senior Assistant Dean for Curriculum, Accreditation, & Student Services**

Amy Milligan, Harriman Hall

**Senior Assistant Dean for Finance and Administration**

Joyce Wellinger, Harriman Hall

**Office of Student Services (Admissions & Advising)**

Harriman Hall Room 109 (631) 632-7171

cobgraduate@stonybrook.edu

**Web Site**

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

**Advanced Graduate Certificates Awarded**

Finance

**Degrees Awarded**

M.B.A., M.B.A. in Accounting, M.B.A. in Finance, M.B.A. in Marketing, M.B.A. in Health Care Management, M.S. in Accounting and Analytics, M.S. in Decision Analytics, M.S. in Finance, M.S. in Technology Management (in Korea)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

CPA Licensure Curriculum to Prepare for Success in the Competitive Field of Accounting

**A 30-CREDIT STEM DESIGNATED DEGREE PROGRAM**

The Master of Science in Accounting and Analytics (MSAA) is a **STEM-designated full-time or part-time** program suited for accounting professionals who seek to advance their accounting skills, as well as students with a background in business management and accounting. Students in this program would strengthen their accounting education and through the additional credits, achieve eligibility to become a Certified Public Accountant (CPA) in New York State.

To qualify to take the Uniform Certified Public Accounting (CPA) examination, and to ultimately become a licensed CPA in New York State, students must have 150 total credit hours including 33 credits in accounting, and 36 credits in general business.

Qualified students will take a prescribed 30 credits, all taught by leading College of Business faculty. The MS in Accounting and Analytics can be completed in as little as 1 year attending full-time. Students may also choose to attend part-time taking advantage of a flexible schedule.

### Admission Requirements for College of Business Graduate Programs

The College of Business graduate programs are designed for ambitious and analytical students who are capable of applying what they learn toward the solutions of organizational problems. New students will begin the Stony Brook M.S. in Accounting and Analytics in the Fall or Spring semester. Students must meet all prerequisites to be considered for this program. The prerequisites are: 9 credits in accounting to include; managerial or cost accounting, auditing, and intermediate accounting plus 30 credits in general business courses.

All graduate applications are submitted online through the following Website: <https://graduateadmissions.stonybrook.edu/apply/>.

Applicants are encouraged to submit a current resume along with their online application and personal statement. The requirements for the business graduate programs include:

3. A bachelor's degree with a minimum grade point average of 3.0. In exceptional cases, students not meeting the GPA requirement may be considered for admission on a conditional basis. Official transcripts can be mailed directly to the **Graduate School Office of Admissions and Student Services 2401 Computer Science Building Stony Brook, NY 11794** or sent electronically **gradadmissions@stonybrook.edu**. We strongly encourage foreign transcripts to be evaluated by World Education Services (WES) or another NACES association member.
4. Aptitude for quantitative analysis, demonstrated through previous coursework, standardized tests, or practical experience. All applicants must have successfully completed an introductory calculus course (MAT 123 or equivalent) with a grade of C or higher.
5. The GMAT/GRE are optional and should be used to enhance your application.
6. Three letters of recommendation, one of which, if possible, should be from a professional working in a private company or public agency who is capable of evaluating the applicant's motivation and potential. The three letters of recommendation should also include at least one from a college faculty member, counselor, or administrator. Letters of recommendation should be submitted through the application website.
7. Applicants whose first or primary language is not English, must submit one of the following:
  - A TOEFL internet-based score of 80 or above
  - An IELTS test with an overall score of 6.5 or above, with no sub-scores below 6.0

There is no need to submit an English language proficiency test if:

- you hold a degree such as a high school diploma, bachelors, masters, or PhD from an institution where the primary instruction was in English
- you are a US citizen (or US National) or Permanent Resident
- you served as a Teaching Assistant at an institution where the primary instruction was in English

English language proficiency test results will be considered as part of the review process for admission for any applicant who submits test results as part of their application. If the scores are below the stated requirements, an offer of admission cannot be extended.

1. Application fee.
2. Acceptance by both the College of Business and the Graduate School.

Application Deadlines:

### Application Deadlines

#### MS in Accounting and Analytics

##### Fall

International Applicants, April 15th

Domestic Applicants, July 1st

#### MS in Accounting and Analytics

##### Spring

International Applicants, November 1st

Domestic Applicants, December 15th

Applications may be considered after these dates, as long as space is available.

For additional information, please visit [www.stonybrook.edu/business](http://www.stonybrook.edu/business) or email [cobgraduate@stonybrook.edu](mailto:cobgraduate@stonybrook.edu).

Office of Student Services

Harriman Hall, Room 109

College of Business

Stony Brook University

Stony Brook, New York

11794-3775

(631) 632-7171

E-mail: cobgraduate@stonybrook.edu

Facilities of the MBA Program

Research

Faculty members in the College of Business are strongly committed to teaching and fostering working relationships with students inside and outside the classroom, while maintaining their involvement in research.

In their research, Business professors examine complex issues and problems confronting today's managers and decision makers. They analyze businesses and other institutions as well as the economic, regulatory, and technological forces underlying decision-making processes and ongoing changes within these organizations. They keep close contact not only with other researchers in the United States and abroad, but also with regional, national, and international businesses by conducting applied research projects and working as consultants.

Students at the College of Business benefit from this high-caliber research in several ways. Faculty members often revise and develop new course materials to incorporate current research into their teaching and instruction. Exposing students to the latest knowledge and management skills best prepares them for future challenges and, at the same time, makes the classroom experience dynamic and stimulating. Business students work closely with professors and all students are invited to participate in seminars conducted by the school's researchers.

The College houses Centers for Human Resource Management, Health Services Research Management, Information Systems Management, Center for Operational Excellence, and the Innovation Center. Quality research conducted by the centers contributes significantly to the College's academic programs. In addition, the centers' applied and interdisciplinary research promotes valuable interactions with industry, government, and nonprofit organizations and provides hands-on experience to students.

Behavioral Research Lab

The College of Business Behavioral Research Lab provides a space for faculty to conduct experiments and test theories that will help consumers, managers, and organizations make better decisions. The lab is equipped with computers and recording equipment to support the growing number of researchers who serve as principle investigators in areas such as behavioral finance, consumer behavior, and organizational behavior. The space may be reserved by faculty in the College of Business and students conducting research studies under the supervision of a faculty member in the College of Business.

### **MS in Accounting and Analytics**

Admitted students will take a prescribed 30 credits (10 classes); students may attend full-time or part-time.

#### **Required Courses:**

ACC 544: Financial Statement Analysis

ACC 545: Entity Taxation

ACC 546: Information Security & Emerging Technologies in Accounting

ACC 562: Accounting Information Systems

ACC 580: Contemporary Issues in Financial Accounting, Auditing and Regulation

ACC 590: Advanced Auditing and Assurance

ACC 596: Financial Accounting Theory

ACC 598: Forensic Analytics in Accounting

MBA 506: Leadership, Team Effectiveness & Communications

MBA 540: Data Mining

Faculty of the College of Business

Please see the College of Business Faculty Directory: [https://www.stonybrook.edu/commcms/business/about/\\_faculty/](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.*



## Africana Studies

**Chairperson:** Patrice Nganang, Ward Melville Social & Behavioral Sciences Bldg., S-245 (631) 632-7470

**Graduate Program Director:** Zebulon Miletsky, SBS S-253, (631) 632-7470

**Assistant-to-the-Chair:** Ann Berrios, Ward Melville Social & Behavioral Sciences Bldg., S-249 (631) 632-7470

**Program Coordinator:** Patrice Nganang, Ward Melville Social & Behavioral Sciences Bldg., S-245 (631) 632-7470

**Degree Awarded:** M.A., Graduate Certificate in Africana Studies

**Website:** [www.stonybrook.edu/afs](http://www.stonybrook.edu/afs).

## Application

<https://graduateadmissions.stonybrook.edu/apply/>

## Africana Studies

The Department of Africana Studies (AFS) in the College of Arts and Sciences (CAS) offers a program of interdisciplinary studies leading to a Master of Arts or a Graduate Certificate in Africana Studies. Our graduate program is for anyone who wants to have a more profound understanding of the contemporary globalized world. The M.A. in Africana Studies is intended to develop an understanding of the experiences of people of African descent in all regions of the globe and across time. This unique program presents approaches and knowledges radically and fundamentally different from those encountered in traditional disciplines, by applying the symbolic potential of Africa and African ideas and ways of being and thinking as a prism for enhancing human understanding and knowledge. In so doing, the M.A. and Graduate Certificate (GC) meet the need for academic inquiry and excellence at the graduate level spanning the experiences, history and perspectives of African heritage peoples (United States, Caribbean/Latin America, Africa) and enhance professional development in a range of careers and professions where knowledge and increased understanding of Black communities past and present are important. Included among these areas are education, law, management, medicine, public health, public service, social welfare, museum curatorship, cinema studies and teaching. Our graduate programs also increases marketability in a range of traditional doctoral programs including Cultural Studies, English, History, Philosophy, Social Welfare, Sociology, and others.

The graduate program in Africana Studies offers a broad inquiry into the ideas and experiences of African peoples in the Americas, the continent of Africa, and elsewhere around the globe. The focus of the program is interdisciplinary, organized around a comparative perspective of the African Diaspora. Emphasis is placed on the intersection between African, the Caribbean-Latin American, and African American experiences. Students will examine the Diaspora with particular attention focused on African American, Caribbean-Latin American, and continental African cultures, histories, literatures, political systems, religions, and economies in the overlapping context of developing African communities initially linked by the waterways of the Atlantic.

M.A. students pursuing M.A.T. and MLS degrees in academic and professional programs outside of Africana Studies may gain approval from their academic units if seeking to designate Africana courses as a cognate area.

Gainful Employment Regulation Disclosure

## Admission

Student admissions standards and selection procedures are identical to those followed by the Graduate School of Stony Brook University. In addition to the minimum Graduate School requirements, the Africana Studies Department has specific degree requirements.

1. A bachelor's degree is required with a 3.00 (B) in all social science and humanities courses.
2. Two official copies of previous college transcripts must be submitted.
3. Three letters of recommendation that address the applicant's potential to succeed in a program of graduate study.
4. Submission of scores from the Graduate Record Examination (GRE) General Test.

## Facilities

The Department of Africana Studies possesses in-house library facilities. The Richard B. Moore Library was established years ago with a generous gift of several thousand books from Joyce and Burghardt Turner. Dr. Turner was a former Stony Brook professor, after whom the W. Burghardt Turner Fellowship for Underrepresented Students is named. Some of the donations from the Turner family include irreplaceable early editions of items not found even in the general or special collection of the university. They have also donated photographic and art work on display in the library. In addition, the Richard B. Moore Library houses sculpture and paintings donated by AFS alumni. Book and art items in our unit's library are supplemented by a valuable tape collection, housed in a separate Media Laboratory and Archives. In this collection are tapes made by students of lectures, symposia, cultural events, demonstrations and other happenings held on campus during past years. Also, AFS professor emeritus and poet Amiri Baraka deposited in our media archives copies of his invaluable video holdings dealing with key political and literary events with which he had been involved. (These Baraka tapes will eventually become part of the holdings of the Schomburg Center for Black History and Culture). Our Richard B. Moore Library maintains regular daytime hours during the week, and is used by students from various parts of the campus.

AFS also has a Computer Lab, maintained by the Division of Instructional Technology, with several terminals, available for use by students.

## Requirements

The M.A. degree requires a total of 30 graduate course credits with an overall minimum GPA of 3.0. Eighteen (18) of these credits will be in the Africana Studies Graduate Core Curriculum. Twelve (12) of thirty (30) credits may be part of an elective mix of AFS graduate courses and AFS approved graduate courses taken outside the Africana Studies Department in academic areas approved by AFS. Included within the twelve (12) credits are a research thesis project (6 credits). Students may arrange at their own initiative an opportunity to earn six (6) credits in a study abroad program conducted in Africa and/or the Caribbean-Latin America with Stony Brook's International Academic Programs Office (IAP) which regularly commits to travel-study programs particularly in Africa both in the summer months and during the university's winter session in efforts to widen the range of approaches to international understanding. Importantly as well, a small number of the courses offered by the M.A. Program in Africana Studies can be taken by students in the M.A.T.(Master's of Arts in Teaching) Program in Social Studies Education to fulfill the requirements of that program.

The Department of Africana Studies (AFS) has a tradition of interdisciplinary teaching and research, as reflected in the themes, and the theoretical and historical perspectives of the master's degree courses. The foundation courses are required of all students pursuing the M.A. degree. The two-semester sequence introduces students to the theoretical and methodological issues of the African Diaspora. A required research seminar introduces students to the historiography of the African Diaspora.

The Graduate Certificate requires a total of 15 graduate course credits found in the Africana Studies core curriculum. Students must maintain an overall minimum GPA of 3.0. Students applying to pursue the GC should also have a 3.0 during their undergraduate years. Six(6) of the credits for the GC are in foundational courses listed as 500/501 and 502. The remaining 9 credits may be selected from a mix of seminar classes approved by an AFS Department graduate advisor. The application process can be started online by clicking "Admissions" on the main SBU web page and following the appropriate instructions.

## Requirements for the M.A in Africana Studies

1. Foundations in Africana Studies, I, II  
AFS 500; AFS 501 (6 credits)
2. Research Methods in Africana  
Studies AFS 502 (3 credits)
3. 3 courses (9 credits) from the following courses:  
AFH 520, AFH 524, AFH 528, AFS 530, AFS 433, AFS 536, AFS 540, AFS 550, AFS 555, AFS 570
4. Additional 12 credits chosen in consultation with the student's advisor:  
include a thesis research project, AFS/AFH 599 (6 credits);  
electives chosen in consultation with advisor and oral exam (6 credits);  
or study abroad research (6 credits)

## Faculty

The Department of Africana Studies (AFS) provides academic excellence in teaching and research on African Diasporic life and culture as part of its mission at Stony Brook University. The M.A. Faculty of the Department of Africana Studies is composed of AFS core faculty, and Affiliate faculty from other departments. A listing of Affiliate faculty is available in the AFS main office.

## Core Faculty

Asare, Abena, Ph.D., New York University; Philosophy and History; History of Ghana, (Truth, Reconciliation and Human Rights in Post Independence Africa).

Fouron, Georges, Ed.D., Columbia University: Social studies education; bilingual education; identity; Haiti; immigrants' experience in America; transnationalism.

Gulema, Shimelis Bensa, Ph.D., University of California; African History (Post Colonial Formations, Migration Economy, Identification, Urbanization and Ethnicity).

Harris, Dawn. Ph.D., York University: Caribbean History and Culture

Hurley, E. Anthony, Ph.D., Rutgers University: Francophone literature of the Caribbean and Africa; Caribbean poetics; Afro-Caribbean culture; Caribbean American literature.

Walters, Tracey, Ph.D., Howard University: African American literature, Caribbean literature, African literature; Pan-African literature; Black British literature and culture; 20<sup>th</sup> Century American and British literature; journalism.

Frank, Barbara, Ph.D., Indiana University: African Mesoamerican, and African Diaspora art history.

Oyewumi, Oyeronke, Ph.D., University of California, Berkeley: Gender; race; family; cultures; social inequalities; globalization.

## Professor Emeritus

Amiri Baraka, Playwriting, Pan-Africanism; contemporary affairs; literature.

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

## Anatomical Sciences

**Chairperson**

Dr. Susan Larson, Health Sciences Center T-8, Room 040 (631) 444-3115

**Graduate Program Director**

Dr. Eric Wilberg, Health Sciences Center, Academic Tower A, T-8, Room 083 (631) 448-2492

**Staff Associate**

Rachel M. Conti, Health Sciences Center T-8, Room 040 (631) 444-3114

**Degree Awarded**

Ph.D. in Anatomical Sciences

**Web Site**

<https://medicine.stonybrookmedicine.edu/anatomy>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Multidisciplinary Graduate Program in Anatomical Sciences

The Department of Anatomical Sciences, within the Health Sciences Center, offers a multidisciplinary graduate program leading to the Ph.D. degree. Students receive comprehensive training to prepare them for teaching and research in the areas of evolutionary morphology, systematics, functional morphology, musculoskeletal biology, and vertebrate paleontology. Graduate students are guided through a program of courses designed for their particular needs. In this regard, the Department of Anatomical Sciences interacts not only with other departments in the School of Medicine but also with those in the College of Arts and Sciences (e.g., Anthropology, Geosciences, and Ecology and Evolution), as well as other regional doctoral programs (City University of New York, American Museum of Natural History, Richard Gilder Graduate School).

The program trains students in the analysis and interpretation of gross vertebrate structure with the goal of testing hypotheses in systematics, paleoecology and adaptation. Training and research focus on applying an evolutionary perspective to the study of morphology, including functional morphology and phylogenetic systematics. Field-based projects for the discovery of new fossils are typically underway every year. Both the locomotor and the craniodental anatomical systems are regions of current interest and investigation within the program. Several faculty in the department specialize in the application of experimental and quantitative techniques to the analysis of the relationship between form and function. Studies of skeletal adaptations are also facilitated by collaboration with the Musculoskeletal Research Laboratory of the Department of Orthopaedics. Questions of systematics are approached at different levels, ranging from alpha taxonomy to higher-order relationships and we provide training using contemporary methods of phylogenetic systematics and biogeography. Students in the program have the opportunity to master a variety of research methods and analytical strategies: multivariate morphometrics, phylogenetic systematics, biogeography, CT-based anatomical reconstructions, behavioral ecology, and principles of paleontological fieldwork.

Anatomical Sciences does not accept students whose goal is a master's degree.

## Admission Requirements of Anatomical Sciences Department

In addition to the minimum Graduate School requirements, the following are required:

- A. A bachelor's degree typically in a field with ties to research in our department.
- B. Letters of reference.
- C. Resume/CV
- D. Proof of English proficiency for non-native speakers of English.
- E. Acceptance by the Department of Anatomical Sciences and by the Graduate School.

## Facilities of Anatomical Sciences Department

The department has exceptionally well-equipped research facilities. These include facilities for experimental functional morphology. For students with a focus on paleontology, the department has a Vertebrate Fossil Preparation laboratory with contemporary equipment for preparation, molding and casting original fossil material. The department also has access to CT scanners and associated software for research purposes. The department also has extensive cast collections, and original specimens from several ongoing paleontological field projects.

Anatomical Sciences does not accept students whose goal is a master's degree. In exceptional instances, a student already in the program may be awarded an M.S. degree upon completing an approved course of study, including a minimum of 30 graduate credit hours, and either passing a comprehensive examination, or submitting and defending a master's thesis.

Graduate Studies in Anatomical Sciences does not accept students whose goal is a master's degree. In exceptional instances, a student already in the program may be awarded an M.S. degree upon completing an approved course of study, including a minimum of 30 graduate credit hours, and either passing a comprehensive examination, or submitting and defending a master's thesis.

### **Requirements for the Ph.D. Degree in Anatomical Sciences**

In addition to the minimum requirements of the Graduate School, the following are required:

#### **A. Formal Course Requirements**

The following courses are required for all students in the program:

1. HBA 560: Regional Anatomy for non-Healthcare Students
2. A statistics course approved by the advisor or Graduate Program Director
3. GRD 500: Responsible Conduct of Research and Scholarship
4. HBA 695: Practicum in Teaching
5. Three elective courses (for a minimum of 9 credits)

A student must achieve a grade of B or higher in each of the required courses, and must maintain a B average or higher in all elective courses.

#### **B. Preliminary Examination**

All students are required to take a preliminary examination upon completion of formal course requirements.

#### **C. Advancement to Candidacy**

The faculty will recommend a student to the Graduate School for advancement to candidacy upon satisfactory completion of all required coursework and the preliminary examination. The student then becomes a formal candidate for the Ph.D.

#### **D. Dissertation Proposal Examination**

Following advancement to candidacy a student must prepare and submit a dissertation proposal that is acceptable to the dissertation committee and program in Anatomical Sciences.

#### **E. Ph.D. Dissertation**

A student, under the supervision of their Dissertation Committee, performs the research leading to the preparation of their written dissertation. The dissertation must contain the results of an original and significant investigation. Students should enroll in an HBA Dissertation Research Course (HBA 699, HBA 700, or HBA 701) to document completion of the doctoral research project.

#### **F. Dissertation Defense**

Following completion of the dissertation research project, a student must submit their dissertation to their examining committee and present their findings in a formal public oral defense. Following the oral presentation of results and questioning by the audience, the student defends their results before the dissertation committee.

For procedural details, please refer to the Department of Anatomical Sciences website.

Faculty of Anatomical Sciences

Distinguished Professor

Fleagle, John G., Ph.D., 1976, Harvard University: Evolutionary biology of higher primates; vertebrate paleontology; behavioral and experimental analysis of comparative musculoskeletal anatomy; skeletal growth and development.

Emeritus Distinguished Service Professor

Krause, David W.<sup>4</sup>, Ph.D., 1982, University of Michigan: Vertebrate paleontology; mammalian evolution; functional morphology of masticatory and locomotor systems.

Emeritus Distinguished Teaching Professors

Jungers, William L., Ph.D., 1976, University of Michigan: Paleoanthropology; comparative primate anatomy; biomechanics; primate paleontology and systematics.

Stern, Jack T., Jr., Chairperson. Ph.D., 1969, University of Chicago: Functional gross morphology; relationship between primate locomotor behavior and structure; human muscle function in relation to athletic activity and orthopaedics; radiotelemetered electromyography.

Emeritus Professors

Demes, A. Brigitte, Ph.D., 1982, University of Bochum, Federal Republic of Germany: Biomechanics; functional morphology; scaling effects on locomotion.

## Professors

Larson, Susan G., Ph.D., 1982, University of Wisconsin: Functional morphology of human and nonhuman primate locomotor systems; human and primate evolution; telemetered electromyography.

O'Leary, Maureen A.<sup>4</sup>, Ph.D., 1997, Johns Hopkins University: Vertebrate paleontology; phylogenetic systematics; mammalian evolution.

Turner, Alan H., Ph.D., 2008, Columbia University: Vertebrate paleontology; phylogenetic systematics, biogeography, archosaur evolution.

## Associate Professors

Kley, Nathan J., Ph.D., 2001, University of Massachusetts Amherst: Functional morphology and evolution of feeding and locomotor systems in vertebrates. Phylogenetic origin, interrelationships and early evolution of snakes.

## Assistant Professors

Andrew Moore, Ph.D., 2018, The George Washington University: vertebrate paleontology, archosaur evolution

Eric Wilberg, Ph.D., 2012, University of Iowa: Vertebrate paleontology, crocodilian biology.

Stephanie Maiolino, Ph.D., 2015 Stony Brook University: Physical anthropology, primate evolution.

## Adjunct and Joint Faculty

Grine, Frederick E.<sup>1</sup>, Ph.D., 1984, University of Witwatersrand, South Africa: Hominid evolution; functional morphology of the masticatory system; vertebrate paleontology; dental structure and comparative odontology.

Leakey, Maeve, Ph.D., 1968, University of North Wales: Evolution of hominoids; evolution of Late Cenozoic faunas in East Africa.

Martin, Lawrence B., Dean of the Graduate School.<sup>1</sup> Ph.D., 1983, University of London, England: Primate evolution; thickness, development, and microstructure of dental enamel; neogene vertebrate paleontology.

Mittermeier, Russell, Ph.D., 1977, Harvard University: Ecology and behavior of primates; primate conservation.

Rubin, Clinton T.<sup>3</sup>, Ph.D., 1982, Bristol University, England: Structural adaptation in bone; skeletal remodeling and morphology.

Additionally, the department has a group of Instructors that changes annually. These faculty members are early-career Ph.D. scientists who contribute to the teaching and research mission of the department.

Number of teaching, graduate, and research assistantships annually: 4-6

1) Joint appointment, Department of Anthropology

2) Joint appointment, Department of Physiology

3) Joint appointment, Department of Orthopaedics

4) Joint appointment, Department of Earth and Space Sciences

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

## Doctoral Program in Anthropological Sciences

**Director**

Amy Lu, Ward Melville Social and Behavioral Sciences Building, S-529

**Academic Program Coordinator**

Tara Powers, Ward Melville Social and Behavioral Sciences Building, S-503, (631) 631-7606

**Degree Awarded**

Ph.D. in Anthropology

**Web Site**

<https://www.stonybrook.edu/commcms/anthropology/graduate/phd-program.php>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Doctoral Program in Anthropological Sciences

The Interdepartmental Doctoral Program in Anthropological Sciences (IDPAS), in the College of Arts and Sciences, is an interdisciplinary and interdepartmental program leading to the Ph.D. degree that draws upon faculty and resources from the departments of Anatomical Sciences, Anthropology, Asian and Asian American Studies, Ecology & Evolution, Geosciences, History, Sustainability Studies Program and the Turkana Basin Institute. The goal of the IDPAS is to train students for careers in research and teaching in physical anthropology, archaeology, and cultural anthropology. Students in the Ph.D. program who have already been advanced to candidacy may, upon petition, receive a master's degree without submitting a master's thesis. The IDPAS is not accepting any applications for cultural anthropology at present.

## Admission Requirements for Doctoral Program in Anthropological Sciences

Application procedures and requirements determined by the University at Stony Brook, as set forth in this bulletin, must be followed. Applications will be reviewed by the admissions committee of the IDPAS, and successful applicants will be considered for financial assistance through the award of a teaching assistantship (TA) by the TA committee of the IDPAS. All rules, regulations, and requirements of the Graduate School, Stony Brook University, must be satisfied in addition to those described in this section. Interested students should request information as early as possible, especially if they plan to apply for financial aid.

In addition to the admission requirements of the Graduate School, the IDPAS requires:

- A. A bachelor's degree from an accredited college. A minimum grade point average of 3.0 (B) in all undergraduate coursework and 3.25 in the major field of concentration;
- B. Results of the Graduate Record Examination (GRE) General Test;
- C. Acceptance by the IDPAS and the Graduate School.

**Facilities, Anthropological Sciences**

Extensive laboratory space as well as desk space is available for all graduate students. The archaeology and physical anthropology labs housed in the Department of Anthropology provide facilities for the analysis of artifact collections, especially stone tools, faunal and botanical remains, application of remote sensing and Geographic Information Systems (GIS), analysis of primate or human remains, and advanced electron microscopy (EM), and primate endocrinology. Housed in the department are archaeological collections from Africa and the Near East. A fully equipped preparation lab provides opportunities for state-of-the-art mineralized tissue research. Laboratories also contain 3D state-of-the-art scanning/ and digitizing equipment and analysis software, for example for the analysis of micro-Computed tomography (uCT). The laboratory for endocrine analyses contains a gamma counter and a plate reader necessary for most immunoassays.

Outside of the Anthropology Department, interested students have access to the research facilities for comparative primate morphology, human anatomy, and human and primate evolution housed in the Department of Anatomical Sciences, which are at present unparalleled at any other institution. The collections include primate fossils; primate osteological material from Africa, Asia, and South America; and living nonhuman primates, including New and Old World monkeys and lemurs.

Students interested in experimental animal models for the study of functional morphology or morphogenesis have access to core facilities, including modern small animal facilities, micro-Computed tomography (uCT) imaging, and confocal imaging systems.

The Department of Geosciences houses several mass spectrometers capable of measuring many isotopes and elemental abundances, as well as petrographic and dissecting microscopes with digital cameras. Students have access to excellent libraries and collections and to campus computing services.

Field work opportunities are available in primate behavioral ecology, paleontology, and archaeology. Primate behavior research is conducted in Ecuador, Ethiopia, Kenya, Madagascar, Peru, Sri Lanka, and Tanzania. Paleontological field research is current in Argentina, Kenya,

Madagascar, South Africa, and Zambia. The archaeology faculty have active field sites in Kenya, Ethiopia, Sudan, France, Madagascar, Maine, and Bolivia. The Turkana Basin Institute provides IDPAS students with access to field opportunities for paleontology and archaeology in northern Kenya.

## Requirements of the Ph.D. Degree Anthropological Sciences

For a full description of IDPAS requirements and deadlines, please request “IDPAS Rules, Regulations, Requirements, and Procedures” from the Academic Programs Coordinator or download the description at <https://www.stonybrook.edu/commcms/idpas/program/rules.php>

### A. Course Requirements

Completion of a minimum of 48 graduate credits, maintaining a minimum 3.0 average in all graduate courses. Not more than four credits of SPD or equivalent coursework may be applied toward the satisfaction of IDPAS course requirements. All first-years are required to enroll in DPA 525 Research Areas in Anthropological Sciences.

**1. Physical Anthropology:** Required courses are (a) DPA 564 Primate Evolution, (b) DPA 565 Human Evolution, (c) DPA 567 Primate Behavior and Ecology. Other required courses toward completion of study in the Evolutionary Morphology track include (a) BEE 551 Principles of Evolution, (BEE 561 Macroevolution, may be substituted for BEE 551 with the permission of the faculty in the student's track), (b) BEE 552 Biometry (an equivalent statistics course, e.g., PSY 501 and PSY 502 may be substituted with permission of the physical anthropology faculty), and (c) DPA 541 Human Evolutionary Anatomy. Students on the Primate Behavior track must take (1) BEE 551 Principles of Evolution, (2) BEE 552 Biometry (an equivalent statistics course, e.g., PSY 501 and PSY 502) may be substituted with permission of the physical anthropology faculty), and (3) BEE 550 Principles of Ecology or BEE 586 Evolutionary Ecology. Additional elective courses may be completed during the second and third years of study under the supervision of the Guidance Committee.

**2. Archaeology Program:** Required courses that form the basis of the qualifying examination are (a) DPA 515 Theory and Method in Archaeology and (b) a Graduate-level Statistics course, (c & d) two survey courses chosen from DPA 511 Paleolithic Archaeology, DPA 513 Origins of Agriculture, DPA 512 Comparative Civilizations. Additional requirements include (a) DPA 516 Research Design in Archaeology, (b) one laboratory methods course chosen from DPA 517 Primitive Technology, DPA 518 Lithic Technology, DPA 519 Zooarchaeology, DPA 526 Remote Sensing and GIS, or additional laboratory course approved by committee, (c) one area course chosen from DPA 560 Ancient Mesopotamia, DPA 562 Long Island Archaeology, DPA 564 African Stone Age, DPA 585 Prehistoric Peoples of the Americas, or DPA 650 Research Seminar in Archaeology (with committee approval). Students must also take one elective course outside the archaeology subdiscipline (e.g. DPA 565 Human Evolution, DPA 566 Hunters and Gatherers, DPA 582 Human Demography, ARH 541 Topics in Ancient Art, or GEO 521 Isotopes and Trace Element Geology). Students must have had one season of archeological fieldwork (with committee approval) before advancing to candidacy.

**3. Cultural Anthropology:** Required courses that form the basis of the qualifying examination are (a) DPA 501 Development of Anthropological Theory, (b) DPA 540 Readings in Ethnography and Ethnology, and (c) DPA 520 Principles of Social and Cultural Anthropology. Other courses required for completion of the cultural anthropology program include (a) DPA 620 Research Seminar in Topical Problems, (b) DPA 640 Research Seminar in Ethnography and Ethnology, and (c) three additional credits of DPA 540 Readings in Ethnography and Ethnology. Other courses that may be taken at the discretion of the student's guidance committee include DPA 509 Seminar in European Ethnography, DPA 561 Peasant Societies and Cultures, and a statistics course.

### B. Qualifying Exam

The qualifying examination must be taken after two or three semesters of study (depending upon sub-field) and passed at an appropriate level. The qualifying examination is administered to each student by the examination committee of the IDPAS. The examination varies by subfield. Students in Physical Anthropology are required to develop a publishable research paper, students in archaeology take an oral exam, while students in cultural anthropology take a written exam. The material covered in the qualifying examination comprises that covered in the courses specified above as well as that covered by the prescribed reading list for the selected field.

### C. Language Requirement

The language requirement is optional as determined by each student's advisory committee. The student must select the suitable language(s) necessary for the chosen field of specialization with the approval of the guidance committee. Language tests must be passed prior to advancement to candidacy. We accept a passing grade in a University course in academic reading in a foreign language (e.g., GER 500 or FRN 500), or internal language tests may be administered by program faculty. Before recommending that a student be permitted to engage in fieldwork, the guidance committee may ask the student to demonstrate ability to speak the language required for fieldwork.

### D. Preparation of Dissertation Research Proposal

The dissertation proposal is prepared under the direction of the dissertation guidance committee, which is composed of at least three IDPAS faculty members and an external member. The dissertation proposal will be defended orally at a seminar open to the academic community and to which all IDPAS faculty and students are invited at least two weeks in advance. Students should aim to complete and defend their dissertation proposal during their third year in the program. Upon successful defense of the proposal, the student may be advanced to candidacy. The M.A. may be awarded at this point. Dissertation research, writing, and examination are supervised by the dissertation guidance committee.

### E. Teaching Requirement

In accordance with Graduate School regulations, every student must gain some teaching experience. This may involve the presentation of a number of lectures in a course offered by a member of the IDPAS faculty. Upon advancement to candidacy, a student may be assigned greater teaching responsibility in the form of an undergraduate course to be prepared and taught under the supervision of an IDPAS faculty member. This arrangement will be made in consultation with the student and with the approval of the TA committee and the student's advisor. No student will be required to teach more than one course per year, and credit for teaching assignments will be given under the aegis of DPA 600.

### F. Written Dissertation and Defense

The approval of a written thesis and its successful oral defense to the committee and the University community at large are required.

### G. Time Limit

The candidate must satisfy all requirements for the Ph.D. degree within seven years after completing 24 credit hours of graduate courses at the University at Stony Brook department or program in which the candidate is to receive his or her degree.

## Doctoral Program in Anthropological Sciences

### Distinguished Professors

Fleagle, John G.,<sup>1</sup> Distinguished Professor, Ph.D., 1976, Harvard University: Primate and human evolution; primate behavior and ecology; functional morphology; growth and development.

Grine, Frederick E.,<sup>2</sup> Distinguished Professor, Ph.D., 1984, University of the Witwatersrand, South Africa: Hominid evolution; functional morphology of the masticatory apparatus; diet reconstruction; dental anthropology; mineralized tissues.

Wright, Patricia C.,<sup>2</sup> Distinguished Service Professor, Ph.D., 1985, City University of New York: Primate behavior and ecology; rainforest conservation; Madagascar.

### Professors

Davalos, Liliana M.,<sup>3</sup> Ph.D., 2004, Columbia University: Phylogenetics, tropical deforestation.

Hicks, David,<sup>2</sup> D.Phil., 1973, Oxford University, Great Britain: Politics; ritual; literature; East Timor; Insular Southeast Asia.

Koenig, Andreas,<sup>2</sup> Ph.D., 1992, Georg-August University, Göttingen, Germany: Primate behavioral ecology; social evolution; reproductive strategies; Asia.

Lynch, Heather, Ph.D. 2006, Harvard University: Quantitative ecology, geospatial modeling, remote sensing and GIS

Martin, Lawrence B.,<sup>4</sup> Director of TBI, Ph.D., 1983, University of London, Great Britain: Hominoid evolution; enamel thickness; enamel microstructure and development.

Shea, John J., Ph.D.,<sup>2</sup> 1991, Harvard University: Paleoanthropology, archaeology; lithic analysis; Southwest Asia; Eastern Africa; human dispersals.

### Associate Professors

Harmand, Sonia,<sup>2,4</sup> Ph.D., 2005, Paris X, France: Early stone age archaeology; lithic technology; cognition; primate archaeology; Africa.

Hildebrand, Elisabeth,<sup>2,4</sup> Ph.D., 2003, Washington University: Origins of agriculture; paleoethnobotany; ethnoarchaeology; Africa.

Lu, Amy,<sup>2</sup> Ph.D., 2009, Stony Brook University: Behavioral endocrinology, socioecology, sexual selection, growth and development, life history

Markham, A. Catherine,<sup>2</sup> Ph.D., 2012, Princeton University: Behavioral ecology; maternal care; spatial ecology; wild primates.

Newman, Elizabeth Terese,<sup>5</sup> Ph.D., 2008, Yale University: Zooarchaeology; historical archaeology; household archaeology; gender; Mexico.

Rasbury, Troy, E.,<sup>6</sup> Ph.D., 1998, Stony Brook University: Sedimentary geochemistry; chronostratigraphy; geochronology.

Rossie, James B.,<sup>2</sup> Ph.D., 2003, Yale University: Primate evolution; miocene hominoids; cranial anatomy; East Africa.

Ruf, Gregory A.,<sup>7</sup> Ph.D., 1994, Columbia University: Social organization; politics and history; cultural ecology; ethnographic methods and writing; China.

Russo, Gabrielle A.,<sup>2</sup> Ph.D., 2013, University of Texas at Austin: Functional morphology of the axial skeleton, primate and human evolution, locomotion, ontogeny.

Smaers, Jeroen B.,<sup>2</sup> Ph.D., 2010, University of Cambridge, England: Brain evolution, phylogenetic comparative methodology, macroevolutionary morphology.

Turner, Alan H.,<sup>1</sup> Ph.D., 2008, Columbia University: Phylogenetic methods, dinosaur and crocodylomorph evolution, morphological data, paleontology

Twiss, Kathryn C.,<sup>2</sup> Ph.D., 2003, University of California, Berkeley: Archaeology of food; zooarchaeology; origins of agriculture and social complexity; Southwest Asia.

Veeramah, Krishna R.,<sup>3</sup> Ph.D., 2008, University College London, Great Britain: primate evolution; genomics; population genetics; sub-Saharan Africa, Ancient DNA.

### Research Professor



Leakey Meave G.,<sup>4</sup> Ph.D., 1968, University of North Wales: Primate evolution; palaeoecology and evolution of African mammals.

#### **Research Associate Professor**

Borries, Carola,<sup>2</sup> Ph.D., 1989, Georg-August University, Göttingen, Germany: Socio-ecology; reproduction; life history; Asian primates.

#### **Assistant Professors**

Frouin, Marine,<sup>6</sup> Ph.D., 2014, Université Bordeaux Montaigne, France: Luminescence dating, geochronology, chronostratigraphy

Henkes, Gregory A.,<sup>6</sup> Ph.D., 2014, Johns Hopkins University: Stable isotope geochemistry, paleoclimatology, biogeochemistry.

Maiolino, Stephanie A.,<sup>1</sup> Ph.D., 2015, Stony Brook University: primate evolution, comparative morphology, hands and feet, locomotion

Percival, Christopher J.,<sup>2</sup> Ph.D., 2013, Penn State University: Skull development and evolution, craniofacial disease, geometric morphometrics, computed tomography image analysis

Smiley, Tara M.,<sup>3</sup> Ph.D., 2016, University of Michigan: Diversity dynamics and paleoecology of fossil mammals, biogeography, stable isotope ecology.

Vitek, Natasha S.,<sup>3</sup> Ph.D., 2019, University of Florida: Evolution and intraspecific variation in vertebrate fossils, primarily mammals and turtles.

Yager, Karina A.,<sup>8</sup> Ph.D., 2009, Yale University: Pastoralism; cultural ecology; remote sensing; climate change and society; Andean studies.

#### **Research Assistant Professors**

Lewis, Jason,<sup>2,4</sup> Ph.D., 2011, Stanford University: Paleoeology, paleontology, human evolution, zooarchaeology, Old World Paleolithic archaeology.

#### **Emeriti Faculty**

Demes, Brigitte,<sup>1</sup> Professor Emerita, Ph.D., 1982, Ruhr University, Bochum, Germany: Biomechanics; functional morphology; allometry; primates.

Jungers, William L.,<sup>1</sup> Distinguished Teaching Professor Emeritus, Ph.D., 1976, University of Michigan: Primate and human evolution; functional morphology; biomechanics.

Stone, Elizabeth C.,<sup>2</sup> Ph.D., 1979, University of Chicago: Old World archaeology; state formation; ancient economy and society; remote sensing and GIS; Near East.

Zimansky, Paul E.,<sup>5</sup> Ph.D., 1980, University of Chicago: History and archaeology of the Near East; ancient imperialism; Urartian, Anatolian and Mesopotamian civilizations.

Number of teaching assistants/graduate assistants/research assistants, fall 2019: 16 Number of graduate fellows, fall 2019: 13

1. Department of Anatomical Sciences
2. Department of Anthropology
3. Department of Ecology and Evolution
4. Turkana Basin Institute
5. Department of History
6. Department of Geosciences
7. Department of Asian and Asian American Studies
8. Sustainability Studies Program

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

Anthropology Department

**Chairperson**

Andreas Koenig, Ward Melville Social and Behavioral Sciences Building, S-517, (631) 632-1513

**Director of M.A. Program**

James Rossie, Ward Melville Social and Behavioral Sciences Building, S-541, (631) 632-7620 [Anthropologyma@stonybrook.edu](mailto:Anthropologyma@stonybrook.edu)

**Academic Programs Coordinator**

Tara Powers, Ward Melville Social and Behavioral Sciences Building, S-503, (631) 632-7606

**Degree Awarded**

M.A. in Anthropology

**Web Site**

<http://www.stonybrook.edu/commcms/anthropology/graduate/masters-program.php>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Anthropology Department

The Department of Anthropology, within the College of Arts and Sciences, offers a graduate program leading to the M.A. in Anthropology. The M.A. Program in Anthropology is designed for students aspiring to non-academic or academic careers, including those, for example, who wish to pursue anthropological training for careers in education or for those whose undergraduate training did not prepare them for doctoral level work in Anthropology. Students take professional training, and foundational and advanced anthropology coursework toward the M.A., with the option of a capstone project (with the approval and supervision of a faculty advisor). Admission and credit requirements are the same regardless of whether a student carries out a capstone project, but the course of study differs. Depending on the course of study, students may earn degree credits through one of the Study Abroad programs as well as potentially earn one of SBU's Advanced Graduate Certificates, including the Advanced Graduate Certificate in Human Origins, offered jointly through Stony Brook University and the Turkana Basin Institute in the Kenya study abroad program.

This program (ANT) is independent from the Doctoral Program in Anthropological Sciences (DPA). MA students are not considered for teaching or graduate assistantships, or tuition scholarships. Full-time or part-time attendance is possible.

**Admission Requirements of Anthropology Department**

In addition to the admission requirements of the Graduate School, acceptance by the Department of Anthropology Admissions Committee is required.

Please also visit this page\* for additional information about how to apply for the Anthropology M.A. program.

\*<https://www.stonybrook.edu/commcms/anthropology/graduate/masters-program-admissions.php>

**Facilities of Anthropology Department**

Extensive laboratory space as well as desk space is available for graduate students. The archaeology and biological anthropology labs housed in the Department of Anthropology provide facilities for the analysis of artifact collections, especially stone tools, faunal and botanical remains, application of remote sensing and Geographic Information Systems (GIS), analysis of primate and human remains, advanced electron microscopy (EM), and primate endocrinology. Housed in the department are archaeological collections from Africa and the Near East. A fully equipped preparation lab provides opportunities for state-of-the-art mineralized tissue research. Laboratories also contain scanning and digitizing equipment and analysis software for 3D datasets (e.g., micro-computed tomography [uCT]). The laboratory for endocrine analyses contains a gamma counter and a plate reader necessary for most immunoassays.

Outside of the Anthropology Department, students may have access to the research facilities for comparative primate morphology, human anatomy, and human and primate evolution housed in the Department of Anatomical Sciences, which are at present unparalleled at any other institution. The collections include primate fossils, primate osteological material from Africa, Asia, and South America, and living nonhuman primates, including platyrrhine and cercopithecoid monkeys and lemurs. Students interested in experimental animal models for the study of functional morphology or morphogenesis have access to core facilities, including modern small animal facilities, uCT imaging, and confocal imaging systems.

Field work opportunities may be available in primate behavioral ecology, paleontology, and archaeology. Primate behavior research is conducted in Ecuador, Ethiopia, Kenya, Madagascar, Peru, Sri Lanka, and Tanzania. Paleontological field research is current in Argentina, Kenya, Madagascar, South Africa, and Zambia. The archaeology faculty have active field sites in Kenya, Ethiopia, Sudan, France, Madagascar, Maine, and Bolivia. The Turkana Basin Institute provides students with access to field opportunities for paleontology and archaeology in northern Kenya.

**Degree Requirements for the M.A. in Anthropology**

In addition to the degree requirements of the Graduate School, the Department of Anthropology requires:

1. Completion of a minimum of 30 graduate credits;
2. Maintaining a 3.0 grade point average;
3. Minimum residence of one year;
4. A course of study planned and carried out with the approval of the M.A. Graduate Program Director (GPD). Students who pursue the coursework-only pathway must pass a Comprehensive Examination in their last semester; students who pursue the capstone pathway complete at least 6 credits of ANT 599.

#### Required Coursework

1. ANT 525
2. At least 3 credits of professional training in ethics and skills:
  1. One ethics course such as ANT 593 or another GPD approved responsible conduct of research course from a different department (e.g., GRD 500)
  2. Two courses in professional skills areas, such as ANT 591, ANT 592, ANT 600, or courses from other departments with GPD approval
3. Two of the following foundation courses: ANT 515, ANT 564, ANT 565, ANT 567
4. ANT 599 (at least 6 credits)
  1. Required only for students who pursue the capstone pathway

#### Electives Coursework

1. At least 5 (or 3 if choosing the capstone pathway) additional 500-level elective courses. One or two courses can be taken from another program with GPD permission. Courses cannot be the same as those counted toward the Foundation Coursework requirement. Up to three (i.e., 0-3) credits from 600-level courses may be counted toward the electives.

ANT 504<sup>1,2</sup>, ANT 505<sup>1,2</sup>, ANT 506<sup>1,2</sup>, ANT 507<sup>1,2</sup>, ANT 508<sup>2</sup>, ANT 510<sup>2</sup>, ANT 511<sup>2</sup>, ANT 513, ANT 514, ANT 515, ANT 516, ANT 518, ANT 519, ANT 527<sup>2</sup>, ANT 535, ANT 536, ANT 555, ANT 557, ANT 559, ANT 560, ANT 564, ANT 565, ANT 582, ANT 567, ANT 573, ANT 577, ANT 610, ANT 620, ANT 630, ANT 650, GEO 504<sup>1,2</sup>

<sup>1</sup> These courses also comprise the Advanced Graduate Certificate in Human Origins offered through Stony Brook University and the Turkana Basin Institute during the Spring or Fall Semesters

<sup>2</sup> These courses are only offered through the Spring or Fall semester Human Origins Field School.

Total: 30 credits

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

Faculty of Anthropology Department

#### **Professors**

Grine, Frederick E., Distinguished Professor, Ph.D., 1984, University of Witwatersrand, South Africa: Hominid evolution; functional morphology of the masticatory system; vertebrate paleontology; dental structure and comparative odontology.

Hicks, David, Ph. D (London), 1971; D.Phil., 1972, Oxford University: oral literature; ritual and belief; mythology; kinship; politics; Southeast Asia; East Timor.

Koenig, Andreas, Ph.D., 1992, Georg-August University of Göttingen, Germany: Primate behavioral ecology; social evolution; community ecology; Asia.

Martin, Lawrence B., Director of TBI, Ph.D., 1983, University of London, Great Britain: Hominoid evolution; enamel thickness; enamel microstructure and development.

Shea, John J., Ph.D., 1991, Harvard University: Old World Paleolithic archaeology; lithic analysis; Near East; Europe; Africa.

Wright, Patricia C., Distinguished Service Professor, Ph.D., 1985, City University of New York: Primate behavior and ecology; rain forest conservation; Madagascar.

#### **Associate Professors**

Harmand, Sonia., Ph.D., 2005, Paris X, France: Early stone age archaeology; lithic technology; cognition; primate archaeology; Africa.

Hildebrand, Elisabeth, Ph.D., 2003, Washington University in St. Louis: Archaeology; early farming; Africa; paleoethnobotany; ethnoarchaeology.

Lu, Amy, Ph.D., 2009, Stony Brook University: Behavioral endocrinology; socioecology; sexual selection; growth and development; life history.

Markham, Catherine, Ph.D., 2012, Princeton University: Behavioral ecology; maternal care; spatial ecology; wild primates.

Rossie, James B., Ph.D., 2003, Yale University: Primate evolution; Miocene hominoids; cranial anatomy; East Africa.

Russo, Gabrielle, Ph.D., 2013, University of Texas at Austin: Comparative and functional anatomy; axial skeleton; primate and human evolution; locomotion; ontogeny.

Smaers, Jeroen B., Ph.D., 2009, Cambridge University: Brain evolution; phylogenetic comparative methodology; macroevolutionary morphology.

Twiss, Kathryn C., Ph.D., 2003, University of California, Berkeley: Old World archaeology; zooarchaeology; transition to agriculture; food; southwest Asia.

### **Research Professor**

Leakey Meave G., Ph.D., 1968, University of North Wales: Primate evolution; palaeoecology and evolution of African mammals.

### **Research Associate Professor**

Borries, Carola, Ph.D., 1989, Georg-August University of Göttingen, Germany: Primate reproductive strategies; behavioral ecology; social structure; Asia.

### **Assistant Professors**

Percival, Christopher J., Ph.D., 2013, Penn State University: Skull development and evolution; craniofacial disease; geometric morphometrics; computed tomography image analysis

Mongle, Carrie S., Ph.D., 2019, Stony Brook University: Human Evolution; hominin phylogenetics; morphological variability; evolvability

### **Lecturer**

Lewis, Jason E., Ph.D., 2011, Stanford University: Paleoanthropology; mammalian paleontology; paleoecology; paleolithic archaeology

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

Applied Mathematics and Statistics

**Chairperson**

Joseph Mitchell, Mathematics Building P-134A (631) 632-8366, joseph.mitchell@stonybrook.edu

**Graduate Program Director**

David Green, Mathematics Building P-137 (631) 632-9344, david.green@stonybrook.edu

**Graduate Secretary**

Christine Rota, Mathematics Building P-141 (631) 632-8360, christine.rota@stonybrook.edu

**Advanced Graduate Certificate Awarded**

Advanced Graduate Certificate in Operations Research; Advanced Graduate Certificate in Quantitative Finance

**Degrees Awarded**

M.S. in Applied Mathematics and Statistics; Ph.D. in Applied Mathematics and Statistics

**Web Site**

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

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Applied Mathematics and Statistics Department

The Department of Applied Mathematics and Statistics, within the College of Engineering and Applied Sciences, offers programs in computational applied mathematics, operations research, quantitative finance, statistics, and computational biology leading to the M.S. and Ph.D. degrees. The department offers an integrated series of courses and seminars, supervised reading, and facilities for research. Emphasis is on the study of real-world problems, computational modeling, and the development of necessary analytical concepts and theoretical tools. A state-of-the-art, computational laboratory is operated for student education and research, with access available to university--based high-performance computing facilities. It also features a network of advanced Unix workstations and modern printing facilities. The laboratory's full-time staff is available to help students become familiar with the laboratory facilities.

Students participate in joint research with 5 national laboratories, several industrial groups and various sciences, biomedical, and engineering programs. Students, who receive a broad training, find themselves excellently prepared for careers in government and industry in which mathematics is used as a computational or conceptual tool.

Faculty research programs receive significant external funding and provide students with an opportunity for active participation in a variety of projects in all areas of the department. Faculty interests include applied graph theory, biostatistics and computational biology, structure-based drug design, computational fluid dynamics, combinatorial optimizations, computational statistics, data analysis, flow through porous media, fracture mechanics, inverse problems, mixed-boundary value problems, nonlinear conservation laws, quantitative finance, reliability theory, risk management, robust estimation, nonparametric statistics, stochastic modeling and sequential decision making and structure-based drug design. Most doctoral students are supported through either a research or teaching assistantship.

The Ph.D. program normally takes about four to five years for students with a strong analytical and computing background. The M.S. programs, when pursued on a full-time basis, may be completed in three or four semesters. Students who have taken graduate courses before enrolling at Stony Brook may request transfer of up to twelve credits. If such a request is approved, it may be possible to complete the M.S. degree in two semesters. It is strongly urged that all applicants develop some facility in computer programming.

A more detailed description of the graduate program is available from the departmental office. This includes specific distribution requirements, fields of specialization, and information on the preliminary and qualifying examinations. Interested students should request information and application forms as early as possible, especially if they plan to apply for financial aid.

**Advanced Graduate Certificate Program in Operations Research**

This advanced certificate program of 18 credits, consisting of six three-credit courses, trains students in the fundamental mathematical tools for working in the operations research profession. Operations research is the field of applied mathematics related to efficient management of the activities of private companies, government agencies and nonprofit organizations. The following courses are required for certificate: AMS 507 Introduction to Probability, AMS 540 Linear Programming, AMS 550 Stochastic Models, AMS 553 Simulation and Modeling, AMS 572 Data Analysis I, plus one (3 credit) elective chosen by student in consultation with an advisor.

**Advanced Graduate Certificate Program in Quantitative Finance**

This advanced certificate program of 15 credits, consisting of five three-credit courses, trains students in the fundamentals required for the application of quantitative methods in the financial world. The certificate is open to students in related graduate programs at Stony Brook, as well as to non--matriculated students registered through the School of Professional Development. The following courses are required for certificate: AMS 511 Foundations of Quantitative Finance, AMS 512 Capital Markets & Portfolio Theory, AMS 513 Financial Derivatives & Stochastic Calculus, one elective chosen from AMS 514523, plus one additional (3--credit) elective chosen by the student with the approval of an advisor.

**Combined B.S./M.S. Degree**

Undergraduate applied mathematics majors, with strong academic credentials may apply for admission to the special Bachelor of Science-Master of Science program in Applied Mathematics and Statistics at the end of the junior year. The combined B.S./M.S. program in applied mathematics and statistics allows students with superior academic records to use up to six graduate credits toward the B.S. and M.S. requirements. In essence, those six credits count toward two goals simultaneously. Normally, it would take six years to complete two separate degrees, but with the combined B.S./M.S. program, there is only a 5 year commitment (10 semesters). The advantage of the combined program is that the M.S. degree can be earned in less time, thus costing less money than that required by the traditional course of study. A minimum cumulative GPA of 3.3 in all courses, as well as a GPA of 3.5 in required courses for the AMS major, is typically required to apply for the combined degree program; exceptions may be made for students with significantly improved

Students apply to the program during their junior year. In the first semester of the senior year, students in the B.S./M.S. program are granted permission to take up to six graduate credits which will be applied towards the Masters degree requirements. In the second semester of the senior year, they become enrolled as graduate students. Because students in this program only need to earn 114 undergraduate credits, they are usually finished with undergraduate coursework by the first semester of their senior year. If needed, however, they may enroll in up to twelve credits of undergraduate coursework during the second semester of senior year. The undergraduate degree is issued at the end of the senior year, and the student continues in the graduate program through the fifth year. The requirements stated in the Graduate Bulletin must be earned to qualify the student for the master's degree; this includes a total of at least 30 graduate level credits (including the six taken as an undergraduate). Further information about the combined program may be obtained from either the graduate program director or the undergraduate program director.

### Part-Time Graduate Studies

In addition to the full-time graduate program leading to the M.S. and Ph.D. degrees, the department conducts a part-time program on campus. The part-time program is governed by regulations governing the resident full-time program with the exception that students in the part-time program have greater flexibility in choosing the time for the qualifying examination if they are contemplating pursuing the Ph.D.

The purpose of the part-time program is to provide an opportunity for men and women who are employed full time to pursue graduate study leading to advanced degrees in applied mathematics, statistics, and operations research. Applicants who hold a bachelor's degree in applied mathematics, mathematics, engineering, physical sciences, life sciences, or social sciences with a strong background in undergraduate mathematics will be considered for admission to this program. Qualified students may continue beyond the master's degree for the Ph.D. degree.

Additional information, including the scheduling of courses for part-time students, may be obtained from the graduate program director.

### Admission Requirements of Applied Mathematics and Statistics Department

For admission to graduate study, the minimum requirements are as follows:

- A. A bachelor's degree in engineering, mathematics, the physical sciences, or in the life or social sciences with a strong mathematics background.
- B. A minimum overall grade point average of at least 3.00, as well as a minimum grade point average of 3.00 in all courses with a significant mathematical or quantitative component.
- C. Three letters of reference.
- D. Official transcripts for all undergraduate study completed.
- E. Acceptance by both the Department of Applied Mathematics and Statistics and the Graduate School.
- F. In some circumstances, a student may be admitted provisionally although they are missing some of the above requirements. Students admitted provisionally must follow an approved course sequence and maintain a cumulative GPA of at least 3.0 during the first year of graduate study before being admitted to full degree candidacy.

### Requirements for the M.S. Degree in Applied Mathematics and Statistics

In addition to the minimum Graduate School requirements, the following are required:

#### A. Course Requirements

The M.S. degree in the Department of Applied Mathematics and Statistics requires the satisfactory completion of a minimum of 30 graduate credits in letter-graded (A, B, C, F) graduate courses, with some specializations requiring up to 36 credits.

All credits in satisfaction of the degree must be at the graduate level. The department may impose additional requirements as described below. In addition, the cumulative grade point average for all courses taken must be B or higher, and at least 18 credits of all courses taken must carry a grade of B or above, and the grade point average over all core (non elective) requirements must be 3.0 or higher.

The student pursues a program of study planned in consultation with an academic advisor. The program and any subsequent modifications require approval by the graduate program director.

#### *Core Requirements for the M.S. Degree*

##### 1. Computational Applied Mathematics

AMS 501 Differential Equations and Boundary Value Problems

AMS 503 Applications of Complex Analysis

AMS 510 Analytical Methods for Applied Mathematics and Statistics

AMS 526 Numerical Analysis I

AMS 527 Numerical Analysis II

AMS 528 Numerical Analysis III

AMS 595 Fundamentals of Computing

Four elective courses (12 credits total) chosen in consultation with advisor

## 2. Computational Biology

AMS 507 Introduction to Probability

AMS 510 Analytical Methods for Applied Mathematics and Statistics

MCB 520 Graduate Biochemistry OR

CHE 541 Biomolecular Structure and Analysis

AMS 531 Laboratory Rotations in Computational Biology (two semesters, 0 credit)

AMS 532 Journal Club in Computational Biology (two semesters, 0 credit)

AMS 533 Numerical Methods and Algorithms in Computational Biology

AMS 535 Intro to Computational Structural Biology & Drug Design

AMS 537 Biological Networks & Dynamics

AMS 539 Introduction to Physical & Quantitative Biology (0 credit)

CSE 549 Computational Biology

Three elective courses (9 credits total) chosen in consultation with advisor

## 3. Operations Research

AMS 510 Analytical Methods for Applied Mathematics and Statistics

AMS 507 Introduction to Probability

AMS 540 Linear Programming

AMS 550 Stochastic Models

AMS 553/CSE 529 Simulation and Modeling

One course in statistics (AMS 570 - 586)

AMS 595 Fundamentals of Computing

Four elective courses (12 credits total) chosen from AMS 542--556; one of these may be substituted by an additional statistics course (AMS 570--586), and one may be substituted by a quantitative finance course (AMS 511--523)

## 4. Statistics

AMS 510 Analytical Methods for Applied Mathematics and Statistics

AMS 507 Introduction to Probability

AMS 570 Mathematical Statistics I

AMS 572 Exploratory Data Analysis

AMS 573 Design & Analysis of Categorical Data

AMS 578 Regression Theory

AMS 582 Design of Experiments

AMS 597 Statistical Computing

Two elective courses (6 credits total) chosen in consultation with advisor

#### 5. Quantitative Finance

AMS 507 Introduction to Probability

AMS 510 Analytical Methods for Applied Mathematics and Statistics

AMS 511 Foundations of Quantitative Finance

AMS 512 Capital Markets & Portfolio Theory

AMS 513 Financial Derivatives and Stochastic Calculus

AMS 514 Computational Finance

AMS 516 Statistical Methods in Finance

AMS 517 Quantitative Risk Management

AMS 518 Advanced Stochastic Models, Risk Assessment & Portfolio Optimization

AMS 572 Data Analysis I

FIN 539 Investment Analysis

One elective course (3 credits total) chosen in consultation with advisor

#### *Elective Requirements for the M.S. Degree*

Unless otherwise specified, any graduate-level AMS or other graduate-level courses in a related discipline approved by the graduate program director may be used to satisfy the credit requirement beyond the core course requirement.

#### **B. Final Recommendation**

Upon the fulfillment of the above requirements, the faculty of the graduate program will recommend to the dean of the Graduate School that the Master of Science degree be conferred or will stipulate further requirements that the student must fulfill.

#### **C. Time Limit**

All requirements for the Master of Science degree must be completed within three years of the student's first registration as a full-time graduate student.

Requirements for the Ph.D. Degree in Applied Mathematics and Statistics

#### **A. Course Requirements**

The course of study prescribed for the M.S. degree provides basic guidelines for doctoral study. The student pursues a program of study planned in consultation with an academic advisor. The program and any subsequent modifications require approval of the graduate program director.

#### **B. Qualifying Examination**

A student must pass a two-part qualifying examination to be allowed to continue toward the Ph.D. degree. Each component of the qualifying examination is given twice a year at the beginning and the end of the Spring semester and is designed to test the student's preparation to do research in applied mathematics. Each student must demonstrate competency in linear algebra and analysis and in-depth knowledge in one of the following areas:

Computational Applied Mathematics

Computational Biology

Operations Research

Quantitative Finance

Statistics

#### **C. Research Advisor**

After completion of at least one year of full-time residence and prior to taking the preliminary examination, the student must select a research advisor who agrees to serve in that capacity.

#### **D. Preliminary Examination**

This is an oral examination administered by a committee and given to the student when he or she has developed a research plan for the dissertation. The plan should be acceptable to the student's research advisor.

#### **E. Mathematical Writing Requirement**



The mathematical writing requirement is associated with the preliminary oral examination. The student must submit a document, typically 20 to 25 double-spaced pages long, containing the research plan for the dissertation, including a well-referenced synopsis of the relevant background literature, as well as a summary of research work accomplished to date. It must be given to the members of the Preliminary Examination committee at least one week before the oral presentation.

The document must be approved for satisfactory written style and use of technical English as well as for intellectual content; this will be assessed by the Preliminary Examination Committee, who is appointed by the graduate program director. International students may need extensive writing assistance from the ESL Tutoring Center established to provide exactly this kind of technical writing tutorial support.

Tutorial assistance in writing, if needed, will also be provided to native students.

#### **F. Advancement to Candidacy**

After successfully completing all requirements for the degree other than the dissertation, the student is eligible to be recommended for advancement to candidacy. This status is conferred by the dean of the Graduate School upon recommendation from the graduate program director.

#### **G. Dissertation**

The most important requirement of the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation must represent a significant contribution to the scientific literature and its quality must be comparable with the publication standards of appropriate and reputable scholarly journals.

#### **H. Dissertation Defense**

The student must defend the dissertation before an examining committee. On the basis of the recommendation of this committee, the Department of Applied Mathematics and Statistics will recommend acceptance or rejection of the dissertation to the dean of the Graduate School. All requirements for the degree will have been satisfied upon successful defense of the dissertation. There must be at least one year between advancing to candidacy and scheduling a dissertation defense.

#### **I. Minimum Residence**

At least two consecutive semesters of full-time study are required.

#### **J. Time Limit**

All requirements for the Ph.D. degree must be completed within seven years after the completion of 24 graduate credits in the program. The time limits for the qualifying and preliminary examinations and advancement to candidacy are described in the departmental *Graduate Student Handbook*.

#### **K. Teaching Requirement**

One academic year long teaching experience required.

### **Faculty of Applied Mathematics and Statistics Department**

#### **Distinguished Professor**

Feinberg, Eugene, Ph.D., 1979, Vilnius State University, Lithuania: Probability theory and statistics; control theory and applications in communication systems; transportation; computer networks and manufacturing.

Glimm, James, Director, Institute for Multiscale Studies. Ph.D., 1959, Columbia University: Nonlinear equations, conservation laws; computational fluid dynamics; mathematical physics; quantitative finance.

Mitchell, Joseph<sup>7</sup>, Chairman, Ph.D., 1986, Stanford University: Operations research; computational geometry; combinatorial optimization.

Tannenbaum, Allen, Ph.D., 1976, Harvard University: Medical image analysis; computer vision; image processing; systems and control; controlled active vision; mathematical systems theory; bioinformatics; computer graphics.

#### **Distinguished Teaching Professor**

Tucker, Alan, Ph.D., 1969, Stanford University: Graph theory; combinatorial algorithms.

#### **Professor**

Ahn, Hongshik, Graduate Program Director, Ph.D., 1992, University of Wisconsin, Madison: Biostatistics; tree-structured regression

Arkin, Esther<sup>5</sup>, Undergraduate Program Director, Ph.D., 1986, Stanford University: Combinatorial optimization; network flows; computational geometry.

Chapman, Barbara, Ph.D., 1998, Queens University of Belfast: Computational Applied Mathematics

Coutsias, Evangelos, Ph.D., 1979, California Institute of Technology: computational biology; methods for study of protein structure.

Deng, Yuefan, Ph.D., 1989, Columbia University: molecular dynamics; parallel computing.

Finch, Stephen, Ph.D., 1974, Princeton University: Robust estimation and nonparametric statistics.

Harrison, Robert, Ph.D., 1984, University of Cambridge, theoretical and computational chemistry; high-performance computing; parallel programming; multi-resolution analysis; numerical methods.

Li, Xiaolin, Ph.D., 1987, Columbia University: Computational fluid dynamics; numerical analysis.

Rizzo, Robert, Ph.D., 2001, Yale University: Computational Biology, Structure-based Drug Design.

Samulyak, Roman, Ph.D., 1999, New Jersey Institute of Technology; mathematical physics, computational applied mathematics

Uryasev, Stan, Endowed Chair of Quantitative Finance, Ph.D., 1983, Glushkov Institute of Cybernetics; quantitative finance, risk management, stochastic optimization

Zhu, Wei, Ph.D., Deputy Chair, 1996, University of California, Los Angeles: Biostatistics; optimal experimental design; linear models; structural equation modeling.

### **Associate Professors**

Green, David, Ph.D., 2002, MIT: Computational biology, protein structure.

Hu, Jiaqiao, Ph.D., 2006, University of Maryland; stochastic optimization, dynamic programming.

Jiao, Xiangmin, Ph.D., 2001, University of Illinois; numerical analysis, computational geometry.

Kozakov, Dmytro, Ph.D., 2006, Boston College: Computational Biology

MacCarthy, Thomas, Ph.D., 2005, University College London: Computational Immunology; Evolutionary Systems Biology.

Xing, Haipeng, Ph.D. 2003, Stanford University: Statistical methods in finance, change-point detection.

Wu, Song, Ph.D., 2008, University of Florida: Statistics

### **Assistant Professors**

Kuan, Pei Fen, Ph.D., 2009 University of Wisconsin, Madison: Biostatistics; cancer genomics; hierarchical mixture modeling.

Liu, Zhenhua, Ph.D., 2014, California Institute of Technology: Smart energy/sustainable Information Technology (IT) and IT for sustainability; big data platforms; optimization; algorithms.

Polak, Pawel, Ph.D., 2014, Swiss Finance Institute: computational statistics

### **Research Professors**

Frey, Robert, Ph.D., 1986, Stony Brook University: Quantitative finance

Mullhaupt, Andrew, Ph.D. 1984, New York University: Quantitative finance.

### **Research Assistant Professors**

Reuter, Matthew, Ph.D., 2011, Northwestern University: Computational chemistry, mathematical physics

Yu, Yan, Ph.D., 2005, Stony Brook University: Numerical analysis and computational fluid dynamics

Lim, Hyunkyung, Ph.D., 2009, Stony Brook University: Computational Applied Mathematics

### **Affiliated Faculty**

Atwal, Gurinder, Assistant Professor, Ph.D., 2002, Cornell University: theoretical biophysics.

Balazsi, Gabor, Associate Professor, Ph.D., 2001, University of Missouri: Synthetic gene circuits

Bender, Michael<sup>3</sup>, Professor, Ph.D., 1996, Harvard University, combinatorial algorithms.

Brinkman, Braden, Assistant Professor, Ph.D., 2013, University of Illinois at Urbana-Champaign, neuroscience.

Chen, Chao, Assistant Professor, Ph.D., Machine learning, Topological data analysis, Biomedical image analysis

Colosqui, Carlos, Associate Professor, Ph.D., 2009, Boston University: Microfluidics, Nano/Micro-Electromechanical Systems

Deasy, Joseph, Chair, Department of Medical Physics, Ph.D., 1992, University of Kentucky: Memorial Sloan Kettering Cancer Center: Medical physics, Statistical modeling, Machine learning, Cancer biology, Radiobiology

Dill, Ken, Distinguished Professor, Ph.D., 1978, UC San Diego, Director, Laufer Center for Physical & Quantitative Biology; Computational modeling of proteins. Donaldson, Nora, Professor, Ph.D., 1988, University of Maryland: biostatistics.

Dubey, Pradeep<sup>1</sup>, Leading Professor, Ph.D., 1975, Cornell University: Game theory; mathematical economics.

Elkin, Rena, Professor, Health Policy and Management, Ph.D., Harvard University, Columbia University: Cancer screening, treatment, and outcomes using population-based observational decision analysis

Gandhi, Anshul, Associate Professor, Ph.D., 2013, Carnegie Mellon University, Department of Computer Science at Stony Brook University; Performance modeling, queueing theory, Control theory.

Gao, Yi, Assistant Professor, Ph.D., 2010, Georgia Institute of Technology.

Grove, John<sup>4</sup>, Professor, Ph.D., 1984, Ohio State University: Conservation laws; front tracking.

Gu, Xianfeng, Associate Professor, Ph.D., 2003, Harvard University, Department of Computer Science at Stony Brook University; Computational conformal geometry.

Held, Martin, Adjunct Associate Professor, Ph.D., Universitat Salzburg, Austria; Computational geometry.

Holod, Dmytro, Associate Dean & director of Graduate Studies, College of Business at Stony Brook University.

Hou, Wei, Research Associate Professor, Ph.D., 2006, University of Florida: Statistics.

Kim, Aaron, Associate Professor, Ph.D., 2005, Sogang University: Finance and Statistics.

Koo, Peter, Assistant Professor, Ph.D., 2015, Yale University, Quantitative biology

Kotov, Roman, Associate Professor, Ph.D., 2006, University of Iowa, Department of Psychiatry at Stony Brook University; Longitudinal research, Quantitative methods.

Krasnitz, Alexander, Associate Professor, Ph.D., Cold Spring Harbor Laboratory.

Levy, Sasha, Ph.D., Marsha Laufer Endowed Assistant Professor of Physical and Quantitative Biology, The Laufer Center and The Department of Biochemistry & Cell Biology, Stony Brook University; Quantitative biology.

Lin, Yuwei, Computational Scientist, Brookhaven National Lab, Ph.D., 2016, University of South Carolina: Computational science

Lindquist, Brent, Professor, Ph.D., 1981, University of Manitoba: 3D Image analysis; geostatistics and conditional simulation; front tracking.

Liu, Ji, Assistant Professor, Ph.D., 2013, Yale University: Distributed control and computation, multi-agent systems, social networks, epidemic networks, and power networks

Lynch, Heather, Professor, Ph.D., 2006, Harvard University: Development and application of statistics and mathematics to conservation biology

Mahdavi, Kazem, Research Professor at AMS, SUNY Korea, Ph.D., 1983, SUNY Binghamton, Research Professor at AMS, SUNY Korea; Quantum computation, Geometrical group theory.

Nadeem, Saad, Adjunct Assistant Professor, Ph.D., 2017, Stony Brook University: Computer Science

Navlakha, Saket, Associate Professor, Ph.D., 2011, University of Maryland: Neural circuit computation

O, Suil, Ph.D., 2011, Assistant Professor at AMS, SUNY Korea, Extremal spectral graph theory.

Oh, Jung Hun, Associate Attending Computer Scientist, Memorial Sloan Kettering Cancer Center, Ph.D., University of Texas at Arlington: Bioinformatics, machine learning

Park, Memming, Associate Professor, Ph.D., Department of Neurobiology & Behavior at Stony Brook University; Biomedical engineering, Machine learning.

Pinezich, John, Ph.D., Adjunct Professor, Ph.D.

Powers, Scott<sup>13</sup>, Professor, Ph.D., 1982, Columbia University: Genetic basis of cancer.

Reinitz, John<sup>14</sup>, Ph.D., 1988, Yale University: Theory of fundamental biological processes; bioinformatics; optimization, developmental biology, and gene regulation.

Robertazzi, Thomas, Professor, Ph.D., 1981, Princeton University: Scheduling, exascale computing, quantum computing, parallel processing, electric power

Rushton, Gregory, Professor, Ph.D., 2004, University of South Carolina: Conceptual change in tertiary chemistry learning environments

Saltz, Joel, Professor, Ph.D., 1985, Duke University: biomedical engineering.

Sandhu, Romeil, Assistant Professor, Ph.D., 2011, Stony Brook University, Department of Bioinformatics at Stony Brook University; Control based vision and learning.

Sharp, David<sup>4</sup>, Professor, Ph.D., 1963, California Institute of Technology: Mathematical physics; computational fluid dynamics.

Simmerling, Carlos, Professor, Ph.D., 1994, University of Illinois at Chicago: Computational structural biology

Skorin-Kapov, Jadranka, Professor, Ph.D., 2014, Stony Brook University, College of Business at Stony Brook University; Discrete optimization, Philosophy, Art history and criticism.

Stoyanov, Stoyan, Ph.D., Research Professor, College of Business at Stony Brook University.

Tiano, Michael, Director of Business Development of Quantitative Strategies, ExodusPoint Capital Management, LP, Ph.D., 2017, Stony Brook University: Quantitative finance

Wang, Jin<sup>9</sup>, Assistant Professor, Ph.D., 1991, University of Illinois: bio-molecular folding and recognition: protein - protein interactions.

Wang, Xuefeng, Assistant Professor, Ph.D., 2012, Case Western Reserve University: epidemiology and biostatistics.

Weinig, Sheldon, Adjunct Professor, Ph.D., 1955, Columbia University.

Yang, Jie, Assistant Professor, Ph.D., 2006, University of Florida: Statistics.

Yin, Zhaozheng, Associate Professor, Ph.D., 2009, Pennsylvania State University: Biomedical image analysis, Computer vision, Machine learning, Cyber-physical systems, Human-robot collaboration

Zador, Anthony, Professor, Ph.D., 1994, Yale University: Neuroscience

Zhang, Peng, Professor, Ph.D., 2012, Stony Brook University, Department of Applied Mathematics and Statistics: Computational Applied Mathematics.

Zhang, Minghua, Distinguished Professor, Ph.D., 1987, Academia Sinica, China: Climate modelling, Atmospheric dynamics

#### **Number of teaching assistant and research assistants, spring 2022: 117**

- 1) Department of Economics
- 2) College of Business
- 3) Department of Computer Science
- 4) Los Alamos National Laboratory
- 5) Recipient of the State University Chancellor's Award for Excellence in Teaching, 2008
- 6) Recipient of the State University Chancellor's Award for Excellence in Teaching, 2002
- 7) Recipient of the State University Chancellor's Award for Excellence in Teaching, 1996
- 8) Department of Technology and Society
- 9) Department of Chemistry
- 10) Department of Electrical and Computer Engineering
- 11) Department of Preventive Medicine
- 12) Advanced Acoustical Concepts
- 13) Cold Spring Harbor Laboratory
- 14) University of Chicago Statistics Department

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

## Art History and Criticism

**Chairperson**

Linda O’Keeffe, linda.okeeffe@stonybrook.edu

**M.A./Ph.D. Graduate Program Director**

Brooke Belisle, brooke.belisle@stonybrook.edu

**Advanced Certificate Graduate Director**

Brooke Belisle, brooke.belisle@stonybrook.edu

**Graduate Secretary**

Vacant

**Degrees Awarded**

B.A./M.A. in Art History and Criticism; M.A. in Art History and Criticism; Ph.D. in Art History and Criticism; Certificate in Media, Art, Culture, & Technology

**Website**

<http://art.stonybrook.edu>; <http://mact.stonybrook.edu>

## Art History and Criticism

The Graduate Programs in Art History & Criticism at Stony Brook University focus on modern and contemporary art and visual culture. We aim to produce scholars, critics, curators and practitioners who can address global artistic production through contemporary issues and paradigms. Media aesthetics, art and technology, public art and social practice, politics of the avant-garde, photography, film and critical curatorial studies are currently areas of departmental research. We offer a dynamic, interdisciplinary curriculum along with individual mentoring from faculty whose work has won national and international recognition. Students benefit from engagement with the department's studio programs and with faculty and students from other programs including Philosophy, History, Music, Computer Science and Engineering, and are able to pursue Graduate Certificates in Media, Art, Culture and Technology; Art and Philosophy; Creative Writing and Literature; Women’s and Gender Studies, and Writing and Rhetoric, among others

As a small and selective program in a large, public institution we are able to offer graduate study with low tuition costs, teaching experience with a highly diverse undergraduate population, and the full resources of major research university. Opportunities for curatorial theory and practice are available in conjunction with regular exhibitions at the University’s Staller Center Paul Zuccaire Gallery, the Lawrence Alloway Gallery, and the art gallery at the Simons Center for Geometry and Physics. Our proximity to New York City offers extensive opportunities for research, collaboration, and professional networking at world-class museums and galleries. Our students have been successful in securing tenure-track academic positions at universities around the world and at earning internships, fellowships, curatorial positions, and teaching roles at major New York institutions, such as the Whitney Museum, Creative Time, The Guggenheim Museum, the Metropolitan Museum of Art, and the Museum of Modern Art.

## Degree Programs

**B.A./M.A. in Art History and Criticism**

The B.A./M.A. in Art History and Criticism allows top undergraduate students to apply for admission to the program in the spring semester of their third year. Admission is limited to students who, by the end of the junior year, have fulfilled no less than 90 credits of coursework, have a 3.0 GPA or higher in all college courses, and a GPA of no less than 3.7 in the ARH major. Letters of recommendation from faculty and a writing sample are required. Accepted students are advised to take a minimum of two graduate courses each semester during their senior year (including electives in humanities and social sciences), completing 12 of the required 36 graduate credits. They complete all other requirements (the remaining 24 credits, comprehensive exam, thesis, teaching practicum) during their fifth year.

**M.A. in Art History and Criticism**

The M.A. in Art History and Criticism is a two year 36-credit flexible degree program with a strong emphasis on modern and contemporary art and visual and material culture. In their second year, students must pass a comprehensive exam, and work with a faculty advisor on a written thesis or project that serves as a capstone requirement for the degree. Part-time study is allowed in this degree program. The M.A. in Art History and Criticism is appropriate preparation for Ph.D. degrees in art history or other fields. Students also move on directly to careers in gallery and museum work, education, publishing, non-profit foundations and business.

**Ph.D. in Art History and Criticism**

Stony Brook’s Ph.D. program in art history and criticism is designed to encourage students to apply what they have learned at the Master’s level towards more intense and individual research on the doctoral level. The emphasis of the program is on integrating historical and theoretical study into a curriculum focused on an interdisciplinary approach to modern and contemporary art and visual culture. Ph.D. students are also eligible to take courses at other schools in the New York Inter-University Doctoral Consortium including Columbia, NYU, CUNY and Princeton. The Ph.D. program culminates in the oral defense of a substantial written dissertation on an original topic. Students are not accepted into the Ph.D. program on a part-time basis. This degree is considered essential for those intending to engage in advanced academic research, teaching,

and publishing in the field of art history and criticism, and may provide a significant advantage to those entering the professional art world of museums and galleries.

Advanced Graduate Certificate (AGC) in Art and Philosophy (ArtPHIL) For information about this advanced certificate program, please go to <http://www.stonybrook.edu/commcms/philosophy/docs/artscert.html>.

### **Advanced Graduate Certificate (AGC) in Media, Art, Culture, and Technology**

The Advanced Graduate Certificate Program in Media, Art, Culture, and Technology (MACT) offers graduate students an interdisciplinary grounding in the historical and theoretical study of media, art, culture, and technology. The MACT graduate certificate is designed to complement a graduate student's primary degree by supporting research that traverses traditional academic methods and objects of inquiry in the humanities. Combining faculty with diverse expertise in media, art, culture, and technology, MACT supports work at the dynamic intersections of these evolving fields. Students enrolled in MACT are encouraged to join the MACT email list and to consult the MACT website for ongoing support and information as they move toward completion of the certificate. <https://mact.stonybrook.edu/>

Other certificate programs of interest include Creative Writing and Literature, Women's and Gender Studies, and Writing and Rhetoric.

### **Admission to the M.A. and Ph.D. Programs in Art History and Criticism**

Admission into the M.A. and Ph.D. programs is at the discretion of the art history and criticism faculty with the final approval of the Graduate School. Admission is usually for the Fall semester. Part-time study is permissible for qualified M.A. candidates only. Admission to the program assumes a minimum of a B average in undergraduate work and meeting the standards of admission to the Graduate School (including English Proficiency Requirements).

It is recognized that M.A. and Ph.D. applicants may come from a wide variety of backgrounds that will require individual structuring of their programs to suit their needs. Applicants will ordinarily have a bachelor's degree with an art history major or minor; however, this requirement may be waived at the discretion of the graduate faculty. All applicants are encouraged to submit a sample of written work with their application.

### **Facilities**

Since 1976, the Department of Art has enjoyed the resources of the Staller Center for the Arts. This 226,026-square-foot building includes the Departments of Art, Music, and Theatre and is a vibrant hub of lectures, concerts, performances, and other cultural activities. The complex includes faculty and staff offices, art history and studio classrooms, and graduate offices and studios. The first floor of the Art wing features the Paul W. Zuccaire Gallery, devoted primarily to exhibitions of contemporary art, and the Staller Center for the Arts.

Studio facilities in the Staller Center include full foundry, metals, and wood shops; a ceramics and ceramic sculpture studio; spacious painting, drawing, and studio classrooms; printmaking studios with etching, stone lithography and photo plate making and screen printing facilities; extensive digital facilities; and a shooting studio with gang and individual darkrooms. Art history classrooms are equipped with data projectors. The main library houses extensive collections of scholarship on the arts, including recent exhibition catalogues and the most important art history and criticism journals. Proximity to New York City makes available the numerous libraries, museums, galleries, ateliers, and publishing institutions of the greater metropolitan area. Finally, the Pollock-Krasner House and the Pollock-Krasner Study Center, in East Hampton and Southampton, Long Island, are affiliated with the University. Once the home and studio of Jackson Pollock and Lee Krasner, the Pollock-Krasner House is now a both a landmark museum and a forum for lectures, seminars, and other academic activities. The Study Center comprises extensive reference materials and archives, including books, photographs, oral histories, and journals available for research.

### **Requirements for the M.A. Degree in Art History and Criticism**

#### **A. Course Requirements**

The student will be required to successfully complete 36 credits of graduate work, as outlined in the list of courses below. A student must achieve a 3.0 overall grade point average to receive a degree from Stony Brook.

#### **1. Required Courses (6 credits)**

ARH 540 Methodologies of Art History (3 credits)

ARH 592 Teaching Practicum (3 credits)

#### **2. Art History and Criticism Electives (15-21 credits)**

ARH 502 History of 19th Century Art Criticism and Theory (3 credits)

ARH 503 History of 20th Century Art Criticism and Theory (3 credits)

ARH 520 Media Aesthetics (3 credits)

ARH 521 Global Contemporary Art (3 credits)

ARH 541 Topics in Ancient Art (3 credits)

ARH 542: Topics in Medieval Art (3 credits)

ARH 543 Topics in Renaissance Art (3 credits)

ARH 544 Topics in Early Modern Art (3 credits)

ARH 545 Topics in 19th-Century Art (3 credits)

ARH 546 Topics in 20th-Century Art (3 credits)

ARH 547 Topics in Global, Colonial and Diasporic Art (3 credits)

ARH 548 Museum Studies Seminar (3 credits)

ARH 549 Topics in American Visual Culture (3 credits)

ARH 550 Inquiries into Art Criticism and Theory (3 credits)

ARH 551 Topics in Performance (3 credits)

ARH 552 Topics in Contemporary Art (3 credits)

ARH 553 Contemporary Art in New York (3 credits)

ARH 554 Topics in Visual Culture (3 credits)

### 3. Humanities and Social Sciences Electives (3-9 credits)

One to three courses in the humanities and/or social sciences, to be chosen in consultation with a faculty advisor and with the approval of the M.A./Ph.D. Graduate Director. These may be in relevant aspects of studio art practice, literary studies or critical history, musicology, philosophy, dramaturgy, sociology, anthropology.

### 4. Other (0-12 credits)

ARH 580 Art Criticism or Gallery Internship (1-3 credits)

ARS 580 Visual Arts seminar or other studio class (3 credits)

ARH 591 Practicum in the Writing of Art Criticism (1-3 credits)

ARH 595 Directed Readings (1-3 credits)

ARH 598 Thesis (1-6 credits).

## B. Comprehensive Examination

Comprehensive Examination: This exam assesses foundational knowledge of art history. Full-time students must take the comprehensive examination at the end of their second semester of study to continue in the program. In lieu of the examination, students who enroll in the foundational course series of ARH 520 Media Aesthetics and ARH 521 Global Postwar Art in their first year of graduate study may request that successful completion of these two courses (B+ or higher in each course) be accepted by the GPD to meet this requirement.

## C. Language Requirement

Students are required to have reading knowledge of at least one language in addition to English that is relevant to their projected area of research. This requirement may be met with a translation exam, coursework, or other evidence of fluency as determined by the GPD. MA students must meet the language requirement before filing their thesis and PhD students before Advancing to Candidacy.

## D. Teaching Requirement

All MA students are expected to undertake a teaching practicum under the supervision of a professor. They will be assigned as a teaching assistant for an undergraduate course, usually during the second year in the program. Students will be expected to assist the professor with tasks such as attendance, grading and maintenance of online materials. Competency will be judged on the basis of a guest lecture and/or leading class discussion session that will be observed and evaluated by the faculty supervisor.

## E. Thesis

By the end of the second semester, the student, together with an advisor chosen by the student, will jointly agree on a thesis topic, based upon a paper they have written for a seminar in their first year—preferably either ARH 520 Media Aesthetics or ARH 521 Global Contemporary Art. The student will submit to the Graduate Program Director a prospectus outlining the nature and aims of the thesis, signed by the faculty advisor. Over the course of the third and fourth semesters, with recommendations provided by the advisor, this paper will be reworked into a significant interpretive text relevant to art history, criticism, and/or theory. At the beginning of the final semester, the Graduate Program Director will appoint a second reader. The thesis is to be completed and approved by the end of the fourth semester.

Requirements for the Ph.D. Degree in Art History and Criticism

## A. Course Requirements

The student will be required to successfully complete 60 credits of graduate work, as outlined in the list of categories and courses below. Credits for the Ph.D. will total 24 beyond the entering MA degree or its equivalent, as determined by the Director of Graduate Studies, for a total of 60 credits. A student must achieve a 3.0 overall grade point average to receive a degree from Stony Brook.

### 1. Required Courses (6-9 credits)

ARH 540 Methodologies in Art History (3 credits)

ARH 602 Practicum in Teaching (3-6 credits)

2. Electives in Art History, Visual Culture, and Criticism (24-36 credits)

ARH 502 History of 19th Century Art Criticism and Theory (3 credits)

ARH 503 History of 20th Century Art Criticism and Theory (3 credits)

ARH 520 Media Aesthetics (3 credits)

ARH 521 Global Contemporary Art (3 credits)

ARH 541 Topics in Ancient Art (3 credits)

ARH 542: Topics in Medieval Art (3 credits)

ARH 543 Topics in Renaissance Art (3 credits)

ARH 544 Topics in Early Modern Art (3 credits)

ARH 545 Topics in 19th Century Art (3 credits)

ARH 546 Topics in 20th Century Art (3 credits)

ARH 547 Topics in Global, Colonial and Diasporic Art (3 credits)

ARH 548 Museum Studies (3 credits)

ARH 549 Topics in American Visual Culture (3 credits)

ARH 550 Inquiry in Art Criticism and Theory (3 credits)

ARH 551 Topics in Performance (3 credits)

ARH 552 Topics in Contemporary Art (3 credits)

ARH 553 Contemporary Art in New York (3 credits)

ARH 554 Topics in Visual Culture (3 credits)

ARH 570: Issues in Architectural History and Criticism

3. Humanities and Social Science Electives (6-12 credits)

4. Other electives

ARH 580 Art Criticism of Gallery Internship (1-3 credits)

ARS 580 Visual Arts Seminar (3 credits)

ARH 598 MA thesis (1-6 credits)

ARH 591 Practicum in the Writing of Art Criticism (0-3 credits)

ARH 690 Directed Readings (1-9 credits)

5. PhD Thesis Credits (after being advanced to doctoral candidacy and G5 status)

ARH 699 Dissertation Research on Campus (1-9 credits)

ARH 700 Dissertation Research off Campus – Domestic (1-9 credits)

ARH 701 Dissertation Research off Campus – International (1-9 credits)

ARH 800: Summer Research

Credits for thesis preparation and research may be used to complete the total of 60 credits for the Ph.D.

## **B. Teaching Requirement**

All doctoral students will be expected to assist in teaching a minimum of one semester regardless of previous experience or funding status. In their first year, students with Teaching Assistantships will typically assist in the teaching of introductory undergraduate courses in the history of art (100 or 200 level) taught by a supervising faculty member. This may include leading regular discussion sections. After the first year, students with Teaching Assistantships will typically teach stand-alone sections of these introductory undergraduate courses. Competence in teaching will



be judged through online student evaluations, as well as by classroom or lecture hall visits by the course's faculty supervisor based on an agreed date, and by faculty supervisor assessments of the Teaching Assistant's overall performance.

### **C. Comprehensive Examination**

See MA requirements.

### **D. M.A. Thesis**

All Ph.D. students who enter the program without a Master's degree in art history must complete an M. MA thesis. See MA requirements.

### **E. Foreign Language Requirement**

See MA requirements.

### **F. Qualifying (Preliminary) Examination**

Ph.D. students in their third year of coursework (second year for those entering with a prior MA degree) and prior to the beginning of dissertation research are required to take the written Qualifying Examination, which may be administered in October or March each year. The written exam covers major and minor fields of study and its content will vary according to the student's interests. The student will be expected to select two faculty members to serve as major and minor advisors, to seek guidance on appropriate focus and bibliography in preparation for the exams at least one semester before the exam date. The Qualifying Exam committee consists of three members of the department faculty (including major and minor advisors) and is appointed upon the recommendation of the Graduate Program Director, in consultation with the student. Failure to pass will result in re-evaluation of status. The opportunity to retake part of the exam must be approved by the Dean of the Graduate School.

### **G. Advancement to Candidacy**

To be advanced to Ph.D. candidacy, the student must have:

1. Completed at least 54 graduate credits (including 24 credits from a prior MA degree) and all other degree requirements (see A-F listed above), other than the dissertation and dissertation research credits.
2. Submitted to the Graduate Program Director a written prospectus outlining the nature and aims of the dissertation that has been approved by the student's advisor and at least one other Art Department faculty member who will serve as Chair of the defense (see below). When all these requirements have been completed satisfactorily, the Director of Graduate Studies will submit the Advancement to Doctoral Candidacy form to the Dean of the Graduate School for approval.

### **H. Dissertation Prospectus**

Within one semester after successful completion of the Qualifying (Preliminary) Exams, the student is expected submit a written dissertation to their dissertation advisor and at least one other departmental faculty member for approval. If possible, the student will have identified all four members of the committee, including one external referee, at the time of submitting the prospectus. Once the committee has approved the prospectus, the student will submit the approved prospectus with the signed dissertation proposal form to the Director of Graduate Programs, who will then submit the Advancement to Candidacy form to the Graduate School for approval.

### **I. Dissertation Examining Committee and Defense**

At least six months before the dissertation defense, the Graduate Program Director, in consultation with the student and the student's advisor and chair, will finalize the dissertation examining committee, to include at least one external member and a fourth member who may be either internal or external to the program. This committee must be approved by the Dean of the Graduate School upon the recommendation of the Graduate Program Director. At least three months before the Graduate School's deadline for requesting a dissertation defense date, the student will submit to the Dissertation Examining Committee what is intended to be the final draft of the dissertation. If the readers agree that the dissertation is ready to be defended, the dissertation committee chairperson will schedule the defense, an oral examination open to interested faculty and graduate students. The date of the defense must be approved by the Graduate School, by means of the Doctoral Defense Announcement form. All four committee members must recommend acceptance of the dissertation before it will be approved by the Graduate School. The student is responsible for making all requested revisions and submitting the finished dissertation before the Graduate School deadline.

### **J. Time Limit**

All requirements for the Ph.D. degree must be completed within seven years after completing 24 credits of graduate courses in the department. Those with a prior Master's degree have seven years from the date of entry into the program. In rare instances, the dean of the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department chairperson.

Requirements for the Advanced Graduate Certificate (AGC) in Media, Art, Culture, and Technology

**15- Credit Requirement:** The Certificate is awarded upon completion of five MACT-eligible courses, or fifteen-credits, which may also be counted toward degree requirements in the student's home department. Eligible courses must use humanistic methods of critical inquiry to engage topics at the intersection of media, art, technology, and culture. Any instructor may submit a syllabus to the Director to request that his or her course be considered eligible for credit toward the MACT certificate; eligibility is approved by the MACT executive committee. \*As of Fall 2023, a maximum of nine credits (three courses) taken prior to enrolling in MACT can be credited toward the completion of the certificate.\*

**Interdisciplinary Requirement:** Students may count a maximum of three courses listed within their home department/program toward the graduate certificate; at least two of the five courses counted for credit in MACT must be listed outside the graduate student's home department or program. Also, at least three different departments or programs must be represented among the five courses that are counted for credit toward the MACT certificate. (Cross-listed courses can be counted for any one of the departments/programs designated).

**Curriculum:** To be eligible for credit toward the certificate, a course 1) must be taught in a CAS department or program, 2) must engage in critical inquiry through the lens of the arts and humanities (for example, courses in the practice of physical science would be precluded), 3) must

significantly address intersections of media, art, culture, and technology, 4) must be open to enrollment by students outside the listing department/program. Courses are approved as eligible by the MACT executive committee. Any faculty member may request a course be listed as MACT eligible by submitting a syllabus and written request no later than one month before enrollment opens for the term. More information, and an archive of MACT-eligible courses with titles, instructors, and descriptions is maintained on the MACT website: <http://mact.stonybrook.edu/>

MACT relies largely on "topics" courses that affiliate faculty offer on changing subjects close to their current research. Therefore, a list of eligible courses is updated each term. Courses may have their own pre-requisites, and are open to MACT students by permission of the instructor.

#### Faculty of Art History and Criticism

##### Professors

Frank, Barbara E., Ph.D., 1988, Indiana University: African, Mesoamerican and African Diaspora art history.

Siegel, Katy, Ph.D., 1995, University of Texas at Austin: Art Criticism, Postwar and Contemporary Art, Curatorial Studies.

##### Associate Professors

Belisle, Brooke, Ph.D., 2012, University of California, Berkeley: Visual Culture, Media Aesthetics, Comparative History and Theory of Photographic, Cinematic, and Computational Imaging.

Lee, Sohl, Ph.D., 2014, University of Rochester: Contemporary East Asian Art and Visual Culture, Critical Theory and Globalization, Curatorial Studies.

Lloyd, Karen, Ph.D. 2010, Rutgers University: European Renaissance and Baroque Art, Italian Sculpture, Early Modern Europe and the Americas, Early Modern Art Theory.

Patterson, Zabet, Ph.D., 2007, University of California, Berkeley: Contemporary European and American Art & Criticism; History & Theory of Computational Media, Performance & Cybernetics.

Uroskie, Andrew V., Ph.D., 2005, University of California, Berkeley: History And Criticism of Late Modernism, Experimental Film, Video and Performance.

##### Assistant Professors

Dodd, Sam, Ph.D. 2014, University of Texas at Austin: Modern Architectural History and Theory, Design Studies, American Material and Visual Culture, Social Practices in Art and Design.

##### Lecturers

Goodarzi, Shoki, Senior Lecturer. Ph.D., 1999, University of California at Berkeley: Contemporary Middle Eastern Art & Cinema; Near Eastern Art & Archaeology; Greek & Roman Art and Archaeology; Curatorial Studies.

##### Arts Administration

Harrison, Helen, Director of the Pollock-Krasner House and Study Center.

Levitov, Karen, Director and Curator, Paul W. Zuccaire Gallery, Staller Center for the Arts.

Walsh, Lorraine, Art Director and Curator of The Simons Center for Geometry and Physics.

##### Affiliated Faculty

Craig, Megan, Associate Professor of Philosophy. Ph.D., 2007 New School: Levinas and aesthetics; phenomenology; painting.

Loffredo, Fernando, Assistant Professor of Hispanic Languages and Literatures. Ph.D., University of Naples 2010: Early Modern Mediterranean and Colonial Visual Culture.

McInnis, Maurie, President, Stony Brook University and Professor, Department of History. Ph.D., Yale University 1996: American Studies, Abolitionist Art, Early American Art.

Schedel, Margaret, Professor of Music. DMA, 2007, University of Cincinnati: Sound Art, Interactive Systems, Computational Media.

See STUDIO ART FACULTY: <http://www.stonybrook.edu/sb/graduatebulletin/current/academicprograms/ars/faculty.php>

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

## Studio Art

**Chairperson**

Linda O'Keefe, Staller Center #2221, linda.okeefe@stonybrook.edu

**M.F.A. Graduate Program Director**

Isak Berbic, Staller Center #4281, isak.berbic@stonybrook.edu

**Graduate Program Coordinator**

TBD, Staller Center #2224, tel. +1 (631) 632-7270

**Degrees Awarded**

M.F.A. in Studio Art

**Website**

<http://art.stonybrook.edu>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Studio Art**

As a research and practice-based terminal degree program, the Department of Art's Master of Fine Arts in Studio Art occupies a unique position among graduate programs in art studies. The M.F.A. in Studio Art graduate students pursue studio research and practice, academic scholarship, teaching, and professional practice, towards their degree. We offer a dynamic, interdisciplinary curriculum along with individual mentoring from faculty whose work has won national and international recognition. The curriculum is designed to provide courses in Studio Art practice, seminar, and critique, as well as utilize the facilities and individual art studios, and the on-campus galleries and art exhibition venues as teaching and learning spaces. Students benefit from engagement with the liberal arts through our department's Art History and Criticism graduate programs, as well as programs in Cultural Analysis and Theory, Philosophy, Writing, History, Music, an Anthropology, and are able to pursue Graduate Certificates in Media, Art, Culture and Technology; Art and Philosophy; Creative Writing and Literature; Women's and Gender Studies, and Writing and Rhetoric, among others. Our graduates also make use of external resources such as the museums, galleries and libraries in the New York City metropolitan region, and regularly participate in internship and apprenticeship programs with artists, galleries, museums, institutions and cultural organizations. As a small and selective program in a large, public institution we are able to offer graduate study with low tuition costs, opportunities for teaching experience with a highly diverse undergraduate population, and the full resources of a major research university. Our graduates have been successful in their careers as artists, earning fellowships, residencies, and recognition through exhibitions, as well as found roles in teaching and academic positions at colleges and universities.

**M.F.A. in Studio Art**

The Master of Fine Arts in Studio Art at Stony Brook University is a three-year, 60-credit terminal degree program in creative art practice, and critical inquiry in the field of Studio Art, supported by production facilities, individual art studios, and a research university environment. The M.F.A. in Studio Art degree requirements are concentrated primarily on studio art courses, teaching practicum, liberal arts courses, and participation in presentations and critiques, as well as exhibitions. The program culminates in a one-person thesis exhibition accompanied by a written thesis paper, a thesis defense, as well as participation in the M.F.A. group thesis exhibition at the Paul W. Zuccaire Gallery. Normally, the M.F.A. in Studio Art program requires three years of full-time residency. Students are not accepted into the program on a part-time basis. The degree is especially suitable for students who plan on pursuing professional work as artists, and may also be the degree of choice for those preparing for careers in art production, art education, art administration, or gallery and museum work.

**Admission to the M.F.A. Program in Studio Art**

Admission into the M.F.A. Program in Studio Art is at the discretion of the Studio Art Graduate Faculty with the final approval of the Graduate School. Admission is for the Fall semester. Admission to the program assumes a minimum of a B average in undergraduate work and meeting the standards of admission to the Graduate School (including English Proficiency Requirements).

All candidates for the M.F.A. program must enter with a minimum of 40 semester hours of credit or the equivalent of undergraduate work in Studio Art in a B.A., B.S., B.F.A., or similar program. Applicants should also have a minimum of 15 semester hours of credit in art history, theory, or criticism. At the discretion of the Graduate Faculty, those without sufficient background may be advised to complete further undergraduate coursework prior to admission to the program.

**Following should be submitted directly to the Art Department:**

Artist Portfolio Application Instructions:

In addition to completing the official Graduate School application using the SBU application portal (<https://graduateadmissions.stonybrook.edu/apply>), the below listed application materials for the MFA in Studio Art should be emailed directly to the Department of Art graduate program

admissions email: GradArt@stonybrook.edu Please include your full name and MFA in Studio Art Application in the email subject line. You can send up to 25 MB in attachments. Please ensure that your file sizes are adequately set for this inbox limitation.

#### 1. Artist Portfolio:

20 visual images, slides or pages, that represent your best and recent artwork in a presentation format, packaged as a PDF document (Max 25 MB). The Artist Portfolio should include image captions stating the artwork title, media/materials, and date of production (no artwork older than 3 years please). Short project descriptions (max 100 words each) can be included within the Artist Portfolio document, or a separate image captions text document may be attached. Video and durational media should be hyperlinked and playable online within a web browser (Website, Google Drive, Vimeo, YouTube, etc.).

#### 2. Statement of Purpose / Artist Statement:

A statement between 500 and 1000 words on your artwork and creative research, current directions, aims and objectives in pursuing graduate study.

#### 3. Resume / CV:

Curriculum vitae including contact information, education, academic achievements, art exhibitions, professional experience, awards or recognitions.

### Art Department Facilities

Since 1976, the Department of Art has enjoyed the resources of the Staller Center for the Arts. This 226,026-square-foot building includes the Departments of Art, Music, and Theatre and is a vibrant hub of lectures, concerts, performances, and other cultural activities. The complex includes faculty and staff offices, art history classrooms, and a graduate lounge. The first floor of the Art wing features the Paul W. Zuccaire Gallery, a major Stony Brook University art gallery space devoted primarily to exhibitions of contemporary art, including the annual M.F.A. thesis show.

The department has substantial graduate art studio space available at an off-campus location (Innovation and Discovery Center or IDC). Each M.F.A. in Studio Art graduate student is provided their own individual art studio space at IDC. Accompanying large common spaces are regularly used for seminars, discussions, temporary exhibitions, presentations, and documentation of work. The Lawrence Alloway Gallery provides exhibition space with media exhibition equipment, and there are several other on-campus locations where students have opportunities to exhibit their artwork.

Production facilities in the Staller Center include full foundry, metals, and wood shops; a ceramics and ceramic sculpture studio; spacious painting, drawing, and studio classrooms; printmaking studios with etching, stone lithography and photo plate making and screen printing facilities; extensive digital facilities and computer labs; a photography lighting studio, group and individual darkrooms, maker space, print space, sound recording space, among others. Art history classrooms are equipped with media technology. The main library houses extensive collections of scholarship on the arts, including recent exhibition catalogs and the most important art history and criticism journals. Proximity to New York City makes available the numerous libraries, museums, galleries, studios, and publishing institutions of the greater metropolitan area.

Finally, the Pollock-Krasner House and the Pollock-Krasner Study Center, in East Hampton and Southampton, Long Island, are affiliated with the University. Once the home and studio of Jackson Pollock and Lee Krasner, the Pollock-Krasner House is now both a landmark museum and a forum for lectures, seminars, and other academic activities. The Study Center comprises extensive reference materials and archives, including books, photographs, oral histories, and journals available for research.

### Degree Requirements

#### Requirements for the M.F.A. in Studio Art

The Department of Art accepts only full-time students into the M.F.A. in Studio Art program.

#### A. Course Offerings

Courses regularly offered in graduate Studio Art are ARS 550: In Process Critique, and ARS 580: Visual Arts Seminar, as well as ARS 531: Graduate Teaching Practicum and ARS 532: Thesis Project, along with various rotating Studio Art topics and Project courses.

Graduate Studio Art Courses:

ARS 520: Special Projects for M.F.A. Candidates

ARS 525: Electronic Media

ARS 530: Professional Experience Internship

ARS 531: Graduate Teaching Practicum

ARS 532: Thesis Project

ARS 535: Projects in Studio Art

ARS 540: Graduate Photo Studio

ARS 550: In Process Critique

ARS 551: Graduate Painting Studio

ARS 560: Graduate Sculpture Studio

ARS 561: Graduate Ceramics / Ceramic Sculpture Studio

ARS 570: Graduate Printmaking Studio

ARS 580: Visual Arts Seminar

ARS 800: Summer Research

In addition, graduate courses offered through other programs may satisfy requirements, subject to approval by the Graduate Faculty and the Graduate Program Director.

## **B. Course Requirements**

The student will be required to successfully complete 60 credits of graduate work, as outlined in the list of categories and courses below. No graduate studio course may be taken for more than three credits per semester.

1. ARS 550: In Process Critique (3 credits) to be taken in the first semester and throughout the graduate program. This course is repeated and counted towards graduate Studio Art credits.
2. At least nine graduate Studio Art courses (27 credits).
3. At least two ARS 580: Visual Arts Seminar courses (6 credits). Additional ARS 580: Visual Arts Seminar courses are recommended.
4. Three courses in graduate Liberal Arts, e.g., Art History and Criticism, Philosophy, Literature, etc. (9 credits).
5. ARS 531: Graduate Teaching Practicum (3-6 credits), (see item E).
6. ARS 532: Thesis Project (up to 6 credits).

## **C. Liberal Arts Requirement**

Students are required to take three graduate Liberal Arts courses (9 credits) in Art History and Criticism, Cultural Analysis and Theory, Philosophy, Writing, History, Music, or Anthropology, among others.

## **D. Demonstrations of Studio Proficiency**

All M.F.A. candidates should demonstrate proficiency through the development of a comprehensive body of studio art work. Proficiency is determined by their Faculty Advisor, the Graduate Faculty and Program Director through periodic evaluation of the work, including mid-term and final critiques each semester, and the thesis project review by the student's Faculty Advisor and the thesis committee in the third year.

## **E. Teaching Requirement**

All graduate students are required to observe a faculty member and assist in teaching for a minimum of one semester; this course offers three credits toward the M.F.A. degree under ARS 531. After the observation, a graduate student will teach a class as an instructor of record which offers an additional three credits toward the MFA degree. Beyond these six credits applied toward the MFA degree, all other teaching by students with stipends will be part of their obligation without earning additional academic credit.

## **F. Final Year and the Thesis Project**

During the final year, in addition to regular coursework, the M.F.A. candidates prepare a one-person thesis exhibition at the Lawrence Alloway Gallery. They also participate in the Paul W. Zuccaire Gallery's annual M.F.A. group thesis exhibition. They complete a written thesis paper and defense to complement the body of work as a scholarly articulation of thoughts and ideas in relation to the body of work and the field of Studio Art.

Faculty of Studio Art Department

### **Faculty of Studio Art Department**

#### **Graduate Faculty of Studio Art**

#### **Professors**

Buonagurio, Toby. M.A., 1971, City College of New York: Ceramics, Ceramic Sculpture, Drawing and Conceptual Drawing.

Dinkins, Stephanie. M.F.A., 1997, Maryland Institute College of Art. Artificial Intelligence and Socially Engaged Practice, Video, Photography, Interactive and Installation Art.

Levine, Martin. M.F.A., 1972, California College of Arts and Crafts. Printmaking.

Nagasawa, Nobuho. M.F.A., 1985, Hochschule der Kunste Berlin, Germany: Sculpture, Social Sculpture, Installation, Socially Engaged Art, and Public Art.

Pindell, Howardena. M.F.A., 1967, Yale University: Painting, Drawing and Conceptual Drawing.

**Associate Professors**

Berbic, Isak. M.F.A., 2007, University of Illinois at Chicago. Photography, Interdisciplinary Art Studio, Documentary Media Art.

Ashizawa, Izumi. M.F.A., 2002, Yale University. Devising Theatre and Performance Art.

**Lecturers**

Paradis, Jason. Lecturer, M.F.A., 1998, Stony Brook University; Drawing and Painting.

Salcedo-Watson, Lorena. M.F.A., 2008, Stony Brook University; Drawing, Printmaking, Lithography, Experimental Printmaking.

**Arts Administration**

Ward, Matthew. Director, Pollock-Krasner House and Study Center.

Levitov, Karen. Director and Curator, Paul W. Zuccaire Gallery, Staller Center for the Arts.

Walsh, Lorraine. Art Director and Curator, Simons Center for Geometry and Physics.

**Technicians and Professional Staff**

Ide, Takafumi. M.F.A., 2007, Stony Brook University. Lecturer, Instructional Support Technician, Photography and Digital Technician and Studios Manager.

Richholt, Dan. M.F.A., 1994, Stony Brook University. Lecturer, Instructional Support Technician, Sculpture Technician and Studios Manager.

**Affiliated Faculty**

Schedel, Margaret. D.M.A., 2007, University of Cincinnati. Associate Professor of Composition and Computer Music in the Stony Brook University Department of Music.

**See The Department Of Art, Art History & Criticism Faculty:** <https://www.stonybrook.edu/sb/graduatebulletin/current/academicprograms/arh/faculty.php>

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

**Asian and Asian American Studies****Chairperson**

Eriko Sato

**Graduate Program Director**

Atsuko Oyama, Humanities Building 1114

**Graduate Secretary**

Lynne Foerster, Humanities Building 1046 (631) 632-4030

**Degrees Awarded**

M.A. in Contemporary Asian and Asian American Studies

**Web Site**

stonybrook.edu/aaas

**Application**<https://graduateadmissions.stonybrook.edu/apply/>

What does it mean to be an Asian in America? What are the contributions by and challenges facing Asian Americans? What is the role of linguistic, racial and ethnic identities in shaping global communication? What are the language and cultural resources we can use to combat discrimination against racialized and minoritized communities? How can we leverage Asian and Asian American languages and cultures for personal growth and societal transformation?

The Master of Arts in Contemporary Asia Studies provides students with an interdisciplinary training to develop critical skills and stances in areas ranging from Asian diaspora and cultural studies to multilingualism and intercultural communication to literary and translation studies to intellectual history. The program prepares students for careers in teaching of Asian languages, global business, government, nonprofit organizations, education, communication, or further advanced studies in Asian and Asian American languages and cultures. The program will also provide students with opportunities for experiential learning and professional development.

We welcome students of all backgrounds who are eager to learn about Asia and Asian America in depth as they relate to the contemporary transnational and multicultural world.

**Admission to the M.A. Program in Contemporary Asian Studies**

Applicants for admission to the Master's program are expected to hold a Bachelor's degree (in any field) and have basic proficiency (two years of formal study or equivalent) in at least one Asian language. Applicants are required to submit the following materials:

- Undergraduate transcript
- Statement of purpose (500-1000 words)
- Three letters of recommendation
- Official report of TOEFL scores (for international applicants from non-English speaking

countries) The Asian language requirement may be met in the following ways:

A. Equivalent course-work: Students who have completed at least two years (12 credits) of college-level course-work in an Asian language will be deemed to have met the language eligibility requirement.

B. Individualized Plan: Students who do not meet the language eligibility requirement through previous course-work must, upon entering the program, consult with the Graduate Director to develop an individualized plan to establish basic Asian language proficiency through one of the following four options:

1. By passing a Challenge Exam in an Asian Language
2. By passing another examination approved by the Graduate Director.
3. By completing Asian Language Coursework after admission (NB: Such course credits are remedial, however, and as such will NOT count toward completion of the M.A. degree)
4. By participating in a semester-long or year-long academic Study Abroad program in an Asian country

C. Special Reading Courses (reading course credits will NOT count toward completion of the M.A. degree)

Program faculty and students will be able to draw upon a wide range of academic, professional, and cultural resources. These include academic programs in Asian & Asian American Studies, China Studies, Japanese Studies, Korean Studies, and South Asian Studies, as well as Cultural Analysis and Theory, Business, Journalism, Media Studies, Linguistics, Religious Studies, Philosophy, History, and various social sciences. In terms of professional development, PEP (Professional Education Program) coordinates with the Department of Asian and Asian American Studies and Foreign Language Teacher Preparation Program to offer teacher certification programs for Chinese, Japanese and Korean. Moreover, the Language Learning and Research Center (LLRC) offers a state-of-the-art multimedia language center at Stony Brook University, with a wide variety of materials and technologies to assist scholars and students of Asian languages. The Center for Multilingual and Intercultural Communication (MIC) provides opportunities for research across languages and cultures. Master's students seeking to pursue a study abroad opportunities during their graduate training will work with the Office of the International Academic Programs and Services. In addition, there are

a variety of social and cultural activities and services offered through the Mattoo Center for India Studies, the Japan Center at Stony Brook, the Center for Korean Studies, the Charles B. Wang Center, as well as the diverse student organizations represented on campus.

### **Requirements for the M.A. Degree in Contemporary Asian and Asian American Studies**

30-credits, including 24-credits of course work and 6-credits of thesis/project work, over two semesters. More specifically, students are required to take the following:

- 1) a fall pro-seminar in research methods (3 credits)
- 2) one course in each of five categories (15 credits):
  - Language and Cross-Cultural Communication
  - Religions and Philosophies of Asia
  - Culture and Heritage
  - Politics and Society
  - Contemporary Asian Diaspora
- 3) two elective courses in any field of interest, chosen in consultation with and subject to approval of the Graduate Director (6 credits)
- 4) a thesis or final project (6 credits)

Students who have a strong background and interest in Asian Languages or Multilingualism and Intercultural Communication Studies should consult with the Graduate Program Director in order to choose courses for requirements 2 and 3, to appropriately focus on these areas.

### **Distinguished Professors**

Chittick, William C. Ph.D., 1974, University of Tehran: premodern Islamic intellectual history, especially Sufism and philosophy.

Sridhar, Shikaripur N., Ph.D., 1980, University of Illinois: South Asian Linguistics; Kannada Grammar and Sociolinguistics; Multilingualism; Psycholinguistics; second Language Acquisition and Teaching; World Englishes; India Studies; Kannada Literature and Translation of Indian Literacy Classics.

### **Full Professors**

He, Agnes Weiyun, Ph.D., 1993, University of California, Los Angeles: language and cultural development; discourse analysis; intercultural communication; Chinese as a heritage language.

Kim, Hongkyung, Ph.D., 1993, Sungkyunkwan University in Seoul, South Korea: Confucianism; Daoism; Korean intellectual history; East Asian philosophy.

Murata, Sachiko, Ph.D., 1971, University of Tehran: Islamic philosophy and theology in the Chinese language.

Timalsina, Sthaneshwar, **Endowed Chair of Indic Studies**, Ph.D., 2005, Martin Luther University in Halle, Germany: Hindu studies; Tantric studies; Yoga studies; comparative philosophies and religions.

### **Associate Professors**

Balce, Nerissa S., Ph.D., 2002, UC Berkeley: postcolonial theory and the cultures of 1898; race, American visual culture and feminist epistemologies; state violence and Filipino culture; and Asian American literature and culture.

Nicholson, Andrew J., Ph.D., 2005, University of Chicago: philosophies of India; Hinduism; Indian intellectual history: philosophy of religion; Sanskrit.

Ruf, Gregory. Ph.D. 1994 Columbia University: China; sociocultural anthropology; history.

Sato, Eriko, Ph.D., 1996, Stony Brook University: translanguaging; translation studies; language learning/teaching; online teaching; Japanese linguistics.

Tan, E.K., Ph.D., 2007, University of Illinois at Urbana-Champaign: Sinophone studies; modern Chinese literature; culture and film; postcolonial studies; Southeast Asian studies; cultural translation.

### **Assistant Professors**

Hwang, Jiwon, Ph.D., 2011, Stony Brook University: second language phonetics/phonology; Korean linguistics; intercultural language learning.

Kim, Sandra So Hee Chi, Ph.D., 2017, University of Southern California: Asian American studies; critical Korean studies; empire and coloniality; critical race theory.

Wang, Yi, Ph.D., 2020, The University of Arizona: applied linguistics; second language use and acquisition; study abroad; language ideology; linguistic justice; Chinese language pedagogy.

### **Advanced Senior Lecturers**



Sohn, Heejeong, Ph.D., 2013, Stony Brook University: modern & contemporary history of Korea; photography and visual studies; American missionaries in Korea; gender and sexuality; history of Korean language; Korean language pedagogy; pedagogical technologies.

### Senior Lecturers

Nagase, Eva, Ph.D. candidate, Stony Brook University: Japanese language; culture studies; material culture; travelogue; Japanese literature; Japanese art.

Zeng, Dongmei, D.A., 1997, Stony Brook University: Chinese linguistics; Chinese language maintenance and shift; second language acquisition; heritage language maintenance and pedagogy; Chinese linguistics.

### Lecturers

Kang, Jungmin, Ph.D., 2014, University of Connecticut: second language acquisition; Korean syntax; theoretical syntax; formal semantics; syntax-semantics interface.

Li, Tingda (Hannah), M. A., 2003, University of Bath; M.A., 2008, University of Arizona: Chinese linguistics; teacher education; Chinese anthropology; international education; educational leadership and management.

Nakamura, Chikako, M.A., 2020, Stony Brook University: Japanese literature; translation studies; multilingualism; Japanese pedagogy; online language teaching.

Oyama, Atsuko, Ph.D., 2014, The University of Arizona: gender; family; linguistic anthropology; language pedagogy.

Snyder, Hong, Ph.D. candidate, Jinan University, China: World History; Chinese Studies.

### Affiliate Faculty

August, Timothy K., Ph.D., 2014, University of Minnesota: Critical refugee studies, Asian American studies, Diasporic Vietnamese literature and film, Postcolonial theory and criticism.

Desai, Manisha, Ph.D., 1990, Washington University, Gender and globalization, transnational feminisms, women's human rights, global climate justice movements, and Contemporary Indian society

Lim, Shirley Jennifer, Ph.D., 1998, UCLA: Asian American history, race/ethnicity, gender, film, popular culture.

Mimura, Janis, Ph.D., 2002, University of California, Berkeley: Modern Japan; imperialism; fascism; political-economy; technology and society.

Santa Ana, Jeffrey, Ph.D., 2004, University of California, Berkeley: Associate Professor of English, Asian American and Asian-Pacific diaspora studies, postcolonial literature and criticism, gender and sexuality (queer studies), environmental humanities and ecocriticism, memory studies.

Tausig, Benjamin, Ph.D., 2013, New York University: Thai and Southeast Asian music; sound studies; protest movements; labor and migration.

Wilson, Nicholas Hoover, Ph.D., 2012, UC-Berkeley: Empire and Imperialism, Corruption, Sociology of Knowledge and Culture, Historical Sociology.

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

## Biochemistry and Cell Biology (BCB) MS Program

**Chairperson**

Wali Karzai, Life Sciences Building 332 (631) 632-1688

**BCB MS Graduate Program Director**

Neta Dean, Life Sciences Building 310, (631) 632-9309

**Program Administrator**

Pamela Wolfskill, Life Sciences Building 450, (631) 632-8558

**Degree awarded**

Master of Science (MS) in Biochemistry and Cell Biology

**Website**

<https://www.stonybrook.edu/commcms/biochem/education/graduate/biochemistry-and-cell-biology-ms>

**Application**

The Graduate School ( [www.grad.sunysb.edu](http://www.grad.sunysb.edu)) requires on-line application submission (<https://grad.stonybrook.edu/admissions/index.php>) including letters of recommendation. At the Graduate School website you will find an Admissions link to the on-line Application form.

<https://graduateadmissions.stonybrook.edu/apply/>

## Biochemistry and Cell Biology MS Program Description

The Department of Biochemistry and Cell Biology offers a graduate program for the Master of Science degree. This ~1.5 year MS program is designed to prepare students for careers in research, teaching, biotechnology, or further advanced studies in health and life sciences. Our pool of faculty represents diverse research interests spanning biochemistry, genetics, cell, molecular, and structural biology.

To document our success, here are some numbers. In the twelve years since its inception, we've admitted 129 students (about 10-12 per year). 95% of those students graduated (122 out of the 129 who were admitted). Of these 122 graduates, 84% have continued in health science related careers. 43 students entered Ph.D. programs; 15 were admitted to medical, dental or veterinarian schools; the remainder obtained positions as Research technicians. Our graduates have gone on to Ph.D. programs at top-notch research institutes or medical schools, including NYU, Thomas Jefferson University, Albert Einstein, Cornell, Mt. Sinai, Rockefeller, Case Western, Stony Brook, Rutgers, Purdue, Imperial College (UK), Cold Spring Harbor, Scripps, Univ. Utah, Univ. Indiana, UC Santa Cruz. The private sector has also benefited from our graduates, who have obtained positions at Regeneron, Pfizer, Sloan Kettering, Pillar Biosciences, and Nanoprobe to name a few. One student is a regulatory lawyer for the FDA in Washington, DC.

## Biochemistry and Cell Biology (BCB) MS Program Admissions

Application Deadline: April 15May 1, 2025

Applications are considered from September until April 15May 1 every year for admission in the Fall. Applicants do not need to send their official transcripts until they are offered admission into the program.

In addition to the minimum requirements of the Graduate School, the following are suggested requirements:

- BS or BA degree in a life science related field, with a minimum undergraduate grade point average of 3.00. Pre-requisites include mathematics through one year of calculus, chemistry (including organic chemistry and laboratory), general physics, and one year of biology (including laboratory). It is highly recommended that students will have taken two semesters of biochemistry, and one semester each of genetics, cell biology, physical chemistry, and English composition. Students accepted into the program without a pre-requisite may be asked to take the appropriate upper level undergraduate course prior to undertaking specific graduate level courses.
- **Personal Statement:** What would you consider your special qualifications to be? What do you propose to do with your advanced degree professionally? Discuss briefly your experience in biochemistry and cell biology outside the classroom.
- **Three letters of recommendation** from people who can evaluate the applicant's potential for graduate work and independent research.
- **International Students:** A proficiency in the English language is required. If your native or primary language is not English, you must take an English proficiency test. To be considered for admission, an applicant must present an acceptable score on the TOEFL or IELTS test. IELTS: Overall score of 6.5 with no subsection below 6. TOEFL: Paper-based test: 550; computer based test: 213; or Internet-based test: 90. Under special circumstances, lower scores may be considered.

---

**FACILITIES**

The Biological Sciences Division and Health Sciences Center are well equipped for work in biochemistry and cellular biology. Individual faculty laboratories and central services provide a full array of state-of-the-art equipment. These include facilities that perform flow cytometry, mass spectrometry, DNA synthesis and analyses, transgenic mice, microscopy and imaging. The Health Sciences Library contains a comprehensive collection of biomedical journals and books and is complemented by the Melville Library on the main campus.

## Degree Requirements for Biochemistry and Cell Biology (BCB) MS Program

Research-based thesis option (30 credits). The research-based thesis option requires 30 credits comprised of 24 credits in core courses and 6 elective credits. Thesis research can be conducted in the laboratory of Biochemistry and Cell Biology faculty, in the research laboratories of

faculty from other Departments at Stony Brook, and at Brookhaven National Laboratory, or through research internships under the guidance of approved mentors at local biotechnology firms. This option requires completion of a written, research-based project.

Literature-based thesis option (30 credits). The literature-based thesis option requires 30 credits comprised of 24 credits in core courses and 6 elective credits. This option requires completion of a written, literature-based project.

### **Core Course Requirements (24 credits)**

MCB 503 Molecular Genetics (Fall, 3 credits)

MCB 520 Graduate Biochemistry I (Fall, 3 credits)

MCB 656 Cell Biology (Spring, 4 credits)

BCB 551 Introduction to Research in Biochemistry and Cell Biology, Integrity in Science (Fall, 2 credits)

BCB 552 Advanced Laboratory Methods in Biochemistry and Cell Biology (Fall, 3 credits)

BCB 559 MS Research Practicum in Biochemistry and Cell Biology (Fall, Winter, Spring & Summer, 4 credits.) Note that one semester of BCB 559 is required for the MS but this course, in which students earn credit for their performing research in a laboratory research, can be repeated for additional 0-4 elective credits/ semester)

BCB 599 MS Thesis in Biochemistry and Cell Biology (Fall, Winter, Spring & Summer, 3 credits)

MCB 601 Colloquium in Molecular and Cellular Biology (Fall, 1 credit)

MCB 602 Colloquium in Molecular and Cellular Biology (Spring, 1 credit)

## **FACULTY OF BIOCHEMISTRY AND CELL BIOLOGY MASTERS OF SCIENCE PROGRAM**

### **Department of Biochemistry and Cell Biology**

Michael Airola – Structural biology of lipid modifying enzymes

Ivet Bahar,- Bridging Structure and Function, via Dynamics

Paul M. Bingham - Genetic control of development and gene expression in animals

Vitaly Citovsky - Nuclear targeting and intercellular communication in plants

Neta Dean - Glycosylation; fungal pathogenesis

Peter Gergen - Gene expression and development in *Drosophila*

Steven Glynn - Structure and mechanism of protein-unfolding machines in mitochondria

Kathryn Gunn- Spatiotemporal regulation of metabolic enzymes

Bernadette C. Holdener - Genetic regulation of early mammalian development

Nancy Hollingsworth - Meiotic synapsis, recombination, and segregation in yeast

Chi-Kuo Hu -Biology of dormancy during development and aging, with the African killifish as the main research organism

Jonathan Nelson - Repetitive DNA Maintenance in germ cell immortality

Wali Karzai - Structure and function of RNA-binding proteins and biochemical studies of the SmpB•tmRNA quality control system

Benjamin Lin - Cell dynamics and motility.

Erwin London - Membrane protein structure/translocation/folding

Ed Luk - Chromosome biology and genome regulation

Benjamin Martin - Stem cell maintenance and differentiation, Developmental mechanisms of cancer pathogenesis

David Q. Matus - Evolutionary, cell and developmental biological approaches to studying nematode uterine-vulval attachment and morphogenesis

Aaron Neiman - Vesicle trafficking and membrane/cytoskeletal interactions

Dada Pisconti - Muscle stem cells; muscle development, regeneration and aging; muscular dystrophy; extracellular matrix; biology of proteoglycans

Stuti Sharma- Structural Biology and membrane biology

Gerald H. Thomsen - Growth factors /signal transduction in early vertebrate development

### **Department of Anesthesiology**

Martin Kaczocha - Role of fatty acid binding proteins in pain, inflammation, and related pathophysiologies: Endocannabinoid pharmacology and development of novel therapeutics.

### **Department of Chemistry**

[Elizabeth Boon](#) - Nitric oxide regulation of quorum sensing and biofilm formation in bacteria

Isaac Carrico

[David Green](#)- Affiliated Assistant Professor. Computational biology of protein interactions.

[Peter Tonge](#) - Spectroscopic insights into enzyme mechanisms and structure

Scott Laughlin - Chemical neuroscience. Design and application of optical probes for imaging neural circuitry.

### **Department of Medicine**

[Yusuf Hannun](#) - Bioactive lipids in cancer pathogenesis and therapeutics

[Richard Lin](#) - Kinase signaling and cell proliferation

Cungui Mao - Bioactive sphingolipids in cell growth, differentiation, apoptosis, and autophagy

[William Van Nostrand](#) - Vascular functions of Alzheimer's disease amyloid beta-protein

### **Department of Molecular Genetics & Microbiology**

[Nicolas Carpino](#) - Positive and Negative Regulation of T cell Receptor Signaling

[Bruce Fletcher](#) - Cell cycle, cyclins, and yeast genetics

[Patrick Hearing](#) - Adenovirus regulation of cellular proliferation and gene expression; adenovirus vectors for human gene therapy

[James Konopka](#) - Signal transduction, morphogenesis and genetics of pathogenic fungi

[Erich R. Mackow](#) - Viral Pathogenesis, Regulation of Innate Immunity, Hantavirus, Dengue Virus and Rotavirus Regulation of Cell Signaling Responses, miRNAs and Endothelial cell functions.

[Nancy Reich](#) - Cytokine and Innate Immune Responses

[Brian Sheridan](#) - Mucosal Immunology, T cell memory, Vaccine design, Host-pathogen interactions

[David Thanassi](#) - Secretion of virulence factors by bacterial pathogens; pilus biogenesis by uropathogenic *Escherichia coli*

[Adrianus. W.M. van der Velden](#) - Infectious Diseases Immunology; Host Interactions with Bacterial Pathogens; Bacterial Immune Subversion

### **Department of Neurobiology and Behavior**

[Maurice Kernan](#) - Molecular basis of mechanical senses

[Howard Sirotkin](#) - Genetic and molecular analysis of early vertebrate development

[Lonnie Wollmuth](#) - Molecular mechanisms of synaptic transmission

### **Department of Oral Biology and Pathology**

#### **Department of Pathology**

[Jiang Chen](#) - Skin and hair follicle development, maintenance and malignancy

[Jingfang Ju](#) - Post-transcriptional control of non-coding RNAs and RNA binding proteins in cancer

[Richard R. Kew](#) - Leukocyte chemotaxis/inflammation

[Yupo Ma](#) - Stem cell reprogramming and therapy, genome engineering, blood and marrow transplantation

[Kenneth Shroyer](#) - Cancer biomarkers as diagnostic adjuncts in cervical pathology and cytopathology; cervical cancer and HPV

### **Department of Pharmacological Sciences**

[Adan Aguirre](#) - Stem cell biology in the central nervous system and neurobiology in health and disease

Christopher Brownlee -(Aging, Cancer, Cardiovascular, Chemical Biology, Lipid Biology, Mitochondrial Biology, Neuropharmacology, Signaling, Stem Cells)

Molecular mechanisms of spindle orientation, cilogenesis, polarity, cytokinesis and axonogenesis.

[Holly Colognato](#) - Extracellular matrix in the brain; roles during development and during neurodegeneration.

[Michael A. Frohman](#) - Lipid signaling pathways in immune responses, Alzheimer's disease, cardiovascular disease, and cancer.

[Miguel Garcia-Diaz](#) - Genetic Toxicology/Mechanisms of mitochondrial gene expression

Chioma Okeoma (Cancer, Infectious Diseases) Mechanisms of virus-host and tumor-host interactions

Jessica C. Seeliger - We are applying biochemical, microbiological and biophysical methods to fundamental questions in bacterial membrane biogenesis as they relate to *Mycobacterium tuberculosis*, the bacterium that causes tuberculosis, and to bacterial pathogenesis in general.

[Markus Seeliger](#) - Mechanism of Protein kinases and Ubiquitin Ligases in Cancer and Aging

[Ken-Ichi Takemaru](#) - Wnt Signaling in Development and Disease

Dongyan Tan (Cancer, DNA Damage Repair) Structure and function of macromolecules in epigenetic regulation

[Styliani-Anna Tsirka](#) - Neuronal-microglial interactions in the central nervous system

#### **Department of Physiology and Biophysics**

[Mark Bowen](#) - Single molecule spectroscopy; Coordination of post-synaptic glutamate receptor signaling by the MAGUK family of scaffolds

[Todd Miller](#) - Tyrosine phosphorylation and signal transduction

[Thomas White](#) - Molecular biology and physiology of gap junction channels

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

## Biochemistry and Structural Biology

**Chairperson, Department of Biochemistry and Cell Biology**

Wali Karzai, 450 Life Sciences Building (631) 632-8550

**Graduate Program Coordinator**

Sharon Schmidt, 338 Life Sciences Building (631) 632-8613

**Graduate Program Director**

Michael Airola, 470 Life Sciences Building (631)-632-9141

**Degree Awarded**

Ph.D. in Biochemistry and Structural Biology; MS in Biomedical Science

**Web Site**<http://www.stonybrook.edu/biochem/bsb/>**Application**<https://graduateadmissions.stonybrook.edu/apply/>

## Biochemistry and Structural Biology

The Biochemistry and Structural Biology Graduate Program stresses biochemical, structural, and computational approaches to solving complex biological problems. Training is offered in a broad range of research areas leading to the Ph.D. degree. Research in biochemistry and structural biology includes structure-function studies of proteins and nucleic acids, the molecular basis of gene expression, the chemical basis of enzyme action, as well as membrane and carbohydrate biochemistry. The aim of structural biology is to obtain high-resolution structures of biological macromolecules and molecular complexes through experimental techniques such as nuclear magnetic resonance (NMR) spectroscopy, X-ray diffraction, and electron cryo-microscopy in order to provide a view of biology at the molecular and atomic levels. High-resolution structures combined with biochemical studies represent the blueprints for understanding enzyme catalysis, cell signaling and transport, gene expression and regulation, and numerous other cellular processes. Advances in instrumentation and computational analysis have laid the groundwork for structure determination of proteins discovered through genome sequencing efforts and have opened up structural studies on membrane proteins and large complexes of proteins and nucleic acids.

The program includes faculty from the Departments of Biochemistry and Cell Biology, Chemistry, Applied Mathematics and Statistics, Physiology and Biophysics, and the Pharmacological Sciences, as well as from Brookhaven National Laboratory.

For more information visit the BSB Web site at [www.stonybrook.edu/biochem/bsb/](http://www.stonybrook.edu/biochem/bsb/).

## Admission requirements of Biochemistry and Structural Biology Graduate Program

Graduate studies in Biochemistry and Structural Biology require the following in addition to the Graduate School admissions requirements:

A. A Bachelor's degree with the following minimal preparation: mathematics through one year of calculus; chemistry, including organic chemistry; general physics; and one year of biology.

B. Letters from three previous instructors.

C. Acceptance by the Graduate Program in Biochemistry and Structural Biology and by the Graduate School.

In special cases, students not meeting all of the requirements listed in item A above may be admitted, but deficiencies must be remedied.

## Facilities of Biochemistry and Structural Biology Department

State-of-the-art facilities are available for biochemistry and structural biology. The Center for Structural Biology houses several high-field NMR instruments, and facilities for X-ray crystallography and electron cryo-microscopy. With close ties to the Brookhaven National Laboratory, Stony Brook takes advantage of the high-energy beam lines for diffraction studies. Throughout the program there is state-of-the-art equipment for protein purification and analysis, including Raman, infrared, fluorescence, and CD spectrophotometers. The biological sciences complex also has tissue culture facilities, a transgenic mouse facility, and a centralized *Drosophila* facility. These facilities are supported by a wide range of instrumentation for cell and molecular biology including transmission and scanning electron microscopes, confocal microscopes, and phosphoimagers.

## Requirements for the Ph.D. Degree in Biochemistry and Structural Biology

**A. Course Requirements**

Core courses:

1. Graduate Biochemistry I (MCB 520)
2. Biomembranes (MCB 517)
3. Computational Methods in Biochemistry and Structural Biology (BSB 515)

4. Structural Biology and Spectroscopy (BSB 512)
5. Cell Biology (MCB 656) or Molecular Genetics (MCB 503)
6. Experimental Projects in Biochemistry and Structural Biology (BSB 509/BSB 510), a two-semester course in which the students spend 2-3 months in each of three different faculty laboratories actively participating in the research work of the laboratory.
7. Enrollment every semester in Colloquium in Biochemistry and Structural Biology (BSB 601/BSB 602), a series of invited lectures by visiting scientists from other institutions.
8. Two electives from an approved list of biochemistry, chemistry, molecular, and cell biology courses.
9. Enrollment for one semester of Journal Club (BSB 532) in the first and second years.
10. Enrollment for one semester of Student Seminar (BSB 603/BSB604) in the third, fourth and fifth years.
11. Enrollment in the second year in Ethics (GRD500)

### **B. Qualifying and Thesis Proposal Examination**

During their fourth semester, all students take a qualifying examination that is based primarily on their thesis proposal research.

Each student is required to prepare and defend a research proposal based on their own research. The student prepares a detailed write up of the background and logic of the proposal, and how the research will be carried out, which then forms the basis for an oral proposal examination. Questions during the exam can cover material from the core courses and test the student's ability to integrate basic concepts and information. The qualifying examination and the thesis proposal examination together constitute the preliminary examination specified in the regulations of the Graduate School.

### **C. Advancement to Candidacy**

When the above requirements have been satisfactorily completed, a recommendation for advancement to candidacy for the Ph.D. will be forwarded to the Graduate School.

### **D. Dissertation**

During the second year, the student initiates a dissertation research project in the laboratory of a particular member of the program faculty. After the student has passed the proposal examination, a research committee is appointed to guide the dissertation research, and when the research nears completion, a dissertation examining committee is approved by the Dean of the Graduate School.

### **E. Dissertation Defense**

The dissertation defense, which completes the requirements for the Ph.D., consists of a public seminar presentation of the dissertation work followed by an oral examination before the dissertation examining committee.

### **F. Teaching Experience**

All students in molecular biology and biochemistry, whether or not they are supported by teaching assistantships, are required to gain experience in teaching by assisting in laboratory sections, leading discussion sections, or helping to formulate and grade examination papers. The teaching experience may be in either undergraduate or graduate courses, and generally extends over a period of two semesters.

### **G. Residence Requirement**

The University requires at least two consecutive semesters of full-time graduate study. The demands of the course of study necessitate a longer period of residence.

Requirements for the MS in Biomedical Science

Completion of this track will require 30 credits from the approved PhD curriculum in Biochemistry and Structural Biology and a thesis.

Faculty of Biochemistry and Structural Biology Graduate Program

Distinguished Professors

Dill, Ken, Ph.D., 1978, UCSD, Computer modeling of protein molecules and theory and principles of the machine mechanisms and evolution of cells

London, Erwin<sup>1</sup>, Ph.D., 1979, Cornell University: Membrane protein structure/translocation/folding. Structure and function of sphingolipid/cholesterol rafts in membranes.

Sampson, Nicole<sup>4</sup>, Ph.D., 1990, University of California, Berkeley: Structure and function of enzymes in mycobacterial sterol metabolic pathways and their role in pathogenesis; Chemical biology of mammalian fertilization; new polymer synthesis

Professors

Bahou, Wadie, F., MD, Genetic disorders of bleeding and thrombosis

Bahar, Ivet<sup>1</sup>, Ph.D., Structural and computational biology, protein dynamics

Boon, Elizabeth M.<sup>4</sup>, Ph.D., 2003, California Institute of Technology: Nitric oxide signaling in bacteria

Davuluri, Ramana V.<sup>9</sup>, Ph.D., Bioinformatics; Cancer Genomics; Isoform-level Gene Regulation; Epigenetics; Alternative Promoters and Alternative Splicing

Garcia-Diaz, Miguel<sup>2</sup>, Ph.D., 2003, UAM University (Madrid, Spain): Structural enzymology of eukaryotic DNA/RNA transactions

Gergen, J. Peter<sup>1</sup>, Ph.D., 1982, Brandeis University: Transcriptional regulation in development; structure and function of Runt domain proteins

Green, David, F.<sup>6</sup>, Ph.D. 2002, MIT: Protein design; computational glycobiology; specificity of protein interaction networks

Holdener, Bernadette<sup>1</sup>, Ph.D., 1990, University of Illinois: The role of protein folding in WNT signal transduction and development

Hollingsworth, Nancy<sup>1</sup>, Ph.D., Meiotic synapsis, recombination, and segregation in yeast

Hannun, Yusuf,<sup>1,7</sup> MD, Bioactive lipids in cancer pathogenesis and therapeutics

Karzai, Wali<sup>1</sup>, Ph.D., Johns Hopkins University, 1995. Structure-Function studies of RNA-protein interactions

Miller, W. Todd<sup>3</sup>, Ph.D., 1989, Rockefeller University: Tyrosine phosphorylation and signal transduction

Neiman, Aaron<sup>1</sup>, Ph.D., 1994, University of California, San Francisco: Vesicle trafficking and intracellular signaling in yeast

Raleigh, Daniel P.<sup>4</sup>, Ph.D., 1988, Massachusetts Institute of Technology: Experimental studies of protein folding and amyloid formation.

Rizzo, Robert<sup>6</sup>, Ph.D., 2001, Yale University: Computational biology; drug design

Seeliger, Markus<sup>2</sup> Ph.D., Cambridge University, 2003, Mechanism of protein kinases and ubiquitin ligases in cancer and aging

Simmerling, Carlos L.<sup>4</sup>, Ph.D., 1991, University of Illinois: Development of tools for efficient simulation of chemical systems and using them to study the structure and dynamics of molecules involved in biological processes

Smith, Steven O.<sup>1</sup>, Ph.D., 1985, University of California, Berkeley: Structure and function of membrane proteins.

Thomsen, Gerald H.<sup>1</sup>, Ph.D., 1988, Rockefeller University: Regulation of early vertebrate development by growth factor signals, ubiquitin modification, and T box family transcription factors

Tonge, Peter J.<sup>4</sup>, Ph.D., 1986, University of Birmingham, England: Tuberculosis pathogenesis and drug discovery; enzyme mechanisms and rational inhibitor design; fluorescent proteins

Wang Jin<sup>4</sup>, Ph.D., 1991 University of Illinois: Fundamental mechanism of biomolecular folding and recognition

Wollmuth, Lonnie, Ph.D. Structure-function, physiology, and pathophysiology of ligand-gated ion channels

Associate Professors

Airola, Michael<sup>1</sup>, Ph.D., 2010, Cornell University: Structure, function, and inhibition of lipid modifying enzymes

Bowen, Mark E.<sup>3</sup>, Ph.D., 1998, University of Illinois, Chicago: Single molecule spectroscopy; signaling by the MAGUK family of scaffolds

Carrico, Isaac<sup>4</sup>, Ph.D. 2003, California Institute of Technology: Site-specific protein labeling; glycoproteins

Glynn, Steven<sup>1</sup>, Ph.D. 2005, University of Sheffield, UK., Mechanisms of mitochondrial proteostasis

Kim, Hyungjin<sup>2</sup>, Ph.D., 2009, Washington University in St. Louis: DNA repair systems and cancer

Luk, Edward<sup>1</sup>, Ph.D., Chromosome biology and genome regulation

Martin, Benjamin L.<sup>1</sup>, Ph.D., 2005, University of California, Berkeley: Stem cell maintenance and differentiation, developmental mechanisms of cancer pathogenesis

Pisconti, Dada. PhD 2003, University of Bari (Italy). Muscle stem cells and regeneration, muscular dystrophy.

Seeliger, Jessica<sup>2</sup>, Ph.D., Stanford University, Mechanisms of bacterial cell envelope assembly in infectious disease; development and application of novel biochemical methods to mycobacteria



## Assistant Professors

Chowdhury, Saikat<sup>1</sup>, Ph.D. Cytoskeletal dynamics and regulation, cryo-electron microscopy and cell biology

Hu, Chi-Kuo<sup>1</sup>, Ph.D., 2011, Harvard University: Biology of dormancy during development and aging, with the African killifish as the main research organism.

Kaczocha, Martin<sup>8</sup>, Ph.D., Stony Brook University: Role of fatty acid binding proteins and endocannabinoids in pain, inflammation, and related pathophysiology.

Serebryany, Eugene<sup>3</sup>, Ph.D., Protein folding, misfolding, aggregation, and conformation-phenotype relationships; disulfide bonds and protein chemistry; single-molecule protein sequencing; protein and peptide libraries

Sharma, Stuti<sup>1</sup>, Ph.D., 2018, State University of New York Upstate Medical University: Mechanisms of membrane transporters using cryo-electron microscopy and biochemical tools

Tan, Dongyan<sup>2</sup>, Ph.D. Structure and function of macromolecules involved in epigenetic regulation of gene expression

## Scientists

Liu, Chang-Jun<sup>5</sup>, Ph. D. 1999, Shanghai Institute of Plant Physiology, the Chinese Academy of Sciences.

Miller, Lisa M.<sup>5</sup>, Ph.D., 1995, Albert Einstein College of Medicine: synchrotron imaging of cell and tissue composition; role of metal ions and protein misfolding in disease

Qun Liu<sup>5</sup>, Ph.D., 2006, Cornell University: Structural biology of membrane proteins, Ca<sup>2+</sup> signaling and X-ray crystallography.

Schwender, Jörg<sup>5</sup>, Ph. D., 1999, University of Karlsruhe, Germany: Experimental and theoretical analysis of plant metabolic networks.

Shanklin, John<sup>5</sup>, Ph.D., 1988, University of Wisconsin-Madison: Structure-function relationships of lipid modification enzymes.

Number of teaching, graduate, and research assistantships, Fall 2018: 27

- 1) Department of Biochemistry and Cell Biology
- 2) Department of Pharmacological Sciences
- 3) Department of Physiology and Biophysics
- 4) Department of Chemistry
- 5) Brookhaven National Laboratory
- 6) Department of Applied Mathematics and Statistics
- 7) Department of Medicine
- 8) Department of Radiology
- 9) Department of Biomedical Informatics

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

Biomedical Engineering Department

**Chair**

Yi-Xian Qin, Dept. of Biomedical Engineering, Bioengineering Bldg., Room 215, (631) 632-1481

**Graduate Program Director**

Jun Wang, jun.wang.5@stonybrook.edu

**Graduate Program Administrator**

Vacant

**Degrees Awarded**

M.S. in Biomedical Engineering; Ph.D. in Biomedical Engineering; Advanced Certificate in Life Sciences and Innovation Entrepreneurship

**Web Site**

<https://www.stonybrook.edu/bme/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Biomedical Engineering**

Biomedical engineering is at the forefront of medicine's technologic revolution; its many successes have raised expectations for the prevention, diagnosis, and treatment of disease. Faculty at Stony Brook University have been active contributors to the cutting edge of this technology, and our University is building on internationally acclaimed strengths in Bioelectromagnetics, Biomechanics, Biomaterials, Biotechnology, Tissue Engineering, Instrumentation, and Medical Imaging. These disciplines thrive through active interdisciplinary collaborations among the faculty in the College of Engineering and Applied Sciences, the School of Medicine, and the College of Arts and Sciences, all of which are in close proximity. This ongoing biomedical research, combined with unique facilities at the University, Brookhaven National Laboratory, and Cold Spring Harbor Laboratory have helped distinguish Stony Brook as a superb resource for education in both the engineering and health sciences. With these intellectual and physical resources, the program in Biomedical Engineering is positioned to provide a rigorous, cross-disciplinary graduate training and research environment for our students.

This is a very exciting time for Biomedical Engineering. New areas are opening each day, ranging from the engineering of tissues to making outer space habitable for mankind. It is an excellent time to begin your studies in Biomedical Engineering and we believe you will find Stony Brook a superb place to train. Our faculty is diverse, our commitment is high, and our facilities are unique. If there are any questions which we might address, please do not hesitate to contact us directly.

The Graduate Program in Biomedical Engineering at Stony Brook University trains individuals with baccalaureate degrees in engineering, applied mathematics, and the sciences to provide them with the synthesis, design, and analysis skills necessary to contribute effectively to the advancement of technology in health and medical care. The M.S. and Ph.D. degree programs are specifically designed to provide graduate students and engineering professionals with the knowledge and skills necessary to transfer recent developments in the basic sciences into commercially viable products and processes. Training of the student is accomplished by exposing the individual to the biology, engineering, and business concepts critical to succeeding in the biomedical research and development environment.

Training in Biomedical Engineering is directed by faculty from the College of Engineering and Applied Sciences, the School of Medicine, the College of Arts and Sciences, the Health Sciences Center, as well as from the Brookhaven National Laboratory and Cold Spring Harbor Laboratory. These diverse faculty provide a spectrum of research opportunities. Breadth and depth of exposure is a hallmark of the program, and one which we believe emphasizes the importance of multidisciplinary, collaborative approaches to real-world engineering problems in biology and medicine. Graduate training includes course instruction, participation in seminar courses, and extensive involvement in selected projects emphasizing synthesis and design skills. The graduate program is based in the Bioengineering Building, on West Campus, and in close proximity to the University Hospital, the Basic Sciences, Engineering, and Business Schools.

**Advanced Graduate Certificate in Life Sciences Innovation and Entrepreneurship**

The Advanced Graduate Certificate (AGC) in Life Sciences Innovation and Entrepreneurship (LiSIE), is a collaboration between Stony Brook University's Department of Biomedical Engineering, College of Business, and Center for Biotechnology. The AGC is granted after completing a six course program that prepares students to translate science into therapeutics, diagnostics and/or medical devices. Students learn fundamentals of business, finance, regulatory affairs, market need, and due-diligence necessary for leveraging technology into bioscience oriented start-up companies, business ventures, or products in established companies. After completion of the LiSIE certificate, students can apply business strategies to innovations emerging from their own work, laboratories, incubators, and/or university community and prepare themselves for a broader range of career opportunities (e.g., intellectual property law, investment and financial analysis, business development, and regulatory as well as entrepreneurial activities).

**Admission Requirements of Biomedical Engineering Department**

Students may matriculate directly into either the M.S. or Ph.D. programs. For admission to the Program in Biomedical Engineering, the following are normally required:

- A. A four-year undergraduate degree in engineering or related field such as the physical sciences, or mathematics.
- B. An official transcript of undergraduate record and of any work completed at the graduate level.

- C. Letters of recommendation from three previous or current instructors/employers.
- D. Submission of a personal statement outlining your background, interests, and career goals in the field of biomedical engineering.
- E. Acceptance by both the Program and the Graduate School.

Stipends and tuition scholarships are available for selected students. Distribution of these awards will be based on undergraduate performance, professional experience, and research/career objectives as outlined in a personal statement.

### Certificate Requirements

To receive the Stony Brook certificate in Life Sciences Innovations and Entrepreneurship, a student must complete six courses as specified below, with at least a B grade in each course.

#### Biological Sciences Entrepreneurship (2 courses)

- BME 511: Fundamentals of the Bioscience Industry
- BME 512: Fundamentals of Bio-Entrepreneurship

#### Biological Sciences Business and Science Communication (2 courses)

- BUS 510: Bio-Startups and Innovation
- JRN 501: Foundations of Science Communication 1

#### Technical Electives (choice of 2 courses for 6 credits under advisement from the certificate director)

- BME 501: Engineering Principles in Cell Biology
- BME 502: Advanced Numerical Analysis Applied to Biological Systems
- CHE 541: Biomolecular Structure and Analysis
- CHE 542: Chemical Biology
- BGE 510: Graduate Genetics
- MCB/HBM 503: Molecular Genetics
- HBH 631: Graduate Pharmacology I
- HBH 632: Graduate Pharmacology II
- HBM 640: Molecular Mechanisms of Microbial Pathogenesis
- HBP 533: Immunology
- BNB 561: Introduction to Neuroscience 1
- BNB 562: Introduction to Neuroscience 2

### Requirements for the M.S. Degree in Biomedical Engineering

A minimum of 33 graduate credits is required to earn the Master of Science in BME (project option) or 39 credits for the Master of Science in BME (thesis option). The program study can be chosen from any of the following approved concentrations: Biomedical Principles, Biomedical Design or Biomedical Entrepreneurship; each with their own specific requirements as outlined below. The program of study can be tailored in consultation with your faculty advisor/mentor to accommodate almost any BME area of interest through the use of a technical elective system. The following courses must be taken by all BME graduate students: BME 501 and BME 502. Additionally, all students (except those pursuing the Medical Physics Accredited Certificate Program) must also fulfill a business/management course requirement, which can be met by taking BME 509 or the following MBA class (MBA 502, MBA 503, MBA 504, MBA 505, MBA 506, MBA 507, MBA 511, or MBA 589) from the School of Business. All students are required to register for BME 590 (at least zero credits per semester), during every semester of full-time enrollment. The following courses are only required for students in the Biomedical Principles concentration: BME 505, BME 520, BME 521 and BME 698. The following courses are only required for students in the Biomedical Design concentration: BME 505, BME 581 and BME 520 or BME 521. The following courses are only required for students in the Biomedical Entrepreneurship concentration: EMP 521 and JRN 565 (or 3 of the following JRN 501, JRN 502, JRN 503, JRN 504, JRN 508, JRN 509, JRN 511 or JRN 512). Each concentration requires that the student completes 6 technical electives that can be tailored to the specific plan of study. Students in the Biomedical Principles and Biomedical Design concentration are required to take a minimum of six technical elective courses (4 of which have to be BME). Students in the Biomedical Entrepreneurship concentration are required to take a minimum of six technical elective courses (3 of which have to be BME and 3 of which are focused on entrepreneurship). Please consult with the graduate program director for an approved list of technical electives for all concentrations.

A grade point average of B or better must be attained for the core BME courses taken and an overall grade point average of 3.0 out of 4.0 must be maintained overall.

**Project or Thesis Options.** The student has the option of earning the Master of Science Degree in BME on either a project or thesis option. If the project option is elected, the student undertakes elective graduate coursework to complete the 33 credits. The culmination of the degree is earned through an appropriate project that is submitted for approval to a faculty committee and/or the graduate program director. If the thesis option is elected, the student must additionally complete six credits of BME 599 and submit and defend a written thesis.

For the project option, most students can complete this program within three academic semesters, and most students can complete the thesis option in four academic semesters. The project option is recommended for students who wish to pursue a career in industry that does not involve Research & Development (R&D). Students pursuing the project option cannot use BME 599 to fulfill any requirements (i.e., it is not a technical elective nor core course, but they can enroll in BME 595 to document completion of the project). The thesis option is recommended for students

who will be continuing on for their doctoral degree and for students who wish to pursue an industrial career with an R&D focus. Students in the thesis option cannot enroll in BME 595 and use it to satisfy degree requirements.

#### **Requirements for the Ph.D. Degree in Biomedical Engineering**

1. **Completion of the M.S. degree in Biomedical Engineering or equivalent graduate program**
2. **Satisfactory completion of the BME qualifying exam**
3. **Plan of Study**

Student matriculating in to the doctoral (Ph.D.) degree program must complete all the requirements for the M.S. degree in BME at Stony Brook or enter the program with a relevant M.S. degree. This latter option is termed admission with "Advanced Standing." After completion of the M.S. degree or admission with Advanced Standing, there are no course requirements per se, though certain courses may be required to fill any gaps in the student's knowledge. Following completion of a qualifying exam, an independent basic research program will be undertaken. Subsequently, the student will present and defend their dissertation proposal. Successful completion of this stage will enable the student to "Advanced to Candidacy." One semester of teaching practicum must be satisfactorily performed. Completion of the research program will culminate in the submission and oral defense of a doctoral dissertation. The University requires at least two consecutive semesters of full-time graduate study.

#### **4. Teaching Requirements**

The BME teaching requirement for the Ph.D. degree can be fulfilled in any of the following three manners:

1. Deliver 4 lectures in a BME undergraduate or graduate course, and present a seminar that covers the state-of-the-art in your field of research.
2. Teach a BME course, either as the instructor of record (if you have G5 student status) or as the principal instructor (for G4 student status).
3. Petition for something else that is equivalent to the above.

#### **5. Thesis Proposal Examination**

After successful completion of the qualifying examination, the student selects a thesis advisor and writes a proposal for thesis research. After approval by the thesis advisor, the proposal is orally defended before a thesis committee.

#### **6. Advancement to Candidacy**

After successful completion of all required and elective courses, the qualifying examination, and the thesis proposal examination, the student will be recommended to the Graduate School for advancement to candidacy.

#### **7. Dissertation**

The research for the Ph.D. dissertation is conducted under the supervision of the thesis committee. The dissertation must represent a significant contribution to the scientific and/or engineering literature. Upon approval of the completed dissertation by the thesis committee, a formal public oral defense of the dissertation is scheduled at which the student presents their findings and is questioned by members of the examining committee and by other members of the audience. On acceptance of the dissertation by the thesis committee, all requirements for the degree will have been satisfied.

#### **8. Time Limit/Residency Requirements**

All requirements for the Ph.D. degree must be completed within seven years after completing 24 credits of graduate study. The University requires at least two consecutive semesters of full-time graduate study.

Faculty of Biomedical Engineering Department

#### **Distinguished Professors**

Dill, Ken A., Ph.D., 1978, UC San Diego: Quantitative Biology.

Hsiao, Benjamin, Ph.D., 1987, Institute of Materials Science at University of Connecticut: Structural and morphological development of complex polymer systems during preparation and processing in real time.

Rafailovich, Miriam, Ph.D., 1980, Stony Brook University: Polymeric liquids; phase transitions; thin film wetting phenomena; biopolymers.

Rubin, Clinton, T., Chair, Ph.D., 1983, Bristol University: Tissue adaptation; biophysical treatment of musculoskeletal disorders.

Takeuchi, Esther, Ph.D., 1981, Ohio State University: Cutting-edge research in electrochemistry, batteries and their intersection with human health.

#### **Professors**

Abi-Dargham, Anissa, M.D., 1984, St. Joseph's University: Molecular imaging, pharmacology, schizophrenia and addiction.

Balazsi, Gabor, Ph.D., 2001, University of Missouri-Saint Louis: Synthetic gene circuits.

- Bluestein, Daniel (Danny), Ph.D., 1992, Tel Aviv University, Israel: Dynamics of fluid flow and cellular transport through vessels.
- Clark, Richard, M.D., 1971, University of Rochester: Tissue engineering in wound repair.
- Dilmanian, F. Avraham, Ph.D., 1980, Massachusetts Institute of Technology: Experimental methods of radiation therapy utilizing the tissue-sparing effects.
- Du, Congwu, Ph.D., 1996, University of Luebeck, Germany: Development of advanced biomedical optical imaging techniques for translational research.
- Einav, Shmuel, Ph.D., 1972, Stony Brook University: Basic physiological flow phenomena, both experimentally and numerically.
- Frame, Molly, Ph.D., 1990, University of Missouri: Microvascular flow control at the fluid dynamic and molecular levels.
- Ghebrehiwet, Berhane, D.Sc., 1974, Université de Paris: Structure and function of C1q receptors (C1qRs) in health and disease.
- Hannon, Gregory, Ph.D., 1992, Case Western Reserve University: Explores the mechanisms and regulation of RNA interference as well as its applications to cancer research.
- Judex, Stefan, Ph.D., 1999, University of Calgary, Canada: Molecular bioengineering; mechanical, molecular, and genetic influences on the adaptation of bone and connective tissues to physiologic stimuli.
- Kaufman, Arie E., Ph.D., 1977, Ben-Gurion University: Computer graphics; visualization; interactive systems; 3-D virtual colonoscopy; computer architecture.
- Liang, Jerome, Ph.D., 1987, City University of New York: Development of medical imaging hardware for single photon detection.
- Lin, Richard, M.D., 1988, University of California, San Francisco: Biology of Phosphoinositide 3-Kinases.
- Lieber, Baruch, Ph.D., 1985, Georgia Institute of Technology: Cerebrovascular Research.
- McCombie, Richard, Ph.D., 1982, University of Michigan: Structure and function in complex genomes.
- Miller, Lisa, Ph.D., 1995, Albert Einstein College of Medicine: Research focuses on the study of the chemical makeup of tissue in disease using high-resolution infrared and x-ray imaging.
- Mitra, Partha, Ph.D., 1993, Harvard University: Brain function.
- Mueller, Klaus, Ph.D., 1998, Ohio State University: Computer graphics, data visualization, medical imaging.
- Mujica-Parodi, Lilianne, Ph.D., 1998, Columbia University: Relationships between four simultaneously or near-simultaneously interacting systems: neural, cardiac, endocrine, and cognitive, to better understand the neurobiology of arousal, fear, and stress.
- Pan, Yingtian, Ph.D., 1992, National Laser Technology Laboratories, China: Optical/NIR spectroscopy and imaging methods and applying these techniques to provide clinical diagnostic information.
- Parsey, Ramin, M.D., Ph.D., 1994, University of Maryland Baltimore: State-of-the-art imaging modalities to investigate psychiatric and neurological disorders.
- Qin, Yi-Xian, Ph.D., 1997, Stony Brook University: Physical mechanisms involved in the control of tissue growth, healing, and homeostasis, especially bone adaptation influenced by mechanical environment.
- Rizzo, Robert, Ph.D., 2001, Yale University: Application of computational techniques to drug discovery.
- Saltz, Joel, M.D., Ph.D., 1985, Duke University: Development of digital pathology tools, techniques and tools to enable deep integrative translational research and biomedical informatics methods.
- Shroyer, Kenneth, M.D., Ph.D., 1987, 1983, University of Colorado: Basic and translational research related to prognostic and predictive biomarkers and molecular mechanisms that drive tumor aggression.
- Simmerling, Carlos, Ph.D., 1994, University of Illinois, Chicago: Simulate known properties of molecules, assist in the refinement and interpretation of experimental data.
- Simon, Sanford, Ph.D., 1967, Rockefeller University: Acute and chronic inflammatory responses.
- Skiena, Steven, Ph.D., 1988, University of Illinois: Computational geometry; biologic algorithms.
- Tracey, Kevin, M.D., 1983, Boston University: Research focuses on the roles of individual mediators of systemic inflammation, and their regulation by interactions between the brain and the innate immune system.
- Vaska, Paul, Ph.D., 1997, State University of New York at Stony Brook: Instrumentation for positron emission tomography (PET).

Zhao, Wei, Ph.D., 1997, University of Toronto, Canada: Development of novel detector concept and new clinical applications for early detection of cancer.

Zhu, Donghui (Don), Ph.D., 2006, University of Missouri: Biodegradable metallic materials for tissue engineering and regeneration.

#### **Associate Professors**

Brouzes, Eric, Ph.D., 2004, University Paris 7 - Institute Curie, Paris: Microfluidic technologies for single-cell genomics.

Button, Terry, Ph.D., 1989, University at Buffalo: High-resolution computer-aided tomography.

DeLorenzo, Christine, Ph.D., 2007, Yale University: Brain Imaging and mental disease.

Peña, Louis A, Ph.D., UCLA, 1991, M.B.A, Stony Brook University, 2013: Biotechnology innovation and entrepreneurship, workforce development, tissue engineering, radiation biology, signal transduction of stress.

Powers, Scott, Ph.D., 1983, Columbia University: Cancer gene discovery; cancer diagnostics and therapeutics; cancer biology.

Rubenstein, David, Ph.D., 2007, Stony Brook University: Fabrication of complex three dimensional biomimetic scaffolds and to test the compatibility of the fabricated scaffolds with the vascular system.

Schlyer, David, Ph.D., 1976, San Diego State University: Development of multi-modality imaging.

Sitharaman, Balaji, Ph.D., 2005, Rice University: Research related to the diagnosis/ treatment of disease and tissue regeneration.

Sordella, Raffaella, Ph.D., 1998, University of Turin: Why cancer cells are responsive to the inhibition of one particular gene or gene product.

Strey, Helmut, Ph.D., 1993, Technical University, Munich: Nanostructured Materials for Applications in Bioseparation, Drug Delivery and Biosensors.

Wang, Jun, Ph.D., 2010, Purdue University: Sensing platforms for the multiplexed detection of protein biomarkers and DNA.

Yin, Wei, Ph.D., 2004, Stony Brook University: Role of disturbed shear stress on platelets, vascular endothelial cells and their interactions.

#### **Assistant Professors**

Arbab, Hassan, Ph.D., 2012, University of Washington: Terahertz spectroscopy, Ultrafast photonics and femtosecond optics, Wavelet methods, Biomedical optics.

Bialkowska, Agnieszka, Ph.D. 2003, Institute of Biochemistry and Biophysics: Inflammation within the gastrointestinal tract.

Chan, Mei Lin, Ph.D., 2009, Columbia University: Bone adaptation, mechanotransduction and osteoimmunology in normal and pathological conditions.

Goldan, Amirhossein, Ph.D., 2012, University of Waterloo: Biomedical imaging and instrumentation: development of ultra-high resolution brain PET scanner.

Huang, Chuan, Ph.D., 2012, University of Arizona: Medical Imaging Analysis.

Li, Yu Yulee, Ph.D., 2002, University of Illinois at Urbana-Champaign: Cardiac magnetic resonance imaging research program with a focus on high-speed imaging.

Sheltzer, Jason, Ph.D., 2015, Massachusetts Institute of Technology: Understand the genetic differences between normal, malignant, and metastatic cells.

Van Snellenberg, Jared, Ph.D., 2012, Columbia University: Development of novel signal processing and statistical methods for pre- and post-processing of brain functional MRI data in populations with psychotic disorders.

#### **Research Assistant Professor**

Jawaad Sheriff, Ph.D., 2010, Stony Brook University: Role of the patient age in clot formation risk under flow conditions.

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

Department of Biomedical Informatics

**Chairperson**

Joel H. Saltz, Health Sciences Center Level 3, Room 3-043, (631) 638-2590

**Graduate Program Director**

Ramana V Davuluri, Ramana.Davuluri@stonybrookmedicine.edu, (631) 638-2590

**Department Office**

Department of Biomedical Informatics  
College of Engineering and Applied Sciences and School of Medicine  
Health Sciences Center Level 3, Room 3-043  
Stony Brook University  
Stony Brook, NY 11794-8322  
Main number: 631-638- 2590  
BMIGradEd@stonybrookmedicine.edu

**Degrees Awarded**

Ph.D. in Biomedical Informatics; M.S. in Biomedical Informatics; Advanced Graduate Certificate in Biomedical Informatics

**Web Site**

<https://bmi.stonybrookmedicine.edu/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

The Department of Biomedical Informatics currently offers graduate work leading to the *Doctor of Philosophy*, *Master of Science* degree and *Advanced Graduate Certificate* in three areas of specialization, or Tracks:

- 1) *Clinical Informatics* - enhancing the quality and efficiency of clinical workflows;
- 2) *Imaging Informatics* - integrative analysis and management of biomedical images; and
- 3) *Translational Bioinformatics* - application of informatics methods to advance patient related biomedical research, from Clinical Genomics to Population Health.

The new Stony Brook University Biomedical Informatics Program is a collaboration of the School of Medicine and in the College of Engineering and Applied Sciences. This interdisciplinary field studies and pursues the effective use of biomedical data, information, and knowledge for scientific inquiry, problem solving and decision making, driven by efforts to improve human health.

We embed BMI Education in research and operations at the Stony Brook University Health Sciences Center, where quantitative sciences have emerged at the very core of efforts to understand, prevent and treat disease. Further, our program emphasizes the ability of trainees to produce software artifacts and conduct computational experiments, along the same lines as the College of Engineering and Applied Sciences. The resulting refactoring of Informatics equips BMI trainees to play a new role in a Systems Biomedicine enterprise that spans from patient-centric information systems to the distributed analytics needed to contextualize emerging biomolecular Big Data resources.

Students will be instructed via a combination of classroom teaching, seminars, and/or structured projects. Graduates can expect careers in academia, research, healthcare, industry, or government.

For more information, visit our website: <https://bmi.stonybrookmedicine.edu/>

**Admission requirements for Ph.D. in Biomedical Informatics:**

1. A bachelor's degree in Biomedical Informatics, or a related field such as computer science, another engineering discipline, physical science, chemistry, mathematics

OR a bachelor's degree in biology, biochemistry, pharmacology, social science

OR post baccalaureate training equivalent to the above

OR a bachelor's degree in humanities with coursework and projects in digital arts and media

OR an MD Degree.

2. A grade point average of at least B or equivalent in all engineering, mathematics, and science courses.

3. Completion and submission of the Graduate Record Examination (GRE) General Test.

4. A Statement of Purpose describing the applicant's relevant past experience and immediate and long-term goals. Applicants should describe how the type of research that they expect to conduct while in the program relates to one of the department's research areas.
5. Three letters of recommendation.
6. Acceptance by both the Biomedical Informatics Graduate Program and the Graduate School.
7. In addition, students must meet all admissions requirements, fees, and deadlines of the Stony Brook University Graduate School.

Requests for exceptions to the stated admissions requirements must be submitted in writing and approved by the BMI Graduate Program Director and The Graduate School.

Admission requirements for M.S. programs in Biomedical Informatics:

1. A bachelor's degree in Biomedical Informatics, or a related field such as computer science, another engineering discipline, physical science, chemistry, mathematics

OR a bachelor's degree in biology, biochemistry, pharmacology, social science

OR post baccalaureate training equivalent to the above

OR a bachelor's degree in humanities with coursework and projects in digital arts and media

OR an MD Degree.

2. A grade point average of at least B or equivalent in all engineering, mathematics, and science courses.
3. Completion and submission of the Graduate Record Examination (GRE) General Test.
4. Two letters of recommendation.
5. Acceptance by both the Biomedical Informatics Graduate Program and the Graduate School.
6. In addition, students must meet all admissions requirements, fees, and deadlines of the Stony Brook University Graduate School.

Requests for exceptions to the stated admissions requirements must be submitted in writing and approved by the BMI Graduate Program Director and The Graduate School.

Admission requirements for Advanced Graduate Certificate programs in Biomedical Informatics:

1. A bachelor's degree in Biomedical Informatics, or a related field such as computer science, another engineering discipline, physical science, chemistry, mathematics

OR a bachelor's degree in biology, biochemistry, pharmacology, social science

OR post baccalaureate training equivalent to the above

OR a bachelor's degree in humanities with coursework and projects in digital arts and media

OR an MD Degree.

2. Acceptance by both the Biomedical Informatics Graduate Program and the Graduate School.
3. In addition, students must meet all admissions requirements, fees, and deadlines of the Stony Brook University Graduate School.

Requests for exceptions to the stated admissions requirements must be submitted in writing and approved by the BMI Graduate Program Director and The Graduate School.

Facilities of the Biomedical Informatics Department and Graduate Program

The Biomedical Informatics Department has a strong foothold in computing and in biomedical sciences. Our Department was jointly established by the College of Engineering and Applied Sciences and the Stony Brook University School of Medicine.

BMI's three locations on campus offer students and faculty front seats in key centers of collaborative activity. Each BMI Department location features extensive learning and research suites with faculty and administrative offices, Postdoctoral trainee stations, classroom and meeting space, and student labs equipped with desktop computers, each with 1TB storage space, 16GB main memory, and a 4-core CPU. The Department's HSC Suites have opened in the Health Sciences Center HSC Level 3, and include the Chair's suite and administrative center. A second BMI location with office, meeting and student lab is under construction in the Old Computer Science Building on West Campus. The third BMI Department



suite will be housed with the Cancer Center in the new Medical and Translational Research (MART) building being constructed adjacent to the new Stony Brook Children's Hospital. Virtual meeting solutions continue to keep all Department members together, and enable distance learning.

The Biomedical Informatics Department (BMI) has a cluster computing system dedicated to research, development, and education in high performance computing, systems software, and applications. The cluster system consists of 10 compute nodes and 10 storage nodes. Each compute node has 2 10-core Intel Xeon CPUs, 2 NVIDIA K40 Tesla GPUs, one Intel Xeon Phi co-processor, 256GB main memory, a 512GB SSD, and 2 1TB hard-disks. Each of the storage nodes has 2 6-core CPUs, 64GB main memory and 95TB disk storage in RAID 5 configuration. All the nodes in the cluster are connected to each other via high performance Infiniband Switches. The cluster system is housed in the Department of Computer Science. BMI also owns a small Virtual Machine server farm consisting of a Dell PowerEdge server with 4 8-core CPUs, 256 GB main memory, and 28TB disk storage. This server is used to host VMs for development and testing purposes.

In addition to BMI owned servers and computers, researchers have access to XSEDE resources (<https://www.xsede.org>) through a scientific gateways grant. The XSEDE resources include Stampede which is a distributed-memory Dell Linux Cluster with over 6,400 nodes. Each node has 2 Intel Xeon E5 (Sandy Bridge) processors, 32GB memory, and an Intel Xeon Phi Coprocessor (MIC Architecture) with 8GB memory. The computation nodes are interconnected with Mellanox FDR InfiniBand technology. BMI's Student and meeting space has wifi and wired connections available to the SBU network. In recent years the use of cloud computing has taken center stage in both translational biomedical informatics and bioinformatics and students will also be introduced to those resources.

#### General Requirements for the Biomedical Informatics Graduate Program

Registration: Students must register for at least one graduate credit in the semester in which the diploma is awarded.

Language Requirement: There is no foreign language requirement.

Grade Point Average: To be certified for graduation a cumulative graduate grade point average of 3.0 (out of 4.0) or better is required.

#### General Requirements for the Ph.D. in Biomedical Informatics

The Ph.D. program has been designed to provide students the flexibility to tailor their studies toward their individual research interests while maintaining a common foundational training. Each student's program of study will be defined by the student, the student's advisor and the program director, while satisfying certain mandatory requirements of the program. The program of study has been designed to provide students with the fundamental knowledge of the domain and its tools, to provide depth in the key areas of, and tools used, in BMI, and to give them the flexibility to choose courses that meet their individual needs. A minimum of 24 credits beyond the M.S. degree is required for the Ph.D. degree. Students also select a track to focus on: **Imaging Informatics**, **Clinical Informatics** or **Translational Bioinformatics**.

#### Required Courses:

1. 24 approved graduate course credits beyond the M.S. degree requirement.
  - a. A minimum of 9 graduate credits, excluding BMI 590, BMI 591, BMI 592, BMI 595, BMI 596, BMI 598, BMI 599, BMI 690, BMI 691, BMI 692, BMI 695, BMI 696, BMI 699, BMI 700, BMI 701, and BMI 800, must be taken in the Biomedical Informatics Program (includes all BMI courses and all BMI-Approved Elective courses from other departments).
  - b. Either BMI 502 or BMI 503, but not both, can be applied toward the course requirements.
  - c. No more than a total of 4 credits of BMI 692 may be applied toward the Ph.D. degree credit requirements, although all on-campus Ph.D. students who have advanced to candidacy must register for and attend BMI 692 each semester (exemption from BMI 692 is subject to **prior** approval of the student's advisor and the graduate program director.).
2. All full-time Ph.D. graduate students are required to register for BMI 592 each semester and obtain a satisfactory grade before they advance to candidacy.
3. All full-time Ph.D. graduate students are required to register each semester for BMI 692 each semester and obtain a satisfactory grade after they advance to candidacy.
4. All courses taken outside the department for application to the graduate degree requirements are subject to **prior** approval of the student's advisor and the graduate program director.
5. The graduate program may impose additional course requirements.
6. Students must complete all the required courses from at least one of the Biomedical Informatics program tracks (see

below). Transfer Credits:

All requests for transfer of credits require the **prior** approval of the graduate program director and all requests for transfer of credits beyond 12 graduate credits must also be approved by a majority vote of the primary Biomedical Informatics faculty. For a student who transferred from another comparable national BMI program and has already completed all course requirements and passed the preliminary written exam, the student can petition the Graduate School to be placed into advanced status (passing preliminary examination equivalent) with prior approval by a majority vote of the primary Biomedical Informatics faculty.

#### Preliminary Examination:

Students will be required to pass a written preliminary examination. This examination is designed to broaden the multidisciplinary nature of the candidate student base. Biomedical Informatics attracts people working in many domains, often acquiring skills and interests that are not captured by the more conventional curricular track offered in those domains. Naturally, this is also an opportunity to verify the accuracy of the candidate's claims to quantitative skills as a route to a multidisciplinary curriculum. The examination will be offered at least once every year, usually in April. The preliminary examination will be developed by the student's advisor in consultation with the student's examination committee, and must then be approved by the graduate program director prior to being administered. The examination committee will consist of three Biomedical Informatics faculty members. Students will be encouraged to take the preliminary examination the first time it is offered after they begin academic residency. Each student can take the written preliminary examination two times before being disqualified as candidates to this Ph.D. program.

#### Qualifying Examination:

This examination is designed to test the student's ability to utilize his or her background to carry out research in a chosen field of study, and to make clear written and oral presentations of research. As part of the qualifying examination, the student is required to submit a written dissertation proposal (15 page limit) and present it in a public oral examination conducted by the dissertation examining committee. The written dissertation proposal must be distributed to the committee members at least two weeks before the oral examination. The oral examination probes the doctoral student's ability and examines the progress, direction and methodology of the dissertation research. The student will be examined on the dissertation topic and its objective, the problem formulation, research approach, and knowledge in related areas. A majority of the dissertation examining committee must approve the student's performance.

#### Teaching:

Ph.D. students are required to take 3 credits of BMI 698 Practicum in Teaching II or obtain approval of equivalent teaching experience from the Graduate Program Director as part of the degree requirement. BMI 698 is taken under a faculty advisor who is responsible for providing feedback and making a formal evaluation of the student's work. The form of this practicum may include making class presentations, teaching in recitation classes, or preparation and supervision of laboratory classes. All Teaching Assistants are required to take BMI 697 Practicum in Teaching I prior to taking BMI 698. BMI 697 will provide students a background in learning theory, course design, learning styles, content delivery formats, teaching technology, advising, rubrics and assessment.

#### Advancement to Candidacy:

After passing the preliminary examination, a student will be advanced to candidacy for the Ph.D. degree when he/she has completed all formal coursework, passed the qualifying examination and satisfied all other Ph.D. requirements except the dissertation. These requirements must be completed within one calendar year after passing the written qualifying examination. Advancement to candidacy must be at least one year before the beginning of the semester in which a student plans to defend his/her dissertation.

#### Dissertation:

The student chooses a dissertation topic in consultation with his/her doctoral dissertation advisor as soon as possible. Dissertation research is an apprenticeship for the candidate, who, under the supervision of the dissertation advisor, independently carries out original work of significance. The dissertation examining committee should be established after the student passes the qualifying examination. The committee must include at least three members from the Department of Biomedical Informatics primary or secondary faculty, including the dissertation advisor, and at least one "outside" member from another program or from outside the University. This "outside" member may not be a member of the Biomedical Informatics program graduate faculty. The committee must be approved by the graduate program director upon recommendation by the dissertation advisor. The official recommendation for the appointment of the dissertation examining committee is made to the Dean of the Graduate School.

#### Dissertation Defense:

Once the dissertation is complete, approval of the dissertation requires a formal oral defense. The formal defense is open to the public. A candidate must fill out the Doctoral Degree Defense Form (available on the Graduate School Web page) with dissertation abstract as well as other relevant details, and submit the Form to the graduate program director at least three weeks in advance of the proposed event. The Form is forwarded by the graduate program director to the dean of the Graduate School. Copies of the dissertation are to be distributed to the committee members at least two weeks before the dissertation defense; one copy is to be kept in the program office for examination by the faculty. The final approval of the dissertation must be by a majority vote of the dissertation examining committee.

#### Annual Review of Progress:

The student's advisor must submit a written report to the graduate program director on the student's progress once per year documenting student progress and accomplishments (e.g., published papers or proceedings, presentations at conferences, fellowships, grants, awards or other honors).

#### Time Limit/Residency Requirement:

The time limit for a doctoral degree is seven years for a student who has a previous graduate degree or 24 credits of graduate study in such a degree program. For all other students, the time limit for a doctoral degree is seven years after completion of 24 graduate level credits at Stony Brook University.

#### ***Ph.D. Course Table with Track options:***

"req" = required course for track

"x" = elective course subject applies to track

**TRACK**

Course #	Title	Imaging Informatics (II)	Clinical Informatics (CI)	Translational Bio-informatics (TBI)
BMI 501	Intro. To Biomedical Informatics	req	req	req
BMI 502	Life Sciences for Biomedical Informatics	req or 503	req or 503	req or 503
BMI 503	Computer Science for Biomedical Informatics	req or 502	req or 502	req or 502
BMI 511	Translational Bioinformatics			req
BMI 512	Clinical Informatics		req	
BMI 513	Imaging Informatics	req		
BMI 514	Imaging Informatics Analysis	req		
BMI 517	Current Research in Signaling Pathways, Biochemistry, and Tissue Morphology of Disease	x	x	x
BMI 520	Data Analytics and Software Stacks	req	x	req
BMI 530	Software Development in Biomedical Informatics	req	x	req
BMI 540	Statistical Methods in Biomedical Informatics	req	req	req
BMI 550	Clinical Informatics Practice Patterns		req	
BMI 551	Case Studies in Clinical Informatics		req	
BMI 552	Quality Improvement Methods for Clinical Informatics		x	
BMI 560	Personalized Medicine			x
BMI 590	Independent Study in Biomedical Informatics		in Translational Bioinformatics	
BMI 591	Independent Reading in Biomedical Informatics			
BMI 592	Masters/Pre-Candidate Seminar (FT students must register each semester prior to candidacy)			
BMI 595	Special Topics in Biomedical Informatics			
BMI 596	Special Problems in Biomedical Informatics			
BMI 598	M.S. Capstone Project in Biomedical Informatics			
BMI 599	M.S. Research and Thesis in Biomedical Informatics			
BMI 620	Advanced Topics in Clinical Informatics			
BMI 622	Advanced Topics			

x		x
	x	
x		x
	x	
req		req
	req	
x		x
	x	
x		x
	x	
	x	

BMI 625	Advanced Topics in Imaging Informatics	x		
BMI 690	Independent Study in Biomedical Informatics	x	x	x
BMI 691	Independent Reading in Biomedical Informatics	x	x	x
BMI 692	BMI Candidate Seminar (FT students must register each semester after candidacy)	req	req	req
BMI 695	Special Topics in Biomedical Informatics	x	x	x
BMI 696	Special Problems in Biomedical Informatics	x	x	x
BMI 697	Teaching Practicum I	req	req	req
BMI 698	Teaching Practicum II	req	req	req
BMI 699	Dissertation Research-On Campus (up to 12 credits)	req or 700 or 701	req or 700 or 701	req or 700 or 701
BMI 700	Dissertation Research-Off campus, Domestic	req or 699 or 701	req or 699 or 701	req or 699 or 701
BMI 701	Dissertation Research-Off campus, International	req or 699 or 700	req or 699 or 700	req or 699 or 700
BMI 800	Full-Time Summer Research	x	x	x

## General Requirements for the M.S. in Biomedical Informatics

The M.S. program has been designed to provide students with the core foundations of Biomedical Informatics and the flexibility to define a specialization that best meets their career objectives. Students may select the **M.S. with Thesis** option or the **M.S. with Capstone Project** option. Students also select a track to focus on: **Imaging Informatics, Clinical Informatics or Translational Bioinformatics**.

## Required Courses:

1. All M.S. students are required to take the initial BMI sequence:

a. **BMI 501** Introduction to Biomedical Informatics

b. **BMI 502** Life Sciences for Biomedical Informatics

OR **BMI 503** Computer Science for Biomedical Informatics

c. Based on Student's selected track (BMI 501 must be taken before or at the same time as BMI 511, BMI 512 or BMI 513):

**BMI 511** Translational Bioinformatics

OR **BMI 512** Clinical Informatics

OR **BMI 513** Imaging Informatics

2. All M.S. Students are required to take **BMI 540** Statistical Methods in Biomedical Informatics.

3. All full-time M.S. graduate students are required to register each semester for **BMI 592** Biomedical Informatics Masters/Pre-Candidate Seminar, and obtain a satisfactory grade.

4. Students must complete all the required courses (marked "req" on the M.S. Course Table with Track options, below) from at least one of the Biomedical Informatics program Tracks.

5. A minimum of 18 graduate credits must be taken in the Biomedical Informatics Program (includes all BMI courses and all BMI-Approved Elective courses from other departments). Of these, 15 credits must be in courses other than BMI 590, BMI 591, BMI 592, BMI 595, BMI 596, BMI 690, BMI 691, BMI 695, and BMI 696 (the independent study, independent reading, seminar, special topics and special problems courses).

6. All courses taken outside the Program for application to the graduate degree requirements are subject to prior approval of the student's advisor and the BMI Graduate Program Director.

7. Up to 15 credits from the Advanced Graduate Certificate in Biomedical Informatics may be applied to the M.S. degree in Biomedical Informatics provided they meet the course requirements for the M.S. degree.

**Transfer Credits:**

A maximum of 12 graduate credits may be transferred from other programs toward the M.S. degree. These may include up to 6 credits from other institutions. The maximum also includes any credits received from Biomedical Informatics courses while having non-degree status at Stony Brook as an SPD or GSP student. Credits used to obtain any prior degrees are not eligible for transfer. All requests for transfer of credits require the prior approval of the BMI Graduate Program Director.

**Time Limit:**

Full-time students must complete all M.S. degree requirements within three years. Part-time students must complete all M.S. degree requirements within five years. For any term in the M.S. program, 12 credits are needed for students to be considered full-time.

**Requirements for the MS in Biomedical Informatics - With Thesis**

The M.S. Thesis option is intended for students who wish to perform Biomedical Informatics research. A written thesis is submitted and is defended in an oral examination.

A student choosing the M.S. Thesis option must define a suitable research question and select a M.S. Thesis **research advisor**, who must approve the M.S. Thesis research.

Upon completion, the M.S. Thesis must be defended in an **oral examination** before a **faculty committee** of at least three members (of which at least two members must be Biomedical Informatics faculty; one member must be the student's M.S. Thesis research advisor). This faculty committee must be approved by the BMI Graduate Program Director. The written M.S. Thesis must be distributed to the faculty committee members at least two weeks before the oral examination.

A student choosing the M.S. Thesis option may not switch to the Capstone Project option without permission of the graduate program committee.

A student who has at any time been appointed as a teaching, graduate, or research assistant must choose the M.S. Thesis option unless otherwise approved by the graduate program committee.

**Course Requirements for M.S. with Thesis:**

21 approved graduate course credits and an accepted Thesis, which is registered as up to 12 credits of **BMI 599 M.S. Research and Thesis in Biomedical Informatics**.

- a. No more than a total of 12 credits of **BMI 599** may be applied toward the M.S. degree credit requirements.
- b. No more than a total of 6 credits of **BMI 596 Special Problems in Biomedical Informatics-Masters** and **BMI 696 Special Problems in Biomedical Informatics-Doctoral** may be applied toward the course requirements.
- c. No credits of **BMI 598 M.S. Capstone Project in Biomedical Informatics** may be applied toward the course requirements for students who select the M.S. with Thesis.
- d. Either **BMI 502 Life Sciences for Biomedical Informatics** or **BMI 503 Computer Science for Biomedical Informatics**, but not both, can be applied toward the course requirements.

**Requirements for the MS in Biomedical Informatics - With Capstone Project**

The Capstone Project option is intended for students who wish to take additional elective courses, plus complete a practicum rotation, instead of the highly-focused M.S. research that is part of the M.S. with Thesis option.

A student choosing the Capstone Project option must select a project advisor. Prior to starting a Capstone rotation, a student is required to submit a project proposal with well-defined deliverables to both his/her academic advisor and project advisor. The student's project advisor is required to submit a mid-term evaluation to the student's academic advisor.

The student is required to complete a final report and also present his/her work at a department seminar. Upon completion, the project must be submitted for approval to a faculty committee of at least two members (the academic advisor and the project advisor; at least one committee member must be Biomedical Informatics faculty; committees with more than two members are permitted).

A student who has selected the Capstone Project option may not have been (nor be concurrently) appointed as a teaching, graduate, or research assistant unless otherwise approved by the graduate program committee.

**Course Requirements for M.S. with Capstone Project:**

30 approved graduate credits, including 6 credits of **BMI 598 M.S. Capstone Project in Biomedical Informatics**.

- a. No more than a total of 6 credits of **BMI 598** may be applied toward the M.S. degree credit requirements.

- b. No more than a total of 6 credits of **BMI 596 *Special Problems in Biomedical Informatics-Masters*** and **BMI 696 *Special Problems in Biomedical Informatics-Doctoral*** may be applied toward the course requirements.
- c. No credits of **BMI 599 *M.S. Research and Thesis in Biomedical Informatics*** may be applied toward the course requirements for students who select the M.S. with Capstone Project.
- d. Either **BMI 502 *Life Sciences for Biomedical Informatics*** or **BMI 503 *Computer Science for Biomedical Informatics***, but not both, can be applied toward the course requirements.

***M.S. Course Table with Track options:***

Requirements for the AGC in Biomedical Informatics

The Advanced Graduate Certificate program has been designed to provide students with the basic grounding in Biomedical Informatics and the flexibility to design a curriculum that best augments their current training. A minimum of 15 credits is required for the Advanced Graduate Certificate.

Required Courses:

1. 15 approved graduate credits including BMI 501, BMI 502 and/or BMI 503. As well as one from the following list corresponding to the track specialization: BMI 511 Translational Bioinformatics, BMI 512 Clinical Informatics or BMI 513 Imaging Informatics.
2. All courses taken outside the Program for application to the graduate degree requirements are subject to prior approval of the student's advisor and the BMI Graduate Program Director.
3. Students must complete all the required courses from at least one of the Biomedical Informatics program tracks (see AGC Course Table, below).

Transfer Credits:

A maximum of 6 graduate credits may be transferred from other programs toward the Advanced Graduate Certificate. These may include up to 3 credits from other institutions. The maximum also includes any credits received from taking Biomedical Informatics courses while having non-degree status at Stony Brook as an SPD or GSP student. Credits used to obtain any prior degrees are not eligible for transfer. All requests for transfer of credits require the prior approval of the BMI Graduate Program Director.

Time Limit:

Full-time students must complete all Advanced Graduate Certificate requirements within two years. Part-time students must complete all Advanced Graduate Certificate requirements within four years.

***Advanced Graduate Certificate Course Table with track requirements:***

Faculty of Biomedical Informatics Department

**Please see the "People" page of the BMI Department website:**

<https://bmi.stonybrookmedicine.edu/people>

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

Business Administration Program

**College of Business****Dean**

Haresh Gurnani, Harriman Hall

**Associate Dean for Programs**

Danling Jiang, Harriman Hall

**MBA Program Directors**

Lily Blocker, Harriman Hall

Gary Sherman, Harriman Hall

**MSF Program Director**

Dmytro Holod, Harriman Hall

**MSA Program Director**

Cecilia (Qian) Feng, Harriman Hall

**MSDA Program Directors**

Aaron Kim, Harriman Hall

Herbert Lewis, Harriman Hall

**Senior Assistant Dean for Curriculum, Accreditation, & Student Services**

Amy Milligan, Harriman Hall

**Senior Assistant Dean for Finance and Administration**

Joyce Wellinger, Harriman Hall

**Office of Student Services (Admissions & Advising)**

Harriman Hall Room 109 (631) 632-7171

cobgraduate@stonybrook.edu

**Web Site**

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

**Advanced Graduate Certificates Awarded**

Finance

**Degrees Awarded**

M.B.A., M.B.A. in Accounting, M.B.A. in Finance, M.B.A. in Marketing, M.B.A. in Health Care Management, M.S. in Accounting, M.S. in Finance, M.S. in Technology Management (in Korea)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description of The College of Business Graduate Programs**

In today's world of constant change and extraordinary opportunity, the need for business education has never been greater. Our graduate business degree programs are taught by leading Stony Brook faculty. They are complemented by key executives recruited as visiting professors from throughout the tri-state region—industry leaders who have built stellar careers in today's global business world.

Our students participate in a vibrant learning environment where they gain the knowledge, skills, and insights necessary to manage complex organizations. Our dedicated faculty has both academic and business experience, and teaches not only the broad principles of management, finance, and marketing but also the more intangible aspects of leadership, communications, and business strategy.

The College of Business offers flexible full and part time programs with day, evening, and Saturday courses at our beautiful main campus in Stony Brook, Long Island, which is located 60 miles east of New York City. We also offer some courses for the MBA program in an online format. As a result of our relationship with business schools overseas, our programs extend to the far corners of the globe.

By focusing on strategic, managerial, analytical, and technical processes and outcomes critical to success in a broad spectrum of industries, Stony Brook University's graduate business programs help students recognize ways in which they can add value to their firms and advance their careers.

Superior Teaching in a Nurturing Learning Environment: The Stony Brook program prides itself on its superior teaching and its dedication to working with each student to develop his or her business and managerial skills. We seek to bridge the gap between theory and practice by selecting faculty members who can clearly communicate the practical benefits of managerial knowledge.



## Placement and Career Services

### Career Services

The Career Center, located on the ground floor of the Melville Library at the foot of the Zebra Path, provides a variety of career and life planning services to College of Business students. These services include: online listings of on- and off-campus jobs and internships, resume referrals, on-campus interviews, job and internship fairs, workshops on topics including resume preparation and interviewing, individual counseling, and additional resources online and in print.

Job & internship listings, applications, and resume referrals (when the Career Center forwards appropriate resumes to interested employers) happen through Handshake - to access it, visit [www.stonybrook.edu/career](http://www.stonybrook.edu/career).

Many companies visit the campus to conduct one-on-one interviews with MBA students. It is suggested that graduate students contact the Career Center at the beginning of their first semester for more details.

Job and internship fairs, in which employers visit the campus to discuss their organizations and share available job openings, are held regularly. These fairs provide graduate students with unique opportunities to meet, have brief interviews with, and leave resumes with a significant number and variety of employers. For dates and details, visit [www.stonybrook.edu/career](http://www.stonybrook.edu/career) and look under Career Center Upcoming Events.

### Workshops

For those who are about to begin the process of searching for a job, writing a resume, and/or interviewing, group workshops are offered which provide information on these and related topics. Other workshops offer networking opportunities and insight into particular careers & employers. For dates and details, visit [www.stonybrook.edu/career](http://www.stonybrook.edu/career) and look under Career Center Upcoming Events.

### Individual Counseling

Professional career counselors are available to assist with questions pertaining to any facet of the career decision-making process, from deciding on a specific business path to finding out how to effectively search for a job. Topics which are frequently discussed include: selecting a specialization, researching companies, obtaining experience through volunteer and internship positions, job search strategy, and marketing the value of a graduate degree. Those interested in discussing these or other issues are encouraged to drop by or set up appointments by calling or visiting the Career Center.

### Website and Career Resource Library

The Career Center's website and Career Resource Library contain a wealth of information on a variety of topics related to the career planning process. Materials include information on occupations, labor market trends, salary levels, job hunting, resume writing, employment interviewing, and many other areas. Those MBA students interested in pursuing doctoral study can look through directories and information on entrance tests required. Detailed information on potential employers, including annual reports and related documents, is included in what's available.

### Admission Requirements for College of Business Graduate Programs

The College of Business graduate programs are designed for ambitious and analytical students who are capable of applying what they learn toward the solutions of organizational problems. New students can begin the Stony Brook MBA, MS in Accounting in the Fall or Spring semester. All graduate applications are submitted online through the following website: <https://graduateadmissions.stonybrook.edu/apply/>

Applicants are encouraged to submit a current resume along with their online application and personal statement. The requirements for the business graduate programs include:

A. A bachelor's degree with a minimum grade point average of 3.0. In exceptional cases, students not meeting the GPA requirement may be considered for admission on a conditional basis. Official transcripts can be mailed directly to the Graduate School 2401 Computer Science Building Stony Brook, NY 11794-4433 or sent electronically [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu). We strongly encourage foreign transcripts to be evaluated by World Education Services (WES) or another NACES association member.

B. Aptitude for quantitative analysis, demonstrated through previous coursework, standardized tests, or practical experience. All applicants must have successfully completed an introductory calculus course (MAT 123 or equivalent) with a grade of C or higher.

C. The GMAT/GRE are optional and should be used to enhance your application.

D. Three letters of recommendation, one of which, if possible, should be from a professional working in a private company or public agency who is capable of evaluating the applicant's motivation and potential. The three letters of recommendation should also include at least one from a college faculty member, counselor, or administrator. Letters of recommendation should be submitted through the application website.

E. Applicants whose first or primary language is not English, must submit one of the following:

A TOEFL internet-based score of 80 or above

An IELTS test with an overall score of 6.5 or above, with no sub-scores below 6.0. Acceptance by both the College of Business and the Graduate School.

F. Application fee.

In addition to the criteria stated above, the MBA in Accounting and MS in Accounting programs have further requirements. Please refer to the program website for detailed prerequisite information.

Application Deadlines:

### **Application Deadlines**

#### **MBA, MS in Accounting and MS in Finance**

##### **Fall**

International Applicants, April 15th

Domestic Applicants, July 1st

##### **MBA, MS in Accounting**

##### **Spring**

International Applicants, November 1st

Domestic Applicants, December 15th

Applications may be considered after these dates, as long as space is available.

For additional information, please visit [www.stonybrook.edu/business](http://www.stonybrook.edu/business) or email [cobgraduate@stonybrook.edu](mailto:cobgraduate@stonybrook.edu).

Office of Student Services

Harriman Hall, Room 109

College of Business Stony

Brook University Stony

Brook, New York 11794-

3775

(631) 632-7171

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

Facilities of the MBA Program

#### **Research**

Faculty members in the College of Business are strongly committed to teaching and fostering working relationships with students inside and outside the classroom, while maintaining their involvement in research.

In their research, Business professors examine complex issues and problems confronting today's managers and decision makers. They analyze businesses and other institutions as well as the economic, regulatory, and technological forces underlying decision-making processes and ongoing changes within these organizations. They keep close contact not only with other researchers in the United States and abroad, but also with regional, national, and international businesses by conducting applied research projects and working as consultants.

Students at the College of Business benefit from this high-caliber research in several ways. Faculty members often revise and develop new course materials to incorporate current research into their teaching and instruction. Exposing students to the latest knowledge and management skills best prepares them for future challenges and, at the same time, makes the classroom experience dynamic and stimulating. Business students work closely with professors and all students are invited to participate in seminars conducted by the school's researchers.

The College houses Centers for Human Resource Management, Health Services Research Management, Information Systems Management, Center for Operational Excellence, and the Innovation Center. Quality research conducted by the centers contributes significantly to the College's academic programs. In addition, the centers' applied and interdisciplinary research promotes valuable interactions with industry, government, and nonprofit organizations and provides hands-on experience to students.

#### **Behavioral Research Lab**

The College of Business Behavioral Research Lab provides a space for faculty to conduct experiments and test theories that will help consumers, managers, and organizations make better decisions. The lab is equipped with computers and recording equipment to support the growing number of researchers who serve as principle investigators in areas such as behavioral finance, consumer behavior, and organizational behavior. The

space may be reserved by faculty in the College of Business and students conducting research studies under the supervision of a faculty member in the College of Business.

### **Requirements for the Masters Degree in Business Administration**

The MBA curriculum prepares students for careers in management in business, government, and nonprofit organizations. The MBA may be pursued either full-time or part-time. We offer a flexible course schedule with daytime, evening, and some Saturday and online options. We also offer convenient summer and winter courses to help accelerate program completion.

The College of Business offers 2 different credit track options for the MBA in Accounting, MBA in Finance, MBA in Health Care, MBA in Marketing, and the general MBA program with optional concentrations in either, Innovation, or Operations Analytics .

**48 Credit MBA program:** All students who have earned a Bachelor's Degree (regardless of the major), are eligible to apply for the 48 credit track. The curriculum includes 16 three-credit courses which includes eleven required core classes and 5electives, which must be in the area of your degree program or from one of the areas of concentration.

**36 Credit MBA Track:** Students who have earned a Bachelor's degree in business are eligible to apply for a 36 credit track. Students will take 12 three-credit courses, which includes six required core courses and six elective courses. Five of the 6 elective courses must be taken in the respective degree subject area or from one of the concentrations. \*Students will not take the following core courses: MBA 502, 504, 505, 589, or 592.

### **Core Courses**

All MBA students will take core courses that cover a broad range of topics including data analysis, leadership, team building, communications, decision-making, innovation, and strategy. In addition, students in the 48 credit programs will take courses that cover the topics of accounting, finance, marketing, operations management, and organizational behavior.

### **Requirements for the MBA program with Optional Concentrations**

The general MBA program is the most flexible of all program options. In addition to the course courses, students are able to choose business elective courses that best suit their professional goals. There is an option for students to concentrate in either Innovation or Operations Analytics if they choose. Students choosing either of these concentrations would take 4 electives from their concentration of choice in order to earn that concentration. Students pursuing the general MBA program should meet with an advisor to discuss the best elective courses to take for their career path.

### **Core Course Requirements for the MBA**

\*MBA 502 - Finance

MBA 503 - Data Analysis & Decision Making

\*MBA 504 - Financial Accounting

\*MBA 505 - Marketing

MBA 506 – Leadership, Team Effectiveness, & Communications

MBA 507 - Ethics & Management

MBA 511 - Technological Innovations

MBA 512 - Bus Planning & Strat Mgt

MBA 543 – Business Analytics

\*MBA 589 - Operations Management

\* MBA 592 - Organizational Behavior

\*Students in the 48 credit track program must take these core classes.

Elective Course Requirements:

36 credit track: Students in the 36 credit track will take a total of six 500-level MBA elective courses. Please note that the following courses are NOT considered electives: MBA 502, 504, 505, 589, 592.

48 credit program: Students in the 48 credit program must take five elective courses.

**Innovation Concentration Electives:** BUS 554, BUS 567, FIN 552, MBA 509, MBA 522/MBA 599, MBA 538/HRM 538, MBA 530, MBA 540, MBA 544, MBA 563, MBA 566, MBA 570, MBA 571, MBA 574, MKT 535, MKT 565, MKT 567

**Operations Analytics Concentration Electives:** MBA 509, MBA 517, MBA 522/MBA 599, MBA 540, MBA 544, MBA 574, MBA 587, MBA 588, MBA 595, BDA 508, BDA 510, BDA 513, MKT 569

### **Flexible Scheduling: On-campus, Fully Online or In Combination**

To meet the demands of working professionals, courses are offered weeknights on-campus or completely online. Students may choose to combine both face-to-face and online courses in our traditional MBA program, or they may apply to the MBA Online program with a concentration in general studies, innovation or operations analytics and take all of their courses via the internet. Online students do not have an on-campus residential requirement.

### **Requirements for the MBA in Finance**

Finance lies at the heart of both corporate and governmental success. Critical financial decisions involving the creation of capital, its day-to-day management, and its redeployment into more productive areas of companies and the economy are central to the continued prosperity of businesses and nations around the world. Stony Brook's MBA in Finance will prepare students for positions in corporate finance, investment banking, financial management, broker-dealer firms, consulting firms, commercial banks, financial markets, securities firms and government agencies.

**The 48-credit MBA in Finance track** curriculum requires 16 three-credit courses. Within the 16 three-credit courses, students take 11 required core courses and 5 elective courses. Four of these electives must be Finance electives and an additional FIN or MBA elective for a total of five 500-level electives.

**The 36 credit MBA in Finance track** requires 12 three-credit courses. Within the 12 courses, students take 6 required core courses and 6 elective courses. Five of these electives must be Finance electives and an additional FIN or MBA elective for a total of six 500-level electives.

\*Students will not have to take the following core courses: MBA 502, 504, 505, 589, or 592.\*

### **Core Course Requirements for the MBA in Finance**

\*MBA 502 - Finance

MBA 503 - Data Analysis & Decision Making

\*MBA 504 - Financial Accounting

\*MBA 505 - Marketing

MBA 506 - Leadership & Team Effectiveness & Communications

MBA 507 - Ethics & Management

MBA 511 - Technological Innovations

MBA 512 - Bus Planning & Strat Mgt

MBA 543 - Business Analytics

\*MBA 589 - Operations Management

\*MBA 592 - Organizational Behavior

### **Elective courses:**

36 credit track: Students in the 36 credit track will take a total of six 500-level MBA elective courses, five of these must be FIN courses.

48 credit program: Students in the 48 credit program must take five elective courses, four of these must be FIN courses.

### **Requirements for the MBA in Marketing**

In today's competitive business environment a strong knowledge of marketing is necessary since one must understand how to stand out and effectively compete against other companies who are targeting the same population. Marketing is a discipline which relies on psychology, sociology and others and applies this knowledge to the exchange process where a company or individual is completing a sale. One must understand consumer behavior, the competitive environment, the company and the culture in which one operates. At the more micro level, the effective marketer must regulate elements of the marketing mix in bringing their product to market. Understanding how to price, promote, distribute and create the right product is essential if one is to achieve success. Understanding how consumers think and what motivates them to purchase is essential in an environment where everyone is competing for the same sale. The M.B.A. in Marketing will prepare students for careers in Brand Management, Product Management Advertising and/or Marketing Research.

**The 48-credit MBA in Marketing track** curriculum requires 16 three-credit courses. Within the 16 three credit courses, students take 13 required core courses, 2 Marketing electives and an additional MKT or MBA elective for a total of three 500-level electives.

**The 36 credit MBA in Marketing track** requires 12 three-credit courses. Within the 12 courses, students take 8 required core courses and 3 marketing elective courses and an additional MKT or MBA elective for a total of four 500-level electives. \*Students will not have to take the following core courses: MBA 502, 504, 505, 589, or 592.\*

#### **Core Course Requirements for the MBA in Marketing**

\*MBA 502 - Finance

MBA 503 - Data Analysis & Decision Making

\*MBA 504 - Financial Accounting

\*MBA 505 - Marketing

MBA 506 - Leadership & Team Effectiveness & Communications

MBA 507 - Ethics in Management

MBA 511 - Technological Innovations

MBA 512 - Bus Planning & Strat Mgt

MBA 543 – Business Analytics

\*MBA 589 - Operations Management

\*MBA 592 - Organizational Behavior

#### **Required Marketing Courses**

\*MKT 565 - Consumer Insights

\*MKT 567 - Integrated Marketing Management

#### **Elective courses:**

MKT 516, MKT 518, MKT 519, MKT 534, MKT 535, MKT 569, MKT 580, MBA 540

36 credit track: Students in the 36 credit track will take a total of four 500-level MBA elective courses, three of these must be from the list above and an additional MKT or MBA elective for a total of four 500-level electives.

48 credit program: Students in the 48 credit program must take two marketing elective courses from the list above and an additional MKT or MBA elective for a total of three 500-level electives.

#### **Requirements for the MBA in Health Care Management**

The College of Business offers an MBA in Health Care Management Degree. This degree prepares students for careers in the exciting and tremendously growing field of health care. From industries such as hospitals, insurance and health services, to pharmaceuticals, biotech, and consulting, there is a huge demand for business professionals with health care acumen. This program will provide students with knowledge in health management, regulations, delivery systems and various industry segments that span the health systems of the 21st century. Courses in this program are offered in collaboration with Stony Brook's School of Health Technology and Management and the College of Business. In addition to health care management expertise, the degree will equip students with broad skills and knowledge in business, accounting, finance, marketing, operations, management, and leadership. It allows for 4 classes in the health care management area, allowing students exposure to various aspects of health care management functions across various types of health care organizations.

**The 48-credit MBA in Health Care Management track** requires 16 three-credit courses. Within the 16 three- credit courses, students take 11 required core courses and 5 Health Care Management electives.

**The 36 credit MBA in Health Care Management track** requires 12 three-credit courses. Within the 12 courses, students take 6 required core courses and 6 elective courses. Five of these electives must be Health Care Management electives and an additional Healthcare or MBA elective for a total of six 500-level electives.

#### **Core Course Requirements for the MBA in Health Care**

\*MBA 502 - Finance

MBA 503 - Data Analysis & Decision Making

\*MBA 504 - Financial Accounting

\*MBA 505 - Marketing

MBA 506 - Leadership & Team Effectiveness & Communications

MBA 507 - Ethics & Management

MBA 511 - Technological Innovations

MBA 512 - Bus Planning & Strat Mgt

MBA 543 – Business Analytics

\*MBA 589 - Operations Management

\*MBA 592 - Organizational Behavior

**Elective courses:**

36 credit track: Students in the 36 credit track will take a total of six 500-level MBA elective courses, five of these must be health care electives. Students take HPH 508 or HPA 507, HPH 529, HPA 510, HPA 527 and HPH 536.

48 credit program: Students in the 48 credit program must take five health care electives. Students take HPH 508 or HPA 507, HPH 529, HPA 510, HPA 527 and HPH 536.

**Requirements for the MBA in Accounting**

The College of Business is committed to providing students with a high quality education in accounting with a combined emphasis on theory and practical application. The MBA in Accounting is designed to provide students with the theoretical knowledge and analytical tools necessary to function in public accounting or private industry. The program will meet the education requirements for the Uniform Certified Public Accounting exam and licensing in New York State. We have designed the MBA in Accounting to accommodate a variety of students by establishing three paths of study. All three paths require the completion of accounting prerequisites prior to acceptance into the program

**48 Credit MBA in Accounting Program**

Requires 16 three-credit courses. Within the 16 three- credit courses, students take 10 required core courses and 5 accounting courses: ACC 542, ACC 562, ACC 596, ACC 597, ACC 590 and one additional MBA elective.

**36 Credit MBA in Accounting Track**

Requires 12 three-credit courses. Within the 12 courses, students take 6 required core courses and the following 4 Accounting courses: ACC 562, ACC 596, ACC 597, ACC 590. Students 36 credit track will also take one additional ACC and one additional MBA elective. \*Students in the 36 credit track will not have to take the following core courses: MBA 502, 504, 505, 589, or 592.\*

**Accounting/Prerequisite Requirements**

There are a minimum of 18 accounting prerequisite credits for the MBA in Accounting. The prerequisites need to include: Financial Accounting, Managerial or Cost Accounting, Auditing, US Federal Income Taxation, and 3 general business credits.

**MBA in Accounting Core Course Requirements**

\*MBA 502 - Finance

MBA 503 – Data Analysis and Decision Making

\*MBA 505 – Marketing

MBA 506 – Leadership & Team Effectiveness & Communications

MBA 507 - Ethics and Management

MBA 511 – Technological Innovations

MBA 512 – Business Planning and Strategic Management

MBA 543 – Business Analytics

\*MBA 589 – Operations Management

\*MBA 592 – Organizational Behavior

**MBA Accounting Courses**

ACC 542 – Accounting for the Small Business Entrepreneur

ACC 543 – Corporate Governance

ACC 562 – Accounting Information Systems

ACC 590 – Advanced Auditing & Assurance

ACC 591 – Internal Auditing

ACC 594 – Governmental and Not-For-Profit Accounting

ACC 596 – Financial Accounting Theory

ACC 597 – Advanced Accounting Problems

ACC 598 – Forensic Accounting

**Accelerated "Fast Track" BA/BS/BE + MBA:** A 48-credit accelerated MBA program for high achieving current Stony Brook undergraduate students. This program permits students to begin taking graduate credits during their undergraduate career. In their fifth year, students typically go directly into the second year of the MBA program. Students have opportunities for a summer study abroad and an internship. Contact the College of Business for a complete list of eligible majors and admissions criteria.

#### **Dual Degree Programs**

- Combined MBA/ MA in Art History
- Combined MBA / MA in Public Policy
- Combined MBA / MS in Mechanical Engineering
- Combined MBA / MS in Computer Science
- Combined MBA / MS in Biomedical Engineering
- Combined MBA / MS in Public Policy
- Combined MPH (Public Health)/ MBA
- Combined MD / MBA

Faculty of the College of Business

Please see the College of Business Faculty Directory: [https://www.stonybrook.edu/commcms/business/about/\\_faculty/](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

**Chairperson**

Dilip Gersappe, Engineering Building 316  
Dilip.Gersappe@stonybrook.edu

**Graduate Program Director**

Taejin Kim, Heavy Engineering Rm: 250D  
Taejin.Kim@stonybrook.edu

**Department Administrator**

Ms. Chandrani Roy (631) 632-4174

**Department Staff Assistant**

Ms. Elaine Soto (631) 632-8483

**Graduate Program Coordinator**

Vacant

ESMandCME\_GradInfo@stonybrook.edu (*Existing students email here*)

ESMandCME\_GradAdmissions@stonybrook.edu (*Prospective students/applicants email here*)

**Department Office**

Engineering Building 314, Zip 2275

**Degrees Awarded**

B.E./ M.S. in Chemical and Molecular Engineering

M.S. in Chemical and Molecular Engineering;

Ph.D. in Chemical and Molecular Engineering

**Website**

<https://www.stonybrook.edu/matscieng>

**Application**

<https://graduateschool.stonybrook.edu/apply/>

**Chemical Engineering**

The Chemical and Molecular Engineering program, in the College of Engineering and Applied Sciences, offers graduate work leading to the Master of Science and Doctor of Philosophy degrees.

The primary mission of the graduate program is to train the next generation of chemical engineers who will drive important discoveries, develop new technologies, and apply innovative approaches to solve challenges in drug productions, food processing, chemicals manufacturing, fuel development, and other industries.

Our Chemical and Molecular Engineering program offers students a comprehensive curriculum, providing opportunities for advanced study and a deep understanding of chemical engineering theory and its applications across various engineering domains. These include catalysis, nanotechnology, computational modeling, environmental science, fluid mechanics, rheology, materials processing, polymers, thin films, biochemical engineering, biomedical engineering, biotechnology, separations, transport phenomena, and thermodynamics.

The guiding philosophy of our graduate program is to equip students with a broad spectrum of theoretical knowledge and hands-on experimental techniques. This ensures that graduates possess the skills necessary for professional research and teaching roles in the chemical engineering field. Our faculty members in the Chemical and Molecular Engineering program are actively engaged in research across diverse areas. They collaborate closely with graduate students on projects that blend both applied and fundamental aspects of chemical engineering.

**Admissions****CME M.S. & PhD. Admission Requirements-**

We are excited that you are considering our Graduate Program. Chemical and Molecular Engineering program offers admission to M.S. and Ph.D. programs. Admission to the M.S. and Ph.D. Programs are handled separately by the departmental Admissions

Minimum requirements for admission to graduate study in Chemical and Molecular Engineering (CME) are as follows:



1. A bachelor's degree in Chemical Engineering (or a closely related field).
2. A grade point average of at least B (i.e., 3.0/4.0) in all mathematics, engineering, and science courses.
3. Results of the Graduate Record Examination (GRE) general test (***Waived for Spring or Fall 2025***);
4. For non-native speakers of English, results of the TOEFL exam with a score is required. Please reference for minimum score Official scores sent directly to the graduate school via ETS-Institutional code: 2548; Departmental code 69.
  1. *Masters students that have completed a degree program from a U.S. institution may be eligible for a TOEFL waiver and need to request the waiver, please email Graduate Admissions at gradadmissions@stonybrook.edu .*
  2. *All PhD applicants with a TA stipend whose native language is not English must demonstrate a sufficient level of English-speaking proficiency (TOEFL Speaking score) and may be required to take OAE courses based on these measures.*
5. Acceptance by both the Department of Materials Science and Chemical Engineering and the Graduate School.

### Application Instructions

All applications must be completed online here. All additional required documents, such as, diplomas, transcripts, recommendation letters, Statement of Purpose etc. must be sent using the application portal.

You may download our Complete Application Checklist

All official and final transcripts, and other admission materials should be sent to:

Stony Brook University

Graduate School Office of Student Services

2401 Computer Science Building

Stony Brook, New York 11794-4433

Official E-Transcripts should be sent to: gradadmissions@stonybrook.edu

For application status and submission questions, including using the Slate system, please email: gradadmissions@stonybrook.edu

For program or curriculum related questions, please email: ESMandCME\_GradAdmissions@stonybrook.edu

### Application Deadlines:

#### Spring 2025:

**MS Domestic - December 31, 2024, 11:59pm (EST)**

**MS International – November 15, 2024, 11:59pm (EST)**

\*\*\*\*

**PhD Domestic & International - November 15, 2024, 11:59pm (EST)**

*(Apply only if you are currently doing research with a faculty member who can support you for PhD studies.)*

#### Fall 2025:

**MS Domestic Application – July 15, 2025 by 11:59 PM (EST)**

**MS International Application – May 15, 2025 by 11:59 PM (EST)**

\*\*\*\*

**PhD Domestic & International- January 1, 2025, 11:59pm (EST)**

\*\*\*\*\*

For Graduate Application & Admission FAQs, click here.

### Accelerated BE/MS Program Admission Requirements

CME students are encouraged to apply to the five-year CME BE/MS accelerated degree program in the spring semester of their junior year. The application must include:

- Students in their Junior Spring semester with a GPA of 3.0 in the major courses in the Chemical and Molecular Engineering Undergraduate program must email ESMandCME\_GradAdmissions@stonybrook.edu and inform the department about their interest to be admitted in the BE/MS Accelerated Program in Chemical and Molecular Engineering.
- Email the department your recent unofficial transcript.

- Consult with CME Undergraduate Program Director (UPD) and Graduate Program Director (GPD) regarding UG Senior Year and MS accelerated program Schedule.
- Once the department receives all of the above information and the GPD/Graduate committee accepts the student in the program, the student is extended an offer to accept admission in the CME Accelerated program- the student signs and returns the offer letter. The department then completes the Accelerated Participant Program (APP) Declaration Form to the Graduate School.
- Once accepted by Graduate school, the student must obtain email approval from the GPD and UPD to enroll in classes, once approved via email, the student must complete the Permission for APP students to Enroll in Grad Courses form and upload the email approvals to get approvals from Graduate School to enroll in classes before the semester begins. Please note that the student may elect to take all 6 credits of the M.S. coursework in one semester, although it is not recommended

### Transfer Students

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BE/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

### Financial Support

Admitted Ph.D. students are typically offered financial support in the form of teaching or research assistantships, which include full tuition and broad-based fees. Admission into this program is very competitive.

M.S. students are typically admitted with no financial support; however, full time MS students in the thesis track may be appointed as Research Project Assistants with an opportunity to enter the PhD program at the discretion of a faculty member upon availability of funds. Information regarding tuition and other costs can be found [here](#).

### Research Activities

Since its inception, the MSCE Department has had a strong research component, with a recent emphasis on advanced materials, materials and processes for energy generation and storage, and sustainability. The Department has been successful in obtaining external funding for research and currently has the highest per capita faculty funding within the University. In 2022, the Department had faculty research expenditures totaling over \$10.5M. Our department is home to many research centers including an **EFRC on Energy Storage Technologies**, the **Center for Mesoscale Transport Properties**, the **Garcia Polymer Center**, the **Center for Thermal Spray Technologies** and the **Institute of Gas Innovation and Technology**. These centers offer a unique and rich environment for interdisciplinary graduate research and education.

The proximity to **Brookhaven National Laboratory (BNL)** and its advanced national facilities has been a major benefit to both faculty and students within the Department. Three of our faculty members hold joint appointments at BNL, while Brookhaven scientists participate in research and teaching within the Department. The DOE awarded the contract to manage BNL in 1998 to Brookhaven Science Associates, a consortium of other universities led by Stony Brook and the Battelle Memorial Institute. The University's relationship with this premier research facility greatly enhances both the Department's and Stony Brook's research programs.

At BNL, the facilities available to the Department include particle accelerators for carrying out ion beam surface modification experiments and highly sophisticated surface analysis probes. The **National Synchrotron Light Source (NSLS)** is also located at BNL. As one of the participating research teams at NSLS, the **Synchrotron Topography Research Group**, centered in Stony Brook's Department of Materials Science and Engineering, is using special X-ray methods to image nondestructively dislocation microstructures. This enables image-detailed descriptions of dislocation motion and structures attendant to crystal growth and plastic deformation and fracture, as well as to interesting materials behaviors. The topographic method is also being used in department-based studies of surface chemical reactivity.

Our ties with industry are growing stronger: faculty members are working with industry on joint research projects and submitting cooperative proposals to outside agencies. The Materials Science Department has led the effort in joint industry-University projects within the College of Engineering through the **New York State Strategic Partnership for Industrial Resurgence (SPIR) program**. Both the **Center for Thermal Spray Research** and the **Institute for Gas Innovation and Technology** have several industrial partners.

Stony Brook's own facilities include **state-of-the-art low-energy electron diffraction LEED**; a **state-of-the-art scanning electron microscope** and a **transmission electron microscope**, both equipped with analytical capabilities and the latest software for electron diffraction simulation and image processing; an **atomic force microscope**; and **electron spectroscopy for chemical analysis (ESCA) IAES/SIMS Infrared Microscopy units**, as well as **characterization facilities that include equipment for microanalysis and X-ray techniques**.

Much of the research work has included collaborations with other universities, industries, national laboratories, and government facilities such as the **Army Research Laboratory, Weapons and Materials Directorate (Aberdeen, MD)**. Our faculty having funding from a range of federal agencies including the NSF, DOE, Department of Defense and Department of Education.

A common theme in all our programs is that we integrate the research experience as part of our educational mission. As a result, we have a vibrant, active department in which undergraduate students, graduate students, faculty and staff work together to tackle grand challenges that require new materials and processes

Consistent with Stony Brook's designated mission as a research center, the cornerstone of the Department's academic program is the graduate work leading to the research-oriented M.S. and Ph.D. degrees.

### Chemical and Molecular Engineering, MS and PhD

The MS degree in Chemical and Molecular Engineering is designed primarily for students seeking to establish a strong foundation in the principles of chemical and molecular engineering. This program prepares students for further advanced study or careers as professional engineers. Master's degree candidates have the option to choose between a thesis or non-thesis track.

The PhD degree in Chemical and Molecular Engineering offers a comprehensive education in the fundamental principles of chemical engineering alongside an immersive research experience. This program is tailored to prepare students for careers in academia, government or private laboratories, research and development in industry, or other research-focused roles.

### Requirements for the MS in Chemical and Molecular Engineering

Course requirements: Successful completion of a total of 30 course credits, which include four core courses (CME 501, CME 502, CME 503, CME 504) for a total of 12 credits, a choice of two out of five advanced elective chemical engineering courses (CME 511, CME 512, CME 513, CME 514, CME 515) for a total of six credits, two out of five specialization elective courses, all requiring capstone projects; (CME 522, CME 523, CME 524, CME 525, CME 526) for a total of six credits. If any of the above courses are not offered, students can replace/substitute a course with any other course offered in the program and/or in the department with GPD approval.

In addition to these courses the different programs have the following requirements;  
Masters (MS) Degree requires another six credits for a total of 30 credits. Each track has different requirements for these six credits as follows;

#### Track:

#### Non-Thesis:

**The election of this option must be made by the student by the end of the first semester in the program and it will be considered a terminal degree.** Six credit of special topics (CME 696), additional electives or research (CME 599), and satisfactory completion of a capstone project as part of the specialization elective course selection

#### Thesis:

The election of this option must be made by the student by the end of the first semester in the program. Students may not transfer to the Non-Thesis Option once registered for a Thesis Master's track. Students are required to complete six credits of research course (CME 599), which culminate in an original Master's thesis. Students on this track may change into the PhD program at the completion of this track.

### Requirements for the Ph.D. Degree in Chemical and Molecular Engineering

#### A. Plan of Work

Before completion of one year of full-time residency, the student must have selected a research advisor who agrees to serve in that capacity. The student will then prepare a plan of further coursework. This must receive the approval of the student's advisor and of the Graduate Program Committee.

#### B. Coursework

- An average grade of B or higher is required for all courses.
- A minimum of 24 graduate course credits is required to graduate (excluding CME 555, 599, 697, 698, and 699).
- The 24 course credits must include the following four core courses: CME 501, 502, 503 and 504. If the student does not receive a minimum of a B in a core course, he or she may repeat that course one other time.
- All students must complete CME 555 Teaching and Mentoring Techniques. This course does not count towards the 24 graduate course credits
- The student must pass at least three credits of CME 698 Practicum in Teaching and six credits of CME 699 Dissertation Research on Campus.
- All courses taken outside the Department require permission from the Graduate Program Director.
- All PhD students must act as teaching assistants for five semesters (regardless of support), and they must register for CME 698 Practicum in Teaching- in all five semesters for a total of 3 credits and 0 credits for the rest.

#### C. Preliminary Examination

The preliminary examination must be taken before the beginning of the student's fifth semester. This is an oral examination designed to test the student's ability to utilize his or her chemical engineering background to carry out research in a chosen field of study, and to make clear written and oral presentations of research. At least ten days prior to the examination, the candidate should submit a research proposal (10-15 pages) to the examiners that places the research in context of other work in the area, demonstrates original thought, clearly outlines its broader impact, and provides a sustainable timeline for its completion.

The examination committee will consist of three Chemical and Molecular Engineering faculty members, and one member from another department or institution. If a second examination is required, it must be completed by the tenth week of the fifth semester.

Once the student has advanced to candidacy, the student must report to the committee at least once a year before the end of the spring semester on progress towards his/her dissertation.

#### D. Advancement to Candidacy

After the prelims, the department processes the Advancement to Candidacy once the student's preliminary examination committee has signed to confirm that the student has passed the prelims. It is important to note, that a student must have no "I" or "U" grades for courses that count towards the degree to advance to candidacy. He/she must have completed all coursework requirements to advance to candidacy.

**E. Dissertation**

The most important requirement of the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate and reputable scholarly journals. At least two semesters should elapse between the preliminary exam and submission of the dissertation.

**F. Defense**

The candidate shall defend the dissertation before an examining committee consisting of four members, including the research advisor, two members of the Materials Science and Chemical Engineering Department, and one member from outside the Department.

**G. Time Limit**

All requirements for the Ph.D. degree must be completed within seven years after completing 24 credit hours of graduate courses in the program.

**Requirements for the Bachelor of Science Degree/Master of Science Degree Accelerated Program**

The Accelerated BE/MS program is designed to allow Chemical and Molecular Engineering (CME) students in good academic standing to graduate with both a Bachelor's degree and a Master's degree in five years. This is made possible by allowing the students to take up to 6 credits of graduate courses to substitute for 6 credits of undergraduate specialization courses as an undergraduate student that can be counted towards the MS degree, consistent with the Graduate School policy. However, the undergraduates can only take graduate technical electives (not core courses), totaling 6 credits and completing the remaining 24 credits to fulfill the 30-credit requirement for completion of the M.S. degree in their fifth year.

The program will be highly selective, and it is anticipated that only a few students will be admitted each year. The admissions requirements for students entering the accelerated degree program are as follows:

1. Applicant must be a senior in the CME major with a cumulative undergraduate GPA of at least 3.3 at the time of application and must graduate from the undergraduate program that year;
2. GPA in courses required in the CME undergraduate major of at least 3.3;
3. Three letters of recommendation from Stony Brook faculty members.
4. Please contact the department at [ESMandCME\\_GradAdmissions@stonybrook.edu](mailto:ESMandCME_GradAdmissions@stonybrook.edu) to apply to the program.

Applications are reviewed by the CME Graduate Admissions Committee and students will be notified if they have been admitted to the Accelerated Program. The BE/MS is a sequential degree program; Students typically matriculate to the graduate career at the beginning of their third semester in the accelerated program. Students must have a cumulative GPA of 3.3 or higher to be admitted to the Graduate School. The Master's in Chemical Engineering is a 30 credit program and 24 of those credits must be earned as a matriculated graduate student.

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BS/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

**Faculty****Faculty of Chemical and Molecular Engineering Program****Department of Materials Science and Chemical Engineering****Professors**

Koga, Tadanori, CME Undergraduate Program Director, Ph.D., 1998, Kyushu University, Research: green nanofabrication of polymer thin films; chemical recycling of waste plastics and methane hydrate as a future energy resource

Mahajan, Devinder, Ph.D., 1979, University of British Columbia, Research: Inorganic chemistry; fuel cells; catalysis.

Tannenbaum, Irena, PhD 1982, ETH Zurich, Research: Polymers, Biomaterials, nanotechnology and nanomedicine.

**Associate Professors**

Kim, Taejin, CME Graduate Program Director, PhD, 2007, Lehigh University, Research: Catalysis and Reaction Engineering, Operando methods of characterizing catalytic reactions, biomass conversion to fuels and chemicals.

**Assistant Professors**

Lee, Dennis, PhD, 2019, North Carolina State University, Research: Chemical Protective Metal-Organic Framework Thin Films on Fiber Systems Driven by Atomic Layer Deposition

Rajput, Nav Nidhi, PhD, 2013, Louisiana State University, Research: Molecular dynamics studies of ionic liquids, Nanoporous materials; Electrochemistry

Seo, Hyowon, PhD, 2019, Massachusetts Institute of Technology, Research: Electrocatalytic synthesis of chemicals and materials, Catalyst design, Catalytic conversion of CO<sub>2</sub>, Continuous flow process, Green chemistry, Sustainability

### **Faculty of Practice**

Meng, Yizhi, PhD, 2003, Cornell University, Research: Food Engineering

Nitodas, Steve, PhD, 2001, University of Rochester, Research: Kinetic Investigation and Modeling of the Chemical Vapor Deposition of Aluminum Oxide, Silicon Oxide and Aluminosilicates from Mixtures of Metal Chlorides, Carbon Dioxide, and Hydrogen

### **Crossover with Materials Science and Engineering**

#### **Distinguished Professors**

Rafailovich, Miriam, Ph.D., 1980, Stony Brook University: Polymeric liquids; phase transitions; thin film wetting phenomena; atomic force microscopy; ion, X-ray, and neutron scattering.

Sampath, Sanjay, Ph.D., 1989, Stony Brook University: Thermal spraying; protective coatings; functioning graded materials; thick film electronics and sensors.

Takeuchi, Esther, Ph.D., 1981, The Ohio State University, Organic Chemistry: Materials for Energy Storage

#### **Professors**

Clayton, Clive R., Ph.D., 1976, Surrey University, England: Environmental degradation of materials; XPS; AES; dynamic and static SIMS; electrochemical analysis synthesis by ultra-fast laser ablation; RHEED; protective coatings.

Dudley, Michael, Ph.D., 1982, University of Warwick, England: Synchrotron topography; crystal defects; mechanical properties.

Frenkel, Anatoly., PhD 1995, Tel Aviv University, Application of synchrotron measurements in materials, Structure-property-function relationships in applied nanomaterials, catalysis

Gersappe, Dilip., Interim Chairperson, Ph.D., 1992, Northwestern University: Polymer theory and simulation, Modeling of complex fluids and electrochemical processes

Orlov, Alexander, Ph.D., 2005, University of Cambridge, UK, Physical Chemistry: M.Phil. Chemistry University of Cambridge, UK; M.S.E. Engineering, University of Michigan, USA; M.E./B.E. Engineering, National Technical University, Ukraine. Materials for environmental applications; physical chemistry, environmental nanotechnology and photocatalysis

Sokolov, Jonathan C., ESM Graduate Program Director, Ph.D., 1983, Stony Brook University: Surface and interface properties of polymers and blends; phase transitions; neutron and X-ray scattering; EXAFS; SIMS.

Trelewicz, Jason, Ph.D., 2008, M.I.T.; Thermodynamic and Mechanical properties of Binary Nanocrystalline Alloys by implementing a combination of Analytical Theory and Experimental Mechanics

#### **Associate Professors**

Chen-Wiegart, Karen, PhD, 2011, Northwestern University, x-ray imaging and spectroscopic techniques to study novel functional materials. Energy storage and conversion, nano-/meso-porous materials, thin film & surface treatment

Halada, Gary, Ph.D., 1993, Stony Brook University: Electron spectroscopy; electrochemistry; surface engineering; optical spectroscopy; environmental remediation.

Venkatesh, T.A., Ph.D., 1998, Massachusetts Institute of Technology: Nanomaterials, Smart Materials, Materials for MEMS and biomedical applications

#### **Assistant Professors**

Sprouster, David, Ph.D., 2010, Physics, Australian National University (Canberra), Research School of Physics and Engineering: "Ion Beam Formation and Modification of Cobalt Nanoparticles"

#### **Associate Professor of Practice**

Koga, Maya Ph.D. 2005, Kyoto University, Japan, Polymer Physics.

#### **Research Faculty**

Marschilok, Amy, Associate Professor, Stony Brook University; Co-Director, Institute for Energy Sustainability and Equity, Stony Brook University; Scientist and Division Manager, Brookhaven National Laboratory; Ph.D., University at Buffalo, Chemistry; Areas of Interest: Electrochemistry, Electrochemical Materials Science

Raghothamachar, Balaji, Ph.D., 2001, Stony Brook University, Materials Science and Engineering

Snead, Lance, Ph.D., 1992, Rensselaer Polytechnic Institute, Nuclear Engineering

Samuilov, Vladimir, Ph.D., 1986, Belarus State University: Physics.

### **Adjunct Faculty**

Abboud, Marcus, Ph.D., 2003, University of Bonn, Dental Medicine; “Correlation between gingival recession and tooth deflections in patients with mandibular crowding”

Abdelaziz, Sherif, Ph.D., 2012, Virginia Polytechnic Institute and State University, Geotechnical; Thermo-active Deep Foundations, Energy Piles, Geothermal Energy Foundations

Arbab, Hassan, M., Dual Ph.D., 2011, Electrical Engineering and Nanotechnology

Berndt, Christopher, Ph.D., 1981, Monash University, Materials Science Engineering

Bhatt, Vatsal, Ph.D., 2014, CEPT University Ahmedabad, India, Urban Energy, Water and Climate Change

Boscoboinik, Jorge Anibal, Ph.D., 2010, University of Wisconsin Milwaukee, Chemistry; Small Organic Molecules in Transition Metal Surfaces and Monte Carlo Simulations of Bimetallic Surface Alloys.

Butcher, Thomas, Ph.D. 1987, Stony Brook University, Mechanical Engineering

Cen, Jiajie, Ph.D., 2019, Stony Brook University, Materials Science Engineering

Choi, Wanhuk Brian, Ph.D, 2007, Stony Brook University, Materials Science and Engineering -Dissertation: Inelasticity in metallic thermal spray coatings: continuum and micromechanical approaches

Concepcion, Javier, Ph.D 2002, Pontifical Catholic University of Chile (Chile) and Georgia Institute of Technology (USA): Inorganic Chemistry

DiMarzio, Donald, Ph.D, 1987, Physics, Rutgers University New Brunswick, NJ.

Dwivedi, Gopal, Ph.D., 2011, Stony Brook University, Materials Science & Engineering

Fukuto, Masafumi, Ph.D., 2001, Harvard University, Cambridge, MA, Physics, Thesis: “Two-Dimensional Structures and Order of Nano-Objects on the Surface of Water: Synchrotron X-ray Scattering Studies”

Gangwal, Santosh, Ph.D., 1977, University of Waterloo, CA, Chemical Engineering

Ge, Mingyuan, Ph.D., 2015, Materials Science, University of Southern California (USC), CA

Hainfeld, James, Ph.D., 1974, University of Texas, Chemistry and Biochemistry

Harrison, Robert, Ph.D., 1984, University of Cambridge, Theoretical Chemistry

Htun, Nay, Ph.D, Chemical Engineering, Imperial College, U.K.

Hu, Enyuan, Ph.D., 2015, Stony Brook University, Mechanical Engineering, Solid-State Chemistry

Huang, Xiaojing, Ph.D., 2009, Stony Brook University, NY: Physics; Cryo Soft X-ray Diffraction Microscopy with Biological Samples

Huang, Xianrong, Ph.D., 1995, Nanjing University, China: X-ray typography

Jerome, Luckner John, Ph.D., 2005, Stony Brook University, Materials Science and Engineering.

Johnson, Curtis, Ph.D., Pennsylvania State University, Metallurgy

Keister, Jeffrey, Ph.D. 1997: University of North Carolina at Chapel Hill, Physical Chemistry.

Krstic, Predrag Ph.D., 1982, City College of CUNY, NY; Theoretical Physics; Atomic Physics

Kwon, Gihan, Ph.D., 2009, University of Alabama, Chemical & Biological Engineering

Lee, Wilson, Ph.D., 2007, Stony Brook University, Materials Science, Cosmetics Research and Development

Li, Qiang, Ph. D., 1991, Iowa State University at Ames: Energy and electronic materials; synthesis and characterization.

Lindberg, Jake C., Ph. D., 2021, Stony Brook University, Chemical & Molecular Engineering

Liu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry; Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures

- Liu, Qun, Ph.D., 2006, Cornell University, Ithaca, NY: Biophysics, Biochemistry
- Lombardi, Jack, Ph.D., 2015, Stony Brook University, Materials Science and Engineering
- Lu, Deyu, Ph.D., Physics, University of Illinois at Urbana-Champaign: Empirical nanotube model: Applications to water channel and nano-oscillators
- Liu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry; Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures.
- Lu, Fang, Ph.D., 2007, Chinese Academy of Sciences: Condensed Matter Physics
- May, Katherine Flynn, Ph.D, 2014, Stony Brook University, Materials Science and Engineering, Research field: Thermal Spray Formed Ceramic
- Meng, Qingpeng, Ph.D, 2002, Shanghai Jiao Tong University, Materials Science and Engineering, Research field: Phase Transformation & Nanostructured Materials
- Nam, Chang-Yong, Ph.D., 2007, University of Pennsylvania, Materials Science and Engineering; Infiltration synthesis, with a focus on material hybridization & nanopatterning; Atomic layer deposition for oxidation catalysts; Organic & hybrid photovoltaics; Nanowire electronics; Semiconductor device physics & characterization
- Neiser, Richard A, Ph.D. 1989, Stony Brook University, Materials Science, and Engineering
- Okoli, Celest, Ph.D., 2018, Stony Brook University, Materials Science & Chemical Engineering
- Petrovic, Cedimir, Ph.D. 2000, Florida State University, Physics.
- Petrash, Stansislav, Ph.D., 1998, Polymer Science, University of Akron: "Neutron Reflectivity Studies of Human Serum Albumin Adsorption onto Well-Defined Surfaces"
- Rodriguez, Jose, Ph.D., 1988, Indiana University, Chemistry, Catalysis and Surface Science
- Sadasivan, Chandramouli, Ph.D. 2008, University of Miami, Neurosurgery
- Salatto, Daniel, Ph.D. 2022, Stony Brook University, Chemical and Molecular Engineering
- Shah, Raj, Ph.D, 1995, Pennsylvania State University, Chemical Engineering.
- Sharma, Priyanka, Ph.D., 2014, CSIR-National Chemical Laboratory, India, Material Chemistry and Nanomaterials
- Sharma, Sunil, Ph.D., 2016, IIT Bombay, Mumbai, India, Material Chemistry and Nanomaterials
- Singh, Gurtej, Ph.D., 2012, Rensselaer Polytechnic Institute (RPI), Troy, NY; Chemical and Biological Engineering
- Simon, Marcia, Ph.D., 1981, Brandeis University: Biology of oral and cutaneous epithelial and mesenchymal cells, retinoid metabolism and the control of differentiations, wound healing, development and assessment of products for treatment of chemical and thermal burn injury.
- Smith, Gregory, PhD. 2018, Stony Brook University, Materials Science and Engineering
- Stach, Eric, Ph.D., 1998, University of Virginia, Materials Science and Engineering
- Stacchiola, Dario, Ph.D., 2002, University of Wisconsin-Milwaukee, Physical Chemistry, Surface Science
- Taboada, Stephanie, Ph.D., 2023, Stony Brook University, Chemical and Molecular Engineering.
- Tan Kun, Ph.D., 2022 Stony Brook University, Chemical and Molecular Engineering
- Tawfik, Hazem, P.E. and a Certified Manufacturing Engineer; Director of the Institute of Research and Technology Transfer (IRTT) at Farmingdale State College - State University of New York
- Veerasamy, Victor, Ph.D., 1994 University of Cambridge, England
- Veerasamy, Yovana, Ph.D., 2020 University of Toledo, Administration and Policy, Internationalization Policy
- Wang, Feng, Ph.D., 2007, University of Alberta, Canada, Condensed Matter Physics; Thesis: "Electron Energy-Loss Spectroscopy of Nanostructures"
- Wang, Jia, Ph.D., 1987, Physical Chemistry, City University of New York: Surface Electrochemistry and Electrocatalysis
- Wang, Mu, Ph.D., 1991, Physics, Nanjing University, Jiangsu, China
- Weil, Edward, Ph.D., 1953, University of Illinois, Organic Chemistry

Wiegart, Lutz, Ph.D., 2007, Physics, Université Joseph Fourier (Grenoble, France), Commissariat à l'énergie atomique (CEA, Grenoble, France), European Synchrotron Radiation Facility (ESRF, Grenoble, France) and University of Dortmund (Germany)

Wu, Qin, Ph.D., 2004, Duke University, Chemistry

Xiao, Xianghui, Ph.D., 2002, Institute of High Energy Physics, Chinese Academy of Science, China, Physics

Xin, Huolin, Ph.D., 2011 Cornell University, Physics

Xue, Yuan, Ph.D. 2019, Stony Brook University, Materials Science and Engineering

Yang, Haotian, Ph.D. 2023, Stony Brook University, Materials Science and Engineering

Zhang, Zhiwei, Ph.D. 2003, Colorado School of Mines, Chemical Engineering, Reaction Kinetics and Reactor Engineering

#### **Affiliate Faculty**

Bhatia, Surita, Ph.D., 2000, Princeton University

Takeuchi, Kenneth, Ph.D. Ohio State University

#### **Emeritus Faculty**

Herman, Herbert, Emeritus, Ph.D., 1961, Northwestern University: Protective coatings; thermal spray; composites; marine materials.

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



Chemistry Department

**Chairperson**

Peter J. Tonge, Chemistry Building 779 (631) 632-5797

**Graduate Program Director**

Isaac Carrico, Chemistry Building 533 (631) 632-7935

**Master's Program Director**

Susan Oatis, Chemistry Building 104 (631) 632-1571

**Student Affairs Coordinator**

Katherine M. Hughes, Chemistry Building 104 (631) 632-7886

**Degrees Awarded**

M.S. in Chemistry; Ph.D. in Chemistry

**Web Site**

<http://www.stonybrook.edu/commcms/chemistry/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Chemistry Department

The Department of Chemistry, within the College of Arts and Sciences, offers courses of study leading to the degrees of Master of Arts in Teaching Chemistry, Master of Science, and Doctor of Philosophy. Students in the M.A.T. program must register through the School of Professional Development. A student in the Ph.D. program may choose dissertation research in any one of the diverse areas of chemistry represented by the interests of the program faculty, or may choose an interdisciplinary topic under the guidance of a faculty member in another program. Coordinated activities exist with several programs, and include optional concentrations in chemical physics and chemical biology.

Areas of Current Research

**Synthetic Chemistry**

The synthesis of new molecular compounds distinguishes chemistry from other scientific disciplines. Although many disciplines study the properties of materials and natural phenomena, only chemistry concerns itself with the preparation of new molecular arrangements. The success of past synthetic efforts can readily be appreciated by observing the vast array of new materials that have improved the quality of our lives.

The Chemistry Department at Stony Brook is very fortunate to have many strong synthetic programs in both organic and inorganic chemistry. Among the studies underway are the search for inventive synthetic reactions to produce new molecules, the synthesis of new molecular structures to evaluate our theories of chemical bonding, and the synthesis of new compounds with unusual physical properties (molecular engineering). A major focus in the program lies in the areas of bio-organic and bio-inorganic chemistry. Synthetic chemistry is being applied to the understanding of receptor-substrate interactions as well as of enzyme function, the preparation of artificial enzymes, the mechanism of mutagenesis and carcinogenesis, and the preparation of new compounds for the treatment of diseases.

**Organometallic Chemistry**

Organometallic chemistry is an interdisciplinary field bringing together many aspects of inorganic and organic chemistry. A wide range of organometallic systems are under study using a variety of synthetic, structural, mechanistic, and theoretical techniques. Synthetic and structural research is focused on such problems as the chemistry of unsaturated metal-carbon bonds in metal carbene and carbyne complexes, the stabilization of highly reactive organic moieties through metal complexation, the chemistry of transition metal carbonyl cluster compounds, and the development of useful synthetic reagents. Homogeneous catalysis studies include investigations of the carbonylations of fluoroolefins, small-ring heterocycles, alkenylamides, and similar molecules, and catalytic applications of compounds with unsaturated metal-carbon bonds. Theoretical work includes ab initio and qualitative molecular orbital studies of organometallic compounds and of the chemisorption of organic molecules onto metal surfaces and molecular mechanics minimizations of ligand geometries.

**Structural and Mechanistic Organic Chemistry**

The structures of a wide range of organic molecules are examined at Stony Brook using many techniques, including automated high-field FT-NMR spectroscopy ( $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{19}\text{F}$ , etc.) and X-ray crystallography. Molecular modeling programs, such as Gaussian and Macromodel, are operated on color graphics workstations in order to rationalize and predict the conformations and reactivities of molecules under study. Variable-temperature  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectroscopy is used to investigate conformational changes in macrocycles and other synthetic hosts for guest metal ions and organic molecules. VT-NMR is also used to investigate proton transfer in polyamines and intermolecular exchange of guest ions between polydentate ligands. Stereochemical probes are used to examine mechanisms of organic reactions such as pericyclic and biomimetic processes. Reaction mechanisms are also studied by determining activation volumes using reactors in the high-pressure laboratory that can attain pressures higher than 200,000 psi.

**Institute of Chemical Biology & Drug Discovery at Stony Brook (ICB&DD)**

The primary objective of the ICB&DD, directed by Distinguished Professor Iwao Ojima, is to serve as a world-class "Center of Excellence" in chemical biology and drug discovery at Stony Brook. The rapid and impressive advancement of chemical biology in the last decade clearly demonstrates that solutions for the vast majority of medical problems rely on the understanding of the molecular basis of diseases, therapeutic targets, drug actions, and drug resistance. The ICB&DD promotes highly productive interdisciplinary and collaborative research among chemists,

biologists, medicinal chemists, pharmacologists, and physicians to attack major and significant biomedical problems to find solutions including the discovery of novel therapeutic drugs.

### Biological Chemistry

A significant number of the faculty are using their chemical expertise to explore the chemical and physical details of biological phenomena. Research programs span biological chemistry, enzyme mechanisms, protein folding, membrane structure and function, biophysics and structural biology. Techniques such as high resolution NMR, stop-flow kinetics, fluorescence and Raman spectroscopy are used to probe protein structure, function, and folding. Novel biosynthetic and chemical strategies are being used to generate small molecules for use in probing enzyme mechanisms and exploring ligand-receptor interactions.

### Inorganic Chemistry

Inorganic chemistry, being concerned with the synthesis, structure, and dynamics of the compounds formed by the more than 100 natural and synthetic elements, covers an extremely vast research area. New compounds and new synthetic methods are among the goals of inorganic chemistry research. Such compounds range from materials important in technology to catalysts for industrial chemical processes, small molecules present in outer space, and metal complexes that serve as models for biological materials. The methodologies used in inorganic chemistry include a wide variety of spectroscopic techniques, kinetic methods, procedures for the elucidation of geometric and electronic structures, and theory. The breadth and depth of inorganic chemistry are well represented at Stony Brook, as seen by the following examples of current research: thermally and photochemically activated dynamic processes, in particular, electron transfer reactions; synthetic and structural studies of active site analogs of metalloenzymes such as the zinc proteins that regulate gene transcription and the high-potential iron-sulfur proteins; activation of small molecules by transition metal complexes and homogeneous catalysis; chemistry of unsaturated carbon-metal bonds in mononuclear compounds and in extended molecular assemblies; molecular orbital calculations and molecular mechanics methods applied to transition metal cluster compounds and related organometallic substances; NMR studies of zeolites and supported catalysts.

### Magnetic Resonance

Magnetic resonance in the Chemistry Department ranges from studies in physiology to studies in chemical physics. Topics under investigation include the use of liquid and solid state nuclear magnetic resonance (NMR) spectroscopy and micro-imaging techniques with stable spin 1/2 and quadrupolar nuclides to study inorganic, organic, biological, and living systems. Projects in progress employ a range of single and N-dimensional NMR spectroscopic techniques and novel imaging techniques to elucidate chemical processes and determine the structures of biological and organic molecules in solution.

Novel NMR methods are being developed for the determination of the structures of micro- and macromolecules as they exist in disordered solids and to study the structure and dynamics of molecules in the liquid crystalline state and those absorbed on solid surfaces. Pulsed electron paramagnetic resonance (EPR) techniques are being developed to study metalloenzymes, organic conductors, and other molecules.

The Stony Brook NMR Facility <http://www.stonybrook.edu/commcms/nmr/> is a campus-wide facility that serves the educational and research needs of the University community. With spectrometers located at two different sites, the Chemistry Department and the Center for Molecular Medicine (CMM), the NMR facility offers instrument access to students, post-docs and investigators on diverse research fields including structural biology, chemistry, biophysics, and material sciences. The facility has been updated recently with new Bruker spectrometers, and has a total of nine instruments operating from 300 to 850 MHz proton frequencies.

### Macromolecules

With development of state-of-the-art X-ray diffraction and small-angle X-ray scattering (SAXS) at the State University of New York's X3 Beamline at the National Synchrotron Light Source at Brookhaven National Laboratory, the polymer and biomacromolecular physics group, being members of the participating research team (PRT), possesses one of the most powerful X-ray scattering facilities in the country. The experiments at Stony Brook make use of a wide variety of complementary techniques such as SAXS, laser light scattering, photon correlation spectroscopy, fluorescence photobleaching recovery, holographic relaxation spectroscopy, transient electric birefringence, and various forms of nuclear magnetic resonance spectroscopy. Stony Brook scientists can perform measurements to determine the structure and dynamical behavior of advanced polymeric materials, supramolecular systems, and biomacromolecules. Time-dependent processes can be studied using stop-flow, steady-flow, pressure-jump, and temperature-jump experiments together with time-resolved capabilities using intense radiation sources such as pulsed lasers and the synchrotron radiation. Unparalleled opportunities exist for interdisciplinary research using unique and novel instrumentation in polymer materials, polymer physics, colloid science, and biophysical chemistry.

### Photon-Molecule Interactions

Recent developments in the use of lasers for the investigation of molecular structure and dynamics have led to a revolution in the fields of molecular spectroscopy and dynamics. Intimate details about the structure and interactions of atoms and molecules can now be studied to an extent never before possible. In this program the systems being studied by laser spectroscopy range from atoms and diatomic molecules to molecular crystals and polymers. In these systems various properties are being investigated, including nonlinear interactions with the radiation field, excited state electronic structure, radiationless transitions, ionization mechanisms, crystal field interactions, and photochemical reactions, as well as electron and energy transfer processes. Luminescence spectroscopy, luminescence excitation, multiphoton ionization, multiphoton photoelectron spectroscopy, Raman spectroscopy, and vacuum ultraviolet spectroscopy are among the techniques being used and developed for the ever greater understanding of atomic and molecular systems.

### Soft X-Ray Spectroscopy

The National Synchrotron Light Source at Brookhaven National Laboratory, located only 15 miles from Stony Brook, provides unique opportunities for frontier research in chemistry. The synchrotron and associated devices are unequalled sources of high-intensity X-ray and vacuum ultraviolet radiation. One area of current research uses soft X-rays, photons with energies of 100 to 1000 eV, to investigate the excitation and relaxation of core electrons in molecules. Because core electrons, e.g., the 1s electrons of carbon, are tightly bound to individual atoms, the excitation energy is essentially localized on a particular atom in the molecule. This localization has the potential for producing photochemistry with far greater atomic site specificity than can be achieved by excitation of valence electronics with visible and ultraviolet light.

**Surface Chemistry**

Catalysis, corrosion, and friction are a few examples of familiar processes that occur on solid surfaces. The field of surface chemistry tries to unravel and understand the basic chemical principles that underly such phenomena. At Stony Brook we are actively researching how the electronic and geometric structure of a surface affects its chemical selectivity and reactivity during surface-mediated processes such as catalysis and the chemical vapor deposition of metals from organometallic precursors. In addition, we are interested in understanding the interactions between energetic ions and surfaces in both atmospheric and metal-etching reactions. An arsenal of sophisticated techniques is available to probe both the geometric and electronic structures of a reacting surface on an atomic level. Techniques such as Auger electron spectroscopy (AES) and high-resolution, electron energy loss spectroscopy (HREELS) are used to determine the composition of a surface, while ultraviolet and X-ray photons are commonly used to eject photoelectrons from a surface (which are energy analyzed) yielding electronic structure information. Another technique, low-energy electron diffraction (LEED), exploits the wave nature of electrons and is used to help determine the geometric structure of a surface. These techniques, routinely used at Stony Brook, are complemented by the powerful extended- and near-edge X-ray absorption fine-structure techniques (EXAFS and NEXAFS), available at the National Synchrotron Light Source at nearby Brookhaven National Laboratory.

**Theoretical Chemistry**

Theoretical investigations of a wide variety of chemical phenomena are underway at Stony Brook. Research programs in electronic structure theory are concerned with the development of formalism and computational techniques. Applications include determination of the geometry, spectral shifts, and reaction pathways of molecules chemisorbed onto metal surfaces; calculation of the structure of molecules in highly excited Rydberg states; and evaluation of probability amplitudes for multiphoton excitation and calculation of Born corrections, Born couplings, and orbital stresses in small molecules. In the field of statistical mechanics, analysis and numerical simulation are combined to obtain properties of liquids and ionic solutions from the properties of their constituent molecules and their interactions. Much of this work is focused on the calculation of pair correlation functions, transport properties and dielectric phase diagrams, solvent effects, and rates of electron transfer reactions. Other current work includes theory of photon-molecule interactions, quantum ensembles, Jahn-Teller dynamics, and lifetimes of quasistationary molecular states. In addition, students often do theoretical work closely related to active experimental programs under the joint guidance of a theorist and an experimentalist.

**Nuclear and Isotope Chemistry**

Nuclear chemistry research at Stony Brook has focused on reactions induced by heavy ion beams. Beams are obtained from accelerators located at Stony Brook, Berkeley, Chicago, Michigan, and France. The reactions produce very hot and rapidly rotating atomic nuclei that are studied by observation of particles and fragments that are emitted. Their energies and angles of emission allow for a reconstruction of the properties of the hot emitting nuclei and the mechanism of their production.

Isotope chemistry deals with the small differences in physical and chemical properties of matter that have their origin in the mass difference of isotopes of an element. Although the effects are small, they can be measured with high precision. In general, the effects are quantum effects, and measurement of isotope effects has proven to be a unique method for the study of molecular and intermolecular forces. Isotope effect studies have found application in chemical physics, organic chemistry and biochemistry, geochemistry, and anthropology. Practical applications are found in isotope separation processes. Our present efforts are concentrated on the systematization of isotope chemistry.

**Admission requirements of Chemistry Department**

The following, in addition to the minimum Graduate School requirements, are required for admission to graduate study in chemistry:

- A. A bachelor's degree in chemistry earned in a curriculum approved by the American Chemical Society, or an equivalent course of study.
- B. A minimum grade point average of 3.00 (B) in all undergraduate work and 3.00 (B) in all courses in the sciences and mathematics.
- C. Acceptance by the Department of Chemistry and by the Graduate School.

In exceptional cases, a student not meeting requirements A and B may be admitted on a provisional basis.

**Facilities of Chemistry Department**

The Chemistry Building is a modern, seven-story (170,000 sq. ft.) structure designed for research and upper-division instructional activities. The equipment available to faculty, postdoctorals, and students is outstanding. While much of it has been commercially obtained, a substantial portion of the instrumentation of the department has been designed and constructed at Stony Brook and represents the state of the art in various fields. Strong ties exist to programs at Brookhaven National Laboratory, with unique facilities in PET and magnetic resonance imaging, the Relativistic Heavy Ion Collider, the National Synchrotron Light Source, the Center for Functional Nanomaterials and world-class programs in spectroscopy, dynamics and materials science.

The construction and maintenance of this instrumentation is effected by the faculty in conjunction with a staff of non-teaching professionals in the electronic, glass, and machine shops. Our nuclear magnetic resonance (NMR) facility is staffed by two NMR coordinators.

**Requirements for the M.S. Degree in Chemistry**

There are three different options for completing the M.S. degree in Chemistry at Stony Brook. The standard M.S. degree is based on coursework and the writing of a term paper that presents a critical review of a current topic in chemistry. We also offer an M.S. degree with a concentration in Chemical Research. For this option, students need to complete less coursework, but must also carry out a minimum of 18 credits of research, and must write and defend an original research thesis. The third option, the M.S. in Chemistry with concentration in Professional Science, offers students the opportunity to combine chemistry training, including a full-year internship, with additional professional courses in business, management, and/or communication.

**Requirements for the Standard M.S. Degree in Chemistry**

A. Successful completion of an approved course of study comprising at least 30 credits of graduate coursework. A student must achieve a 3.0 overall grade point average in all courses taken at Stony Brook to receive a degree.

B. Successful completion of GRD 500, the CHE 582 seminar (B–), and 18 credits of formal scientific courses (B– = 2.67 average) selected from among chemistry graduate courses, and approved courses from other departments. The student must complete a minimum of 3 core 500-level chemistry courses, from among those numbered CHE 501 through 559. All course selections must be approved by the Master's Advising Committee.

C. Successful completion of the CHE 590 term paper.

#### **Requirements for the M.S. Degree with Concentration in Chemical Research**

A. Successful completion of an approved course of study comprising at least 30 credits of graduate coursework. A student must achieve a 3.0 overall grade point average in all courses taken at Stony Brook to receive a degree.

B. Successful completion of CHE 581, GRD 500, the CHE 582 seminar (B–), and at least 12 credits of formal scientific courses (B– = 2.67 average) selected from among chemistry graduate courses, and approved courses from other departments. The student must complete a minimum of 3 core 500-level chemistry courses, from among those numbered CHE 501 through 559. All course selections must be approved by the Master's Advising Committee.

C. Chemistry research, including a minimum of 18 research credits (18 credits of CHE 599 or 15 credits of CHE 599 plus 3 credits of the summer research course CHE 597), culminating in successful completion of a research thesis with public defense, describing a body of original research results. The thesis defense committee, assigned by the Graduate Program Director, will include the research advisor and two other Chemistry program faculty, one of whom will serve as committee Chair.

#### **Requirements for the M.S. Degree with Concentration in Professional Science**

A. Successful completion of an approved course of study comprising at least 30 credits of graduate coursework. A student must achieve a 3.0 overall grade point average in all courses taken at Stony Brook to receive a degree.

B. Successful completion of GRD 500 and at least 12 credits of formal scientific courses (B– = 2.67 average) selected from among chemistry graduate courses, and approved courses from other departments. The student must complete a minimum of 3 core 500-level chemistry courses, from among those numbered CHE 501 through 559. All course selections must be approved by the Master's Advising Committee.

C. Successful completion of 9 credits of additional professional coursework ("plus" courses) in areas such as business, management, writing, or journalism.

D. Successful completion of at least 18 credits of laboratory internship (CHE 598). Internship placements will be determined by the Master's Advising Committee, in consultation with the student, typically at the end of the first academic year. The Professional Science concentration offers internships in a variety of laboratory settings, including government labs (BNL), industrial labs, and regional research consortiums.

E. Successful completion of the CHE 590 term paper.

#### **Requirements for the M.A. Degree in Teaching Chemistry**

The curriculum for a Master of Arts in Teaching Chemistry consists of 36 credits distributed among graduate-level course offerings in chemistry, other sciences and mathematics, teaching methods in both science and general education, and practice teaching in secondary schools. Individual programs are tailored to the background and interests of the student in consultation with an advisor.

#### **Requirements for the Bachelor of Science Degree/Master of Science Degree Program**

A student interested in this research-intensive graduate program, intended to prepare students for professional employment in the chemical or pharmaceutical industries, may apply for admission at the end of the junior year. The program leads to a Bachelor of Science degree in Chemistry at the end of the fourth year and a Master of Science in Chemistry at the end of the fifth year. During the senior year, the student is expected to take two 500-level CHE courses and begin research in the senior research sequence. In the fifth year, the student works full-time on research, earning 24 credits in CHE 599. Current Stony Brook undergraduate students majoring in chemistry, biochemistry, or engineering chemistry are eligible to apply for admission to the Bachelor of Science Degree/Master of Science Degree Program.

#### **Requirements for the Ph.D. Degree in Chemistry**

##### **A. Courses**

Successful completion (3.0 GPA) of eighteen credits in formal graduate courses (including CHE 599 rotation research, but excluding seminars, teaching, directed study, etc.). At least nine of these credits must be from courses numbered CHE 501 through 559, and at least twelve credits must be from courses in Chemistry. Courses are designated among the following four subdisciplinary groups: Group I – Physical Chemistry: CHE 521, CHE 522, CHE 523, CHE 524, CHE 528, CHE 530; Group II – Inorganic Chemistry: CHE 511, CHE 514, CHE 515, CHE 516, CHE 517, CHE 518; Group III – Organic Chemistry: CHE 501, CHE 502, CHE 503, CHE 504, CHE 607; Group IV – Biological Chemistry: CHE 535, CHE 536, CHE 541, CHE 542, CHE 543. Students are required to take at least one course outside their major subdiscipline. Continuation in the Ph.D. program is based, in part, on achievement in at least four chemistry courses to be taken during the student's first year. In addition, students are required to complete CHE 581; CHE 582; CHE 619 (unless the student elects to complete Option 1 for the Second Meeting requirement); GRD 500; CHE 693, 694, or 696; and two semesters of Teaching Practicum (CHE 610, CHE 611). Initially, each student will be assigned an

academic advisor to help the student select an appropriate course of study to prepare for research in the student's chosen area of chemistry. Once a student has joined a research group, the research advisor acts as academic advisor.

Students who have taken equivalent courses previously may be excused from individual course requirements with permission of the Graduate Program Director, in consultation with the Graduate Advising Committee.

### **B. Advancement to Candidacy Committee**

Each student selects a faculty research advisor during the first year. Students begin research during the first year or in the summer directly following. At the start of the second year, the Graduate Program Director will assign the student's Advancement to Candidacy Committee (ACC). In addition to the research advisor, the ACC will also include at least two additional Chemistry program faculty, one of whom will serve as Chair of the committee.

### **C. Qualification to Degree**

In the third semester, each student holds the first formal meeting with his or her ACC. At the end of this First Meeting, the ACC makes a recommendation to the faculty of whether the student should be qualified to the Direct Ph.D. track or the MS Thesis track, or needs to leave the program. This recommendation will be based on the student's research performance, knowledge and understanding as demonstrated during the First Meeting, and course grades. Qualification is determined by the faculty as a whole. Students must have satisfactory performance in research and coursework in order to qualify to either track and remain in the Ph.D. program.

The ACC will also consider whether the student has gaps in knowledge or understanding that should be addressed by further coursework. The student may be directed to take additional courses, beyond the minimum requirement.

#### **Direct Ph.D. Track**

Students with satisfactory research performance and science course GPA above 3.0 will generally be qualified to the Ph.D. Direct Track. These students can continue with research and complete the other requirements for the Ph.D., without needing to complete a MS thesis first.

#### **M.S. Thesis Track**

Students with science course GPA below 3.0 or deficiencies in understanding or research progress, as determined during the ACC First Meeting, may be qualified to the MS Thesis Track. A student in the MS Thesis track must complete a master's thesis as a first step in the Ph.D. program. Upon completion and defense of the MS thesis, such a student must petition the faculty to continue in the Ph.D. program. If the petition is approved, the student will then join the Direct Ph.D. track and will need to fulfill all requirements of that track in order to earn the Ph.D.

### **D. Second ACC Meeting**

During the fourth semester, students will complete the requirement for a Second Meeting with the ACC. This requirement can be met in several ways. Students in physical, inorganic, or materials chemistry or in chemical physics will generally follow Option 1 or Option 2. Students carrying out research in organic chemistry and in biological chemistry will generally follow Option 2.

#### **Option 1**

The second meeting shall consist of an oral report on one or two papers from the recent literature. This report should demonstrate a mastery of the problems and methodology covered in the material. The role of the Advancement to Candidacy Committee is to assess the quality of the report and also to assess the student's intellectual growth. Further study may be recommended at this time.

#### **Option 2**

The student will enroll in the appropriate section of CHE 619 *Critical Readings of Current Topics in Chemistry* (organic chemistry; biological chemistry; physical/inorganic/materials chemistry), and will make a presentation in the class during the second year. This presentation will be in addition to any presentation the student makes in CHE 582 during the first year.

### **E. Advancement to Candidacy**

Once a student in the Direct Track has successfully completed his or her coursework and First and Second Meetings with the ACC, the student will be advanced to candidacy. From that point forward, the student will focus on research.

### **F. Department Seminar**

Every Ph.D. student in the Direct Track will present a departmental seminar in the third year, describing his or her research. Starting in the third year, students in organic chemistry will be expected to present their research annually in CHE 696, while biological chemistry students will present their research annually in CHE 694 through their fifth year in the program. All other students will present a single research seminar in the fall of the third year, in CHE 693.

### **G. Research Proposition and Third ACC Meeting**

At least one year before the anticipated thesis defense, the student will prepare an original research proposition and defend the proposition in a closed meeting with the ACC. The proposition is a research proposal based on the literature rather than on the student's own research. At the Third Meeting, the student and committee will also discuss the student's research progress and exit plan for completing the dissertation. A target

date for the defense will be set at the conclusion of the Third Meeting. The Third Meeting report may also be used in place of a CHE 590 term paper for any student who wishes to obtain a Master's degree.

## H. Dissertation Defense

The ACC serves as the basis for the dissertation defense committee, with the addition of one new member from outside the department. The dissertation and defense must adhere to all policies of the Graduate School. The defense will be a public lecture, followed by private examination by the defense committee.

## Requirements for the Ph.D. Degree with Concentration in Chemical Physics

### A. Courses

CHE 581, 582, GRD 500, and two semesters of CHE 610/611 plus six formal graduate courses (including CHE 599 rotation research, but excluding seminars, teaching, directed study, etc.) are required including the following:

1. CHE 523, Chemical Thermodynamics
2. Either CHE 521 (Quantum Chemistry I) or PHY 511 (Quantum Mechanics I)
3. Three courses from a set approved by the Graduate Advisement Committee. This set consists of CHE 522, 524, 525, 528, and 530; and PHY 501, 503, 505, 540, 551, 555, and 565. Other graduate courses can be substituted only with prior permission of the Graduate Program Director.
4. One additional course from outside of Group I.

A prerequisite for the Chemical Physics program is undergraduate training in Classical Mechanics and Electromagnetic Theory at or above the level of PHY 301 (Electromagnetic Theory) and PHY 303 (Mechanics). Students in the Chemical Physics program must take these courses unless they receive waivers from the Graduate Program Director.

### B. Additional Requirements

Other than coursework, the requirements for the Ph.D. in Chemical Physics are the same as those for the Ph.D. in Chemistry.

## Requirements for the Ph.D. Degree with Concentration in Biological Chemistry

### A. Courses

CHE 581, GRD 500, and two semesters of CHE 610/611 plus 18 credits of formal graduate courses (including CHE 599 rotation research, but excluding seminars, teaching, directed study, etc.), including

1. A minimum of two graduate biology/biochemistry oriented courses (e.g., BMO 520, CHE 541, CHE 542, etc.) as approved by the student's Academic Advisor or ACC. Students will normally take CHE 541, CHE 542, and CHE 543.
2. At least one course from outside of Group IV.
3. Registration for CHE 582 (year one, zero units), CHE 619 (year two, maximum two units) and CHE 694 (years three through five, one unit) in the Spring semesters of the first five years of the program (while still in residence). Students in their first and second year will present a research paper from the literature. Students in their third and fourth years (and fifth year if still in residence) will present a seminar on their thesis research.

### B. Additional Requirements

Other than coursework, the requirements for the Ph.D. in Biological Chemistry are the same as those for the Ph.D. in Chemistry.

Faculty of Chemistry Department

## Distinguished Professors

Dill, Kenneth, Distinguished Professor, Ph.D., 1978, University of California: Statistical mechanics and dynamics of biological systems.

Hsiao, Benjamin S., Distinguished Professor, Ph.D., 1987, University of Connecticut: Polymer physics; polymer crystallization; structure and property relationships in nanostructured polymers; nanocomposites and biodegradable polymer; polymers for biomedical applications; synchrotron X-ray scattering and diffraction.

Lauher, Joseph W.<sup>1</sup>, Distinguished Teaching Professor, Ph.D., 1974, Northwestern University: Structural chemistry; design and synthesis of new inorganic and organic materials; hydrogen bonding; molecular graphics, x-ray crystallography.

London, Erwin<sup>2</sup>, Distinguished Professor, Ph.D., 1979, Cornell University: Lipid-protein and protein-protein interactions in membranes; membrane protein folding and translocation by membrane penetrating toxins; cholesterol and lipid domain formation.

Ojima, Iwao, Distinguished Professor, Ph.D., 1973, University of Tokyo, Japan: Development of new and effective methodologies for the syntheses of bioactive compounds of medicinal interest based on organic and organometallic chemistry; medicinal chemistry and chemical biology of anticancer agents, MDR reversal agents, and enzyme inhibitors.

Parise, John B.<sup>3</sup>, Distinguished Professor, Ph.D., 1981, University of North Queensland, Australia: Synthetic solid-state chemistry; structural chemistry; crystallography; materials research.

Sampson, Nicole S., Distinguished Professor, Ph.D., 1990, University of California, Berkeley: Enzyme mechanisms and protein-protein interactions; the use of organic synthesis, kinetics and mutagenesis to probe the structure and function of enzymes and cell-surface recognition proteins.

Takeuchi, Esther,<sup>4</sup> Distinguished Professor and William and Jane Knapp Endowed Chair in Energy and the Environment, Ph.D., 1981, The Ohio State University: Fundamental chemistry and electrochemistry of energy storage, synthesis and characterization of electrochemically active materials; nanomaterials and nanostructured materials related to energy storage.

Takeuchi, Kenneth<sup>5</sup>, Distinguished Teaching Professor, Ph.D., The Ohio State University: Energy storage; fundamental chemistry and electrochemistry of energy storage, synthesis and characterization of electrochemically active materials; nanomaterials and nanostructured materials related to energy storage.

Tonge, Peter J., Distinguished Professor, Ph.D., 1986, University of Birmingham, England: Biological chemistry and enzyme mechanisms; quantitating substrate strain in enzyme-substrate complexes using vibrational spectroscopy; rational drug design.

Wong, Stanislaus S.,<sup>6</sup> Distinguished Professor, Ph.D., 1999, Harvard University: Nanoscience; physical chemistry; inorganic chemistry; biophysical chemistry; materials science; scanning probe microscopy imaging of nanomaterials; synthesis and characterization of nanostructures such as nanocrystals and nanotubes; physical, chemical, and biological applications of nanotechnology.

### Professors

Bhatia, Surita, Ph.D., 2000, Princeton University: Rheology and phase behavior of associative polymer gels; small-angle scattering; structure and rheology of colloidal dispersions and complex fluids; polymeric materials for cell encapsulation, delivery, and wound healing.

Boon, Elizabeth, Ph.D., 2002, California Institute of Technology: Biochemistry; prokaryotic nitric oxide biology and the role of the H-NOX family; peptide and protein engineering for novel sensing applications.

Chapman, Karena. Professor of Chemistry and Joseph W. Lauher and Frank W. Fowler Endowed Chair in Materials Chemistry, Ph.D., 2005, University of Sydney: Solid state materials, energy storage and conversion, structure-property relationships, crystallography, catalysis, metal-organic frameworks, synchrotron-based characterization, functional materials, X-ray scattering.

Drueckhammer, Dale G., Ph.D., 1987, Texas A&M University: Bioorganic chemistry; computer-guided design in molecular recognition, design and synthesis of receptors and sensors for biological molecules.

Grubbs, Robert B., Ph.D., 1998, Cornell University: Polymer chemistry; block copolymer materials; polymer assemblies; controlled radical polymerization.

Jia, Jiangyong, Ph.D., 2003, State University of New York at Stony Brook: Ultra-relativistic heavy ion reaction studies.

Johnson, Francis,<sup>7</sup> Ph.D., 1954, Glasgow University, Scotland: Structure and total synthesis of naturally occurring biologically active molecules; DNA damage and enzymatic repair mechanisms; new synthetic methods in organic synthesis; heterocyclic chemistry.

Khalifah, Peter, Ph.D., 2001, Princeton University: Solid state chemistry; electronic and magnetic materials; renewable energy, x-ray diffraction; crystal growth.

Lacey, Roy A.,<sup>8</sup> Ph.D., 1987, University at Stony Brook: Nuclear chemistry; intermediate and relativistic energy heavy ion reaction studies.

Levine, Benjamin G. 2007, University of Illinois at Urbana-Champaign: Analytical, physical.<sup>9</sup>

Marschilok, Amy C., Ph.D., University at Buffalo (SUNY): Inorganic and materials chemistry; preparation and investigation of novel electrode materials and structures for energy storage, including metal-air batteries.

Mayr, Andreas, Ph.D., 1978, University of Munich, Federal Republic of Germany: Reactivity of metal-carbon multiple bonds; synthesis of molecular components for nanocomputing.

Raleigh, Daniel P., Ph.D., 1988, Massachusetts Institute of Technology: Biological chemistry; experimental studies of protein folding and protein stability; studies of amyloid formation; NMR studies of protein dynamics.

Sears, Trevor John, Ph.D., 1979, Southampton University, England: High resolution spectroscopy of transient species; molecular structure; development of new instrumental techniques; gas phase free radical dynamics and kinetics.

Simmerling, Carlos, Ph.D., 1994, University of Illinois, Chicago: Computational chemistry and structural biology; molecular dynamics of biological macromolecules.

Wang, Jin, Ph.D., 1991, University of Illinois: Physics and chemistry of biomolecules; single molecule reaction dynamics.

White, Michael, Ph.D., 1979, University of California, Berkeley: Surface chemical dynamics; catalysis; photo-induced reactions; molecular spectroscopy; molecular beam scattering.

#### Associate Professors

Allison, Thomas,<sup>10</sup> Ph.D., 2010, University of California, Berkeley: Chemical Physics. Frequency combs. Ultrasensitive femtosecond spectroscopy, and high-order harmonic generation.

Aubrecht, Katherine, Ph.D., 1999, Cornell University: Chemical education, education for sustainability, context-based chemistry education, sustainable polymeric materials.

Carrico, Isaac, Ph.D., 2003, California Institute of Technology: Chemical biology and bio-organic Chemistry; introduction of unnatural amino acids and sugars into cell and virus systems for diagnostic and therapeutic purposes; development of new reactions designed to take place inside living systems.

Johnson, Christopher, Ph.D., 2011, University of California, San Diego: Physical Chemistry, Chemical Physics. Molecular spectroscopy; reaction dynamics; characterization of reaction intermediates; atmospheric chemistry; catalysis; mass spectrometry.

Laughlin, Scott, Ph.D., 2008, University of California, Berkeley: chemical biology, neuroscience, organic chemistry.

#### Assistant Professors

Lipshultz, Jeffrey, Ph.D., 2018, Massachusetts Institute of Technology: Synthetic organic methods; photochemistry; organic and organometallics synthesis and catalysis.

#### Affiliated Professors

Frenkel, Anatoly, Ph.D., 1995, Tel Aviv University: Physico-chemical properties of nanoparticles. Single-atom catalysts. Structural and catalytic descriptors. Operando, multimodal characterization. Machine learning - assisted analysis of X-ray absorption spectra. Primary appointment: Materials Science and Chemical Engineering.

Knopf, Daniel, Ph.D., 2003, Swiss Federal Institute of Technology: Atmospheric Chemistry. Multiphase chemical kinetics and phase transition of aerosol particles. Classical nucleation theory. Mass spectrometry and surface and micro-spectroscopic analytical techniques. Primary appointment: School of Marine and Atmospheric Sciences.

Orlov, Alexander, Ph.D., 2005, University of Cambridge, United Kingdom: Physical and environmental chemistry; materials science and engineering; heterogeneous catalysis; novel materials for environmental and energy applications; environmental engineering and environmental science. Primary appointment: Department of Materials Science and Engineering.

Rizzo, Robert C., Ph.D., 2001, Yale University: Structure-based drug design, computational structural biology, docking, molecular dynamics. Quantifying molecular recognition with quantitative structural biology. Primary appointment: Department of Applied Math and Statistics.

Weinacht, Thomas, Ph.D., 2000, University of Michigan: Time resolved spectroscopy and Strong Field Quantum Control. Primary appointment: Department of Physics and Astronomy.

#### Affiliated Associate Professors

Koga, Tadanori, Ph.D., 1998, Kyushu University, Japan: Green polymer nanoprocessing and nanofabrication, structure and dynamics of polymeric nanomaterials using x-ray and neutron scattering. Primary appointment: Department of Materials Science and Chemical Engineering. Primary appointment: Department of Materials Science and Chemical Engineering.

Qu Wenchao, Ph.D., 2006, The University of Akron: Radiopharmaceutical chemistry, radiotracer chemistry, organic synthetic chemistry. Primary appointment: Department of Psychiatry.

Seeliger, Jessica, Ph.D., 2007, Stanford University: Chemical biology, biochemistry, microbiology. Mechanisms of lipid membrane biogenesis in bacterial pathogens; inhibitor discovery and characterization. Primary appointment: Department of Pharmacological Sciences

Seeliger, Markus, Ph.D., 2003, Cambridge University: Chemical Biology, biochemistry, structural biology, biophysics. Protein-Drug Interactions. Primary appointment: Department of Pharmacological Sciences.

#### Affiliated Adjunct Professors

Liu, Ping, Ph.D., 1994, Jilin University: Theoretical description of nanostructures, supported nanostructures, surfaces and their catalytic applications in heterogeneous catalysis and electrocatalysis, with a focus on catalytic processes in production, conversion and use of non-conventional fuels such as hydrogen and alcohols. Density functional calculations, kinetic modeling and sensitivity analysis are employed to obtain a fundamental understanding of catalytic processes and provide guidance for the catalyst development. Primary appointment: Brookhaven National Laboratory.

Miller, Lisa, Ph.D., Biophysics, 1995, Albert Einstein College of Medicine: Study of the chemical makeup of tissue in disease, using high-resolution infrared and x-ray imaging at the National Synchrotron Light Source (NSLS). Primary appointment: Brookhaven National Laboratory.



Misewich, James, Ph.D., 1984, Cornell University: Associate Laboratory Director for Basic Energy Sciences, which is responsible for overseeing research in chemistry, condensed matter physics, materials science and nanoscience. Primary appointment: Brookhaven National Laboratory.

Moses, John. E., DPhil, 2004, University of Oxford, Oxford, United Kingdom: Click chemistry, cancer, chemical biology, organic synthesis, natural products, biomimetic synthesis.

Rodriguez, Jose A., Ph.D., 1988, Indiana University: Surface chemistry and catalysis. Primary appointment: Brookhaven National Laboratory.

Stacchiola, Dario, Ph.D., 2002 University of Wisconsin-Milwaukee: Surface chemistry and structure-activity relationships in catalysis. Primary appointment: Brookhaven National Laboratory.

Stavitski, Eli, Ph.D., 2006, Hebrew University of Jerusalem: Operando characterization of advanced functional materials; heterogeneous catalysis; nanoporous frameworks. Primary appointment: Brookhaven National Laboratory.

Zhu, Yimei, Ph.D., 1987, Nagoya University: Nanoscale structure and property relations in oxides, strongly correlated electron systems and energy materials, advanced electron microscopy. Primary appointment: Brookhaven National Laboratory.

Number of teaching, graduate, and research assistants, fall 2019: 179

- 1) Recipient of the State University Chancellor's Award for Excellence in Teaching, 1990; Recipient of the President's Award for Excellence in Teaching, 1990.
- 2) Joint appointment, Department of Biochemistry.
- 3) Joint appointment, Department of Geosciences. Recipient of the State University Chancellor's Award for Excellence in Scholarship and Creative Activities, 2008.
- 4) Joint appointment, Materials Sciences and Engineering.
- 5) Recipient of the State University Chancellor's Award for Excellence in Teaching, 1986.
- 6) Recipient of the State University Chancellor's Award for Excellence in Scholarship and Creative Activities, 2018.
- 7) Joint appointment, Department of Pharmacology.
- 8) Recipient of the State University Chancellor's Award for Excellence in Teaching, 1998; Recipient of the President's Award for Excellence in Teaching, 1998.
- 9) IACS Endowed Professor of Chemistry, Joint with the Institute for Advanced Computational Science.
- 10) Joint appointment, Department of Physics & Astronomy.

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

**Department of Civil Engineering****Chairperson**

Rigoberto Burgueño, 2430 Old Computer Science Bldg., 631-632-8315

**Graduate Program Director**

Ruwen Qin, 2427 Old Computer Science Bldg., 631-632-9341

**Graduate Program Coordinator**

Malina Salman, 2441 Old Computer Science Bldg., 631-632-8911

**Degrees Awarded**

M.S. and Ph.D. in Civil Engineering; Advance Graduate Certificate

**Website**

<https://www.stonybrook.edu/civil>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description**

The Department of Civil Engineering, in the College of Engineering and Applied Sciences, offers graduate work leading to the MS and PhD degrees, and a graduate certificate. The overarching mission of the graduate programs is to train the next generation of civil engineers to make important discoveries, develop new technologies, and apply novel approaches to ensure the safety, resilience, and sustainability of our basic infrastructure systems. Our programs in Civil Engineering offer students a broad curriculum with the opportunity to pursue advanced studies in the major areas of civil engineering. The programs emphasize interdisciplinary approaches in solving society's most pressing problems, with an emphasis on restoring and improving urban infrastructure. The faculty in the Department of Civil Engineering is actively involved in state-of-the-art research and work collaboratively with graduate students on projects that are both applied and fundamental in nature.

**Research Areas**

Research areas for the graduate programs include Coastal Engineering, Environmental Engineering, Geosystems Engineering, Hydraulic Engineering, Structural Engineering and Mechanics, and Smart Civil Infrastructure Systems. For more information on topics and faculty specialties, please visit the department website: [www.stonybrook.edu/civil](http://www.stonybrook.edu/civil).

**Civil Engineering, MS and PhD**

The MS program is designed to provide students with greater depth in a particular area in civil engineering for further advanced study or pursuing a career as professional engineers. The PhD program aims to prepare students for a research career in academia, government or private laboratories, R&D in industry, or elsewhere.

**Civil Engineering, Advanced Graduate Certificate**

The Advanced Graduate Certificate is designed to serve students interested in furthering their education in civil engineering. Perspective students for this program include engineers from other disciplines who are interested in developing basic knowledge in civil engineering. The certificate program is also designed for civil engineers who are looking for additional technical depth in civil engineering. This program is also a good fit for practicing engineers looking for continuing professional development credits. The Office of Professions in the New York State Education Department requires continuing education for the Professional Engineering license. The graduate certificate in civil engineering allows practicing engineers the opportunity to obtain a graduate certificate while also fulfilling the continuing education requirement for licensure.

**Coastal Engineering & Management, Advanced Graduate Certificate**

The Department of Civil Engineering and the School of Marine and Atmospheric Sciences offer a course of study leading to an Advanced Graduate Certificate in Coastal Engineering and Management. This certificate provides students with the opportunity to pursue advanced studies in the major areas of coastal engineering and management of coastal resources.

**Admission Requirements for the Department of Civil Engineering**

For admission to graduate study in the Department of Civil Engineering, requirements are\*:

1. A bachelor's degree in civil engineering, or a related field such as another engineering discipline, physical science, or mathematics.
2. A grade point average of at least 3.0 or equivalent in engineering, mathematics, and science courses.
3. A statement of purpose
4. Three (3) letters of recommendation
5. Completion and submission of the Graduate Record Examination (GRE) General Test. Stony Brook University's test code is 2548, for Civil Engineering it is 1102\*\*
6. For non-native speakers of English, submission of the TOEFL or IELTS test.

7. Acceptance by both the Civil Engineering Graduate Program and the Graduate School.

\*At this time we do not require additional “supplemental materials” that the application system may ask.

\*\* Spring 2024 and fall 2024 admission, the GRE exam is optional.

Advanced Graduate Certificate program. Students must have a bachelor’s degree and an undergraduate GPA of at least 3.0. Students with lower averages may be admitted under a non-matriculated status that may be changed upon earning six or more graduate credits applicable to the Certificate with a GPA of 3.0 or higher. Credits for Certificate program courses may be applied to requirements for the M.S. in Civil Engineering subject to Graduate School rules and limitations; however, no more than 12 credits may be transferred.

Application Deadlines. Students may start an on-line application to our Certificate, M.S. or Ph.D. program at any time, however, complete applications (that is, with all required material) must be submitted by the following dates to be considered for admissions to any of our programs:

October 1 for Spring

January 15 for Fall

### **Facilities**

**Coastal and Hydraulic Engineering Research Laboratory (CHERL)**

**Dynamic Structures Laboratory**

**Geosystems Engineering Laboratory**

**High-performance Supercomputing Cluster**

**Lightweight and Multifunctional Structures Laboratory**

**Environmental Science and Engineering Laboratory**

To learn more about the Civil Engineering facilities and facilities that Civil Engineering professors and graduate students have access to, please click [here](#).

### **General Requirements**

#### **Academic Advisor**

Each graduate student is assigned an academic advisor in his or her area of interest before registration. The academic advisor will guide the student in course selection, research, and other areas of academic importance. Students receiving financial aid must select a thesis research advisor before the start of their second semester.

#### **Academic Standing**

An average GPA of 3.0 or higher in all coursework, exclusive of CIV 599 (M.S. Thesis Research), CIV 698 (Practicum in Teaching II), and CIV 699 (Ph.D. Dissertation Research), is a minimum requirement for satisfactory status in the graduate program.

#### **Civil Engineering, Advanced Graduate Certificate**

A minimum of 15 credits is required for the Advanced Graduate Certificate in Civil Engineering.

##### **Course Requirements**

A minimum of 15 approved graduate course credits, of which 12 credits must be taken in the Civil Engineering Program. Students cannot use credits earned from CIV 596 or CIV 599 to fulfill this requirement.

##### **Transfer Credits**

A maximum of 3 graduate credits may be transferred from other programs toward the certificate. The maximum also includes any credits received from taking Civil Engineering courses while having non-degree status at Stony Brook as an SPD or GSP student. Credits used to obtain any prior degrees are not eligible for transfer. All requests for transfer of credits require the approval of the graduate program director and graduate school.

##### **Time Limit**

All certificate requirements must be completed within three (3) years from the semester date of admission as a matriculated student. NOTE: If the certificate program is taken in collaboration with a graduate degree program, then the student has five years for completion of the certificate.

#### **Civil Engineering, MS**

A minimum of 30 credits is required for the M.S. degree.

##### **Coursework and Research Requirements**

1. M.S. with thesis: A minimum of 21 approved graduate course credits and an accepted thesis, which is registered as 9 credits of CIV 599.
2. M.S. with project: A minimum of 30 approved graduate course credits including an accepted project, which is to be registered as no more than 6 credits (in any combination) of CIV 595 and/or CIV 596.
3. All full-time graduate students are required to register for CIV 691 (Civil Engineering Seminar) each fall semester and obtain a satisfactory grade.
4. A minimum of 18 graduate course credits must be taken in the Civil Engineering Program. No more than 3 credits of CIV 595, CIV 596 or CIV 599 may be counted towards this minimum. All courses taken outside the Program for application to the graduate degree requirements are subject to approval of the student's advisor and the Graduate Program Director.
5. Up to 15 credits from the Advanced Certificate in Civil Engineering may be applied to the M.S. degree in Civil Engineering provided they meet the course requirements for the M.S. degree.

#### M.S. Program Plan

Students must submit a Program Plan that outlines the path to meet the degree requirements, including coursework, for approval by the Graduate Program Director no later than one month into the student's first semester in the program.

#### Transfer Credits

A maximum of 12 graduate credits may be transferred from other programs toward the M.S. degree. These may include up to 6 credits from other institutions. The maximum also includes any credits received from taking Civil Engineering courses while having non-degree status at Stony Brook as an SPD or GSP student. Credits used to obtain any prior degrees are not eligible for transfer. All requests for transfer of credits require the approval of the Graduate Program Director and the Graduate School.

#### Thesis Requirements

A student choosing the thesis option must select a research advisor. Upon completion, the thesis must be defended in an oral examination before a faculty committee of at least three members of which at least two must be Civil Engineering faculty. A student who has ever been appointed as a teaching, graduate, or research assistant must choose the thesis option unless otherwise approved by the Graduate Program Director. A student choosing the thesis option may not switch to the project option without approval of the Graduate Program Director.

#### Project Requirements

A student choosing the project option must select a project advisor. Upon completion, the project report must be submitted for approval to a faculty committee of at least two members, of which at least one must be a Civil Engineering Faculty. An oral presentation of the report is required for projects of 3 or more credits. A student who selects the project option may not be appointed as a teaching, graduate, or research assistant unless otherwise approved by the graduate program committee.

#### Time Limit

Full-time students must complete all degree requirements within three years. Part-time students must complete all degree requirements within five years.

#### **Civil Engineering, Ph.D.**

The Ph.D. degree requirements consist of prescribed coursework, a preliminary examination, a qualifying examination, a dissertation, and a final oral examination. A minimum of 24 graduate course credits beyond the M.S. degree is required for the Ph.D. degree.

#### Coursework Requirements

1. 24 approved graduate course credits beyond the M.S. degree requirements. A minimum of 9 of these credits, excluding CIV 595, CIV 596, CIV 599, CIV 695, CIV 698, CIV 699 and CIV 700, must be taken in the Civil Engineering Program.
2. All full-time graduate students are required to register for CIV 691 each fall semester and obtain a satisfactory grade.
3. All courses taken outside the department for application to the graduate degree requirements are subject to approval of the student's advisor and the Graduate Program Director. The graduate program may impose additional course requirements.

#### Transfer Credits

A maximum of 6 graduate credits from other programs, including those of other institutions, may be transferred toward the Ph.D. degree. Credits used to obtain any prior degrees are not eligible for transfer. Requests for transfer of credits must be approved by the student's advisor and the Graduate Program Director.

#### Ph.D. Program Filing

Students must submit a Program Plan that outlines the path to meet the degree requirements, including coursework, for approval by the Graduate Program Director (GPD) no later than the end of the student's second semester in the program. Removal or addition of courses to the graduate program plan must be approved by the GPD by submitting a revised program plan before a grade is received for the course(s).

### Teaching Training

Ph.D. students are required to take CIV 697 (Practicum in Teaching I) and 3 credits of CIV 698 (Practicum in Teaching II), or obtain approval of equivalent teaching experience from the Graduate Program Director as part of the degree requirement. CIV 697 provides students with a background in learning theory, course design, learning styles, content delivery formats, teaching technology, advising, rubrics and assessment. All Teaching Assistants are required to take CIV 697 prior or concurrent to their TA assignment. CIV 698 is an experiential course for Ph.D. students to gain experience in teaching, under faculty supervision, by implementing the teaching methods and abilities learned in CIV 697 in a course setting.

### Preliminary Examination

Students will be required to pass a Preliminary Examination. The intent of the examination is to assess the student's potential for successfully completing doctoral-level studies and research. The exam consists of written and oral parts, and it is to be taken in the first year of residency in the program. SBU master's students transferring to the Ph.D. program should take the preliminary examination prior to starting the Ph.D. program. The exam is administered by at least three faculty members in the civil engineering department. The Graduate Program Director must approve the examination committee and the exam content prior to its administration. The exam will be offered twice a year: (a) during the last two weeks of January, and (b) during the last week of May and first week of June. Repetition of the examination, upon failure, may be scheduled at the discretion of the examination committee. A student may take the preliminary examination two times before being dismissed from the Ph.D. program.

### Dissertation Examining Committee

The dissertation examining committee should be established after the student passes the Preliminary Examination and before scheduling the Qualifying Examination. The committee must include at least three faculty members from the Department of Civil Engineering, including the dissertation advisor, and at least one member from another SBU program or from outside the University. The dissertation advisor cannot serve as chairperson of the examining committee nor as the external member. The chairperson must be a faculty member in the Civil Engineering Department. The committee must be approved by the Graduate Program Director upon recommendation by the dissertation advisor.

### Qualifying Examination

The Qualifying Examination is designed to test the student's ability to utilize his or her background to carry out research in a chosen field of study. The examination consists of written and oral components. The written exam (research proposal) must be distributed to the dissertation examining committee members at least two weeks before the oral examination. The Qualifying Examination assesses the doctoral student's research ability and examines the progress, direction and methodology of the dissertation research. The student will be evaluated on the dissertation topic and its objective, the problem formulation, research approach, and knowledge in related areas. A majority of the dissertation examining committee must approve the student's performance.

---

### Advancement to Candidacy

A student will be advanced to candidacy for the Ph.D. degree when all formal coursework has been completed and all the requirements except the dissertation have been satisfied. These requirements must be completed within one calendar year after passing the Qualifying Examination. Advancement to candidacy must be one year before the beginning of the semester in which a student plans to defend his/her dissertation.

### Dissertation

The student chooses a dissertation topic in consultation with his/her doctoral dissertation advisor as soon as possible. Dissertation research is an apprenticeship for the candidate, who, under the supervision of the dissertation advisor, independently carries out original work of significance. The dissertation is a single-author publication that clearly and convincingly presents the results of an original and significant scholarly investigation.

### Dissertation Defense

Once the dissertation is complete, approval of the dissertation requires a formal oral defense. The defense is open to all interested members of the University community. The student's dissertation examining committee must be approved by the Graduate School before scheduling the defense. A candidate must fill out the Doctoral Degree Defense Form (available on the Graduate School web page) and provide a dissertation abstract as well as other relevant details, and submit the form to the Graduate Program Director at least three weeks in advance of the proposed event. The form is forwarded by the Graduate Program Director to the Graduate School. Copies of the dissertation are to be distributed to the committee members at least two weeks before the dissertation defense; one copy is to be provided to the Graduate Program Coordinator to keep in the program office for review by the faculty. The final approval of the dissertation must be by a majority vote of the dissertation examining committee.

### Annual Review of Progress

The student's advisor must submit a written report to the graduate program director on the student's progress once per year documenting their progress, plans and expectations for the coming year. The advisor should also document student accomplishments (e.g., published papers or proceedings, presentations at conferences, fellowships, grants, awards or other honors).

### Time Limit

The time limit for a doctoral degree is seven years for a student who has a previous graduate degree or 24 credits of graduate study in such a degree program. For all other students, the time limit for a doctoral degree is seven years after completion of 24 graduate level credits at Stony Brook University.

**Civil Engineering Faculty****Professors**

Burgueño, Rigoberto; Professor, Ph.D., University of California, San Diego, Structural Engineering

**Associate Professors**

Farhadzadeh, Ali; Associate Professor, Ph.D., University of Delaware, Coastal Engineering

Khosronejad, Ali; Associate Professor, Ph.D., Tarbiat Modarres University, Computational Fluid Dynamics

Mao, Xinwei; Associate Professor, Ph.D., University of California, Berkeley, Environmental Engineering

Qin, Ruwen; Associate Professor, Ph.D., Pennsylvania State University, Industrial Engineering and Operations Research

Yazici, Anil; Associate Professor, Ph.D., Rutgers University, Transportation Engineering

**Assistant Professors**

Celli, Paolo; Assistant Professor, Ph.D., University of Minnesota, Civil Engineering

Krstic, Marija, Assistant Professor of Practice, Ph.D., The City University of New York (CUNY), Materials and Structural Engineering

Li, Wei; Assistant Professor, Ph.D., Massachusetts Institute of Technology, Civil Engineering

Liang, Ci-Jyun, Assistant Professor, Ph.D., University of Michigan, Civil Engineering

Moutsanidis, Georgios; Assistant Professor, Ph.D., University of California, San Diego, Structural Engineering

**Affiliated Faculty**

Hsiao, Benjamin S.; SUNY Distinguished Professor – Department of Chemistry, Ph.D., University of Connecticut, Materials Science

**Affiliated Faculty**

Hsiao, Benjamin S.; SUNY Distinguished Professor – Department of Chemistry, Ph.D., University of Connecticut, Materials Science

Venkatesan, Arjun K.; Associate Research Professor, Ph.D., Arizona State University, Environmental Engineering

**Adjunct Faculty**

McDonough, Carrie; Assistant Professor – Carnegie Mellon University, Ph.D., University of Rhode Island, Oceanography

Xu, Susu; Assistant Professor – Johns Hopkins University, Ph.D., Carnegie Mellon University, Advanced Infrastructure Systems

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

Electrical and Computer Engineering Department

**Chairperson**

Leon Shterengas, Light Engineering Building 273 (631) 632-9376

**Graduate Program Director**

Fan Ye, Light Engineering Building 217 (631) 632-8393

**Assistant to the Chair**

Vacant, Light Engineering Building 273 (631) 632-8420

**Graduate Program Coordinator**

Chantalle McKim, Light Engineering Building 267A (631) 632-8401

**Department Coordinator**

Adam Ortiz, Light Engineering Building 267 (631) 631-8415

**Degrees Awarded**

M.S. in Computer Engineering and Ph.D. in Computer Engineering

**Web Site**

<http://www.stonybrook.edu/commcms/electrical/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Electrical and Computer Engineering Department

The fields of electrical and computer engineering are in an extraordinary period of growth; new application areas and increased expectations are accelerating due to new technologies and decreased costs. The Electrical and Computer Engineering Department, in the College of Engineering and Applied Sciences, is involved in graduate teaching and research in many of these areas, including communications and signal processing, networking, computer engineering, power engineering, semiconductor devices and quantum electronics, circuits and VLSI. The department has laboratories devoted to research and advanced teaching in the following areas: computing, engineering design methodology, high-performance computing and networking, parallel and neural processing, machine vision, fiber optic sensors and computer graphics, micro and optoelectronics, power electronics, electric power and energy systems, VLSI, telerobotics, DNA sequencing, digital signal processing, and communications.

Since Long Island contains one of the highest concentrations of engineering-oriented companies in the country, the department is particularly strongly committed to meeting the needs of local industry. As part of this commitment, most graduate courses are given in the late afternoon or evening, so as to be available to working engineers on Long Island.

The Department of Electrical and Computer Engineering offers graduate programs leading to the M.S. and Ph.D. degrees. Graduate programs are tailored to the needs of each student to provide a strong analytical background helpful to the study of advanced engineering problems.

Ample opportunities exist for students to initiate independent study and to become involved in active research programs, both experimental and theoretical.

**Areas of Emphasis in Graduate Study**

Areas of emphasis in current research and instruction are: Communications and Signal Processing, Computer Engineering, Power Engineering, Semiconductor Devices and Quantum Electronics, Circuits and VLSI.

Specialties that fall under one or more of the above categories include: VLSI, Image Processing, Computer Vision, Integrated Circuit Fabrication, Novel Electronic and Photonic Devices, , Microgrids, Power System Optimization and Modeling, Power Electronic Devices and Circuits, Digital Communication, Cyber Security, Biomedical Electronics, Computer-Aided Design, Computer Networks, Parallel Processing, Fault-Tolerant Computing, Microprocessors, Robotics, Network Theory, and Optical Signal Processing and Fiber Optic Sensors.

Theoretical and experimental programs reflecting these areas are currently underway and students are encouraged to actively participate in these efforts. Outlined below is an overview of the Department's research areas.

**Communications and Signal Processing**

Subject areas of current interest include mobile, wireless and personal communications; high speed data and computer communication networks; communications traffic; data compression; coding and modulation techniques; inter-connection networks and high speed packet switching; digital communication; detection and estimation; statistical signal processing; spectrum estimation; image analysis and processing; computer vision.

**Computer Engineering**

The goal of computer engineering in the ECE department is to provide a balance view of hardware and software issues. The expertise in the program include parallel and/or high performance and/or energy efficient computer architecture, embedded microprocessor system design, fault tolerant computing, design communications and signal processing, parallel and distributed computing, computer networks, cybersecurity, computer vision, artificial neural networks and software engineering.

**Power Engineering**

Power engineering deals with various aspects of the modern and emerging power systems including power electronics hardware, power grids, and renewable energy technologies. The Program covers a combination of fundamental and applied courses in power system analysis, power system dynamics, microgrids, power system optimization, modeling and analysis of photovoltaic power systems, probabilistic methods in power and energy, power system economics, electricity market, artificial intelligence for energy systems, quantum engineering, fundamentals of power electronic devices and circuits, basic converter modeling/control, EMI filtering in power converters, power module packaging and integration, and power-electronics-converter applications in motor drives & renewable energy systems.

### **Semiconductor Devices, Quantum Electronics**

The program of courses and of research pertinent to solid-state electronics, electromagnetics and optics ranges from a study of the fundamental electronic processes in solids through a description of the mechanism which yield useful devices to a study of the design simulation, and fabrication of semiconductor devices and integrated circuits. Program's scientific interests center on physics and technology of optoelectronic devices and systems. Over the past several years, major efforts were focused on the design and development of the novel semiconductor lasers and detectors. Additionally, the department has a strong experimental effort on the development of coherent optical processors, fiber optic sensors and integrated fiber optics.

### **Circuits and VLSI**

The program in the Circuits and VLSI area addresses problems associated to modeling, simulation, design and fabrication of analog, digital, and mixed-signal integrated circuits. Analog and mixed-mode integrated circuit (IC) devices have important applications in many fields including avionics, space technology, and medical technology. The department offers basic and advanced courses covering the following subjects: integrated circuit technology, device modeling, software tools for circuit design and simulation, analog and digital circuit design, VLSI circuits, testing of analog and digital ICs, design automation for analog, digital and mixed-mode circuits, VLSI systems for communications and signal processing.

### **Admission requirements of Electrical and Computer Engineering Department**

For admission to graduate study in the Department of Electrical and Computer Engineering, the minimum requirements are:

- A. A bachelor's degree in electrical or computer engineering or computer science from an accredited college or university. Outstanding applicants in other technical or scientific fields will be considered, though special make-up coursework over and above the normal requirements for a graduate degree may be required.
- B. A minimum grade point average of B in all courses in engineering, mathematics, and science.
- C. Acceptance by both the Department of Electrical and Computer Engineering and the Graduate

School. Facilities of Electrical and Computer Engineering Department

The department operates laboratories for both teaching and research:

**The Advanced Power Electronics Laboratory** supports research and education efforts in the field of power electronics and energy conversion systems for various application ranging from solar power to aircraft propulsion. The lab is working on design of high-density and high-efficiency converters based on wide bandgap semiconductors as well as advanced power module packaging and high-density filtering solutions. Lab research interests include design of the basic converter topologies and controls, converter system modeling/control, electro-magnetic modeling, and power module packaging architecture/process development.

**The Computer-Aided Design Laboratory** offers access to large assortment of software tools used to analyze, model, simulate, and better understand various engineering concepts. The lab comprises 40 Dell PC's, that are networked via switched Ethernet to a Dell file server.

**The Computer Vision Laboratory** has a network of PC's, digital imaging hardware, and custom-built Computer Vision Systems for experimental research in 3D vision and digital image processing.

**Signal Science and Machine Learning Lab – S<sup>2</sup>ML<sup>2</sup>** The S<sup>2</sup>ML supports the research efforts of faculty members, as well as graduate and undergraduate students, in the areas of signal science and machine learning. This includes a diverse range of interests such as causal inference theory, information fusion, Monte Carlo methods, graph signal processing, Bayesian optimization, distributed signal processing, autonomous agents, open world recognition, signal modeling, detection, and estimation. The newly developed knowledge is applied across various disciplines where complex systems are the common denominator, including medicine (e.g., brain and fetal monitoring), finance, climate, and radio frequency identification. The Lab also undertakes comprehensive efforts in STEM education.

**The Digital Signal Processing Laboratory** is involved in digital signal processing architectures and hardware and software research. The laboratory has extensive list of relevant software and hardware tools.

**The Electric Power and Energy Systems Laboratory** is dedicated to enabling innovations for different layers of grid infrastructures that will transform today's power grids into tomorrow's autonomic networks and flexible services towards self-configuration, self-healing, self-optimization, and self-protection against grid changes, renewable power injections, faults, disastrous events and cyber-attacks. Our lab conducts cutting edge research in Quantum Grid (QGrid), Smart Programmable Microgrids (SPM), networked microgrids with a focus on learning-based control and stability, formal methods and reachability analysis, software-defined smart grid, cyber-physical resilience of power grid, power system stability and control, and real-time electromagnetic transient analysis.

**The Fiber Optic Sensors Laboratory (FOSL)** - Research emphasis is on the development and fabrication of novel fiber optic systems for very diverse applications ranging from aerospace to biomedical. Research work has been supported by NSF, NASA, NIH and various state and industrial partners. Some of the current research projects include development of capillary waveguide based biosensors for detection of



pathogens in a marine environment, laser debridement, cavity sensors for flight control surfaces, and photonic power conversion for mobile platforms. The laboratory is equipped with various capabilities for optical and electronic diagnosis. These include a fiber optic fusion splicer, fiber polisher, diamond saw, optical microscope, optical spectral analyzer, single photon-counting systems, a high speed digital autocorrelator and various laser sources. Additionally, the laboratory has the facilities for designing and fabricating printed circuit boards and fabricating optical and electronic sub-systems.

**The Fluorescence Detection Laboratory** is involved in the design and development as well as implementation and testing of various instruments for Life Sciences. Research areas include laser induced fluorescence detection, single photon counting techniques, fast data acquisition and transfer, design and development of analog and digital integrated circuits, signal processing, capillary electrophoresis phenomena, DNA sequencing, and microfluidics.

**The Graduate Computing Laboratory** has extensive computational capabilities to support student's research and studies. Industry standard packages such as Cadence tools, Synopsys, Matlab, and many others are available.

**The Hardware Generation and Optimization (HGO) Laboratory** is dedicated to the design and optimization of digital systems, with a focus on field-programmable gate arrays (FPGAs). The lab is equipped with FPGA development systems (furnished in part through donations from Xilinx, Altera, and Intel), with all related tools.

**The High-Performance Computing and Networking Research Laboratory** is equipped to conduct research in the broad area of networking and parallel/distributed computing with emphasis on wireless/mobile networks, cloud computing, data center networks, optical networks, high-speed networks, interconnection networks and multicast communication.

**The Integrated Microsystems Laboratory** focuses on advancing the performance of CMOS IC at analog sensor interfaces. We investigate design of miniature, low-power, highly accurate sensing microsystems, that have a significant and pervasive impact on a large number of applications, ranging from new generation of biomedical devices for personal health monitors, hearing aids or implantable neural prostheses to communication devices and radiation detectors.

**The Nanoscale Circuits and Systems (NanoCAS) Laboratory** focuses on developing design methodologies for high performance as well as energy efficient integrated circuits with a variety of applications ranging from future processors to ultra-low power Internet-of-things (IoT) based devices. The NanoCAS Lab is equipped with a high performance processing and storage server, workstations, and all necessary EDA tools for modeling, design, and analysis.

**The Mixed-Domain Embedded System Laboratory** is equipped for research in the broad area of electronic system design and design automation. Current research projects involve design automation for mixed analog-digital systems and embedded systems for multimedia, sensor network applications and emerging technologies.

**The Mobile Computing and Applications Laboratory** conducts research in mobile computing systems, especially those using sensing devices for various applications in location based services, Internet-of-Things, and healthcare. The laboratory has various latest mobile and embedded devices, and access to a cloud computing facility.

**The Mobile Systems Design Laboratory** conducts research in the broad areas of VLSI system designs for signal processing, communication, and heterogeneous mobile sensors. The laboratory is equipped for design and simulation of complex hardware and software systems.

**The Optoelectronics Laboratory** possesses the infrastructure for molecular beam epitaxial semiconductor heterostructure growth, advanced material characterization as well as fabrication (clean room) and sophisticated characterization and modeling of optoelectronics devices. The recent research projects include design and development of the novel infrared lasers, light emitting diodes, photodetectors and modulators. The laboratory is actively working on metamorphic epitaxial growth techniques to develop the new class of narrow and ultra-low bandgap alloys and superlattices for long-wave infrared photodetector and other applications.

**Spellman Power Electronics Lab** is an engineering teaching lab designed to accelerate research and educational programs in alternative energy and power conversion systems.

**The Ultra-High-Speed Computing Laboratory** conducts research in high performance energy-efficient flux quantum computing and cybersecurity. It is equipped with powerful computing, networking, and storage facilities and advanced CAD tools for superconductor circuit design.

**The Wireless and Networking Systems Laboratory** conducts research in the area of wireless networking and mobile computing. The lab has extensive computing capabilities, a set of Crossbow sensors, professional sensor test bed development kit, and other equipment for network and system research.

**The Wireless Sensor and RFID Network (WSRN) Laboratory** focuses on network design and performance analysis for wireless sensor networks and RFID networks. The laboratory is equipped with state-of-art computing equipment, wireless sensor nodes by Crossbow Technologies, Inc. and MotelV (now Sentilla), and RFID equipment. Current projects include novel RFID Tag Identification algorithms, RFID anti-collision algorithms and Consensus protocols.

**The Wireless Sensing and AUTO ID Laboratory (WSAID)** - The research at the laboratory focuses on Radio Frequency Identification (RFID), wireless sensor networks, and indoor localization. The lab contains facilities and equipment to carry out cutting edge research and small-scale prototyping and evaluation of technologies in real world scenarios. Current projects at the laboratory include development of a novel UHF RFID system for enhanced performance, development of indoor localization systems based on technologies such as RFID, WiFi and Zigbee, and development of customized RFID systems for use in healthcare settings.

**Requirements for the M.S. Degree in Computer Engineering**

Admission to the MS program in Computer Engineering requires the student to have completed a Bachelor degree in Computer Engineering or Computer Science. Students with a Bachelor degree in Electrical Engineering could also be admitted if they have taken or will take the following courses or their equivalent:

ESE 345 Computer Architecture;

ESE 280 Embedded Microprocessor Systems Design I;

ESE 333 Real-Time Operating Systems.

A candidate for the master's degree may petition to transfer a maximum of 12 graduate credits from another institution towards the master's degree requirements. Students transferring from non-matriculated status are also limited to a maximum of 12 credits for the master's degree.

**I. Non-Thesis Option**

1. At least 30 graduate credits with a cumulative and departmental grade point average of 3.0 or better. Among these 30 credits, up to six credits may be from combination of ESE 597, ESE 599, or ESE 698. Only 3 credits of ESE 698 and up to 3 credits of ESE 597 may be used. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.

2. At least one (1) course from each of the following sub-areas:

**Hardware:**

ESE 507 Advanced Digital System Design & Generation

ESE 536/CSE 626 Switching and Routing in Parallel and Distributed Systems,

ESE 545 Computer Architecture,

ESE 565 Parallel Processing Architectures

ESE 566 Hardware-Software Co-Design of Embedded Systems,

ESE 587 Hardware Architectures for Deep Learning.

**Networking:**

ESE 505 Wireless Communications,

ESE 506 Wireless Network,

ESE 546 Networking Algorithms and Analysis,

ESE 548 Computer Networks,

**CAD and VLSI:**

ESE 530 Computer Aided Design,

ESE 549 Advanced VLSI System Testing,

ESE 555 Advanced VLSI System Design,

ESE 556 VLSI Physical and Logic Design Automation,

ESE 575 Advanced VLSI Signal Processing Architecture.

**At least two (2) courses from the sub-area:****Theory and Software:**

ESE 501: System Specification and Modeling

ESE 533: Convex Optimization and Eng. Applications.

ESE 534: Cyber Physical systems.

ESE 543: Mobile Cloud Computing

ESE 554 Computational Models for Computer Engineers

ESE 558: Digital Image Processing I

ESE 588 Pattern Recognition

ESE 568 Computer Vision

ESE 589: Learning Systems for Engineering Applications

ESE 590: Practical Machine Learning and Artificial Intelligence

\*CSE 506 Operating Systems

\*CSE 510 Hybrid Systems

\*CSE 548/AMS 542 Analysis of Algorithms

\* Ability of ECE students to enroll into CSE and AMS courses cannot be guaranteed.

3. At least three (3) additional regular lecture based courses. ESE 597, ESE 599, ESE 697, ESE 698 and ESE 699 are not counted as regular courses. Topics course, ESE 670, can be counted only once as a regular course.

4. At least one (maximum three) credit of ESE 597. Graduate Program Director approval is required (see graduate student guide for details). In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credit by ESE 599, ESE 699 or ESE 698.

## **II. Thesis Option**

1. Students must inform the department in writing at the end of their first semester if they would like to choose the M.S. Thesis Option.

2. At least 30 graduate credits with a cumulative and departmental grade point average of 3.0 or better. Among these 30 credits, at least six credits of ESE 599, with a maximum of 12 credits total being taken from combination of ESE 599, ESE 597, or ESE 698. Only three credits of 698 and up to 3 credits of ESE 597 can be used. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.

3. At least one (1) course from each of the following sub-areas:

### **Hardware:**

ESE 507 Advanced Digital System Design & Generation

ESE 536/CSE 626 Switching and Routing in Parallel and Distributed Systems,

ESE 545 Computer Architecture,

ESE 565 Parallel Processing Architectures

ESE 566 Hardware-Software Co-Design of Embedded Systems,

ESE 587 Hardware Architectures for Deep Learning

### **Networking:**

ESE 505 Wireless Communications,

ESE 506 Wireless Network,

ESE 546 Networking Algorithms and Analysis,

ESE 548 Computer Networks,

### **CAD and VLSI:**

ESE 530 Computer Aided Design

ESE 549 Advanced VLSI System Testing,

ESE 555 Advanced VLSI System Design,

ESE 556 VLSI Physical and Logic Design Automation,

ESE 575 Advanced VLSI Signal Processing Architecture.

**At least two (2) courses from the sub-area:**

### **Theory and Software:**

ESE 501: System Specification and Modeling

ESE 533: Convex Optimization and Eng. Applications.

ESE 534: Cyber Physical systems.

ESE 543: Mobile Cloud Computing

ESE 554 Computational Models for Computer Engineers

ESE 558: Digital Image Processing I

ESE 568 Computer Vision

ESE 588 Pattern Recognition

ESE 589: Learning Systems for Engineering Applications

ESE 590: Practical Machine Learning and Artificial Intelligence

\*CSE 506 Operating Systems

\*CSE 510 Hybrid Systems

\*CSE 548/AMS 542 Analysis of Algorithms

\* Ability of ECE students to enroll into CSE and AMS courses cannot be guaranteed.

4. At least one (1) additional regular lecture based course. ESE 597, ESE 599, ESE 697, ESE 698 and ESE 699 are not counted as regular courses. Topics course, ESE 670, can be counted only once as a regular course.

5. At least one (maximum three) credit of ESE 597. Graduate Program Director approval is required (see graduate student guide for details). In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credit by ESE 599, ESE 699 or ESE 698.

6. Students must satisfactorily complete a thesis (see graduate student guide for details). Requirements for the Ph.D. Degree in Computer Engineering

#### **A. Major and minor area requirements**

1. Major area requirement is satisfied by taking minimum of three (3) courses from a selected major area with minimum GPA of 3.5. See Graduate Student Guide for preapproved lists of courses for each area.

2. Minor area requirement is satisfied by taking courses from other areas (different from the selected major area) with minimum GPA of 3.0. Students with BS degree are required to take two (2) courses from other areas (one or two areas) while students with MS degree are required to take one (1) course.

#### **B. Course Requirements**

1. A minimum of 14 regular courses (42 regular graduate course credits) beyond the BS degree (including courses taken to satisfy major and minor requirements). The choice must have the prior approval of the designated faculty academic advisor. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.
2. The ESE 697 Practicum in Teaching (3 credits) is required to satisfy the teaching requirement. Students must be advance to candidacy in order to take this course.
3. At least 15 credit hours of ESE 699 for conducting focused research under faculty supervision.
4. The courses ESE 597, ESE 598, ESE 599, ESE 698, and ESE 699 are not counted as regular courses.
5. Courses presented under the title ESE 670 Topics in Electrical Sciences that have different subject matters, and are offered as formal lecture courses, are considered different regular courses but may not be counted more than twice.
6. Prior MS degree in ECE or related area can reduce the course requirements down to six (6) regular courses.

#### **C. Advancement to Candidacy**

After successfully completing all major/minor/course requirements (except ESE 697) the student is eligible to be recommended for advancement to candidacy. This status is conferred by the dean of the Graduate School upon recommendation from the chairperson of the department.

It is strongly recommended that doctoral students Advance to Candidacy within 2.5 years if admitted with a BS degree (after earning 42 regular course credits), or within 1.5 years if admitted with an MS degree (after earning 18 regular course credits).

#### **D. Preliminary Examination**

A student is expected to pass the preliminary examination within 1.5 years after advancement to candidacy. Both a thesis topic and the thesis background area are emphasized. Students must pass the Preliminary Examination at least ONE year prior to their Defense. See Graduate Student Guide for details.

#### **E. Dissertation**

The most important requirement for the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation must represent a significant contribution to the scientific and engineering literature, and its quality must be compatible with the publication standards of appropriate and reputable scholarly journals.

#### **F. Approval and Defense of Dissertation**

The dissertation must be orally defended before a dissertation examination committee, and the candidate must obtain approval of the dissertation from this committee. The committee must have a minimum of four members at least three (3) of whom are faculty members from the Department including the research advisor and committee chair, as well as at least one (1) member from outside of the Department. (Neither the research advisor nor the outside member may serve as the chair). Within the committee there must be a member with no conflict of interest in relationship to the student (including intellectual, personal, financial, etc.) On the basis of the recommendation of this committee, the dean of engineering and applied sciences will recommend acceptance or rejection of the dissertation to the dean of the Graduate School. All requirements for the degree will have been satisfied upon the successful defense of the dissertation.

#### **G. Residency Requirement**

The student must complete two consecutive semesters of full-time graduate study. Full-time study is 9 credits minimum per semester.

#### **H. Time Limit**

All requirements for the Ph.D. degree must be completed within seven (7) years after completing 24 credits of graduate courses in the department.

#### **Certificates**

Admission to the certificate programs is limited to students enrolled in either the MS or PhD programs in the Department of Electrical & Computer Engineering. Students may receive the certificate if they have no more than 12 graduate credits in the department as of the start of Spring 2018.

To apply for the Certificate Program, a student must complete the "Permission to Enroll in a Secondary Certificate Program" form (which requires signatures) from the Graduate School website, and submit it within the first week of the semester when they start the certificate.

##### **1. Networking & Wireless Communications Certificate**

Matriculated students only.

Networking and wireless communications are key technologies in today's technological world. Networks such as the Internet as well as telephone, cable and wireless networks serve to interconnect people and computers in a ubiquitous and cost effective way. The area of wireless communications in particular has grown rapidly in recent years and has utilized networking technology to be successful. There is a large industrial base involving networking and wireless communications in terms of equipment and software providers, service providers and end users. Moreover this technology has made the average consumer's life more productive, flexible and enjoyable.

The Stony Brook Certificate Program in Networking and Wireless Communications is designed to give matriculated students validated graduate level instruction in this area of much recent interest. The program can be completed in a reasonable amount of time as it involves only four courses. These are regular Stony Brook graduate level courses taught by Stony Brook faculty. The SUNY approved certificate program can be tailored to the needs of the individual student. Courses used for the certificate program can also be used toward the MS or PhD degree by matriculated students.

To receive the Stony Brook Certificate in Networking and Wireless Communications, a student must complete FOUR required courses as specified below, with at least a B grade in each course.

##### **At least ONE course from the following:**

ESE 505: Wireless Communications  
ESE 506: Wireless Network

##### **At least ONE course from the following:**

ESE 532: Theory of Digital Communications  
ESE 546: Networking Algorithms and Analysis  
ESE 548: Computer Networks

##### **In addition to the above, if needed, courses may be selected from:**

ESE 503: Stochastic Systems  
ESE 504: Performance Evaluation of Communication and Computer Systems  
ESE 522: Fiber Optic Systems  
ESE 528: Communication Systems  
ESE 531: Statistical Learning and Inference  
ESE 536: Switching and Routing in Parallel and Distributed Systems  
ESE 543: Mobile Cloud Computing  
ESE 544: Network Security Engineering  
ESE 547: Digital Signal Processing  
ESE 550: Network Management and Planning

**ESE 552: Interconnection Networks**

Students must request the Certificate from Professor Thomas Robertazzi via Email [Thomas.Robertazzi@stonybrook.edu](mailto:Thomas.Robertazzi@stonybrook.edu) once the program is completed.

**2. Engineering Machine Learning Systems**

Matriculated students only.

The Engineering Machine Learning Systems certificate program educates about the mathematical theory, fundamental algorithms, and optimized engineering of computational learning systems used in real-world, big data applications. Students will also study modern technologies used in devising such data systems, including software tools, architectures, and related hardware structures. Comprehensive, hands-on student projects on designing, implementing, and testing real-world learning systems are part of the certificate program. The certificate program includes a total of four courses: three required courses and one elective course.

To receive the Stony Brook certificate in the Engineering Machine Learning Systems, a student must be currently enrolled in an MS or PhD program in the Electrical and Computer Engineering Department and must complete four courses as specified below, with at least a B grade in each course.

<b>Foundations (1 required):</b>	ESE 503 Stochastic Systems
<b>Fundamental Methods (2 required):</b>	ESE 588 Fundamentals of Machine Learning ESE 589 Learning Systems for Engineering Systems
<b>Applications (1 out of three electives):</b>	ESE 568 Computer and Robot Vision, ESE 587 Hardware Architectures for Deep Learning, ESE 590 Practical Machine Learning BMI 511/ESE 569 Translational Bioinformatics

**3. Engineering the Internet of Things**

Matriculated students only.

The Engineering the Internet-of-Things certificate program provides the fundamental principles, popular technologies and optimized engineering of Internet-of-Things applications and systems. Students gain a broad set of skills and knowledge for IoT development and innovation, including sensors and interfaces, RF communication, microcontroller and embedded systems, wireless radios, network protocols, cloud services and security techniques. Students learn how to design, implement and evaluate IoT systems and applications through hands-on projects on popular embedded system hardware. The certificate program includes a total of four courses: three required courses and one elective course.

To receive the Stony Brook certificate in the Engineering the Internet-of-Things, a student must be enrolled in an MS or PhD program in the Electrical and Computer Engineering Department and must complete four courses as specified below, with at least a B grade in each course.

<b>Foundations (1 required):</b>	ESE 566 Hardware Software Co-design for Embedded Systems
<b>Basic Skills and Knowledge (2 required):</b>	ESE 506 Wireless Network ESE 525 Modern Sensors in Artificial Intelligence: Applications
<b>Cloud and Security (1 out of two electives):</b>	ESE 543 Mobile Cloud Computing ESE 544 Network Security Engineering

After completing the necessary courses, students must request/apply for completion of the certificate program on SOLAR or through the Graduate School website.

Faculty of Electrical and Computer Engineering Department

**Distinguished Professors**

Djuric, Petar M., Chairperson, Ph.D., 1990, University of Rhode Island: Signal analysis, modeling and processing; wireless communications and sensor networks.

Yang, Yuanyuan, Ph.D., 1992, Johns Hopkins University: Wireless and mobile networks, cloud computing, data center networks, optical networks, high speed networks, parallel and distributed computing systems, multicast communication, high performance computer architecture, and computer algorithms.

**Professors**

Bugallo, Monica, Ph.D., 2001, Universidade da Coruna (Spain): Statistical signal processing with the emphasis in the topics of Bayesian analysis, sequential Monte Carlo methods, adaptive filtering, and stochastic optimization.

Doboli, Alex, Ph.D., 2000, University of Cincinnati: VLSI CAD and design, synthesis and simulation of mixed analog-digital systems, hardware/software co-design of embedded systems, and high-level synthesis of digital circuits.

Hong, Sangjin, Ph.D., 1999, University of Michigan: Low-power VLSI design of multimedia wireless communications and digital signal processing systems, including SOC design methodology and optimization.

Parekh, Jayant P., Ph.D., 1971, Polytechnic Institute of Brooklyn: Microwave acoustics; microwave magnetics; microwave electronics; microcomputer applications.

Robertazzi, Thomas G., 1981, Princeton University: Computer networking; grid computing; performance evaluation; parallel processing; e-commerce technology.

Shamash, Yacov, Ph.D., 1973, Imperial College of Science and Technology in London, England: Control Theory & Systems, Energy Systems, and Industry/University Partnerships.

Short, Kenneth L., Ph.D., 1973, University at Stony Brook: Digital system design; microprocessors; instrumentation.

Shterengas, Leon, Graduate Program Director, Ph.D. 2004, Stony Brook University: Semiconductor photonic devices, nanofabrication, molecular beam epitaxy.

Subbarao, Murali, Ph.D., 1986, University of Maryland: Computer vision; image processing; pattern recognition.

Zhang, Peng, PhD, 2009, University of British Columbia, Vancouver, Canada: Power system, programmable microgrids, networked microgrids, software-defined distribution network, cyber-resilient power grid, formal methods, reachability analysis, power system stability and control.

### **Associate Professors**

Dhadwal, Harbans, Ph.D., 1980, University of London, England: Laser light scattering; fiber optics; optical signal processing and instrumentation.

Donetski, Dmitri, Ph.D., 2000, Stony Brook University: Design and technology of optoelectronic devices and systems including photovoltaic and photoconductive detectors, diode lasers and diode laser arrays.

Dorojevets, Mikhail, Ph.D., 1988 Siberian Division of the USSR Academy of Sciences, Novosibirsk: Computer architectures, systems design.

Eisaman, Matthew, Ph.D., 2006 Harvard University: Photovoltaic devices, especially light trapping nanostructures for improved solar cell efficiency, and spatial variations at the nanoscale.

Gorfinkel, Vera, Ph.D., 1980, A.F. Ioffe Physical-Technical Institute, St. Petersburg, Russia: Semiconductor devices, including microwave and optoelectronics, DNA sequencing instrumentation, single photon counting techniques.

Kamoua, Ridha, Undergraduate Program Director, Ph.D., 1992, University of Michigan: Solid-state devices and circuits; microwave devices and integrated circuits.

Lin, Shan, Ph.D., 2010, University of Virginia: Cyber physical systems, networked information systems, wireless networks, sensing and control systems.

Luo, Fang, Ph.D., 2010, Huazhong University of Science and Technology, Wuhan, China (Jointly supervised by Virginia Tech, Blacksburg, VA, USA): Power electronic devices and circuits, energy conversion systems.

Salman, Emre, Ph.D. 2009, University of Rochester: Nanoscale integrated circuit design, emerging technologies for future electronic systems, highly heterogeneous integrated systems, digital and mixed-signal circuits.

Stanacevic, Milutin, Ph.D., 2005, Johns Hopkins University: Analog and mixed-signal VLSI integrated circuits and systems; adaptive Microsystems; implantable electronics.

Suchalkin, Sergey, Ph.D., 1998, Ioffe Physical Technical Institute, Russia: Design and development of optoelectronic devices. Far- and Mid-infrared spectroscopy of solids. Physics of semiconductors and nanostructures.

Tang, K. Wendy, Ph.D., 1991, University of Rochester: Interconnection networks, parallel computing, and neural networks.

Wang, Xin, Ph.D., 2001, Columbia University: Mobile and ubiquitous computing, wireless communications and networks, grid and distributed computing, advanced applications and services over Internet and wireless networks.

Ye, Fan, Ph.D., 2004, UCLA: Mobile computing/sensing systems & applications, indoor localization and floor plan reconstruction, internet-of-things and sensor networks.

Zhao, Yue, Ph.D., 2011, UCLA: Smart energy systems, renewable energy integration, electricity market, infrastructure security, sensing and signal processing, optimization theory, information theory, communication networks.

### **Assistant Professors**

Liu, Ji, Ph.D., 2013, Yale University: Distributed control and computation, multi-agent systems, social networks, epidemic networks, and power networks.

Milder, Peter, Ph.D. 2010, Carnegie –Mellon University: Digital hardware design, generation, and optimization focusing on signal processing, computer vision, and related domains; design for FPGA.

### **Professors of Practice and Instructional Specialists**

Westerfeld, David: Design and characterization of high-performance mid-infrared semiconductor light sources (LEDs and lasers).

Gouzman, Michael: Semiconductor devices, including microwave and optoelectronics.

### **Affiliated Faculty**

Hassan Arbab, M., Assistant Professor: Terahertz emission, detection and imaging technologies and their applications in biophotonics, medical imaging, non-destructive testing, material characterization and stand-off detection of chemicals.

Goldan, Amir H., Assistant Professor: X-Ray and PET Imaging, Digital Radiological Imaging Detectors, Single Photon Counting for Medical Imaging, Detector Modeling, Fabrication, Characterization and Instrumentation, Avalanche Amorphous Selenium Detectors, Quantum Mechanical Modeling of Charge Transport, Noise-Free Avalanche Detectors.

DeLorenzo, Christine, Associate Professor: Biomarkers of Major Depressive Disorder, Antidepressant Treatment Response Prediction, Multimodal Brain Imaging, and PET Radioligands.

Liang, Jerome, Professor: Low-dose computed tomography image reconstruction, Quantitative image reconstruction for single photon emission computed tomography, High resolution positron emission tomography image reconstruction, Segmentation of tissue mixtures from multi-spectral images, Computer aided detection of abnormality and diagnosis on the detected abnormality, Development of virtual colonoscopy systems.

Park, Memming, Assistant Professor: Memming Park designs statistical models and machine learning methods specialized for analyzing neural time series. He aims to understand how information and computations are represented and implemented in the brain, both at a single-neuron and at the systems level. His group collaborates with several experimental labs on important problems in neuroscience, such as sensory coding, recovery from coma, and perceptual decision-making.

Wang, Daifeng, Assistant Professor: Data mining and machine learning in bioinformatics and biomedical data science; Computational systems biology; Computational social networks

### **Adjunct Faculty**

Chi Chen: Software Engineering, Computational Models, Feedback Control Stabilization

Gianluigi De Geronimo: Development of advanced low-noise application-specific integrated circuits for sensors from concept to transistor-level design, physical layout and characterization, frequency- and time-domain noise analysis, optimum analog and digital filters, high-precision signal processing, systems-on-chip, and semiconductor device physics

Timothy Driscoll: Electric Power Systems; Renewable Energy Resource Systems; Advanced Power Systems; Smart Grid; Electric Vehicles

Carlos Fernando Gamboa: Computer Networks and Scheduling Theory; Data Intensive Distributed Systems; Database Management Systems

Yasha Karimi: Medical device technologies, Internet of Things (IoT), Wearable Electronics, Ultra-low power Circuit and System Design

Dmitri Gavrilov: Signal processing, neural networks, embedded systems.

Dmytro Gudkov

Shaorui Li

Vibha Mane: Stochastic Modeling of Biological Networks; Statistical Machine Learning; Signal Processing, Detection and Estimation

Ronald Marge: Technical communications

Tatiana Tchoubar

Donna Tumminello: Technology Commercialization; Entrepreneurship

Dantong Yu: Data mining, high performance computing and networks

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



Computer Science Department

**Chairperson**

Samir Das, New Computer Science Building 203G (631) 632-1807

**Graduate Program Director for M.S. and Ph.D. Programs in Computer Science**

Erez Zadok, New Computer Science Building 349, (631) 632-8461

Michalis Polychronakis, New Computer Science Building 355, (631) 632-2463

**Graduate Program Coordinator for M.S. and Ph.D. Programs in Computer Science**

Kenna O'Leary, New Computer Science Building 258, Email Contact Preferred: [gradadvising@cs.stonybrook.edu](mailto:gradadvising@cs.stonybrook.edu)

**Graduate Program Admissions Administrators for M.S. and Ph.D. Programs in Computer Science**

Allison Katz, New Computer Science Building 260, Email Contact Preferred: [gradadm@cs.stonybrook.edu](mailto:gradadm@cs.stonybrook.edu)

**Degrees Awarded**

M.S. in Computer Science; Ph.D. in Computer Science

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Computer Science**

The Department of Computer Science offers an M.S. and a Ph.D. in Computer Science.

The M.S. program in Computer Science is designed primarily to train students with professional goals in business, industry, or government, requiring a detailed knowledge of computer science concepts and applications. The program concentrates primarily on applied computer science, emphasizing software development, programming, computer systems, and applications. Each student is given the experience of working on a large-scale software or hardware development project involving analysis, design, evaluation, and implementation. Students in the M.S. program can obtain a Concentration in Data Science and Engineering while fulfilling the requirements for their M.S. degree.

The Ph.D. program in Computer Science is for students interested in obtaining academic or research positions in colleges and universities or in government or commercial research laboratories. The program gives students a rigorous and thorough knowledge of a broad range of theoretical and practical research subject areas and develops the ability to recognize and pursue significant research in computer science. The first two years of graduate study are devoted to coursework. By the end of the second year the research phase of the student's graduate career should be underway, with participation in advanced study and preliminary research work. The final years of graduate study are devoted to dissertation research.

The primary areas of departmental research interests include, among others, theoretical computer science, algorithms, logic, concurrency, model checking, databases, languages, artificial intelligence, machine learning, computer vision, computer graphics, visualization, cyber-security, operating systems, networking, and computer architecture.

Information in this Bulletin concerning the M.S. and the Ph.D. programs in Computer Science is an abbreviated version of the Graduate Program Handbook found at the Computer Science Department's web site. Students must refer to the Handbook for further details and the up-to-date information. Additional information about the graduate program in Computer Science can be found on the department's Web site at [www.cs.stonybrook.edu](http://www.cs.stonybrook.edu).

**Admission to the M.S. and Ph.D. in Computer Science**

Admission to the M.S. and Ph.D. programs are handled separately by the departmental admissions committee. The requirements for admission to graduate study in computer science include:

A. Bachelor's Degree: A bachelor's degree, usually in a science or engineering discipline or in mathematics, is required. The transcript should show a grade average of at least B (3.0/4.0) in all undergraduate coursework, and in science, mathematics, and engineering courses.

B. Computer Science Background: For M.S. in Computer Science, we prefer students with CS or related degrees. Applicants with exceptional promise who lack CS preparation in one or more core areas may be admitted to the program, but will be required to take additional CS courses as specified in their offer letter. For Ph.D. in Computer Science, we mainly consider an applicant's potential for first-class research, and expect the applicants to have sufficient academic preparation and strength to succeed in Ph.D. qualifiers.

C. All international applicants to the M.S. program must submit Graduate Record Examination (GRE) scores. GRE is optional for all Ph.D. applicants and domestic M.S. applicants.

D. Acceptance by the Computer Science Department and the Graduate School.

More information on the application process can be found on our Web site: <https://www.cs.stonybrook.edu/admissions/Graduate-Program>.

**Facilities of Computer Science Department**

The Department of Computer Science (CS) comprises several special-interest labs focused on a number of research areas including: algorithms & complexity, architecture & operating systems, artificial intelligence & machine learning, bioinformatics, computer graphics & vision, cryptography, cyber physical systems, data science, file and storage systems, human-computer interaction, modeling & verification, natural

language processing, networking and mobile computing, parallel & distributed Systems, programming languages, quantum computing, robotics, security & privacy, and visualization & virtual reality. Researchers have access to cutting-edge lab equipment, such as GPU-based servers and clusters, FPGA machines, virtual reality and augmented reality headsets, immersive visualization facilities, networking and wireless tools, robots—as well as numerous computational systems, storage servers, and clusters. CS also runs large computing clusters at the AI Center and the New York State Center of Excellence in Wireless and Information Technology (CEWIT). Funded by a large portfolio of federally funded projects, research labs include extensive resources spanning two CS buildings. These resources include a multi-gigabit network, Cat-7 wired network infrastructure, Wi-Fi 6 distributed wireless network, next-generation firewalls, and state-of-art data centers. Additionally, the University provides multiple high-speed Internet connections, a 100Gbps connection to Internet2, and several large computational clusters.

Requirements for the M.S. Degree in Computer Science

Students in the M.S. degree program may choose between three options, M.S. with thesis, M.S. with advanced project, and the M.S. with special project. The course requirements depend on the option chosen.

#### **A. Registration**

Students must register for at least one graduate credit in the semester in which the diploma is awarded.

#### **B. Language Requirement**

There is no foreign language requirement.

#### **C. Course Requirements**

Students are required to complete 31 graduate credits in the Computer Science Department. There are no specific courses required other than a thesis or project. Students should complete at least one course in 3 of 4 breadth areas, each of which comprise of 5-6 graduate courses. Breadth areas are described in the Graduate Student handbook, which is accessible from the CS graduate program website <https://www.cs.stonybrook.edu/students/Graduate-Programs..> Students can take up to 4 credits of CSE 587 (at most two courses) to fill in any missing CS proficiency identified at the time of admission to the program. A list of graduate courses is provided in the course compendium at the end of this section.

#### **D. Grade Point Average**

To be certified for graduation a cumulative graduate grade point average of 3.0/4.0 or better is required.

#### **E. Concentration in Data Science and Engineering**

Students in the M.S program can complete a concentration in Data Science and Engineering by taking a specific set of courses related to the study of Data Science, which also fulfill a part of the M.S. degree requirements. The set of courses eligible for this concentration are described in the Graduate Student handbook, at <https://www.cs.stonybrook.edu/students/Graduate-Programs>. Students may request this concentration, if the requirements are met, at the time of graduation from the M.S. program.

#### **F. Advanced Project Option**

Students choosing the advanced project option are required to take the courses CSE 523/CSE 524, Laboratory in Computer Science. The two courses may not be taken in the same semester. These courses provide students with the experience of dealing with large-scale, computer-oriented problems such as those encountered in commercial, industrial, or research environments. Students taking CSE 523/CSE 524 may not use any CSE 599 (M.S. Thesis Research) credits toward their M.S. degree.

#### **G. Special Project Option**

Students choosing the special project option are required to take the courses CSE 522, Basic Project in Computer Science and one credit in research, teaching, or industrial experience that may be satisfied with CSE 698, CSE 596, Computer Science seminars (excluding CSE 600), Special Topics courses, or regular 3 credit technical Computer Science graduate courses. Students choosing this option may not use credits from CSE 523, CSE 524, or CSE 599 credits toward their M.S. degree. Moreover, at most 6 credits from CSE Special Topics (CSE 590/591/592/593/594/595) and CSE 6XX-level courses may be used toward their M.S. degree.

#### **I. Thesis Option**

A student choosing the thesis option must select a project (or thesis) advisor by the end of the second semester in the program. The role of the advisor is to guide the student through the M.S. studies, formulate a project or thesis topic, and supervise the student towards completion of the assigned task. The thesis must be approved by a departmental faculty committee of no less than three members appointed by the graduate program director. At the discretion of the committee, the student may be required to present a seminar on the topic of his or her thesis. A student registers for CSE 599 when writing a thesis. No more than nine credits of this course can be applied towards the 31 credits required for the M.S. degree.

#### **H. Switching Between the M.S. and Ph.D. Programs**

An M.S. student who wishes to advance to the Ph.D. program must take the Qualifying Examination. Regular applications to the Ph.D. program will not be considered from current M.S. students. Please refer to the Graduate Program Handbook for further details.

Requirements for the Ph.D. Degree in Computer Science

#### **A. Residence**

The student must complete two consecutive semesters of full-time graduate study. Full-time study is 12 credits per semester until 24 graduate credits have been earned. Students who have earned 24 graduate credits at another school may be assigned advanced status and are required to take only nine credits per semester for full-time status.

#### **B. Qualifying Examination**

Students must pass the written Qualifying Examination to demonstrate their ability to undertake the course of study leading to the Ph.D. degree. Qualifying examinations are given twice a year: in May (usually the week after the finals period) and in early January. Students must refer to the

Web page at [www.cs.sunysb.edu/graduate/QualsHandbook.html](http://www.cs.sunysb.edu/graduate/QualsHandbook.html) for further details and the up-to-date information on the qualifying examination. The following is a short summary of the contents of this examination.

The exam consists of three parts, 3 hours each, based on undergraduate material as described below. Undergraduate Stony Brook courses covering that material are listed in parentheses. An appropriate way for students who have already taken an undergraduate course in a particular area to prepare for the exam is to take a graduate course in that area. Questions test not just routine knowledge but also the student's ability to use that material in a creative way.

#### Theory and Mathematics:

Theory of Computation, Languages and Automata Analysis of Algorithms, and Logic. The examination is based on the following courses: CSE 303, CSE 371, CSE 213, and CSE 373.

#### Software:

Programming Languages, Compilers, Databases, and Graphics. The examination is based on CSE 304, CSE 305, CSE 307, and CSE 328.

#### Systems:

Networks and Communications, Operating Systems, Computer Architecture, and Computer Organization. The examination is based on CSE 310, CSE 306, CSE 320, and CSE 220.

The results of the written examination will be communicated to each student individually following a meeting of the faculty, which evaluates the results of the examination along with the student's ability to do research and the likelihood of completing the program.

### C. Course Requirements

In the first year, a student seeking the Ph.D. degree will normally register for a full-time load of courses selected in conjunction with an advisor in order to prepare for the Qualifying Examination. By the time of graduation, each student is required to accumulate at least 20 credits of full (regular lecture) courses, internship, special topics courses or seminars. At most five credits of seminars and internship can be included in the 20 credits required for graduation; generic courses such as CSE 593, CSE 587, CSE 600, CSE 698, and CSE 699 cannot be included. In addition, the following requirements should be noted:

*M.S.-specific courses:* Students in the Ph.D. program may not enroll in CSE 523/CSE 524 or CSE 599. These courses are specific to the M.S. program.

*Ongoing research seminar:* The student must register and complete two semesters of CSE 600. Credits earned in this course cannot be used towards the 20 credits required for the Ph.D. program.

*Internship, CSE 696:* At most two credits of Internship in Research can be counted toward the 20 credits required for the Ph.D. program.

*Dissertation Research, CSE 699:* The Dissertation Research course can be taken *only* by Ph.D. students who have been advanced to candidacy (have G5 status). Prior to the advancement, students conduct research and participate in projects by taking CSE 593: Independent study. G4 students can register for up to 9 credits of CSE 593 in any semester. G3 students can register for only up to 3 credits of CSE 593.

*Teaching requirement:* University policy requires that all doctoral students participate in an appropriately structured teaching practicum. This can be CSE 698 in conjunction with a TA in the first year.

### D. Research Proficiency Examination (RPE)

The purpose of the Research Proficiency Examination is to ascertain the breadth and depth of the student's preparation to undertake a significant original research investigation.

By the end of the third semester since admission into the Ph.D. program, an RPE Committee will have been formed for each student and an agreement reached on a research project. (M.S. students who were admitted to the Ph.D. program after passing the qualifying examination must form the RPE committee by the end of their first semester in the Ph.D. program.)

By the end of the fourth semester (at the latest) the student will take the RPE.6 (M.S. students who switched to Ph.D. must take the RPE by the end of their second semester in the Ph.D. program.)

Having passed both the qualifying examination and the RPE the student is advanced to candidacy. This status, called *G5*, is conferred by the Dean of the Graduate School upon recommendation of the Department. Note that unlike the change from G3 to G4, the change from G4 to G5 is not automatic—the student must request to be advanced to candidacy by notifying the Computer Science Graduate Secretary.

Students must advance to candidacy at least one year before defending their dissertations. The graduate school requires G5 students to register for 9 credits, which can be research or other graduate courses relevant to their dissertation. Courses outside of the major require the approval of the dissertation advisor and Graduate Director. Failure to complete the research proficiency examination within the specified time frame and obtain the G5 status is considered evidence of unsatisfactory progress.

### E. Thesis Proposal Requirement

After the student has completed the requirements in subsections C and D, and with the approval of the student's research advisor, the student will present a thesis proposal. The purpose of the thesis proposal is to assess student's progress towards the Ph.D. thesis. The proposal must be submitted to the student's Thesis Committee within 18 months of the time the student had passed the research proficiency examination. Failure to

fulfill this requirement by that time without a formal extension may be considered evidence of unsatisfactory progress toward the Ph.D. degree. The major requirements of the thesis proposal are as follows:

- (1) The student must be thoroughly familiar with the background and current status of the intended research area.
- (2) The student must have clear and well-defined plans for pursuing the research objectives.
- (3) The student must offer evidence of progress in achieving these objectives.

The student will present the thesis proposal to the thesis committee in a seminar presentation. It is limited to members of the committee, invited computer science faculty, and invited graduate students. Faculty members are free to question the student on any topics they feel are in any way relevant to the student's objectives and career preparation. Most questions, however, will be directed toward verifying the student's grasp of the intended specialty in depth. The student will be expected to show complete familiarity with the current and past literature of this area.

The findings of the committee will be communicated to the student as soon as possible and to the Graduate School within one week of the presentation of the proposal. If the committee finds the thesis proposal unsatisfactory, the student will submit an improved proposal, if such resubmission is approved by the Dean of the Graduate School.

#### **F. Dissertation**

An important requirement of the Ph.D. program is the completion of a dissertation, which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate reputable scholarly journals.

#### **G. Approval and Defense of Dissertation**

The dissertation must be orally defended before a dissertation examination committee, and the candidate must obtain approval of the dissertation from this committee. The oral defense of the dissertation is open to all interested faculty members and graduate students. The final draft of the dissertation must be submitted to the committee no later than three weeks prior to the date of the defense.

#### **H. Satisfactory Progress and Time Limit**

A student who does not meet the target dates for the Qualifying Examination, the Research Proficiency Examination, and the Thesis Proposal, or who does not make satisfactory progress toward completing thesis research may lose financial support. The candidate must satisfy all requirements for the Ph.D. degree within seven years after completing 24 credit hours of graduate courses in the Department of Computer Science at Stony Brook. In rare instances, the dean of the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department's graduate program director. A petition for extension must be submitted before the time limit has been exceeded. The dean or the department may require evidence that the student is still properly prepared for the completion of work.

#### **I. Part Time Students**

Students admitted into the Ph.D. program for part time study are bound by all the rules set out henceforth. In particular, part time students should adhere to the schedule for the Qualifying Examination, Research Proficiency Examination, and Thesis Proposal, as explained in Sections 4.3.4, 4.3.5, and 4.3.6, unless a different schedule has been approved in writing by the Graduate Director.

#### **J. Obtaining an M.S. Degree on the Way to Ph.D.**

A Ph.D. student who has passed the Research Proficiency Examination can complete the requirements for an M.S. degree by satisfying the proficiency requirements and completing 31 credits of course work.

Passing the qualifying examination is considered to have satisfied the proficiency requirements. (Another way to satisfy these requirements is, of course, to take the required courses.)

At most 9 credits of seminars (excluding CSE 600), special topics courses, or CSE 593 (Independent study) can be included in the required 31 credits. A student who has switched from the M.S. program to the Ph.D. program can in addition use the previously earned credits of CSE 523/CSE 524 toward the aforesaid 9 credits. These 9 credits together with the RPE are considered to be equivalent to the Thesis Option in the M.S. program. The remaining 22 credits required for the M.S. degree must be satisfied by taking technical graduate courses in computer science (*i.e.*, excluding courses such as CSE 523/CSE 524, CSE 587, CSE 593, CSE 596, CSE 599, CSE 696, CSE 698, CSE 699, seminars, and special topics).

Faculty of Computer Science Department

<http://www.cs.stonybrook.edu/people/faculty.html>

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

Creative Writing and Literature Program

### **Lichtenstein Center**

#### **Director**

TBD, Southampton, Chancellors Hall 238 (631) 632-5016

#### **Associate Director**

Christian McLean, Southampton, Chancellors Hall 244 (631) 632-5007

#### **Program Coordinator**

Margaret Grigonis, Southampton, Chancellors Hall 238 (631) 632-5028

#### **Director of the Manhattan Center for Creative Writing & Film**

Scott Sullivan (646) 472-2025

#### **Degree Awarded**

MFA in Creative Writing and Literature

#### **Advanced Graduate Certificate Awarded**

Advanced Certificate in Creative Writing; Advanced Certificate in Children's Literature

**Website:** [www.stonybrook.edu/mfa](http://www.stonybrook.edu/mfa)

**Application:** <https://graduateadmissions.stonybrook.edu/apply/>

### Creative Writing and Literature

The Creative Writing and Literature program at Stony Brook Southampton emphasizes creative work in fiction, poetry, and nonfiction. However, the program also extends its emphasis beyond the familiar categories of creative expression to treat all forms of writing as equally relevant to understanding and mastering a world constructed out of words. Students are free to take workshops in all genres, in the belief that writing outside the lines informs their primary areas of interest.

Courses are taught by a full-time core faculty of three, joined by a part-time faculty of distinguished visiting writers whose teaching and lecturing assignments rotate among the fall, spring, and summer sessions. These distinguished visitors provide creative breadth to the writing program, offering coverage in areas of writing that are essential in contemporary society, in particular fiction, non-fiction, poetry, scriptwriting, and writing for children.

#### The MFA in Creative Writing and Literature

The 46 academic credits for the MFA program is divided among required courses that introduce students to the profession and discipline of writing and the skills necessary to teach writing to others; advanced writing workshops in a variety of writing genres; seminars designed to focus closely on an issue or type of contemporary writing; graduate-level literature courses; and an MFA thesis intended to be a publishable, book-length work. The program is offered in two academic semesters, two six-week summer sessions, and a credit-bearing writers conference.

#### The Advanced Certificate in Creative Writing

Designed for working adults who have completed a BA and who are interested in master's level instruction, the Certificate Program in Creative Writing is distinguished by the fact that it allows students flexibility in choice of courses and genres. The Advanced Certificate is a sixteen credit hour concentration available upon successful application to degree-seeking students who have been admitted to any Stony Brook University graduate program, as well as to non-degree seeking students who meet the requirements outlined by the Graduate School.

#### The Advanced Certificate in Children's Literature

The Advanced Certificate in Children's Literature accepts up to 12 serious children's book writers each year for a part-time, year-long, 16-credit course of instruction that is customized, affordable, comprehensive, and professionally useful. Certificate students work independently with outstanding faculty mentors in spring and fall terms. During summer and winter terms, they come together as a cohort, in July at the Southampton Writers Conference and in January for a special Children's Literature Publishing and Editing Practicum. The Advanced Certificate in Children's Literature is unique in its design, suited for the types of writers who are interested in children's books—librarians, educators, and parents with young children. These student writers are not able to take time off or relocate to enroll in a full-time MFA program. Unlike the few children's literature MFA programs throughout the country and in the New York metropolitan area, the Stony Brook Advanced Certificate in Children's Literature is a flexible but coherent pathway to completion of a creative project, in only one year.

### **Special Programs**

#### *SOUTHAMPTON WRITERS CONFERENCE*

The MFA in Writing and Literature sponsors the Southampton Writers Conference, an intensive program of three-credit workshops in contemporary writing that includes lectures, readings, workshops, and panels featuring nationally distinguished authors who join the department's summer faculty. Graduate students in the program will assist in planning and running the Conference, and will have the option of taking a

Conference workshop for credit. The Writers Conference also encourages participation by visiting students – new writers, established writers, teachers of writing and editors – who will be admitted by application and may receive academic credit upon request.

### MANHATTAN

MFA courses are regularly taught in the fall and spring semester at the Stony Brook Manhattan Center for Creative Writing and Film 535 8th Avenue (between 36th and 37th Streets), 5th Floor, New York, NY 10018. The campus is easy to reach by bus, train, and subway. A block north of Penn Station.

### THE SOUTHAMPTON REVIEW

*The Southampton Review (TSR)*, sponsored by the MFA Program in Writing and Literature at Stony Brook Southampton, is a carefully-edited, beautifully-designed journal dedicated to publishing fine fiction, nonfiction, poetry, and art. *TSR* focuses on work by students and graduates of the MFA program and from the Southampton Writers Conference, but we do open our pages to writers from across the globe whose work is compelling. Our pages are equally devoted to writers whose voices are fresh as well as to those whose are well-established.

### Admission requirements of Creative Writing and Literature Program

Application for admission to the Graduate School is made to a specific program for a specific degree. For the MFA in Creative Writing and Literature, applicants must fulfill both the Graduate School admission requirements and the specific requirements for the MFA in Creative Writing and Literature. See sections I and II for details on these requirements. Application forms may be found on line at <http://www.grad.sunysb.edu/prospective/applying/index.shtml>. Please note that applications for Admission to the MFA in Creative Writing and Literature are made to MFA in Creative Writing and Literature Program and not to the Graduate School.

Electronic official transcripts from any undergraduate and graduate institutions you have attended should be sent to the Office of Graduate and Health Sciences Admissions, at [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu).

Or snail-mailed directly to the graduate school:

Office of Graduate and Health Sciences Admissions  
Stony Brook University  
Health Sciences Tower, Level 2 - Rm. 271  
Stony Brook, NY 11794-8276

For questions, please call Margaret Grigonis at (631) 632-5028

### Admission to the MFA in Writing and Literature

Applicants for the MFA program in Writing and Literature must have a bachelor's degree from an accredited college or university. The program accepts applications from candidates whose undergraduate degrees were taken in areas other than the humanities.

Admission to the program is based on the evaluation of a portfolio of the applicant's writing, made in conjunction with a review of the candidate's entire academic career, and letters of recommendation. The portfolio may include works in any written form including fiction, creative non-fiction, poetry, scripting, or other genre. Results from the Graduate Record Examination are encouraged, but not required.

In addition to the Graduate School Admission requirements, the MFA in Writing and Literature requires the following:

- Letters of recommendation from three instructors or writing professionals familiar with your written work.
- A statement discussing your reasons for graduate study (1-2 pp, submitted with the online application)
- A writing sample consisting of up to 10 pages of poetry, single-spaced, or 30 pages of prose, double-spaced (submitted with the online application). Your name should appear on the writing sample.
- A single sheet listing your address, phone number, email address, and title(s) of submission(s).
- A copy of your resume# or c.v. (submitted with the online application)

Any deficiencies in these or the Graduate School admission requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation normally will require the student to take additional work, the amount to be determined by the appropriate graduate advisory committee. Additional work may not be used to fulfill MFA degree requirements.

### Admission to the Advanced Certificate in Creative Writing

Admission to the Advanced Certificate in Creative Writing is competitive. Students who are eligible to apply include those enrolled in a graduate degree-granting program at Stony Brook University and to students who have a bachelor's degree from an accredited college or university who meet the admissions criteria.

For applicants already admitted to the University, admission involves completing a "Permission to Enroll in a Secondary Certificate" form. Students also need to submit a statement of purpose and a writing sample (details below). Students are required to have an earned bachelor's

degree (or equivalent) with a cumulative grade point average of 2.75 on a 4-point scale. The following must be submitted to the Creative Writing and Literature Program:

- A statement discussing the student's reasons for graduate study (1-2 pp, submitted with the online application)
- A writing sample consisting of up to 10 pages of poetry (single-spaced) or 30 pages of prose (double-spaced), with the student's name on the writing sample.

#### Admission to the Advanced Certificate in Children's Literature

Admission to the Advanced Certificate in Children's Literature is highly competitive. Students who are eligible to apply include those enrolled in a graduate degree-granting program at Stony Brook University and to students who have a bachelor's degree from an accredited college or university who meet the admissions criteria.

For applicants already admitted to the University, admission involves completing a "Permission to Enroll in a Secondary Certificate" form. Students also need to submit a statement of purpose and a writing sample (details below). Students are required to have an earned bachelor's degree (or equivalent) with a cumulative grade point average of 2.75 on a 4-point scale. The Children's Literature program considers only applicants for admission in Spring term. The following must be submitted to the Creative Writing and Literature Program by December 1:

- A statement discussing the student's reasons for graduate study (1-2 pp, submitted with the online application)
- A writing sample consisting of up to 10 pages of creative writing for picture book or 25 pages for chapter, middle grade or young adult.
- Letters of recommendation from three instructors or writing professionals familiar with your creative

work. Facilities

The Lichtenstein Center operates within an unique three campus model, with its core hub in Stony Brook Southampton, a bucolic campus overlooking the Atlantic Ocean, an ideal location for writers looking for a quiet, area of great natural beauty to pursue writing as art. Facilities include: The Avram Theatre, Duke Lecture Hall, Rakoff Studio Theater, Melissa Bank Patio, The Radio Lounge, The Southampton Library, Writers Speak, and the esteemed Summer Writers Conference.

Additionally, our Manhattan writers attend courses at the Stony Brook Manhattan Center for Creative Writing & Film which features the Manhattan Writers Speak reading series.

And, our TAs teach at Stony Brook West Campus, a thriving campus of over 25,000 graduate and undergraduate students. One of the State University of New York's flagship universities.

#### Requirements for the M.F.A. Degree in Creative Writing and Literature Program

The MFA in Writing and Literature degree requires 40 credits of course work and a six credit thesis for a total of 46 credits. Following are the specific requirements.

##### A. Required Introduction to the M.F.A. Program (4

credits) CWL 500 Introduction to Graduate Writing

##### B. Six of the following writing workshops (24 credits)

Students select six writing workshops from the following. Individual courses under each category will be labeled according to the content of the course. Although courses may be repeated for credit, students are strongly encouraged to experiment among the disciplines.

##### CWL 510 Forms of Fiction

Individual courses within the fiction category will be labeled according to the form covered. For example, Short Story Collections, Beginning the Novel, Advancing the Novel, etc.

##### CWL 520 Forms of Poetry

Individual courses within the poetry category will be labeled according to the form covered. For example, Prose Poems.

##### CWL 530 Forms of Scriptwriting

Individual courses within the scriptwriting category will be labeled according to the form covered. For example, Screenplay, Playwriting, etc.

##### CWL 535 Writing in Multiple Genres

Individual courses within the scriptwriting category will be labeled according to the genres covered.

##### CWL 540 Forms of Creative Nonfiction

Individual courses within the nonfiction category will be labeled according to the form covered. For example, Creative Nonfiction, Memoir, etc.

##### CWL 550 Forms of Professional and Scientific Writing

Individual courses within the professional and scientific writing category will be labeled according to the form covered. For example, Speech Writing, Writing in the Digital World, Writing about Science, etc.

CWL 570 Advanced Writing Workshop

This course is for manuscripts in progress across writing disciplines and is strongly recommended for students preparing to take the thesis.

CWL 575 Writers Conference

**C. Two or more of the following special topic writing and literature seminars (8 Credits)\***

CWL 560 Topics in Literature for Writers

CWL 565 Special Topics in Writing

CWL 588 Independent Study

\*With the approval of the Writing Program director, this requirement may be filled through taking the following graduate English Literature courses offered at Stony Brook University: EGL 501 Studies in Chaucer, EGL 502 Studies in Shakespeare, EGL 503 Studies in Milton, EGL 503 Studies in Genre, EGL 520 Studies in Renaissance, EGL 525 17th-Century Literature, EGL 530 Studies in Restoration Literature, EGL 535 Studies in Neoclassicism, EGL 540 Studies in Romanticism, EGL 545 Studies in Victorian Literature, EGL 547 Late 19th-Century British Literature, EGL 550 20th-Century British Literature, EGL 555 Studies in Irish Literature, EGL 560 Studies in Early American Literature, EGL 565 19th-Century American Literature, EGL 570 20th-Century American Literature, EGL 575 British and American Literature, EGL 584 Topics in Genre Studies

**D. One or more of the following practicums (4 credits)\***

\*With the permission of the director, a course in writing or literature may be substituted in place of the practicum requirement.

CWL 580 Practicum in Arts Administration

CWL 581 Practicum in Teaching Writing

CWL 582 Practicum in Publishing and Editing

**E. MFA Thesis (6 credits)**

CWL 599 Thesis

Requirements for the Advanced Certificate in Creative Writing

The Advanced Certificate in Creative Writing requires 16 credits of coursework. Following are the specific requirements.

**A. Required Introduction to the MFA Program (4 Credits)**

CWL 500 Introduction to Graduate Writing

**B. Three or more of the following writing workshops or topics courses (12 Credits)**

CWL 510 Forms of Fiction, 4 credits

CWL 520 Forms of Poetry, 4 credits

CWL 530 Forms of Scriptwriting, 4 credits

CWL 540 Forms of Creative Nonfiction, 4 credits

CWL 550 Forms of Professional and Scientific Writing, 4 credits

CWL 565 Special Topics in Writing, 4 credits

CWL 575 Writers Conferences, 1-6 credits

CWL 570 Advanced Writing Workshop, 4 credits

Students select three or more writing workshops or topics courses totaling 12 credits of course work. Individual topics under each category will be labeled according to the content of the course. Although courses may be repeated for credit, students are strongly encouraged to experiment among the genres.

Requirements for the Advanced Certificate in Children's Literature



The Advanced Certificate in Children's Literature requires the following 16-credit sequence of four courses, two long-distance tutorials alternating with two residential courses in an intensive conference format:

CWL 510 (4 credits): Forms of Fiction

CWL 575 (4 credits): Writers Conference

CWL 570 (4 credits): Advanced Writing

CWL 582 (4 credits): Publishing & Editing Practicum in Children's Lit

These courses must be taken in sequence, starting in Spring term.

Faculty **Lichtenstein Center** of Creative Writing and Literature Program

### **Full Professor**

Hempel, Amy.

### **Associate Professors & Associate Professors of Practice**

Harding, Paul. B.A., 1992, University of Massachusetts Amherst, M.F.A., 2000, University of Iowa

Kitano, Christine. B.A., 2007, UC Riverside, M.F.A. 2010, Syracuse University, Ph.D. 2015 Texas Tech University

Lopez, Robert.

Merrell, Susan Scarf. M.F.A., 2009, The Bennington College Writing Seminars: Fiction.

Reeves, Robert, Director. B.A., 1973, M.A., 1977, Harvard University

Sheehan, Julie. B.A., Yale University; M.F.A., 2000, Columbia University

Walker, Lou Ann, B.A., 1976, Harvard University

### **Assistant Professors**

Crane, Genevieve. M.F.A., 2012 Stony Brook University

Gaudry, Molly. B.A., 2006, University of Cincinnati; M.A., 2008, University of Cincinnati; M.F.A., 2013, George Mason University; Ph.D., 2020, University of Utah

### **Writers**

Bender, Karen E. B.A. 1986, U.C.L.A., M.F.A., 1991, University of Iowa

Caglioti, Carla. D.A., 2012, St. John's University

Chandler, William H. B.A. 1982, UCSD

Collins, William. Ph.D., 1971, University of California-Riverside: Poetry

Crace, Robert. M.F.A., 2022, Stony Brook University

Hamilton, Emma Walton. M.F.A. 2021, Stony Brook University

Jones, Kaylie. M.F.A., 1988, Columbia University: Novel, Russian Literature

Klam, Matthew. M.A., 1992, Hollins College: Creative Nonfiction

Levien, Marissa. BFA, New York University, December 2008. MFA, Stony Brook University, December 2019

Marx, Patricia. B.A., 1975, Harvard University: Fiction, Humor

McLean, Christian. M.F.A. 2022. Stony Brook University

Minot, Susan. B.A., 1978 Brown University. M.F.A. 1983, Columbia University

Plett, Casey. MFA, 2012, Columbia University

Thompson, L.B. B.A. 1997, Sarah Lawrence College, M.F.A., 2000, New York University.

Wolitzer, Meg. B.A., 1981, Brown University: Fiction.

---

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

## Cultural Analysis and Theory

Graduate Program with tracks in Comparative Literature & Cultural Studies

**Degrees Awarded**

M.A. and Ph.D in Cultural Analysis and Theory  
Certificate programs in Cultural Studies

**Department of Cultural Studies & Comparative Literature: Comparative Literature & Cultural Studies tracks****Chairperson**

Vacant

**Graduate Program Director**

Izabela Kalinowska-Blackwood, Humanities Building room #1067 (631) 632-7396

**Graduate Program Coordinator**

Mary Moran-Luba, Humanities Building room #1055 (631) 632-7456

**Website**

Visit our web page at: <http://www.stonybrook.edu/commcms/cscl>

**Application**

The Comparative Literature & Cultural Studies tracks have suspended admissions.

## Cultural Analysis and Theory

The Department of Cultural Analysis and Theory, which is part of the College of Arts and Sciences, offers the M.A. and Ph.D. degrees in Cultural Analysis & Theory, with tracks in Comparative Literature, Cultural Studies and Women's & Gender Studies as well as advanced graduate certificates in Cultural Studies and Women's and Gender Studies.

**Registration**

All students enrolled in the Graduate School in any program, whether in residence or absentia, must register each fall and spring for at least one graduate credit until all degree requirements have been met. A student is not considered to have registered until enrollment is posted on the University system, SOLAR, and arrangements regarding tuition and fees have been made with the Bursar's Office. Students who hold a TA, GA, RA, fellowship, or tuition scholarship must be registered as full-time students by the fifteenth day of classes each semester. Students failing to register before the first day of classes or before late registration begins may still register during the first 15 days of the semester, but will be charged a late fee of \$40. Students who have not been granted an official Leave of Absence by the Dean of the Graduate School and have not yet registered will be considered to have withdrawn from the University. Students are responsible for making sure they are registered on time. Programs or individual faculty members do not have authority to waive these rules.

## Admission Requirements of Cultural Analysis and Theory Program

To be considered for admission to graduate studies in Cultural Analysis and Theory, all applicants must hold a baccalaureate degree from an accredited college or university with a suitable overall grade point average and with a high average in a major field appropriate to study in comparative literature or cultural studies or both. Applicants should also have a good command of at least one, and preferably two, foreign languages. In addition, they must submit the following:

1. B.A. or M.A. degree from a recognized institution in a suitable area of study;
2. An official graduate application including a statement of purpose and 3 letters of recommendation can be completed on-line at the following Web site: <https://app.applyyourself.com/?id=sunysb-gs>.
3. One official copy of any transcript from any undergraduate college or university attended, **from which a degree was conferred**. Applicants must submit one official copy of any transcript relating to any graduate level work undertaken, **regardless of whether or not a degree was earned**. *(If transcripts are in a foreign language, authoritative English translations are required in addition to the original documents. See Academic FAQs under Transcripts for a list of acceptable translation services.)*

Note: Educational systems that cannot be compared to the United States must be evaluated by a US credentials evaluation service before admission can be finalized.

4. For international students, proficiency in English as demonstrated by a minimum TOEFL score of 550 (paper) or 213 (computer) or 90 (iBT) OR an IELTS total score of 6.5. In order to teach, any graduate student whose native language is not English must score 55 or above on the

TSE or SPEAK test OR obtain a score of 7.0 or better in the speaking component of the IELTS test. The website for ETS (TOEFL & GRE) is [www.ets.org](http://www.ets.org);

5. An appropriate score on the Graduate Record Examination General Test (GRE) Institution Code 2548;
6. Two term papers or other writing samples in literature or a related field; cultural studies, or women's and gender studies (or related fields), depending on the track applied for.
7. An application fee of \$100.

#### **Admission to the Graduate Programs (Comparative Literature Track)**

Applicants to the graduate programs with an emphasis in comparative literature are required to fulfill the minimum admission requirements of the Graduate School. In addition, applicants are ordinarily required to hold a bachelor's degree in an appropriate field from a recognized institution. Furthermore, applicants to the graduate program in comparative literature are expected to demonstrate competence in one foreign language as well as in English. Adequate reading knowledge of a second foreign language is highly desirable.

Any deficiencies in these requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation will normally require the student to take additional work, the amount to be determined by the graduate program committee and not to be used to fulfill any specific degree requirements.

In all cases, admission is by action of the graduate studies committee of the department under guidelines established by the Graduate School. Applicants are admitted on the basis of their total records, and no predetermined quantitative criteria by themselves ensure a positive or a negative decision.

Stony Brook's graduate program in comparative literature emphasizes developments in contemporary interpretive theory that have transformed disciplinary identities. It understands its "comparative" mission not only to encourage a global perspective on literature beyond narrow linguistic and cultural boundaries, but also to seek alternatives to established approaches to literary study. The program's faculty and students work closely with members of other programs in the humanities, arts, and social sciences in a collaborative effort to examine the role of literary expression as related to other forms of human activity. Students supplement their core study in comparative literature by designing individual programs with strong links to related fields. While providing students with the techniques required for advanced literary analysis, the program seeks to provide full appreciation of how those techniques interact with different modes of scholarly inquiry.

As an institution, Stony Brook is committed to increasing the opportunities for interdisciplinary activity crucial to the programs in comparative literature. The University's Humanities Institute is the most visible expression of a broad university commitment to bringing diverse scholars together for a common intellectual enterprise.

Applicants holding the M.A. degree in comparative literature from the graduate program in Cultural Analysis and Theory from Stony Brook may, upon the advice of the graduate studies committee, be directly admitted to the Ph.D. program. Other applicants will be admitted to the program after review of their qualifications.

#### **Admission to the Graduate Programs (Cultural Studies Track)**

Applicants to the graduate programs in with an emphasis in cultural studies are required to fulfill the minimum admission requirements of the Graduate School. In addition, applicants are ordinarily required to hold a bachelor's degree in an appropriate field from a recognized institution. Furthermore, applicants to the graduate programs in cultural studies are expected to demonstrate competence in one foreign language as well as in English. Adequate reading knowledge of a second foreign language is highly desirable.

Any deficiencies in these requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation will normally require the student to take additional work, the amount to be determined by the graduate program committee and not to be used to fulfill any specific degree requirements.

In all cases, admission is by action of the graduate studies committee of the department under guidelines established by the Graduate School. Applicants are admitted on the basis of their total records, and no predetermined quantitative criteria by themselves ensure a positive or a negative decision.

The graduate program in cultural studies is an interdisciplinary and interdepartmental program based in the Department of Cultural Analysis and Theory. The cultural studies programs at Stony Brook are designed for students whose interests cut across traditional modes of study in the Humanities and Social Sciences. Areas of emphasis include popular and mass culture, minority and diasporic cultures, visual culture, media and technology, cultural production, cross-cultural and transnational/global formations, as well as the study of elite, dominant, and national cultures. Course requirements are designed to build competence in interdisciplinary cultural studies theory and practice, maximize collegial interaction among students, and allow students to develop disciplinary fluency in a particular subfield.

Cultural Analysis and Theory's strengths lie primarily in literary and cultural theory, cinema and media studies, visual culture studies, and cross-cultural studies, as reflected in the Department's popular undergraduate majors in Cinema and Cultural Studies (CCS) and Women's & Gender Studies (WaGS). Competence in languages other than English has also long been considered essential to the department's mission. A network of affiliated faculty represent a wide range of areas in disciplines including Africana studies, art history and studio art, Asian and Asian American studies, Digital Art, Culture and Technology (cDACT), English, European and Hispanic languages, history, music and philosophy. Prospective students are encouraged to examine the list of faculty to see how their own interests may be served by the current faculty cohort both within and outside of CAT.

## Requirements for the M.A. Degree (Comparative Literature Track)

In addition to the minimum requirements of the Graduate School, the following are required:

### A. Course Requirements

The minimum course requirement for the M.A. degree is 30 graduate credit hours. An M.A. candidate is expected to take:

1. CLT 501: Theories of Comparative Literature
2. CLT 509: History of Literary Criticism
3. Three CLT/CST courses numbered 600 and higher

The remaining courses may be distributed among graduate offerings in comparative literature, English, foreign languages, philosophy, history, art criticism, theatre, music, and other appropriate fields. A student must achieve a 3.5 overall grade point average for all graduate courses taken at Stony Brook to receive a degree.

### B. First-Year Evaluation

In the middle of the student's second semester of graduate work, the director of graduate studies prepares a file for the student's first-year evaluation. It consists of (1) the student's grades and (2) letters from the professor in all of the student's classes. Students may submit any other relevant material such as a seminar paper or original essay. The graduate studies committee will evaluate the dossier and decide whether the student should be encouraged to continue in the program.

### C. Satisfactory Progress Toward the M.A.

Because so many factors depend on satisfactory progress toward the degree, it is important for students to be aware of and monitor their own progress. The following define the minimum limits for satisfactory progress for full-time students:

1. Maintain a 3.5 average, with no course below B-, in each semester of graduate study, as well as complete all incomplete grades by the first deadline. Students who fail to fulfill these requirements in any semester will be automatically placed on probation during the following semester and will be subject to possible dismissal.
2. Receive an acceptable first-year evaluation in the spring semester of the first year of study.

### D. Foreign Language Requirements

Entering students are expected to have a good command of one and preferably two foreign languages. Students must ultimately be competent in one major and one minor language (non-native speakers of English may offer English as one of the two languages).

All students must have passed the language requirements before they are allowed to take the M.A. examination. To demonstrate competence in the major language, students must take for credit, and earn a grade of B or better in, at least one graduate or advanced undergraduate literature course conducted in the language (final papers may be written in English). Competence in the minor language can be demonstrated by (1) earning a grade of B or better in a graduate translation course or (2) passing a CLT examination to be taken with a dictionary

### E. M.A. Examination

*Examination:* The student will take a two-hour oral examination in the second year of graduate study or submit a master's thesis. The exam measures the student's knowledge and mastery of literary theory and its history, familiarity with the major texts of world literature, and ability to compose a competent stylistic analysis of literary texts. The master's examination committee consists of three members of the faculty, at least two of whom are members of the CAT graduate faculty. The student's advisor normally chairs the committee, and the other two members are chosen by the director of graduate studies in consultation with the student and his/her advisor.

*Reading List for the Examination:* The student, in consultation with the examination committee, prepares a list of works in each of the following three areas: 1) history of literary theory from the Greeks to the present; 2) a literary genre; and 3) a literary period. The list for (1) is set. Each of the other reading lists will consist of 15 to 20 primary texts.

(The number of required titles for the genre will be increased if the student chooses short works; whatever the genre, the reading required should approximate that imposed by 15 to 20 novels.) The list, signed by the student and all members of the examination committee, must be submitted to the director of graduate studies for approval by the graduate studies committee at least four weeks prior to the examination date. At the two-hour oral exam at least two of the three members of the examination committee must be present.

*Thesis Substitute for Master's Examination:* Instead of taking the M.A. examination, students may substitute a thesis for the exam. The thesis must be on a substantive topic in comparative literature requiring original research. The student will form a committee of three faculty, at least two of whom must be from the comparative literature graduate faculty, who will supervise the project and give final approval. The student's committee and project proposal must be approved by the graduate studies committee prior to embarking on the thesis.

### F. Advisor and Mentor

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose one, or preferably two, official graduate advisors from the comparative literature graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. Advisors are normally chosen for one year, but students are, of course, free to change advisors and are encouraged to consult with all members of the faculty.

**G. Residence Requirements**

The University requires that students receiving a M.A. must take at least two consecutive semesters of full-time graduate study, this usually means 12 credits per semester.

**Requirements for the Ph.D. Degree (Comparative Literature Track)**

In addition to the minimum requirements of the Graduate School, the following are required:

**A. Course Requirements**

1. CLT 501: Theories of Comparative Literature
2. CLT 509: History of Literary Criticism
3. CLT 680: Cultural Studies Research Seminar
4. CLT 698/CST 698: Teaching Practicum
5. *Twelve additional graduate courses, at least three of which must be CLT/CST/WST courses numbered 600 or higher*

A minimum of 48 credits of graduate work is required for the Ph.D. Students who hold an M.A. in comparative literature or a related discipline can request that their transcripts be evaluated by the graduate studies committee and may receive a maximum of 30 credits toward their Ph.D.

All students seeking the Ph.D. must take the required courses listed above, unless the graduate program committee accepts comparable courses taken previously. All Ph.D. students must acquire a minimum of one semester of formal teaching experience (even if they are unsupported or are on a fellowship requiring no teaching duties) and must concurrently take the formal teaching practicum, CLT 698.

In their first year students will take the Teaching Practicum CLT 698. The Practicum will include information about Stony Brook undergraduate requirements and the various undergraduate programs administered by CAT, data on Stony Brook undergraduates, analyses of practical pedagogical issues, consideration of the aims of education and the social role of the university, and teaching observations. The Practicum also provides students with the opportunity to develop a syllabus for an undergraduate course. The Practicum meets roughly every two weeks during both semesters of the first year. The Practicum Director serves as an advisor to first year students, prior to their selection of individual faculty advisors in the second semester.

Students must take the required courses when they are offered, and cannot replace them by Independent Study courses, except in the most unusual circumstances and by petition to the director of graduate studies at the beginning of the term the course is offered. The petition has to be signed by the person directing the Independent Study and must be approved by the graduate studies committee.

Students taking any Independent Study or Directed Reading course will do so under the departmental rubrics, CLT 599 and CLT 690. Under exceptional circumstances, the director of graduate studies may approve Independent Study under another department's designator, contingent on proper comparative literature procedures being followed. A maximum of six credits of Independent Study courses is applicable to the degree requirements for the Ph.D. All such courses must be approved by the director of graduate studies before the end of the add/drop period of the semester during which they are to be taken. All students taking Independent Study or Directed Reading courses must file a detailed description, for which forms are available in the Department office. Failure to have these courses approved in a timely fashion will result in de-registration or in denial of credit for the courses.

**B. First-Year Evaluation**

In the middle of the student's second semester of graduate work, the director of graduate studies prepares a file for the student's first-year evaluation. It consists of: 1) the student's grades, 2) letters from the professor in all of the student's classes, and, if the student is a teaching assistant, 3) a letter of evaluation from appropriate faculty, and 4) student evaluations. Students may submit any other relevant material such as a Seminar paper or original essay. The graduate studies committee will evaluate the dossier and decide whether the student should be encouraged to continue in the program.

In May of the second year, and each year following, the student will complete a report on progress in the program, including specific progress towards degree (coursework, qualifying exams, dissertation prospectus, and dissertation) and other achievements (funding, research, presentations, and publications). They will then meet with the director of graduate studies or dissertation advisor to discuss their progress in the program. The graduate studies committee will evaluate the report and decide whether the student should be encouraged to continue in the program.

**C. Satisfactory Progress Toward the Ph.D.**

In addition to requirements above, Ph.D. students must fulfill the following requirements:

1. Maintain at least a 3.5 average, with no course below B-, in each semester of graduate study. There is a one year maximum limit on incompletes. A student may accumulate no more than two incomplete grades in any one semester or he/she will no longer be considered a Student in Good Standing, a prerequisite to continue in the program. As a result, the student will lose his or her T.A. line as well as face likely dismissal from the program;
2. Receive a satisfactory first-year evaluation in the spring semester of the first year of study;

3. Satisfy at least one language requirement in each year of residence until all language requirements are met. All language requirements must be completed at least three months before the comprehensive examination;
4. Complete all core courses in the first two years of full-time study and all 48 credits for the Ph.D. in three years;
5. Take the comprehensive examination no later than one year after completion of coursework;
6. Submit a dissertation proposal in the semester following satisfactory completion of the comprehensive examination.

By rules of the Graduate School, students must satisfy all requirements for the Ph.D. within seven years after completing 24 credits of graduate work in the Stony Brook department in which they are registered. In rare instances, the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department. The program may require evidence that the student is still properly prepared for completion of the degree. In particular, the student may be required to pass the comprehensive examination again in order to be permitted to continue work.

#### **D. Foreign Language Requirements**

Entering graduate students are expected to have a good command of at least one, and preferably two, foreign languages. Candidates for the Ph.D. will eventually demonstrate competence in two or three foreign languages, depending on which of the two options outlined below the student chooses. All language requirements must be met three months before students sit for the comprehensive examination.

Non-native speakers of English may choose English (but not their native language) as one of their foreign languages. All students are of course required to demonstrate full command of written and spoken English, the language of instruction in most comparative literature courses.

Whenever possible, language exams for comparative literature students will be given by core or affiliated faculty in CAT. Each exam will be read by two faculty members.

The options for fulfilling the language requirement are as follows:

Option A: The student offers two principal foreign languages. A principal language is defined by the student's demonstrating a high degree of competence in the language, i.e., the ability to understand lectures given in the language and to read it with facility.

Students may demonstrate this degree of competence by taking for credit, and by earning a grade of B or better in at least one graduate or advance undergraduate course in the lettered humanities conducted in the language. This course must have been taken within five years of matriculating to Stony Brook and must have been taken at an accredited University. Final papers may be written in English. In special cases, students may substitute an advanced language examination of three hours in lieu of course work.

The examination consists of three sections: a) oral comprehension, defined as the ability to understand and summarize in English the contents of two graduate level lectures conducted in the foreign language; b) written comprehension, defined as the ability to understand and answer questions on a moderately long (approximately ten pages) theoretical, critical, or scholarly article; c) translation skills, shown through translating into English an advanced-level literary passage. The student is permitted to use a dictionary for part c but not for part b. If the principal foreign language being examined is a Classical language (e.g., Classical Chinese, Sanskrit, Greek), the three-hour test will consist of translations at an appropriately advanced level.

Option B: The student offers one principal language and two secondary languages. Demonstration and competence in the principal language will be the same as outlined for Option A.

Competence in the secondary languages can be demonstrated in either of the following ways:

1. By earning a grade of B or better in a graduate translation course taught by one of the foreign language departments at Stony Brook. Credits for a graduate translation course do not count toward the total credits required for the Master's or the Ph.D. degree in Comparative Literature.
2. By passing a departmental examination consisting of two parts, each one hour long, to be taken with a dictionary: a) a short theoretical, critical, or scholarly article that the student is required to summarize and discuss in English; b) a translation of a short literary prose passage of medium difficulty.

#### **E. Comprehensive Examination**

*Comprehensive Examination in Comparative Literature:* Full-time students who are candidates for the Ph.D. will normally take their comprehensive examination no more than one year after completing their course work. Completing the language requirement is a prerequisite for sitting for the examination.

*Committee for the Examination:* Students will discuss the choice of a chair for their examination committees with their advisors and the director of graduate studies. One CAT faculty member will be asked by the student to serve as chair of the committee. Three more faculty members who can examine the student in one or more areas of the examination, as defined below, will be selected by the student in consultation with the director of graduate studies, the advisor and the chair of the committee. At least three of the four members of the examination committee must be members of the CAT graduate faculty (including affiliates). At least three of the members of the committee must be physically present at the examination.

*Reading List:* A reading list for all parts enumerated below will be compiled by the student with the help of the examination committee. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for

final pre-examination review of requirements. Students should submit a description of the special area, related to the dissertation, along with the reading list.

*Examination:* The examination is oral, with the duration to be determined by the members of the committee but not shorter than two hours and not longer than three. Questions posed by examiners will be based on the reading list for the examination. The examination may be passed, passed with distinction, failed, or failed in part. In case of failure, the examination may be retaken once, but no later than the end of the semester following the time when it was initially scheduled. In case of partial failure, the second examination will cover only the area(s) on which the candidate's performance was inadequate.

The comparative literature comprehensive examination will consist of four parts:

1. History of Literary Criticism
2. A literary genre
3. A period in literary history
4. A special area of a comparative nature

For parts 2 to 4 of the comprehensive examination, the reading list submitted must include primary texts in at least two languages other than English. Reading lists in these areas are not intended to be exhaustive, but they should provide coverage of the field that adequately prepares the student to teach courses in the areas of the examination. Guidelines for the preparation of the reading lists can be obtained in the Department.

Parts 2 and 3 normally include 35-45 primary texts and 12-15 secondary works.

#### **F. Advancement to Candidacy**

Advancement to candidacy is granted by the Graduate School upon recommendation of the director of graduate studies after a successful comprehensive examination. Again, all other requirements must have been met before the student sits for the comprehensive examination. Advancement must be 1 year prior to defense.

Students who have passed their Ph.D. oral comprehensive exam will be deemed to have passed the equivalent of the master's exam and be granted a M. Phil. degree unless they already have a master's degree in comparative literature from another institution. The student must file appropriate papers with the department.

#### **G. Dissertation**

The dissertation represents the culmination of the student's degree program and should be a serious contribution to scholarship.

Within three months of passing the comprehensive examination, the student must be prepared to schedule the Dissertation Proposal Review.

As soon as possible, after the Comprehensive Examination, the candidate should choose a dissertation director, as well as the two CAT readers of the dissertation. (The reader outside CAT at SB may be chosen nearer to the defense date, at the discretion of the dissertation director.) The director of the dissertation must be a member of the CAT core faculty. Affiliates may co-direct dissertations with a core faculty member. In consultation with the dissertation director and the readers, the candidate drafts a dissertation proposal.

The dissertation prospectus, which must be appropriate to comparative literature, should be between 2000 and 3500 words, not counting footnotes or bibliography, and should include the following:

- Title of the dissertation;
- Description of the topic and its appropriateness for comparative literature in focus and method;
- The rationale behind the choice of topic, and the anticipated contribution of the proposed research to knowledge;
- A discussion of the argument your dissertation will advance;
- Current state of research on the topic and a basic bibliography;
- Method of work, including the general approach (e.g., historical, generic, thematic, structural) and an outline of chapters.

When the director and readers have approved the prospectus, the student and the director will schedule a Dissertation Prospectus Review to be attended by the student, the director, and all other members of the dissertation committee. Faculty and/or graduate students may be invited to the review at the discretion of the student. The review should be no less than one hour in length. The director, the readers, and others in attendance will discuss the proposal with the student in order to insure that the student is ready to proceed in the project. When the director and the readers agree that the student is ready, they will sign off on the prospectus and submit it to the Director of Graduate Studies. The candidate then proceeds to the dissertation.

#### **Guidelines for Dissertation Prospectus Review**

- The student will circulate her or his prospectus to all members of the committee three weeks prior to the review.
- The student will begin the review with a summary of the project in less than five minutes. She or he should clearly communicate the core thesis of the prospective dissertation.
- The members of the committee will then ask questions and make suggestions.
- The student should take notes during the meeting and make sure that she or he understands what the committee is suggesting.



- At the end of the meeting, the student will be asked to leave the room so that the members of the committee can discuss whether or not they are ready to sign off on the prospectus. If the members of the committee are satisfied that the student is prepared to begin writing the dissertation, they will sign off on the document and send it to the DGS.
- In some cases the committee may decide not to sign and request a revised proposal. If the members of the committee are satisfied with the revised proposal, there is no need for a second dissertation prospectus review. In some cases, however, the committee may decide that a second review is necessary.

Although there are no strict regulations on length, dissertations will normally be between 200 and 400 pages, not including bibliography and other supplemental material. The dissertation committee may, in special cases and with justification, allow a student to submit a shorter or longer dissertation.

When the dissertation has been completed in accordance with guidelines published in Guide to the Preparation of Theses and Dissertations, legible copies of the complete dissertation must be given to all committee members at least one month in advance of the scheduled defense.

All dissertation defenses shall take place on campus and require the full attendance of the dissertation examining committee. Any exceptions from this practice will require approval from the Dean of the Graduate School. Campus Audio/Video Services can be employed in the event that either a committee member or the defending student cannot be on the premises due to extenuating circumstances. While the examining committee may wish to hold the committee examination of the defense in private, the public presentation of the defense will be open to the university community and should be advertised campus-wide three weeks prior to the scheduled date. A minimum of three weeks prior to the dissertation defense, the dissertation abstract, approved by the student's advisor and director of graduate studies, must be submitted to the Graduate School with details of the time and location for the defense. The Graduate School will be responsible for advertising the defense to the university community.

The dissertation examining committee will set up the ground rules for the defense, which usually involves the student giving a short précis of the research problem, the research method, and the results. This is followed by questions from the Committee and, if the committee so desires, from the audience.

#### **H. Teaching Assistantships**

For Ph.D. students awarded teaching assistantships, four years of full support is the department's norm. Awards are renewable annually, provided the student maintains satisfactory academic progress towards the degree and performs teaching duties appropriately (see above, Satisfactory Progress). Students (other than Turner fellows) should not count on assistantship resources beyond the fourth year of study.

During their first year, Ph.D. students will normally be placed as teaching assistants in CAT lecture courses. During their second and third years, students will most commonly teach as instructors in the Writing Program or in the Department of Asian and Asian American Studies, and during their fourth year, as independent instructors of CAT courses. Admitted students who would prefer a Writing Program or AAAS placement during their first year should notify the Department immediately upon admission into the Ph.D. program. While placements will vary according to student and program needs and constraints, every effort will be made to provide each student with the available range of teaching experiences.

Graduate students in Cultural Analysis and Theory have the opportunity to teach a wide variety of courses. Their teaching obligation may be fulfilled in several ways depending on departmental needs: Assisting an instructor in a large lecture course; teaching a small section of a literature course under the supervision of the CAT faculty; participating in the basic language course in a foreign language department or in a composition course in the English department.

T.A. assignments differ, but the amount of work required cannot exceed 20 hours per week. T.A.s will usually: Hold office hours to review course materials, assist in grading, and discuss other course-related issues with undergraduates; attend classes (graduate courses will be scheduled to minimize interference with T.A. assignments) and read all required entries on the syllabus; lead discussion groups; grade exams, homework, and other written material.

The performance of teaching assistants is monitored by evaluation forms given to undergraduate students at the end of each semester, as well as by faculty members who visit certain classes taught by the T.A. and submit a written evaluation. Stipends of teaching assistants may be terminated if (on the basis of these evaluations and other relevant criteria) the graduate studies committee judges that they have been deficient in carrying out their teaching duties. Superior work as a T.A. is highly valued by the CAT faculty and by the Graduate School. In the past, several T.A.'s from CAT have won the President's Award for Excellence in Teaching by a Graduate Student. This and other prizes for which T.A.'s are eligible carry a cash award.

#### **I. Advisor and Mentor**

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose one, or preferably two, official graduate advisors from the CAT graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. Advisors are normally chosen for one year, but students are, of course, free to change advisors and are encouraged to consult with all members of the faculty.

#### **J. Residence Requirement**

The University requires that students receiving a Ph.D. must take at least two consecutive semesters of full-time graduate study. For those entering without prior graduate study or with fewer than 24 graduate credits, this usually means 12 credits per semester; for those entering with more than 24 graduate credits or with advanced standing provided by prior graduate work, this would mean 9 credits per semester.

Requirements for the M.A. Degree (Cultural Studies Track)

In addition to the minimum requirements of the Graduate School, the following are required:

### A. Course Requirements

The M.A. in Cultural Studies requires 30 credits of graduate work. At least 15 credits must be taken within the department (including no more than three credits of CST 597 or CST 599). The following courses must be taken by all M.A. students.

1. CST 502: Theories of Cultural Studies
2. CST 510: History of Cultural Studies
3. CST 609: Topics in Cultural Theory
4. Two CLT/CST courses numbered 600 and higher

### B. First-Year Evaluation

In the middle of the student's second semester of graduate work, the director of graduate studies or director of cultural studies prepares a file for the student's first-year evaluation. It consists of: 1) the student's grades and (2) letters from the professors in all the student's classes. Students may submit any other additional relevant material they choose. The graduate studies committee will evaluate the dossier and decide whether the student should continue in the program.

Because so many factors influence students' satisfactory progress towards the degree, it is important for students to be aware of and to monitor their own situation. The following define the minimum limits for satisfactory progress for full-time students:

1. Maintain a 3.5 grade point average, with no course below B-, in each semester of graduate study. There is a one-year maximum limit on incompletes. A student may accumulate no more than two incomplete grades in any one semester or she/he will no longer be considered a Student in Good Standing, a prerequisite to continue in the program. As a result, the student will likely face dismissal from the program.
2. Receive a satisfactory first-year evaluation in the spring semester of the first year of study.

### C. Language Requirements

Candidates for the MA are required to demonstrate competence in either one principal foreign language (that is, any language that is of principal importance to the student's course of study) or two secondary languages. English may count as a principal language for non-Native speakers.

To demonstrate competence in the principal foreign language, students must take for credit and earn a grade of B or better in at least one graduate or advanced undergraduate literature course conducted in the language (final papers may be written in English). Or, students may enroll in an independent study. In special cases, students may substitute an advanced language examination of three hours in lieu of course work. The examination consists of three sections: a) oral comprehension, defined as the ability to understand and summarize in English the contents of two graduate level lectures conducted in the foreign language; b) written comprehension, defined as the ability to understand and answer questions on a moderately long (approximately ten pages) theoretical, critical, or scholarly article; c) translation skills, shown through translating into English an advanced-level literary passage. The student is permitted to use a dictionary for part c but not for part b. If the principal foreign language being examined is a Classical language (e.g., Classical Chinese, Sanskrit, Greek), the three-hour test will consist of translations at an appropriately advanced level.

Competence in the *two* secondary languages can be demonstrated by: 1) earning a grade of B or better in a graduate translation course or 2) passing a translation examination to be taken with a dictionary.

### D. Master's Examination

The student will take a two-hour oral examination in the second year of graduate study or submit a master's thesis. The Master's examination committee consists of three members of the faculty, at least two of whom are members of the CAT core faculty. The student's advisor normally chairs the Committee, and the other two members are chosen by the director of graduate studies in consultation with the student and his/her advisor.

*Reading List for the Examination:* The student, in consultation with the examination committee, prepares a list of works in each of the following three areas: A) History and theory of cultural studies; B) A cultural phenomenon; C) a historical period. Each of the other reading lists will consist of 15-20 primary texts. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements. At the two-hour oral exam at least two of the three members of the examination committee must be present.

*Thesis Substitute for Master's Examination:* Instead of taking the M.A. examination students may substitute a thesis for the Master's examination. The thesis must be on a substantive topic in cultural studies requiring original research. The student will form a committee of three faculty, at least two of whom must be from the CAT core faculty, who will supervise the project and give approval. The student's committee and project proposal must be approved by the graduate studies committee prior to embarking on the thesis.

### E. Advisor and Mentor

The Graduate School requires all students to have an advisor. The director of cultural studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose one official graduate advisor from the Cultural Analysis and Theory graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. Advisors are normally chosen for one year, but students are, of course, free to change advisors and are encouraged to consult with all members of the faculty.

Incoming students are also urged to choose a faculty member to serve as a mentor who can meet with the student to discuss a variety of concerns not necessarily involving course work.

#### **F. Residence Requirement**

The University requires that students receiving a M.A. must take at least two consecutive semesters of full-time graduate study, this usually means 12 credits per semester.

#### Requirements for the Ph.D. Degree (Cultural Studies Track)

In addition to the minimum requirements of the Graduate School, the following are required:

##### **A. Course Requirements**

1. CST 502: Theories in Cultural Studies
2. CST 510: History of Cultural Studies
3. CST 680: Cultural Studies Research Seminar
4. CLT/CST 698: Teaching Practicum
5. *Twelve additional graduate courses, at least three of which must be CLT/CST/WSL courses numbered 600 or higher.*

To ensure disciplinary fluency in a more traditional sense, students are strongly recommended to take at least three of these courses in a single discipline (outside the core cultural studies sequence), and to include at least one faculty member from that field on the Ph.D. oral exam and dissertation committees.

A minimum of 48 credits of graduate work to be completed before the comprehensive exam is required for the Ph.D. Students who hold an M.A. in cultural studies can transfer up to *30 credits* at the discretion of the director of graduate studies and director of cultural studies. If students enter the program with an M.A. in some other discipline (e.g., Anthropology, Art, English, Film Studies, History, Media Studies, etc.), the director of graduate studies and director of cultural studies may grant them up to *18 credits*. It will be the prerogative of the graduate studies committee to grant additional credits to such students, up to a maximum of 30 credits.

Please note: Students must take the required courses when they are offered, and cannot replace them by Independent Study courses, except in the most unusual circumstances and by petition to the director of graduate studies before the beginning of the term the course is offered. The petition has to be signed by the person directing the Independent Study and must be approved by the director of graduate studies and director of cultural studies. A student may take no more than one Independent Study in a given semester. A maximum of six credits will count toward the Ph.D.

All students seeking the Ph.D. must take the required courses listed above, unless the graduate studies committee accepts comparable courses taken previously. All Ph.D. students must acquire a minimum of one semester of formal teaching experience (even if they are unsupported or are on a fellowship requiring no teaching duties) and must concurrently take the formal teaching practicum, CST 698.

In their first year students will take the Teaching Practicum CLT 698. The Practicum will include information about Stony Brook undergraduate requirements and the various undergraduate programs administered by CAT, data on Stony Brook undergraduates, analyses of practical pedagogical issues, consideration of the aims of education and the social role of the university, and teaching observations. The Practicum also provides students with the opportunity to develop a syllabus for an undergraduate course. The Practicum meets roughly every two weeks during both semesters of the first year. The Practicum Director serves as an advisor to first year students, prior to their selection of individual faculty advisors in the second semester.

##### **B. First-Year Evaluation**

Following the student's second semester of graduate work, the director of graduate studies or director of cultural studies will prepare a file for the student's first-year evaluation. It consists of: 1) a qualifying paper, usually the paper produced for a core seminar; 2) the student's grades, 3) letters from the professors in each of the student's classes, and, if the student is a teaching assistant, 4) a letter of evaluation from appropriate faculty, and 5) student evaluations. The graduate studies committee will evaluate the dossier and decide whether the student should be encouraged to continue in the program.

In May of the second year, and each year following, the student will complete a report on progress in the program, including specific progress towards degree (coursework, qualifying exams, dissertation prospectus, and dissertation) and other achievements (funding, research, presentations, and publications). They will then meet with the director of graduate studies or dissertation advisor to discuss their progress in the program. The graduate studies committee will evaluate the report and decide whether the student should be encouraged to continue in the program.

##### **C. Satisfactory Progress Toward the Ph.D.**

In addition to requirements listed above, Ph.D. students must fulfill the following requirements:

1. Maintain at least a 3.5 average, with no course below B-, in each semester of graduate study. There is a one year maximum limit on incompletes. A student may accumulate no more than two incomplete grades in any one semester or he/she will no longer be considered a Student in Good Standing, a prerequisite to continue in the program. As a result, the student may lose his or her T.A. line and face possible dismissal from the program;

2. Receive a satisfactory first-year evaluation in the spring semester of the first year of study;
3. Satisfy the foreign language requirement at least three months before the comprehensive examination;
4. Complete all core courses in the first two years of full-time study and all 48 credits for the Ph.D. in three years;
5. Take the comprehensive examination no later than one year after completion of coursework;
6. Submit a dissertation proposal in the semester following satisfactory completion of the comprehensive examination.

By rules of the Graduate School, students must satisfy all requirements for the Ph.D. within seven years after completing 24 credits of graduate work in the Stony Brook department in which they are registered. In rare instances, the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department. The program may require evidence that the student is still properly prepared for completion of the degree. In particular, the student may be required to pass the comprehensive examination again in order to be permitted to continue work.

#### **D. Foreign Language Requirements**

Ph.D. students may choose to demonstrate competence in either one principal foreign language (that is, any language that is of principal importance to the student's course of study) or two secondary languages. English may count as a principal language for non-Native speakers.

To demonstrate competence in the principal foreign language, students must take for credit and earn a grade of B or better in at least one graduate or advanced undergraduate literature course conducted in the language (final papers may be written in English). Or, students may enroll in an independent study. In special cases, students may substitute an advanced language examination of three hours in lieu of course work. The examination consists of three sections: a) oral comprehension, defined as the ability to understand and summarize in English the contents of two graduate level lectures conducted in the foreign language; b) written comprehension, defined as the ability to understand and answer questions on a moderately long (approximately ten pages) theoretical, critical, or scholarly article; c) translation skills, shown through translating into English an advanced-level literary passage. The student is permitted to use a dictionary for part c but not for part b. If the principal foreign language being examined is a Classical language (e.g., Classical Chinese, Sanskrit, Greek), the three-hour test will consist of translations at an appropriately advanced level.

Competence in the *two secondary languages* can be demonstrated by: 1) earning a grade of B or better in a graduate translation course or 2) passing a translation examination to be taken with a dictionary.

#### **E. Comprehensive Examination**

Students who are candidates for the Ph.D. will normally take their comprehensive examination no more than one year after completing their course work. Completing the language requirement is a prerequisite for sitting for the examination.

Committee for the Examination: Students will discuss the choice of a dissertation chair for their examination committee with their advisors and the director of cultural studies. One CAT faculty member will be asked by the student to serve as chair of the committee. Three more faculty members who can examine the student in one or more areas of the examination, as defined below, will be selected by the student in consultation with the director of graduate studies, the advisor, and the Chair of the committee. At least three of the four members of the examination committee must be CAT faculty or affiliates. At least three of the members of the committee must be physically present at the examination.

Reading Lists: A reading list for all parts enumerated below will be compiled by the student with the help of the examination committee. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements. Please note: Students should also submit a description of the special area, related to the dissertation, along with the reading list.

Examination: The examination is oral, with the duration to be determined by the members of the committee but not shorter than two hours and not longer than three. Questions posed by examiners will be based on the reading lists for the examination. The examination may be passed, passed with distinction, failed, or failed in part. In case of failure, the examination may be retaken once, but no later than the end of the semester following the time when it was initially scheduled. In case of partial failure, the second examination will cover only the area(s) on which the candidate's performance was inadequate.

The Cultural Studies comprehensive examination consists of four parts: Cultural Theory; An in-depth Study of a Cultural Phenomenon; An historical Period; Area of Specialized Interest.

Each part of the examination should include at least 40 works. Half of the list for Part 1 will be composed of books from the Cultural Theory Reading List and the student's research interests. The Cultural Theory Reading List is available from the CAT office. There is no standard list of required works for parts 2-4, although committee members may insist on including certain texts at their discretion. All parts of the reading lists must include texts in at least two languages other than English (translations are acceptable). Reading lists in these areas are not intended to be exhaustive, but they should provide coverage of the field that adequately prepares the student to teach courses in the areas of the examination. Guidelines for the preparation of the reading lists can be obtained in the Department.

#### **F. Advancement to Candidacy**

Advancement to candidacy is granted by the Graduate School upon recommendation of the director of graduate studies after a successful comprehensive examination. Again, all other requirements must have been met before the student sits for the comprehensive examination.

Students who have passed their Ph.D. oral comprehensive exam will be deemed to have passed the equivalent of the master's exam and be granted a M. Phil. degree unless they already have a master's degree in cultural studies from another institution. The student must file appropriate papers with the department.

## G. Dissertation

The dissertation represents the culmination of the student's degree program and should be a serious contribution to scholarship.

Within three months of passing the comprehensive examination, the student must be prepared to schedule the Dissertation Prospectus Review.

As soon as possible, after the Comprehensive Examination, the candidate should choose a dissertation director, as well as the two CAT readers of the dissertation. (The reader outside CAT at SB may be chosen nearer to the defense date, at the discretion of the dissertation director.) The director of the dissertation must be a member of the CAT core faculty. Affiliates may co-direct dissertations with a core faculty member. In consultation with the dissertation director and the readers, the candidate drafts a dissertation prospectus.

The dissertation prospectus, which must be appropriate to cultural studies, should be between 2000 and 3500 words, not counting footnotes or bibliography, and should include the following:

- Title of the dissertation;
- Description of the topic and its appropriateness for cultural studies in focus and method;
- The rationale behind the choice of topic, and the anticipated contribution of the proposed research to knowledge;
- A discussion of the argument your dissertation will advance;
- Current state of research on the topic and a basic bibliography;
- Method of work, including the general approach (e.g., historical, generic, thematic, structural) and an outline of chapters.

When the director and readers have approved the prospectus, the student and the director will schedule a Dissertation Prospectus Review to be attended by the student, the director, and all other members of the dissertation committee. Faculty and/or graduate students may be invited to the review at the discretion of the student. The review should be no less than one hour in length. The director, the readers, and others in attendance will discuss the prospectus with the student in order to insure that the student is ready to proceed in the project. When the director and the readers agree that the student is ready, they will sign off on the prospectus and submit it to the Director of Graduate Studies. The candidate then proceeds to the dissertation.

### Guidelines for Dissertation Prospectus Review

- The student will circulate her or his prospectus to all members of the committee three weeks prior to the review.
- The student will begin the review with a summary of the project in less than five minutes. She or he should clearly communicate the core thesis of the prospective dissertation.
- The members of the committee will then ask questions and make suggestions.
- The student should take notes during the meeting and make sure that she or he understands what the committee is suggesting.
- At the end of the meeting, the student will be asked to leave the room so that the members of the committee can discuss whether or not they are ready to sign off on the prospectus. If the members of the committee are satisfied that the student is prepared to begin writing the dissertation, they will sign off on the document and send it to the DGS.
- In some cases the committee may decide not to sign and request a revised proposal. If the members of the committee are satisfied with the revised proposal, there is no need for a second dissertation prospectus review. In some cases, however, the committee may decide that a second review is necessary.

Although there are no strict regulations on length, dissertations will normally be between 200 and 400 pages, not including bibliography and other supplemental material. The dissertation committee may, in special cases and with justification, allow a student to submit a shorter or longer dissertation.

When the dissertation has been completed in accordance with guidelines published in Guide to the Preparation of Theses and Dissertations, legible copies of the complete dissertation must be given to all committee members at least one month in advance of the scheduled defense.

All dissertation defenses shall take place on campus and require the full attendance of the dissertation examining committee. Any exceptions from this practice will require approval from the Dean of the Graduate School. Campus Audio/Video Services can be employed in the event that either a committee member or the defending student cannot be on the premises due to extenuating circumstances. While the examining committee may wish to hold the committee examination of the defense in private, the public presentation of the defense will be open to the university community and should be advertised campus-wide three weeks prior to the scheduled date. A minimum of three weeks prior to the dissertation defense, the dissertation abstract, approved by the student's advisor and director of graduate studies, must be submitted to the Graduate School with details of the time and location for the defense. The Graduate School will be responsible for advertising the defense to the university community.

The dissertation examining committee will set up the ground rules for the defense, which usually involves the student giving a short précis of the research problem, the research method, and the results. This is followed by questions from the Committee and, if the committee so desires, from the audience.

## H. Teaching Assistantships

For Ph.D. students awarded teaching assistantships, four years of full support is the department's norm. Awards are renewable annually, provided the student maintains satisfactory academic progress towards the degree and performs teaching duties appropriately (see below, Satisfactory Progress). Students (other than Turner fellows) should not count on assistantship resources beyond the fourth year of study.

During their first year, Ph.D. students will normally be placed as teaching assistants in CAT lecture courses. During their second and third years, students will most commonly teach as instructors in the Writing Program or in the Department of Asian and Asian American Studies, and during

their fourth year, as independent instructors of CAT courses. Admitted students who would prefer a Writing Program or AAAS placement during their first year should notify the Department immediately upon admission into the Ph.D. program. While placements will vary according to student and program needs and constraints, every effort will be made to provide each student with the available range of teaching experiences.

Graduate students in Cultural Analysis and Theory have the opportunity to teach a wide variety of courses. Their teaching obligation may be fulfilled in several ways depending on departmental needs: Assisting an instructor in a large lecture course; teaching a small section of a literature course under the supervision of the CAT faculty; participating in the basic language course in a foreign language department or in a composition course in the English department.

T.A. assignments differ, but the amount of work required cannot exceed 20 hours per week. T.A.s will usually: Hold office hours to review course materials, assist in grading, and discuss other course-related issues with undergraduates; attend classes (graduate courses will be scheduled to minimize interference with T.A. assignments) and read all required entries on the syllabus; lead discussion groups; grade exams, homework, and other written material.

The performance of teaching assistants is monitored by evaluation forms given to undergraduate students at the end of each semester, as well as by faculty members who visit certain classes taught by the T.A. and submit a written evaluation. Stipends of teaching assistants may be terminated if (on the basis of these evaluations and other relevant criteria) the graduate studies committee judges that they have been deficient in carrying out their teaching duties. Superior work as a T.A. is highly valued by the CAT faculty and by the Graduate School. In the past, several T.A.'s from CAT have won the President's Award for Excellence in Teaching by a Graduate Student. This and other prizes for which T.A.'s are eligible carry a cash award.

### **I. Advisor and Mentor**

The Graduate School requires all students to have an advisor. The director of cultural studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose one official graduate advisor from the Cultural Analysis and Theory graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. Advisors are normally chosen for one year, but students are, of course, free to change advisors and are encouraged to consult with all members of the faculty.

Incoming students are also urged to choose a faculty member to serve as a mentor who can meet with the student to discuss a variety of concerns not necessarily involving course work.

### **J. Residence Requirement**

The University requires that students receiving a Ph.D. must take at least two consecutive semesters of full-time graduate study. For those entering without prior graduate study or with fewer than 24 graduate credits, this usually means 12 credits per semester; for those entering with more than 24 graduate credits or with advanced standing provided by prior graduate work, this would mean 9 credits per semester.

## **Requirements for the M.A. Degree (Women's and Gender Studies Track)**

In addition to the minimum requirements of the Graduate School, the following are required:

### **A. Course Requirements**

The minimum course requirement for the M.A. degree is 30 graduate credit hours. An M.A. candidate is expected to take:

1. WST 600 Feminist Interdisciplinary Histories and Methods
2. WST 601 Feminist Theories
3. WST 698 Women's and Gender Studies Teaching Practicum
4. Two additional WST courses numbered 600 or higher

The remaining courses may be distributed among graduate offerings in other appropriate fields. A student must achieve a 3.5 overall grade point average for all graduate courses taken at Stony Brook to receive a degree.

### **B. First-Year Evaluation**

In the middle of the student's second semester of graduate work, the director of graduate studies prepares a file for the student's first-year evaluation. It consists of (1) the student's grades and (2) letters from the professors in all of the student's classes. Students may submit any other relevant material such as a seminar paper or original essay. The graduate studies committee will evaluate the dossier and decide whether the student should be encouraged to continue in the program.

**C. Satisfactory Progress Toward the M.A.** Because so many factors depend on satisfactory progress toward the degree, it is important for students to be aware of and monitor their own progress. The following define the minimum limits for satisfactory progress for full-time students:

1. Maintain a 3.5 average, with no course below B-, in each semester of graduate study, as well as complete all incomplete grades by the first deadline. Students who fail to fulfill these requirements in any semester will be automatically placed on probation during the following semester and will be subject to possible dismissal.
2. Receive an acceptable first-year evaluation in the spring semester of the first year of study.

### **D. Foreign Language Requirements**

Students must show competence in one foreign language. Competence in a foreign language can be demonstrated by (1) earning a grade of B or better in a graduate translation course or (2) passing a language examination to be taken with a dictionary. All students must have passed the language requirements before they are allowed to take the M.A. examination.

### **E. M.A. Examination**

M.A. students will complete a thesis on a substantive topic in Women's and Gender Studies requiring original research. The student will form a committee of three faculty, at least two of whom must be from the Women's and Gender Studies graduate faculty, who will supervise the project and give final approval. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements.

**F. Advisor and Mentor**

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose an official graduate advisor from the women's and gender studies core faculty. Advisor and student meet regularly to discuss the student's progress and program. Students are encouraged to consult with all members of the faculty.

**G. Residence Requirements**

The University requires that students receiving an M.A. must take at least two consecutive semesters of full-time graduate study, which usually means 12 credits per semester.

Requirements for the Ph.D. Degree (Women's and Gender Studies Track)

In addition to the minimum requirements of the Graduate School, the following are required:

**A. Course Requirements**

1. WST 600 Feminist Interdisciplinary Histories and Methods
2. WST 601 Feminist Theories
3. WST 698 Practicing Women's and Gender Studies
4. WST 680 Interdisciplinary Research Design
5. Twelve additional graduate courses, at least three of which must be WST courses numbered 600 or higher

A minimum of 48 credits of graduate work is required for the Ph.D. Students who hold an M.A. in Women's and Gender Studies or a related discipline can request that their transcripts be evaluated by the graduate studies committee and may receive a maximum of 30 credits toward their Ph.D.

All students seeking the Ph.D. must take the required courses listed above, unless the graduate program committee accepts comparable courses taken previously. All Ph.D. students must acquire a minimum of one semester of formal teaching experience (even if they are unsupported or are on a fellowship requiring no teaching duties) and must concurrently take the formal teaching practicum (WST 698).

The Women's and Gender Studies Teaching Practicum prepares students to teach an introductory course in Women's and Gender Studies by engaging with recent developments in feminist pedagogy. Students will observe introductory and upper-level classes in WaGS, and write a syllabus for Introduction to Women's and Gender Studies (WST 102 or WST 103), as well as a syllabus rationale and teaching philosophy. At the same time, we will consider broader questions about the university as an institution in the current moment, and the place of Women's and Gender Studies within the contemporary university. Along with a consideration of the changing practices and objects of feminist knowledge production, we will also discuss the changing politics and economics of academia, and the impact of the wider academic milieu on what and how knowledge is produced.

Students must take the required courses when they are offered, and cannot replace them by Independent Study courses, except in the most unusual circumstances and by petition to the director of graduate studies at the beginning of the term the course is offered. The petition has to be signed by the person directing the Independent Study and must be approved by the graduate studies committee.

Students taking any Independent Study or Directed Reading course will do so under the departmental rubrics, WST 599 or WST 690. Under exceptional circumstances, the director of graduate studies may approve Independent Study under another department's designator. A maximum of six credits of Independent Study courses is applicable to the degree requirements for the Ph.D. All such courses must be approved by the director of graduate studies before the end of the add/drop period of the semester during which they are to be taken. All students taking Independent Study or Directed Reading courses must file a detailed description, for which forms are available in the Department office. Failure to have these courses approved in a timely fashion will result in de-registration or in denial of credit for the courses.

**B. First-Year Evaluation**

In the middle of the student's second semester of graduate work, the director of graduate studies prepares a file for the student's first-year evaluation. It consists of: 1) the student's grades, 2) letters from the professor in all of the student's classes, and, if the student is a teaching assistant, 3) a letter of evaluation from appropriate faculty, and 4) student evaluations. Students may submit any other relevant material such as a seminar paper or original essay. The graduate studies committee will evaluate the dossier and decide whether the student should be encouraged to continue in the program. In May of the second year, and each year following, the student will complete a report on progress in the program, including specific progress towards degree (coursework, qualifying exams, dissertation proposal, and dissertation) and other achievements (funding, research, presentations, and publications). They will then meet with the director of graduate studies or dissertation advisor to discuss their progress in the program. The graduate studies committee will evaluate the report and decide whether the student should be encouraged to continue in the program. C. Satisfactory Progress Toward the Ph.D.

In addition to requirements above, Ph.D. students must fulfill the following requirements:

1. Maintain at least a 3.5 average, with no course below B-, in each semester of graduate study. There is a one-year maximum limit on incompletes. A student may accumulate no more than two incomplete grades in any one semester or he/she will no longer be considered a Student in Good Standing, a prerequisite to continue in the program. As a result, the student will lose his or her T.A. line as well as face likely dismissal from the program;
2. Receive a satisfactory first-year evaluation in the spring semester of the first year of study, and satisfactory progress report each following May;
3. Satisfy the language requirement before the comprehensive examination;
4. Complete all core courses in the first two years of full-time study and all 48 credits for the Ph.D. in three years;
5. Take the comprehensive examination no later than one year after completion of coursework;
6. Submit and defend a dissertation proposal in the semester following satisfactory completion of the comprehensive examination, no later than one year and a half after completion of coursework.

By rules of the Graduate School, students must satisfy all requirements for the Ph.D. within seven years after completing 24 credits of graduate work in the Stony Brook department in which they are registered. In rare instances, the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department. The program may require evidence that the student is still properly prepared for completion of the degree. In particular, the student may be required to pass the comprehensive examination again in order to be permitted to continue work.

### D. Foreign Language Requirements

Entering graduate students are expected to have a good command of at least one foreign language. All language requirements must be met three months before students sit for the comprehensive examination.

All students are of course required to demonstrate full command of written and spoken English, the language of instruction in most Women's and Gender Studies courses.

Whenever possible, language exams for students will be given by core or affiliated faculty in CAT. Each exam will be read by a faculty member. Competence in a foreign language can be demonstrated in one of the following ways:

1. By earning a grade of B or better in a graduate translation course taught by one of the foreign language departments at Stony Brook. Credits for a graduate translation course do not count toward the total credits required for the Master's or the Ph.D. degree in Women's and Gender Studies.
2. By passing an examination consisting of two parts, each one hour long, to be taken with a dictionary: a) a short theoretical, critical, or scholarly article that the student is required to summarize and discuss in English; b) a translation of a short scholarly article or passage of medium difficulty.
3. By passing an hour-long oral examination. This option is encouraged for students intending to do interviewing or field research for their dissertation.

### E. Comprehensive Examination

*Comprehensive Examination in Women's and Gender Studies:* Full-time students who are candidates for the Ph.D. will normally take their comprehensive examination no more than one year after completing their course work. Completing the language requirement is a prerequisite for sitting for the examination.

*Committee for the Examination:* Students will discuss the choice of a chair for their examination committees with their advisors and the director of graduate studies. One WaGS core or graduate faculty member will be asked by the student to serve as chair of the committee. Three more faculty members who can examine the student in one or more areas of the examination, as defined below, will be selected by the student in consultation with the director of graduate studies, the advisor and the chair of the committee. At least three of the four members of the examination committee must be members of the WaGS core or graduate faculty. At least three of the members of the committee must be physically present at the examination. In most cases, this committee will be the same as the committee for the student's dissertation, which will provide continuity between the comprehensive examination and the writing of the dissertation.

*Reading Lists:* A reading list for all parts enumerated below will be compiled by the student with the help of the examination committee. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements. The definitive version of the reading list, with a cover page bearing signatures of the committee members and indicating who will chair, must be submitted to the graduate studies committee no later than two weeks prior to a meeting of the graduate studies committee. The list must be approved by all members of the student's committee. Students should submit a description of the special area, related to the dissertation, along with the reading list (see below).

*Examination:* The examination is written, followed by a short oral defense of the student's written exam. Questions posed by examiners will be based on the reading list for the examination. The examination may be passed, passed with distinction, failed, or failed in part. In case of failure, the examination may be retaken once, but no later than the end of the semester following the time when it was initially scheduled. In case of partial failure, the second examination will cover only the area(s) on which the candidate's performance was inadequate.

The Women's and Gender Studies comprehensive examination will consist of three parts.

1. Feminist theories/interdisciplinary methods
2. One of the doctoral program's four areas of specialization (transnational social movements and globalization; the politics of representation and media analysis; critical analysis of sexuality; and gender and health)
3. Special area (related to the student's dissertation project)

### F. Advancement to Candidacy

Advancement to candidacy is granted by the Graduate School upon recommendation of the director of graduate studies after a successful comprehensive examination. Again, all other requirements must have been met before the student sits for the comprehensive examination.

Advancement must be 1 year prior to dissertation defense. Students who have passed their Ph.D. comprehensive exam will be deemed to have passed the equivalent of the master's exam and be granted a M. Phil. degree unless they already have a master's degree in Women's and Gender Studies from another institution. The student must file appropriate papers with the department.

### G. Dissertation

The dissertation represents the culmination of the student's degree program and should be a serious contribution to scholarship.

Within three months of passing the comprehensive examination, the student must be prepared to schedule the Dissertation Proposal Review. This must be scheduled at a date no later than one year after completion of coursework.

As soon as possible, after the Comprehensive Examination, the candidate should choose a dissertation director, as well as the two readers of the dissertation, from the WaGS core or graduate faculty. Generally, this will be the same as or based on the comprehensive examination committee. The director of the dissertation must be a member of the WaGS core faculty. Graduate faculty may co-direct dissertations with a core faculty member. In consultation with the dissertation director and the readers, the candidate drafts a dissertation proposal. *Dissertation Proposal:* The dissertation proposal, which must be appropriate to Women's and Gender Studies, should be between 2000 and 5000 words, not counting footnotes or bibliography, and should include the following:

- Title of the dissertation;
- Description of the topic and its appropriateness for Women's and Gender Studies in focus and method;
- The rationale behind the choice of topic, and the anticipated contribution of the proposed research to knowledge;
- A discussion of the argument your dissertation will advance;
- Current state of research on the topic and a basic bibliography;
- Description of research methods.

When the director and readers have approved the proposal, the student and the director will schedule a Dissertation Prospectus Review to be attended by the student, the director, and all other members of the dissertation committee. Faculty and/or graduate students may be invited to the review at the discretion of the student. The review should be no less than one hour in length. The director, the readers, and others in attendance will discuss the proposal with the student in order to insure that the student is ready to proceed in the project. When the director and the readers



agree that the student is ready, they will sign off on the proposal and submit it to the Director of Graduate Studies. The candidate then proceeds to the dissertation.

#### Guidelines for Dissertation Prospectus Review

- The student will circulate her or his proposal to all members of the committee three weeks prior to the review.
- The student will begin the review with a summary of the project in less than five minutes. She or he should clearly communicate the core thesis of the prospective dissertation.
- The members of the committee will then ask questions and make suggestions.
- The student should take notes during the meeting and make sure that she or he understands what the committee is suggesting.
- At the end of the meeting, the student will be asked to leave the room so that the members of the committee can discuss whether or not they are ready to sign off on the proposal. If the members of the committee are satisfied that the student is prepared to begin writing the dissertation, they will sign off on the document and send it to the DGS.
- In some cases the committee may decide not to sign and request a revised proposal. If the members of the committee are satisfied with the revised proposal, there is no need for a second dissertation prospectus review. In some cases, however, the committee may decide that a second review is necessary.

*Dissertation:* Although there are no strict regulations on length, dissertations will normally be between 200 and 400 pages, not including bibliography and other supplemental material. The dissertation committee may, in special cases and with justification, allow a student to submit a shorter or longer dissertation. The student should discuss with her or his dissertation director and committee members their expectations for their involvement in the research/writing process.

When the dissertation has been completed in accordance with guidelines published in Guide to the Preparation of Theses and Dissertations, legible copies of the complete dissertation must be given to all committee members at least one month in advance of the scheduled defense. All dissertation defenses shall take place on campus and require the full attendance of the dissertation examining committee. Any exceptions from this practice will require approval from the Dean of the Graduate School. Campus Audio/Video Services can be employed in the event that either a committee member or the defending student cannot be on the premises due to extenuating circumstances. While the examining committee may wish to hold the committee examination of the defense in private, the public presentation of the defense will be open to the university community and should be advertised campus-wide three weeks prior to the scheduled date. A minimum of three weeks prior to the dissertation defense, the dissertation abstract, approved by the student's advisor and director of graduate studies, must be submitted to the Graduate School with details of the time and location for the defense. The Graduate School will be responsible for advertising the defense to the university community. The dissertation examining committee will set up the ground rules for the defense, which usually involves the student giving a short précis of the research problem, the research method, and the results. This is followed by questions from the Committee and, if the committee so desires, from the audience.

#### H. Teaching Assistantships

For Ph.D. students awarded teaching assistantships, four years of full support is the department's norm. Awards are renewable annually, provided the student maintains satisfactory academic progress towards the degree and performs teaching duties appropriately (see above, Satisfactory Progress). Students (other than Turner fellows) should not count on assistantship resources beyond the fourth year of study.

During their first year, Ph.D. students will normally be placed as teaching assistants in a WaGS lecture courses. After the first year, students' teaching obligation may be fulfilled in several ways depending on departmental needs, including assisting an instructor in a large course or teaching a small section of a 200-level or 300-level women's and gender studies class. While placements will vary according to student and program needs and constraints, every effort will be made to provide each student with the available range of teaching experiences.

T.A. assignments differ, but the amount of work required cannot exceed 20 hours per week. T.A.s will usually: Hold office hours to review course materials, assist in grading, and discuss other course-related issues with undergraduates; attend classes (graduate courses will be scheduled to minimize interference with T.A. assignments) and read all required entries on the syllabus; lead discussion groups; grade exams, homework, and other written material.

The performance of teaching assistants is monitored by evaluation forms given to undergraduate students at the end of each semester, as well as by faculty members who visit certain classes taught by the T.A. and submit a written evaluation. Stipends of teaching assistants may be terminated if (on the basis of these evaluations and other relevant criteria) the graduate studies committee judges that they have been deficient in carrying out their teaching duties. Superior work as a T.A. is highly valued by the CAT faculty and by the Graduate School. In the past, several T.A.'s from CAT have won the President's Award for Excellence in Teaching by a Graduate Student. This and other prizes for which T.A.'s are eligible carry a cash award.

#### I. Advisor and Mentor

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose an official graduate advisor from the WaGS core or graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. The advisor will most often end up directing the student's dissertation. Students are encouraged to consult with all members of the faculty. Students will have selected a dissertation committee by the end of their third year.

#### J. Residence Requirement

The University requires that students receiving a Ph.D. must take at least two consecutive semesters of full-time graduate study. For those entering without prior graduate study or with fewer than 24 graduate credits, this usually means 12 credits per semester; for those entering with more than 24 graduate credits or with advanced standing provided by prior graduate work, this would mean 9 credits per semester

#### The Graduate Certificate Program In Cultural Studies

Students who complete the Cultural Studies Certificate Program will, upon completion of their home department's Ph.D. program, be awarded the Ph.D. in "[home department] and cultural studies." Ph.D. students from all departments at Stony Brook are eligible; M.A./M.F.A. students may also apply and be admitted by the director of cultural studies.

The cultural studies program at Stony Brook is designed for students whose interests cut across traditional modes of study in the Humanities and Social Sciences. Areas of emphasis include popular and mass culture, minority and diasporic cultures, visual culture, media and technology, cultural production, cross-cultural and transnational/global formations, as well as the study of elite, dominant, and national cultures.

The Cultural Studies Certificate program is designed for graduate students whose interests are not fully served by traditional Humanities and Social Science departments but who seek to be employed by such departments as they continue to adapt and evolve in a changing disciplinary and interdisciplinary landscape. The certificate is administered through the Department of Cultural Analysis and Theory (CAT), in conjunction with the Humanities Institute at Stony Brook. CAT's strengths lie primarily in literary and cultural theory, cinema and media studies, visual culture studies, and cross-cultural studies, as reflected in the Department's popular undergraduate major in Cinema and Cultural Studies. A network of Cultural Studies affiliated faculty represent a wide range of areas in disciplines including Africana Studies, Art History and Studio Art, Asian and Asian American Studies, Digital Art, Culture and Technology (cDACT), English, European and Hispanic Languages, History, Music, Philosophy, and Women's Studies. The Certificate Program is open to students enrolled in any of Stony Brook's Ph.D. programs. M.A./M.F.A students may be admitted on approval of the Director of Cultural Studies, who will advise students in tailoring the program to their specific needs. The Certificate will be awarded upon completion of the 15-credit sequence (two core courses and three electives), which may also be counted toward the Ph.D. in the student's home department.

### Course Requirements

1. CST 510: History of Cultural Studies
2. CST 609: Topics in Cultural Theory
3. CST 698: Teaching Practicum

*Two-credit CST elective courses are also required.* These will normally be included in a list of electives published in the semester prior to their being offered (available in the CAT Department). Students may request that other relevant courses be approved to count as electives by contacting the director of cultural studies. Please be aware that a maximum of 6 graduate credits earned prior to the student being matriculated into the secondary program can be applied to the secondary program.

For more information, contact:

Department of Cultural Analysis and Theory  
Room 2048  
Stony Brook University  
Stony Brook, NY 11794-5355

Faculty of Cultural Analysis & Theory

**Tim August**, *Assistant Professor*, (Ph.D., 2014, University of Minnesota)

**Brooke Belisle**, *Assistant Professor*, (Ph.D., 2012, University of California, Berkeley) Faculty Fellow American Council of Learned Societies; Comparative media studies and visual culture studies; the history and theory of digital media, cinema and photography.

**Mary Jo Bona**, *Professor* (Ph.D., 1989, University of Wisconsin-Madison) American literature, Italian American literature, multiethnic American literature, women's literature, gender/genre theory, theories of narrativity, theories of ethnicity, migration/diaspora literary histories.

**Ritch Calvin**, *Assistant Professor* (Ph.D., 2000, Stony Brook University) Feminist theory, Latina literature and culture, Latina feminisms, feminist science fiction, reproductive technologies.

**Lisa Diedrich**, *Associate Professor* (Ph.D., 2001, Emory University) Critical medical studies, disability studies, feminist theories, interdisciplinary methods.

**Melissa M. Forbis**, *Assistant Professor* (Ph.D. University of Texas at Austin) Transnational gender theories and politics, race/ethnicity, indigenous rights, Mexico and Latin America, feminist ethnography.

**Jacob Gaboury**, *Assistant Professor* (Ph.D., 2014, New York University) Digital Media, History of Computing, Queer Studies, Media Theory, Visual Culture, Art and Technology.

**Raiford Guins**, *Associate Professor* (Ph.D., 2000, University of Leeds): History of technology, video game history and preservation, material and object culture, visual culture and design studies, technological governance and media regulation, cultural studies and cultural history.

**Robert Harvey**, *Distinguished Professor* (Ph.D., 1988, University of California, Berkeley): 20th-century and contemporary literature in French and English; critical theory; film, relations between philosophy and literature.

**Victoria Hesford**, *Associate Professor* (Ph.D., 2001, Emory University) Gender, sexuality, queer and feminist theory, U.S. queer and feminist history, popular and mass culture in the postwar era, and critical theory.

**Nancy Hiemstra**, *Assistant Professor* (Ph.D., 2012, Syracuse University) Global migration, migration policy-making, immigration enforcement practices, "homeland security" at the scales of home and community, processes of racialization, constructions of borders and sovereignty, Latin America, feminist epistemology and methodologies.

**Izabela Kalinowska Blackwood** *Associate Professor* (Ph.D., 1995, Yale University): Russian and Polish literature; culture and film.

**E. Ann Kaplan**, *Distinguished Professor* (Ph.D., 1970, Rutgers University): Contemporary theory -- world cinema, media, and gender; trauma, ethnicity, and memory studies; humanities for the environment.

**Liz Montegary**, *Assistant Professor* (Ph.D., 2011, University of California, Davis) Feminist and queer theory; transnational American studies; LGBT/queer activism; travel, tourism, and mobility studies; cultural studies of militarization.

**Patrice Nganang**, *Associate Professor* (Ph.D., 1998, Johan Wolfgang Goethe-University, Frankfurt/Main (Germany): European philosophy; critical theory; African literature; cinema and colonialism; theories of violence; media theory; media theory; creative writing.

**Nikos Panou**, *Assistant Professor and Peter V. Tsantes Endowed Professor in Hellenic Studies* (Ph.D. 2008, Harvard University) Reception studies; Byzantine and Modern Greek literature and culture; Orientalism; Mediterranean studies; history of emotions.

**Gregory Ruf**, *Associate Professor* (Ph.D., 1994, Columbia University): Socio-Cultural Anthropology, Gender & Social Organization, Cultural Ecology & Environmental History, Social Theory, Research Design, Ethnographic Methods & Writing, Political & Legal Anthropology, Economic Development, Historical Anthropology.

**E.K. Tan**, *Associate Professor* (Ph.D., 2007, University of Illinois at Urbana-Champaign): Modern and Contemporary Chinese Literature, Sinophone Literature, Chinese Language Cinema, Film Theory, Diaspora Theory, Globalization Theory, Psychoanalytical Theory, Translation Theory.

#### Affiliated Faculty

**Nerissa Balce**, *Associate Professor* (Ph.D., University of California-Berkeley Ethnic Studies): Asian American literature and popular culture, Filipino American studies, Humor studies, Postcolonial theory, U.S. Empire studies.

**Pamela Block**, *Associate Professor* (Ph.D., 1997, Duke University): Researches disability experience on individual, organizational and community levels, focusing on socio-environmental barriers, empowerment/capacity-building, and health promotion.

**Ruth B. Bottigheimer**, *Research Professor* (D.A., 1981, University at Stony Brook): Tale collections, children's literature, fairy tales; socio-cultural analysis of literature.

**Edward S. Casey**, *Distinguished Professor* (Ph.D., 1967, Northwestern University): Phenomenology, philosophical psychology, aesthetics, theory of psychoanalysis. Recent research includes investigations into place and space; landscape painting and maps as modes of representation; ethics and the other; feeling and emotion; philosophy of perception (with special attention to the role of the glance); the nature of edges.

**Daniela Flesler**, *Associate Professor* (Ph.D., 2001, Tulane University): Contemporary Spanish Literature and Cultural Studies, Postcolonial Theory, Spain and North Africa, Immigration, Tourism.

**Michele Friedner**, *Assistant Professor* (Ph.D., 2011, University of California, Berkeley- University of California, San Francisco): deaf and disability studies, India, development, anthropology, theories of stigma and value.

**Michael Kimmel**, *Professor*, (Ph.D., 1981, University of California, Berkeley): Comparative and historical development; social movements; gender and sexuality

**Shirley Jennifer Lim**, *Associate Professor* (Ph.D., 1998, University of California at Los Angeles): U.S. racial minority women's cultural history.

**Sara Lipton**, *Associate Professor* (Ph.D., 1991, Yale University): Religious identity and experience, Jewish-Christian relations, and art and cultural in the high Middle Ages (11th-14th centuries).

**Iona Man-Cheong**, *Associate Professor* (Ph.D., 1991, Yale University): Chinese history, culture and society, particularly Qing dynasty; women, gender and sexuality in China.

**Celia Marshik**, *Associate Professor* (Ph.D. 1999, Northwestern University): 20th Century British Literature; Modernism; Feminist Studies.

**Adrián Perez-Melgosa**, *Associate Professor* (Ph.D., 1995, University of Rochester): Cinema and the novel in the Americas; cultural studies.

**Adrienne Munich**, *Professor*, (Ph.D., 1976, City University of New York): Victorian cultural studies, feminist theory, popular culture.

**Zabet Patterson**, *Assistant Professor* (Ph.D., 2007, University of California, Berkeley): media archaeology, contemporary art and technology, history of digital representation, history of art, critical theory and psychoanalysis.

**Mary C. Rawlinson**, *Associate Professor* (Ph.D., 1978, Northwestern): Aesthetics, literature, and philosophy; Proust, mystery, and detective fiction; 19th-century Philosophy (esp. Hegel); philosophy of medicine.

**Michael Rubenstein**, *Assistant Professor* (Ph.D., 2003, Rutgers State University): James Joyce; 20th-Century Irish Literature; 20th-Century British and Anglophone Literature; Postcolonial Literature; Modernism; Psychoanalysis; The Novel; Film; Environmentalism and the Humanities.

**Jeffrey Santa Ana**, *Assistant Professor* (Ph.D., 2003, University of California, Berkeley): American literature and culture; Asian American literature and film; Filipino diaspora; global migration and transnationalism; gender and sexuality studies; race and ethnicity; emotion studies.

**Andrew V. Uroskie**, *Associate Professor* (Ph.D. University of California, Berkeley): History criticism and theory of modern and contemporary art; experimental film, video installation, sound and performance; critical theory, aesthetics, psychoanalytic philosophy; histories and theories of modern media

**Kathleen M. Vernon**, *Associate Professor* (Ph.D., 1982, University of Chicago): Contemporary Spanish and Latin American cinema and cultural studies; gender and popular culture; contemporary Hispanic literature.

**Tracey Walters**, *Associate Professor* (Ph.D., 1999, Howard University): African American literature; Black British literature and culture.

#### **Emeritus Faculty**

**Krin Gabbard**, *Professor* (Ph.D., 1979, Indiana University-Bloomington): Film theory and history, jazz, interrelations of literature, art, music, and film, comparative literature methodology, psychoanalytic approaches to the arts; ancient Greek literature, drama, and literary theory.

**Sandy Petrey**, *Professor Emeritus* (Ph.D., 1966, Yale University): 19th-century fiction, theories of the novel; contemporary criticism.

**Ilona N. Rashkow**, *Associate Professor Emerita* (Ph.D., 1988, University of Maryland): Hebrew Bible, Judaic studies, Religious studies, feminist literary criticism; psychoanalytic literary theory, women's studies, literary theory, comparative literature.

**Louise O. Vásvari**, *Professor Emerita* (Ph.D., 1969, Berkeley): Medieval literature, literature and folklore, literature and linguistics, translation theory, Romance philology, semiology, art and literature, sexuality and literature.

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

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

Chair: Joseph Mitchell (Phone: 631-632-8366), Samir Das (Phone: 631-632-1807) Director: Zhenhua Liu, [zhenhua.liu@stonybrook.edu](mailto:zhenhua.liu@stonybrook.edu)  
 Coordinator: Christine Rota (Phone: 631-632-8360) Office: Math Tower Rm P-138 & 1-106  
 Data Science Program

The SBU Graduate Program in Data Science (DAS) features both MS and PhD degree programs in Data Science. It is jointly offered by the Department of Applied Mathematics and Statistics (AMS), and the Department of Computer Science (CS), both part of the College of Engineering and Applied Sciences (CEAS). Students will receive vigorous training in Data Science encompassing topics such as statistical analysis, big data analysis/management and fundamentals of computing.

### Applying to the Program

We welcome students with solid foundations in *data science, computer science, statistics, mathematics*, or related *science or engineering* disciplines to apply for our program.

### Fall 2023 Application Deadlines:

– International applicants: April 15, 2023

– Domestic applicants: June 1, 2023

General application information can be obtained at the [Graduate School website](#) or go directly to the application website .

### Application Requirements:

**A.** A bachelor's degree in computer science, data science, statistics, mathematics, a natural science, engineering, an applied science, or social science with a strong mathematics and Students are expected to be fluent in Calculus and at least one programming language.

**B.** A minimum overall cumulative GPA of at least 3.0 (or equivalent), and at least a 3.0 average in all courses in pertinent or related fields. Attention will be given to courses related to data science, computer science, statistics, and mathematics.

**C.** For Fall 2023 applications, the Graduate Record Examination (GRE) General Test is NOT required. However, you are most welcome to submit your GRE score should you have it. Any GRE scores should be reported by ETS (Educational Testing System) to the Graduate School using institutional code 2548 and department code 0702.

**D.** An applicant who is not a native or primary speaker of English must present a minimum score for either the TOEFL or IELTS tests as follows:

- TOEFL iBT: Overall score of 90 for doctoral applicants and 80 for master's applicants.
- IELTS: Overall score of 6.5, with no subsection recommended to be below 6.
- TOEFL scores should be reported by ETS to the Graduate School using institutional code 2548. Official IELTS score reports must be mailed to our department directly. Applicants who have earned a degree from an English language university or college, where all instruction is in English, may be admitted without taking the TOEFL/IELTS tests.

**F.** Three letters of reference and all transcripts of undergraduate and/or graduate study completed.

**G.** Applicants with domestic credentials must submit an official transcript from each undergraduate college or university attended, regardless of whether a degree was conferred. Applicants must also submit an official transcript from each college or university relating to graduate-level work, regardless of whether a degree was conferred.

Applicants with international credentials must submit an official English translation of all coursework showing a complete course-by-course record, GPA, degree, and institution, in addition to the original documents. In some instances where the coursework, degree equivalency, GPA, and/or institution cannot be verified, a course-by-course evaluation from one of Stony Brook University's approved NACES members listed below, may be requested from the applicant.

1. World Education Services (WES)
2. International Education Evaluations, Inc. (IEE)
3. Education Credential Evaluators (ICE)

Unofficial copies for both domestic and international credentials are acceptable for an admission decision to be made. If admitted, the applicant must submit final official transcripts/evaluations sent directly from the college/university or evaluation agency as noted above.

Final Transcripts and Other Materials should be sent to:  
 Stony Brook University  
 Office of Graduate and Health Sciences Admissions  
 Health Sciences Tower, Level 2 – Rm. 271

11794-8276

Official E-Transcripts: Should be sent to gradadmissions@stonybrook.edu

**Application Procedure:**

Please read this entire webpage before you apply. General application information can be obtained at the [Graduate School website](#) or one can directly to the application website .

*Note that the application portal status page will give several options to upload additional documents after the application has been submitted. Select the "Personal Statement" option from the dropdown menu and upload your personal statement.*

**Provisional Admission:** Occasionally, students with who are less proficient in terms of credentials, but otherwise demonstrate academic potential are offered provisional admission. Their admission offer will stipulate remedial classes they must take in their first semester and earn at least a B average in order to matriculate to the regular MS or PhD student status.

To be updated...

**Masters of Science**

The MS program features 36 credits (12 courses) including 10 core courses and 2 electives. The ten core courses are: (1) [AMS 507 Probability](#), (2) [AMS 572 Data Analysis](#), (3) [AMS 580 Statistical Learning](#) (or [AMS 530 Parallel Computing](#) if the student has already taken a course like AMS 580), (4) [AMS 597 Statistical Computing](#), (5) [CSE 581, Computer Science Fundamentals: Theory](#), (6) [CSE 582, Computer Science Fundamentals: Data Structures and Algorithms](#), (7) [CSE 583, Computer Science Fundamentals: Programming Abstractions](#), (8) [ISE 503 Data Management](#), (9) [AMS 560 Big Data System](#), and (10) [AMS 598 Big Data Analysis](#). The two electives can be selected from any letter-graded courses offered by the AMS and CS departments. As a capstone experience and part of the electives, we require the students to take either (i) 3-credit of [AMS 585 \(Internship in Data Science\)](#), or (ii) 6-credits of [AMS 585](#) as a master thesis, with a faculty mentor. Students are expected to complete their MS program in 3 to 4 semesters. The following is a 3-semester course plan for MS in Data Science:

**Term 1 (Fall semester):**

[AMS 507 Probability](#)

[AMS 572 Data Analysis](#)

[CSE 581, Computer Science Fundamentals: Theory](#)

[CSE 582, Computer Science Fundamentals: Data Structures and Algorithms](#)

**Term 2 (Spring semester):**

[AMS 580 Statistical Learning](#) (or [AMS 530 Parallel Computing](#))

[AMS 597 Statistical Computing](#)

[CSE 583, Computer Science Fundamentals: Programming Abstractions](#)

[ISE 503 Data Management](#)

**Term 3 (Fall semester):**

[AMS 560 Big Data System \(Cloud Computing\)](#)

[AMS 598 Big Data Analysis](#)

[Elective 1](#) \*

[Elective 2](#) \*

**Note:** (1)\* Students can choose to take at least 3-credit of [AMS 585 Internship in Data Science](#) during either the third semester, or the summer between the second and the third semesters, with or without industrial sponsors. (2) For students who have taken some of these courses in a previous degree program, they can substitute them with other relevant letter-graded graduate courses from AMS or CS Departments upon the approval of the graduate program director and the course instructor.

**PhD**

The doctoral students in Data Science are required to take the same 10 core courses as in the MS program, as well. Furthermore, the doctoral students will need to take at least 2 electives (any letter-graded courses) from AMS or CS departments, plus an additional 42 credits of electives (including at least 18 thesis research credits) to satisfy the minimum 78-credit PhD program requirement. A doctoral student will take the written doctoral qualifying exam at the end of their first academic year. The doctoral qualifying exam consists of a 3-hour CS foundation exam, and a

3-hour Data Mining exam. These two exams will be held at the end of May/beginning of June - based on the following eight Data Science core courses taught in the first year of the Data Science Graduate Program under the usual Fall admission, namely, (1) AMS 507 Probability, (2) AMS 572 Data Analysis, (3) AMS 580 Statistical Learning, (4) AMS 597 Statistical Computing, (5) CSE 581, Computer Science Fundamentals: Theory, (6) CSE 582, Computer Science Fundamentals: Data Structures and Algorithms, (7) CSE 583, Computer Science Fundamentals: Programming Abstractions, and (8) ISE 503 Data Management.

The program provides a pathway for MS students to transfer to the PhD program upon completing the set of eight core courses with GPA >= 3.5 and passing the doctoral qualifying exam.

### **Financial Support**

All students admitted to the PhD program will automatically be considered for financial support and tuition waiver if the application is submitted by the due date. MS students are not typically considered for financial support or tuition waiver at the time of admission. However, in a small number of cases qualified MS students are able to receive partial support via departmental or campus opportunities.

### **To be updated...**

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

**Data and Computational Science, Graduate Certificate****Director**

Robert Harrison, IACS L165, 631-632-2347

**Graduate Program Director**

Alan Calder, IACS L164, 631-632-2336

**Graduate Certificate Coordinator**

Jennifer McCauley IACS L135, 631-632-2341

**Degree Awarded**

Advanced Graduate Certificate in Data and Computational Science

**Website**<https://iacs.stonybrook.edu/opportunities/certificates/cdcs>**Description**

The Institute for Advanced Computational Science (IACS) at Stony Brook University was established in 2012 with a \$20M private endowment. The institute has core faculty in a variety of computational disciplines (chemistry, physics, ecology and evolution, materials, atmospheric science, geoscience, social science, applied mathematics, linguistics, and computer science) and seeks to make sustained advances in the fundamental techniques of computation and in high-impact applications. Together with the Brookhaven National Laboratory Computational Science Initiative, our integrated, multidisciplinary team of faculty, students, and staff overcome the limitations at the very core of how we compute, collectively take on challenges of otherwise overwhelming complexity and scale, and individually and jointly define new frontiers and opportunities for discovery through computation.

IACS offers a 17-credit Advanced Graduate Certificate in Data and Computational Science (CDCS), available to both PhD and MS/MA students.

**Admission Requirements**

PhD and MS/MA matriculated students in the following departments are eligible to participate in the certificate program: Applied Mathematics and Statistics, Ecology & Evolution, Materials Science and Chemical Engineering, Chemistry, Computer Science, Geosciences, Molecular and Cellular Biology, Sociology, SOMAS, Physics and Astronomy, Neurobiology and Behavior, Pharmacology, Psychology, Tech and Society, Economics, and Linguistics. Students must have the permission of their advisors and their Graduate Program Directors before enrolling in the certificate program, and they must meet with the IACS Graduate Certificate Coordinator to map out a course schedule. Students must complete, with the requisite signatures, and submit to the Graduate School the form entitled Permission to Enroll in a Secondary Certificate Program.

**Facilities**

The institute is located in the IACS Building, next to the Laufer Center for Physical and Quantitative Biology. Our space houses the institute's faculty, students/postdocs (circa 45), and technical/administrative staff. The combined resources of the endowment, university and external funding provide for the institute a substantial computational capability (**circa 20TFLOP/s**) including substantial storage (circa 1Pbyte) and state-of-the-art 10GB networking throughout the building (optical fiber within the building to major hubs across campus). The institute provides to its members office space, office materials and supplies, administrative support, commonly used software packages including select compilers and libraries, technical assistance with computer administration and software installation, and use of the institute's computer clusters.

**Degree Requirements**

- 17 credits, courses can be double counted toward the certificate and the student's major
- Three core courses: (1) JRN 501: Distilling Your Message (2); JRN 503 Improvisation for Scientists (3); DCS 521 Introduction to Computational and Data Science (*Spring - Students are strongly encouraged to take DCS 521 in their first year of study*)
- Students are expected to take at least 3 credits in AMS and 3 credits in CS from the course catalog (cdcse-course-catalog-final.docx).  
 ----- CS students: at least 3 credits in AMS (not crosslisted with CS) and 3 credits in a non-CS crosslisted course in any department  
 ----- AMS students: at least 3 credits in CS (not crosslisted with AMS) and 3 credits in a non-AMS crosslisted course in any department
- Up to 6 credits of courses that are listed in the course catalog from the student's home department can count toward the certificate
- CDCS Course Catalog.pdf

**Faculty**

Alan C. Calder, PhD, Vanderbilt University, Physics and Astronomy

Barbara Chapman, PhD, Queen's University, Computer Science

Rezaul Alam Chowdhury, PhD, University of Texas Austin, Computer Science

Marivi Fernandez-Serra, PhD, University of Cambridge, Physics and Astronomy



Robert J. Harrison, PhD, University of Cambridge, Applied Mathematics and Statistics

Jeffrey Heinz, PhD, University of California Los Angeles, Linguistics

Xiangmin Jiao, PhD, University of Illinois at Urbana-Champaign, Applied Mathematics and Statistics

Marat Khairoutdinov, PhD, University of Oklahoma, SOMAS

Predrag Krstic, PhD, City College of CUNY, IACS

Benjamin Levine, PhD, University of Illinois at Urbana-Champaign, Chemistry

Heather Lynch, PhD, Harvard University, Ecology and Evolution

Owen Rambow, PhD, University of Pennsylvania, Linguistics

Matthew Reuter, PhD, Northwestern University, Applied Mathematics and Statistics

Yifan Sun, PhD, University of California, Los Angeles, Computer Science

Jason Trelewicz, PhD, Massachusetts Institute of Technology, Materials Science and Chemical Engineering

Yongjun Zhang, PhD, University of Arizona, Sociology

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

**Decision Analytics (BDAMS) MS Program****College of Business****Dean**

Haresh Gurnani, Harriman Hall

**Associate Dean for Programs**

Danling Jiang, Harriman Hall

**MBA Program Directors**

Lily Blocker, Harriman Hall

Gary Sherman, Harriman Hall

**MSF Program Director**

Dmytro Holod, Harriman Hall

**MSA Program Director**

Cecilia (Qian) Feng, Harriman Hall

**MSDA Program Directors**

Aaron Kim, Harriman Hall

Herbert Lewis, Harriman Hall

**Senior Assistant Dean for Curriculum, Accreditation, & Student Services**

Amy Milligan, Harriman Hall

**Senior Assistant Dean for Finance and Administration**

Joyce Wellinger, Harriman Hall

**Office of Student Services (Admissions & Advising)**

Harriman Hall Room 109 (631) 632-7171

cobgraduate@stonybrook.edu

**Web Site**

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

**Advanced Graduate Certificates Awarded**

Finance

**Degrees Awarded**

M.B.A., M.B.A. in Accounting, M.B.A. in Finance, M.B.A. in Marketing, M.B.A. in Health Care Management, M.S. in Accounting, M.S. in Decision Analytics, M.S. in Finance, M.S. in Technology Management (in Korea)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Decision Analytics MS Program Description

Unlock the Power of Analytics in Business Decision-Making

**A 30-CREDIT STEM DESIGNATED DEGREE PROGRAM**

The Master of Science in Decision Analytics (MSDA) is a **STEM-designated full-time or part-time** program that equips college graduates with the skills to solve complex problems and drive strategic decisions across all business sectors with applications in marketing, finance, human resources, and supply chain and operations.

**The Ever-Growing Demand for Business Analytics Across Industries**

The demand for business analytics professionals continues to grow across various industries as organizations recognize the value of data-driven decision-making and seek to gain a competitive edge. Here's an overview of the industries where business analytics is particularly in demand: finance and banking, healthcare, retail and e-commerce, marketing and advertising, supply chain and logistics, manufacturing, sports management, consulting, and government and public sector.

#### Skills You'll Gain

- Master statistical, optimization, and simulation models for data-driven and informed decision-making.
- Gain proficiency in machine learning and other artificial intelligence (AI) techniques for addressing business challenges across diverse sectors.
- Become an expert and a persuasive communicator, ensuring your data-driven solutions to business problems are clearly understood and showcased to stakeholders.
- Showcase your decisions in writing and captivating oral presentations.

#### Decision Analytics (BDAMS) MS Program Admissions

##### Admission Requirements for College of Business Graduate Programs

The College of Business graduate programs are designed for ambitious and analytical students who are capable of applying what they learn toward the solutions of organizational problems. New students will begin the Stony Brook M.S. in Decision Analytics in the Fall semester only. All graduate applications are submitted online through the following Website: <https://graduateadmissions.stonybrook.edu/apply/>.

Applicants are encouraged to submit a current resume along with their online application and personal statement. The requirements for the business graduate programs include:

3. A bachelor's degree with a minimum grade point average of 3.0. In exceptional cases, students not meeting the GPA requirement may be considered for admission on a conditional basis. Official transcripts can be mailed directly to the **Graduate School Office of Admissions and Student Services 2401 Computer Science Building Stony Brook, NY 11794** or sent electronically to **gradadmissions@stonybrook.edu**. We strongly encourage foreign transcripts to be evaluated by World Education Services (WES) or another NACES association member.
4. Aptitude for quantitative analysis, demonstrated through previous coursework, standardized tests, or practical experience. All applicants must have successfully completed an introductory calculus course (MAT 123 or equivalent) with a grade of C or higher.
5. The GMAT/GRE are optional and should be used to enhance your application.
6. Three letters of recommendation, one of which, if possible, should be from a professional working in a private company or public agency who is capable of evaluating the applicant's motivation and potential. The three letters of recommendation should also include at least one from a college faculty member, counselor, or administrator. Letters of recommendation should be submitted through the application website.
7. Applicants whose first or primary language is not English, must submit one of the following:

A TOEFL internet-based score of 80 or above

An IELTS test with an overall score of 6.5 or above, with no sub-scores below 6.0. Acceptance by both the College of Business and the Graduate School.

1. Application fee.

Application Deadlines:

##### Application Deadlines

##### MS in Decision Analytics

##### Fall

International Applicants, April 15th

Domestic Applicants, July 1st

Applications may be considered after these dates, as long as space is available.

For additional information, please visit [www.stonybrook.edu/business](http://www.stonybrook.edu/business) or email [cobgraduate@stonybrook.edu](mailto:cobgraduate@stonybrook.edu).

Office of Student Services

Harriman Hall, Room 109



Stony Brook University

Stony Brook, New York

11794-3775

(631) 632-7171

E-mail: cobgraduate@stonybrook.edu

---

## FACILITIES

Degree Requirements for Decision Analytics (BDAMS) MS Program

Admitted students will take a prescribed 30 credits (10 classes); students may attend full-time or part-time.

Required Courses:

MBA 503: Data Analysis and Decision Making

MBA 543: Business Analytics

MBA 540: Data Mining

MBA 588: Database Management

MBA 544: Supply Chain Management and Analytics

BDA 510: Advanced Data Analysis and Decision Making

BDA 513: Risk and Uncertainty Analysis

MBA 587: Decision Support Systems

Restricted Elective Courses (select 2 from the list below)

BDA: 508 Advanced Analytics

FIN 562: Data Analysis for Finance

MBA: 574 Project Management

MKT: 569 Digital Marketing

MBA: 595 Individual Directed Research in Business

MBA: 599 Business Internship

## **FACULTY OF DECISION ANALYTICS MASTERS OF SCIENCE PROGRAM**

Please see the College of Business Faculty Directory:

[https://www.stonybrook.edu/commcms/business/about/\\_faculty/](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.*

## Ecology and Evolution

**Chairperson**

Joshua Rest, Life Sciences Building 650, (631) 632-8600

**Ph.D. Graduate Program Director**

Elizabeth Watson, Life Sciences Building 634, (631) 632-8569

**M.A. Graduate Program Director**

Krishna Veeramah, Life Sciences Building 616, (631) 632-1101

**Graduate Program Coordinator**

Melissa J. Cohen, Life Sciences Building 657, (631) 632-8604

**Degrees Awarded**

M.A. in Biological Sciences: Concentration in Applied Ecology or Concentration in Applied Evolution

Ph.D. in Ecology and Evolution

**Web site**

[www.stonybrook.edu/ecoevo](http://www.stonybrook.edu/ecoevo)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Ecology and Evolution Department

The Department of Ecology and Evolution and the Graduate Program in Ecology and Evolution (GPEE) at Stony Brook were the first such units in the United States and have served as models for corresponding units at many other institutions. The Faculty of the GPEE at Stony Brook has included several members of the National Academy of Sciences, and several past presidents of national and international societies in ecology, evolution, and systematics, and authors of influential books in these disciplines. Since its inception, the program has emphasized the integration of concepts from ecology and evolutionary biology.

The faculty and the graduate students in GPEE are engaged in research on Long Island and around the world, including Alaska, the continental US, the Caribbean, Mexico, Central and South America, Africa, and Antarctica. They study terrestrial, freshwater, and marine organisms comprising a wide range of taxa, including fish, amphibians, reptiles, mammals, birds, mollusks, insects, vascular plants, fungi, and bacteria. Their research incorporates experimental, comparative, theoretical, and statistical approaches and utilize field, laboratory, and literature survey studies. Research in GPEE includes interspecific interactions, population genetics, experimental evolution, evolutionary genomics, molecular evolution, evolutionary developmental biology, phylogenetics, population dynamics, biological invasions, phenotypic plasticity, ecosystem ecology and paleontology. Many faculty members are active in the application of their research to problems in conservation.

Our program has students studying toward both master's and doctoral degrees. Graduates are qualified for positions in academic or research institutions, government agencies, conservation organizations, and environmental consulting companies. Former students have become faculty members in biology, ecology and evolution, agricultural entomology, and marine biology departments at prominent private and public universities as well as selective liberal arts and smaller state colleges. Although GPEE emphasizes basic research, many of its graduates have entered careers that apply ecological and evolutionary principles to problems in such areas as marine toxicology, agricultural entomology, invasive species, natural resource management, conservation, and risk assessment.

An atmosphere of collegiality and intellectual exchange prevails throughout the GPEE and is fostered by discussion groups and an exciting weekly program of invited speakers during the academic year. A detailed description of the program, including degree requirements, and descriptions of the faculty research interests, and application materials are available on the web at [www.stonybrook.edu/ecoevo](http://www.stonybrook.edu/ecoevo). Applicants are strongly encouraged to contact individual faculty members whose interests they share.

## Master of Arts in Biological Sciences (concentrations in Applied Ecology and Applied Evolution)

In our small program, each student is matched with an advisor from our program faculty. The plan of study is individually tailored within the course offerings and other internship or research opportunities to match the student's personal goals. Core courses provide training in statistics and ecology or evolution. Students participate in at least two topical discussion seminars in ecology or evolution. Students interact with each other in a shared office and through weekly group meetings and participation in seminars. Students must complete 30 graduate credits and a capstone project for the degree, which is typically completed in three semesters. Some of our students also receive an advanced graduate certificate in Geospatial Science, Data & Computational Science, Environmental Management, or Science Training & Research to Inform DEcisions (STRIDE). Graduates of our M.A. program go on to work at government agencies, NGOs, consulting firms, education, and industry, or use their degree as further preparation before applying for doctoral programs.

## Ph.D. Program in Ecology and Evolution

First year students take courses in ecology, evolution, and biometry. A temporary advisor is assigned upon entering the program. Students appoint a permanent advisor and advisory committee during the second year. A general preliminary examination is given at the end of the first year. Students are encouraged to take specialized courses at Stony Brook and other institutions and to become involved in research during the first summer. Advanced courses and seminars are taken in subsequent years. After passing an oral examination that concentrates on the areas of their proposed research and submitting a research proposal to the faculty, students undertake original research that is typically independent of their advisor's research.

**Applications**

To apply, fill out an online application on the Graduate School website.

**Applicants will also need to provide:**

1. Official transcripts of undergraduate and (if applicable) graduate course work
2. Three letters of recommendation
3. A non-refundable application fee of \$100.00. (Please note that applications will not be processed without the \$100.00 fee)
4. TOEFL or IELTS scores if the applicant's native or primary language is not English
5. Personal statement addressing the applicant's background and research interests.

All applicants should have a bachelor's degree in biology, chemistry, mathematics or other courses of study that provide an appropriate background for advanced training in ecology and evolution. At least one semester of calculus is typically expected.

**M.A. applicants** are encouraged to correspond with the Program Director and GPEE Faculty member(s) to discuss their interests and goals.

**Ph.D. applicants should also have:**

1. Formal coursework in genetics, ecology, evolution and the biology of a particular group of organisms is strongly recommended. Prior biological research experience also strongly influences the likelihood of admission.
2. Prior correspondence with GPEE Faculty member(s) to discuss research interests and possibilities is strongly recommended. All incoming students will need to be accepted by both the Graduate School and the Department of Ecology & Evolution.

For more information on applying, contact the Ecology and Evolution Graduate Program Coordinator.

**Financial Support and Application Deadline**

To apply, fill out an online application on the Graduate School website.

**Applicants will also need to provide:**

1. Official transcripts of undergraduate and (if applicable) graduate course work
2. Three letters of recommendation
3. A non-refundable application fee of \$100.00. (Please note that applications will not be processed without the \$100.00 fee)
4. TOEFL or IELTS scores if the applicant's native or primary language is not English
5. Personal statement addressing the applicant's background and research interests.
6. CV

All applicants should have a bachelor's degree in biology, chemistry, mathematics or other courses of study that provide an appropriate background for advanced training in ecology and evolution. At least one semester of calculus is typically expected.

**M.A. applicants** are encouraged to correspond with the Program Director and GPEE Faculty member(s) to discuss their interests and goals.

**Ph.D. applicants should also have:**

1. Formal coursework in genetics, ecology, evolution and the biology of a particular group of organisms is strongly recommended. Prior biological research experience also strongly influences the likelihood of admission.
2. Prior correspondence with GPEE Faculty member(s) to discuss research interests and possibilities is strongly recommended.

All incoming students will need to be accepted by both the Graduate School and the Department of Ecology & Evolution.

For more information on applying, contact the Ecology and Evolution Graduate Program Coordinator.

**Facilities of the Ecology and Evolution Department**

Ample laboratory, greenhouse, and environmental facilities and all of the standard laboratory equipment for molecular, microbiological, and genomic studies are available. The department houses laboratories working with model organisms including *Drosophila* and yeast. Field and marine study areas are at Flax Pond, a University-affiliated laboratory near campus. Some terrestrial studies are performed at the Ashley Schiff Nature Preserve, a 26-acre forested area on campus. The University is a member of the Organization for Tropical Studies, which maintains field stations in Costa Rica and South Africa. There are other opportunities for field studies both in this country and abroad; faculty members have continuing projects at Friday Harbor Marine Labs in Washington, Cook Inlet in Alaska, Ranomafana National Park in Madagascar, the Antarctic Peninsula and through various oceanographic cruises. Collaboration is possible with scientists at Brookhaven National Laboratory, Cold Spring Harbor Laboratory, and the New York Genome Center. Opportunities are also available for projects at field stations maintained by other university centers and colleges of the State University of New York. The School of Marine and Atmospheric Sciences is located on campus. Stony Brook is close enough to New York City and Washington, D.C. for arrangements to be made for consultation and work at museums and other institutions in those cities.

Requirements for the M.A. Degree in Biological Sciences

**A. Concentration in Applied**

**Ecology Required Graduate**

**Courses:**

1. BEE 550: Principles of Ecology
2. Two graduate seminars, selected from BEE 692, BEE 693 and BEE 695
3. BEE 552: Biometry
4. WRT 621: Writing in the Academic Disciplines
5. BEE 556: Research Areas of Ecology & Evolution
6. BEE 599: Research (between 2 and 4 credits required)
7. BEE 671/672: Ecology & Evolution Colloquium

**Electives include:**

BEE 520: Advanced Human Genetics

BEE 521: Genomics Lab

BEE 555: Mathematical Methods in Population Biology

BEE 560: Advanced Ecology

BEE 562: Bayesian Data Analysis and Computation

BEE 571: Ecology Laboratory

BEE 572: Conservation Biology

BEE 574: Landscape Ecology Laboratory

BEE 577: Ecological Genetics

BEE 585: Research Design and Analysis in Ecology & Evolution

BEE 586: Introduction to Ecological Modeling

BEE 587: Applied Ecology and Conservation Biology Lab

ANT 536: Adv. Biostatistics and Phylogenetic Comparative Methods

GSS 513: GIS Fundamentals I

GSS 525: GIS Fundamentals II

GSS 526: Project Management

JRN 501: Communicating Science: Distilling Your Message

JRN 505: Connecting with Community

MAR 507: Marine Conservation

MAR 522: Environmental Toxicology and Public Health

MAR 536: Environmental Law and Regulation

MAR 569: Programming Statistics in R

MAR 581: Next Gen Sequencing Apps in Functional Genomics

and additional courses as determined by the GPD.

**B. Concentration in Applied**

**Evolution Required Graduate**

**Courses:**



1. BEE 551: Principles of Evolution
2. Two graduate seminars, selected from BEE 690, BEE 691 and BEE 692
3. BEE 552: Biometry

4. WRT 621: Writing in the Academic Disciplines
5. BEE 556: Research Areas of Ecology & Evolution
6. BEE 599: Research (between 2 and 4 credits required)
7. BEE 671/672: Ecology & Evolution Colloquium

**Electives include:**

BEE 520: Advanced Human Genetics

BEE 521: Genomics Lab

BEE 554: Population Genetics and Evolution

BEE 562: Bayesian Data Analysis and Computation

BEE 567: Molecular Diversity Laboratory

BEE 572: Conservation Biology

BEE 577: Ecological Genetics

BEE 585: Research Design and Analysis in Ecology & Evolution

BEE 587: Applied Ecology & Conservation Biology Lab

AMS 533: Numerical Methods and Algorithms in Computational Biology

AMS 536: Molecular Modeling of Biological Molecules

AMS 561: Introduction to Computational and Data Science

AMS 589: Quantitative Genetics

ANT 536: Advanced Biostatistics and Phylogenetic Comparative Methods

ANT 564: Primate Evolution

ANT 565: Human Evolution

CSE 549: Computational Biology

HBA 550: Vertebrate Evolution

HBA 551: Phylogenetic Systematics, Biogeography and Comparative Methods

HBM 503: Molecular Genetics

JRN 501: Communicating Science: Distilling Your Message

JRN 505: Connecting with Community

MAR 569: Programming Statistics in R

MAR 581: Next Generation Sequencing Apps in Functional Genomics and additional courses as determined by the GPD

**C. Capstone paper**

A capstone paper is required for completion of the M.A. degree. This paper will be completed when the student is enrolled in BEE 599: Research and WRT 621: Writing in the Academic Disciplines. The capstone project is an opportunity to dive into a specific line of intellectual inquiry. The project promotes organizational and writing skills and results in a product that is evidence of the graduate experience. Each student's project is overseen by their faculty advisor, including defining the project topic and scope. The paper may be composed of a literature review, systematic review, or original research, depending on the goals of the student and subject to the approval of the faculty advisor. Completion of the paper is subject to the approval of the advisor and a second reader.

**D. Credit limits**

Without approval from the Graduate Program Director, no more than 4 credits from BEE 670, 671 or 672 and no more than 4 credits of BEE 599: Research, may count towards the M.A. degree.

**Requirements for the Ph.D. Degree in Ecology and Evolution**

**A. Course Requirements**

1. In the first year in residence, students are normally required to take BEE550 Principles of Ecology, BEE551 Principles of Evolution, BEE552 Biometry, and BEE556 Research Areas in Ecology and Evolution. A grade of B- or better is required for these classes.
2. In later semesters, students must take a minimum of three other graduate courses, other than seminars, within this or other programs of this or other universities. Upon the recommendation of a student's dissertation committee and with the approval of the Graduate Program Director, one elective course may be waived.
3. BEE671 and BEE672, Colloquium in Ecology and Evolution must be taken each semester in residence.
4. Four graduate seminar courses are required under normal circumstances.
5. Most students will require advanced training in various ancillary disciplines appropriate to their chosen field of research. Requirements will be determined by the student's advisory committee and may include a foreign language or advanced studies in mathematics, statistics, computer science, molecular biology, taxonomy, or other areas.

**B. Entering Student Advising and Evaluation**

Early in the first semester of study, each student meets with his or her advisor and other faculty member(s) as needed to discuss additional courses beyond required first-year courses. At the end of the second semester, a Preliminary Examination is given testing students' knowledge in the fields of ecology and evolution. Failing the preliminary exam may be cause for dismissal from the graduate program.

**C. Oral Examination**

In the second year of study, each student takes an Oral Examination tailored to the student's interests and administered by his or her advisory committee. The student and his or her committee decide in advance on the areas to be covered in this examination. This examination is concurrent with the submission of a Dissertation Research Proposal that is written by the student and must be approved by the advisory committee before advancement to Ph.D. candidacy. As part of his or her dissertation proposal, each student writes a substantial review of the topic of the dissertation.

**D. Advancement to Candidacy**

The faculty will recommend a student to the Graduate School for advancement to candidacy upon satisfactory completion of the Oral Examination and any language requirement established for the student, and upon acceptance of the written Dissertation Research Proposal by the graduate program faculty.

**E. Research and Dissertation**

A dissertation is required for the Ph.D. degree. It must contain the results of original and significant investigation. A student's progress in research is monitored by regular evaluations by the faculty in meetings held twice a year. Continued lack of progress may result in probation or dismissal.

**F. Dissertation Committee**

Students select a temporary advisor during the first semester and a permanent advisor at the beginning of the third semester. The advisory committee, consisting of the permanent advisor and at least two other GPEE faculty members, is nominated by the student in consultation with his or her permanent advisor and must be approved by the Graduate Program Director. Additional members from outside GPEE and/or the University may be appointed to the dissertation committee.

**G. Final Examination**

The dissertation must be approved by the student's advisory committee. A dissertation examining committee (which must include an external examiner) is then approved by the Dean of the Graduate School. A formal public oral dissertation defense is held, at which the student presents his or her findings and is questioned by members of the audience and then by the examining committee in a meeting immediately following the presentation.

**H. Teaching Requirement**

All graduate students completing a doctoral degree will function as teaching assistants during at least one semester of their graduate careers.

**I. Residence Requirement**

At least two consecutive semesters of full-time graduate study are required. The demands of the course of study usually necessitate a longer period of residence.

**J. Time Limit**

The time limit imposed by the Graduate School is observed by GPEE. Students must satisfy all requirements for the Ph.D. degree within seven years after completing 24 credit hours of graduate courses in GPEE.

Faculty of Graduate Program in Ecology and Evolution

### Distinguished Professors

**Futuyma, Douglas Emeritus.** Ph.D., 1969, University of Michigan: speciation, evolution of ecological interactions among species.

**Gurevitch, Jessica Emeritus** Ph.D., 1982, University of Arizona: Evolutionary ecology of plant populations and communities; plant physiological ecology.

**Levinton, Jeffrey S. Emeritus** Ph.D., 1971, Yale University: Marine benthic ecology; population genetics of bivalve mollusks; paleoecology.

### Professors

**Akcakaya, H. Resit** Ph.D., 1989, Stony Brook University: Applied ecology; conservation biology; population dynamics; landscape ecology.

**Davalos, Liliana** Ph.D., 2004, Columbia University; Conservation biology, climate change, phylogeny.

**Balazsi, Gabor.** Ph.D., 2001, University of Missouri at St. Louis; synthetic gene circuits as research tools in the fields of evolution, development, and cancer.

**Davalos, Liliana** Ph.D., 2004, Columbia University; Conservation biology, climate change, phylogeny.

**Gobler, Christopher.** Ph.D., 1999, Stony Brook University: Coastal ecosystem ecology, climate change, harmful algal blooms, phytoplankton, ocean acidification, effects of multiple stressors on coastal marine resources, aquatic biogeochemistry.

**Koenig, Andreas** Ph.D., 1992, Georg-August University: Primate behavioral ecology, social evolution.

**Lynch, Heather** Ph.D., 2006, Harvard University: Development and application of statistics.

**Nehm, Ross** Ph.D., 1998, University of California-Berkeley: Science education, evolution education, cognition.

**Padilla, Dianna K.** Ph.D., 1987, University of Alberta, Canada: Phenotypic plasticity, plant-herbivore functional ecology, ecology of invading species.

**Thacker, Robert W.** Ph.D., 1995, University of Michigan: Systematics, phylogenetics and ecology.

**Wright, Patricia** Ph.D., 1985, City University of New York: Primates and tropical conservation

### Associate Professors

**Baines, Stephen B.** Ph. D., 1993, Yale University-New Haven; Aquatic ecosystem ecology, biogeochemistry of carbon and trace elements, plankton ecology, stoichiometry.

**Collier, Jackie** Ph.D., 1994, Stanford University: Microbial ecology.

**Graham, Catherine** Ph.D., 2003, University of Missouri – St. Louis: Landscape and behavioral ecology.

**Markham, Catherine** Ph.D., 2012, Princeton University: Behavioral ecology; maternal care; spatial ecology; wild primates

**Peterson, Bradley J.** Ph.D., 1998, Dauphin Island Sea Lab/University of South Alabama: community ecology of seagrass dominated ecosystems.

**Rest, Joshua** Ph.D., 2004, University of Michigan: Evolutionary genomics.

**Smaers, Jeroen B.** Ph.D., 2010, University of Cambridge, UK: Brain evolution, phylogenetic comparative methodology, macroevolutionary morphology.

**Thorne, Lesley** Ph.D., 2010, Duke University: Bio-physical and trophic interactions in marine ecology.

**True, John** Ph.D., 1995, Duke University: Evolutionary and developmental genetics of color patterning in *Drosophila*.

**Twiss, Katheryn C.** Ph.D., 2003, University of California at Berkeley; Archaeology, Human-Animal Interactions

**Veeramah, Krishna R.** Ph.D., 2008, University College London: Primate comparative genomics, genetic basis of epilepsy.

**Volkenborn, Nils** Ph.D., 2005, University of Bremen, Germany: Benthic ecology, sediment biogeochemistry.

**Watson, Elizabeth.** Ph.D., 2006, University of California, Berkeley: impact of climate and anthropogenic change to coastal watersheds and habitats

### Assistant Professors

**D'Andrea, Rafael.** PhD. 2016, University of Michigan: Community ecology, theoretical ecology, species coexistence

**McClenachan, Giovanna** Ph.D., Louisiana State University: drivers of coastal change, to track transitions in structure and function of ecosystems and societies with disturbances such as storms, floods, and climate change

**Munch, Stephan** Ph.D., 2002, University at Stony Brook: Evolutionary ecology of growth and life history traits, Evolution in harvested populations, Applied population dynamics modeling, Mathematical modeling and statistics

**Smiley, Tara M.** Ph.D., 2016, University of Michigan: Paleobiology, biogeography, stable isotope ecology

**Title, Pascal O.** Ph.D., 2018, University of Michigan: Macroevolution, macroecology, species distribution modeling

**Vitek, Natasha** Ph.D., 2019, University of Florida: Vertebrate paleontology, evolution, scaling of variation.

**Weissman, Jackie Lee** Ph.D., 2019, University of Maryland College Park: Microbial ecology & evolution, (meta)genomics, bioinformatics, computational biology

#### **Assistant Research Professors**

**Martins, Dino** Ph.D., 2011, Harvard University: interactions between species, insects and plants, vectors and hosts and parasites

- 1) Department of Anatomical Sciences
- 2) School of Marine and Atmospheric Sciences
- 3) Department of Anthropology
- 4) Department of Biochemistry
- 5) Brookhaven National Laboratory
- 6) University of California, Santa Cruz
- 7) Swiss Federal Research Institute WSL
- 8) Turkana Basin Institute

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

Economics Department

**Co-Chairperson**

Juan Carlos Conesa, Ward Melville Social and Behavioral Sciences Building, S-645, (631) 632-7527

Eva Carceles-Poveda, Ward Melville Social and Behavioral Sciences Building, S-629, (631) 632-7527

**Graduate Program Director**

Alexis Anagnostopoulos, Ward Melville Social and Behavioral Sciences Building, S-621, (631) 632-7526

**Graduate Program Coordinator**

Tim Chin, Ward Melville Social and Behavioral Sciences Building S-607, (631) 632-7537

**Degrees Awarded**

Ph.D. in Economics

M.A. in Economics

**Web Site**

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

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Graduate Programs**

The graduate program in Economics, in the College of Arts and Sciences, emphasizes rigorous training in economic theory and quantitative methods and their creative applications. Both theoretical and empirical work is heavily based on mathematical modeling. In addition to core courses, students choose elective courses from the variety of fields offered in theoretical and quantitative applied economics. It is through these courses that breadth of economic knowledge is gained. Both Ph.D. and M.A. programs share most of the courses. If students choose the Advanced MA track they can also combine their MA degree with the Advanced Certificate in Data and Computational Science, or the Advanced Certificate in Finance. More details on the latter programs are provided below.

The program of study does not depend on prior knowledge of economics, though that is useful. Because of its emphasis on mathematical modeling, the graduate program is highly suitable for those whose undergraduate degrees are in physics, engineering, and mathematics. Those whose undergraduate degrees are in economics usually have to take a number of mathematics courses at a level not usually required for their undergraduate degree in order to be prepared for a graduate program.

**Financial Support and application deadlines**

Students in the M.A. program do not receive financial support and are expected to pay tuition. Ph.D. students may receive financial support for four years of study and a tuition waiver for the entire duration of their study subject to satisfactory progress in the program. Most of the time, we can provide support at least to fifth-year graduate students in good standing. The number of openings for the Ph.D. program is small and acceptance is very competitive. Students who do well in the advanced M.A. program (see M.A. program details) are prime candidates to be accepted into the Ph.D. program upon completion. Since the course requirements for both programs are almost identical they would only need to complete the teaching practicum and the research workshop (see Ph.D. program details) and can start their research immediately.

All admissions are for the academic year starting in September. Applicants to the Ph.D. program seeking financial aid are required to apply by January 15. Applications for the M.A. program are accepted until March 15 for foreign students and July 15 for domestic students.

**Admission requirements of the Economics Department**

All first year courses in the PhD program are mandatory and follow a two semester sequence, while the first semester courses of the MA program are also mandatory. Thus both programs admit students only for the Fall semester unless they have taken PhD level courses in another university. Minimum requirements to be considered for admission, in addition to the minimum Graduate School requirements, are as follows, although exceeding these requirements increases the probability of admission:

A. A bachelor's degree, with an average of at least B in the undergraduate major subject, which need not be economics. Applicants with majors in mathematics, the physical sciences, or engineering are encouraged.

B. At least one year of introductory differential and integral calculus and at least one semester of linear algebra in courses whose level is that required for physics majors in research universities with proficiency demonstrated by a grade of at least B in the courses. Additional semesters of multivariate calculus are highly recommended. Further mathematics such as real analysis and topology are very helpful.

C. Letters of recommendation from three instructors or academic advisors. The referees should be able to evaluate the mathematical preparation and ability of the applicant.

D. Submission of results of the Graduate Record Examination (GRE) General Test (verbal, quantitative, and analytical parts). Applicants with quantitative scores below the 80th percentile are generally not admitted.

E. For foreign students, provide scores from the Test of English as a Foreign Language (TOEFL), or the IELTS. However, if you have a degree (high school diploma, bachelor's, master's, or PhD) from an institution where English was the primary language of instruction, or if you have worked as a Teaching Assistant at an English-speaking institution, this requirement may be waived.

Students should be aware that admitted students generally exceed these requirements. However, students who do not meet or exceed all these requirements may apply if they think that their preparation as a whole shows they are capable of succeeding in the graduate program.

#### Department of Economics

The Department of Economics is a highly active and research oriented department that emphasizes excellence in the core areas of economics: Microeconomic Theory, Macroeconomics and Applied Economics. The department enjoys a worldwide reputation for excellence in Game Theory thanks to the Stony Brook Center for Game Theory in Economics, which was founded in 1989. With the continuous support from the NSF during more than 30 years, the center has organized the most important yearly conference in game theory in the profession. It has attracted many Nobel laureates in economics, such as, Robert Aumann, John Nash, Eric Maskin, Alvin Roth, and Lloyd S. Shapley. The department also has a prominent group of researchers in the other core areas, who are currently studying some of the most pressing economic issues affecting our societies. These include the effects of aging on the social insurance system, the relationship between the current financial crisis and the housing sector, the consequences of urbanization in developing countries and the economic consequences of the COVID pandemic. The research on some of these issues has appeared in general interest journals like Nature and Science, top economic journals as well as popular media like the New York Times and the US News and World Report.

#### Requirements for the M.A. Degree in Economics

##### Fall year I

ECO500 Microeconomics I

ECO510 Macroeconomics I

ECO520 Mathematical Statistics

ECO590 Mathematical foundations of contemporary Economic Theory

##### Spring year I

Elective in Economics

Elective in Economics

Elective in Economics

Elective in Economics

Basic MA Program: For the basic program students in the second year will take three additional courses, including ECO597 master's project and two of the electives offered in the Fall semester (please see list below). No courses are offered in the summer.

##### Elective courses:

ECO604 Game Theory I (F)

ECO605 Game Theory II (S)

ECO610 Advanced Macroeconomic Theory I

ECO612 Computational Economics & Dynamic Modeling

ECO613 Computational Macroeconomics

ECO636 Industrial Organization I (F)

ECO637 Industrial Organization II (S)

ECO640 Advanced Labor Economics Theory I (F)

ECO641 Advanced Labor Economics Theory II (S)

ECO642 Demographic Economics I

ECO643 Demographic Economics II

ECO645 Health Economics I

ECO646 Health Economics II (S)

#### Requirements for the Ph.D. Degree in Economics

The goal of the Ph.D. program is to develop the capability of each student to conduct independent research and analysis. To this end the program has three phases: (1) a general foundation in economic theory and quantitative methods starting from the basics but done in a very mathematical way, (2) specialization in two or more fields of theoretical or applied economics, and (3) independent research culminating in the doctoral dissertation. These are not totally distinct phases but indicate the natural order of progression. Coursework is supplemented by independent study and research seminars. Throughout the program students have advisors to consult in developing a study plan that best meets their needs.

The Ph.D. degree requirements are as follows:

##### A. Course Requirements

A minimum of 15 courses in economics (including core courses) must be completed, with a grade of B or better in each elective course. Included in the elective courses must be at least two in each of two approved pairs of courses forming fields (listed below). However, the Ph.D. committee may approve a waiver of part of the 15-course requirement for students with graduate work elsewhere.

1. Core Courses: The courses that provide the foundation in economic theory (micro and macro) and quantitative analysis (mathematical methods, statistics, and econometrics) are referred to as core courses. Comprehensive examinations are taken in microeconomics, macroeconomics, and econometrics at the end of the first year of study.

2. Elective Courses and Fields of Specialization: In addition to core courses, normally at least six elective courses must be taken, including two pairs of courses, where each pair forms an approved field. It is usual but not necessary that a dissertation topic be chosen from one of these fields of specialization. The two elective fields must be satisfactorily completed by the end of the sixth semester. Each field may be completed on the basis of an average grade of B+ or higher in the courses in that field. Fields currently offered by the department are composed of courses in game

theory, industrial organization, applied econometrics, labor economics, health economics, demographic economics, computational methods, and computational macroeconomics.

### **B. Workshops and Seminars**

Each student takes at least one research workshop in the fifth semester. The purpose of this workshop is to provide a structured introduction to research methodology. In addition, participation in program seminars and research workshops is considered an essential part of a student's progress toward the doctorate. Seminars in economic theory, applied micro, and macroeconomics are presented on a regular basis by faculty, visitors, and graduate students. Workshops oriented toward thesis research are conducted by faculty and students working in related areas.

### **C. Advancement to Candidacy**

Advancement to candidacy for the Ph.D. is achieved by satisfactory completion of most course requirements specified in item A. Advancement to candidacy normally must be achieved by the end of the sixth semester.

### **D. Dissertation**

A dissertation, presenting the results of original and significant research, must be approved. An examination on a dissertation proposal research must be passed by the end of the sixth semester of study. The examination is both written and oral, and its syllabus is to be determined by the student's dissertation committee in consultation with the student. Final approval of the dissertation will be by a committee including the candidate's principal advisor, two other department members, and one member from another department. The results of the dissertation will be presented at a colloquium convened for that purpose.

### **E. Teaching**

PhD students in economics who are funded on state lines serve as teaching assistants (TAs) for classes taught by departmental faculty and instructors. For all PhD students, regardless of source of funding, the department of economics requires that they take the teacher training course ECO 698.

### **F. Time Limit**

The time limit for a doctoral degree is seven years for a student who has a previous graduate degree or 24 credits of graduate study in such a degree program. For all other students, the time limit for a doctoral degree is seven years after completion of 24 graduate level credits at Stony Brook University.

### **G. Dismissal Policy**

A student may be dismissed from the program at the end of any semester in which he or she does not achieve a semester or cumulative B average or fails to meet the pertinent requirements for the Ph.D. as specified.

Faculty of Economics department

### **Professors**

Brusco, Sandro, Ph.D., 1993, Stanford: Mechanism design, corporate finance, political economy.

Cárceles-Poveda, Eva, , Ph.D., 2001, Universitat Pompeu Fabra: Macroeconomics, financial economics, int'l economics.

Conesa, Juan Carlos, Ph.D., 1999, University of Minnesota: Macroeconomics; computational economics.

Dubey, Pradeep, Ph.D., 1975, Cornell University: Game theory; mathematical economics.

Manea, Mihai, Ph.D., 2009, Harvard University: Game Theory, social and economic networks

Montgomery, Mark, Ph.D., 1982, University of Michigan: Economic demography; development economics; econometrics.

Eran Shmaya, Ph.D., 2007, Tel Aviv University: Game theory, probability, information theory, decision theory.

Stern, Steven, Ph.D., 1985, Yale University: Labor economics; econometrics; economics of aging and disability.

Tauman, Yair, Ph.D., 1978, Hebrew University, Jerusalem: Industrial organization; game theory.

### **Associate Professors**

Anagnostopoulos, Alexis, Ph.D., 2005, London Business School: Macroeconomics; computational economics.

Benítez-Silva, Hugo, Ph.D., 2000, Yale University: Labor Economics, computational economics.

Liu, Ting, Ph.D., 2008, Boston University: Applied Microeconomic Theory, industrial organization, health economics.

Zhou, Yiyi, Ph.D., 2012, University of Virginia: Industrial Organization, applied econometrics.

### **Assistant Professor**



Liu, Chang, Ph.D., 2024, University of Rochester: International Macro, microeconomics, trade

Millard, Robert, Ph.D., University of Western Ontario: Labor Economics, health economics

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

Electrical and computer engineering Department

**Chairperson**

Leon Shterengas, Light Engineering Building 273 (631) 632-9376

**Graduate Program Director**

Fan Ye, Light Engineering Building 217 (631) 632-8393

**Assistant to the Chair**

Vacant, Light Engineering Building 273 (631) 632-8420

**Graduate Program Coordinator**

Chantalle McKim, Light Engineering Building 267A (631) 632-8401

**Department Coordinator**

Adam Ortiz, Light Engineering Building 267 (631) 632- 8415

**Degrees Awarded**

M.S. in Electrical Engineering and Ph.D. in Electrical Engineering

**Web Site**

<http://www.stonybrook.edu/commcms/electrical/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Electrical and Computer Engineering Department

The fields of electrical and computer engineering are in an extraordinary period of growth; new application areas and increased expectations are accelerating due to new technologies and decreased costs. The Electrical and Computer Engineering Department, in the College of Engineering and Applied Sciences, is involved in graduate teaching and research in many of these areas, including communications and signal processing, networking, computer engineering, power engineering, semiconductor devices and quantum electronics, circuits and VLSI. The department has laboratories devoted to research and advanced teaching in the following areas: computing, engineering design methodology, high-performance computing and networking, parallel and neural processing, machine vision, fiber optic sensors and computer graphics, micro and optoelectronics, power electronics, electric power and energy systems, VLSI, telerobotics, DNA sequencing, digital signal processing, and communications.

Since Long Island contains one of the highest concentrations of engineering-oriented companies in the country, the department is particularly strongly committed to meeting the needs of local industry. As part of this commitment, most graduate courses are given in the late afternoon or evening, so as to be available to working engineers on Long Island.

The Department of Electrical and Computer Engineering offers graduate programs leading to the M.S. and Ph.D. degrees. Graduate programs are tailored to the needs of each student to provide a strong analytical background helpful to the study of advanced engineering problems.

Ample opportunities exist for students to initiate independent study and to become involved in active research programs, both experimental and theoretical.

**Areas of Emphasis in Graduate Study**

Areas of emphasis in current research and instruction are: Communications and Signal Processing, Computer Engineering, Power Engineering, Semiconductor Devices and Quantum Electronics, Circuits and VLSI.

Specialties that fall under one or more of the above categories include: VLSI, Image Processing, Computer Vision, Integrated Circuit Fabrication, Novel Electronic and Photonic Devices, Microgrids, Power System Optimization and Modeling, Power Electronic Devices and Circuits, Digital Communication, Cyber Security, Biomedical Electronics, Computer-Aided Design, Computer Networks, Parallel Processing, Fault-Tolerant Computing, Microprocessors, Robotics, Network Theory, and Optical Signal Processing and Fiber Optic Sensors.

Theoretical and experimental programs reflecting these areas are currently underway and students are encouraged to actively participate in these efforts. Outlined below is an overview of the Department's research areas.

**Communications and Signal Processing**

Subject areas of current interest include mobile, wireless and personal communications; high speed data and computer communication networks; communications traffic; data compression; coding and modulation techniques; inter-connection networks and high speed packet switching; digital communication; detection and estimation; statistical signal processing; spectrum estimation; image analysis and processing; computer vision.

**Computer Engineering**

The goal of computer engineering in the ECE department is to provide a balance view of hardware and software issues. The expertise in the program include parallel and/or high performance and/or energy efficient computer architecture, embedded microprocessor system design, fault tolerant computing, design communications and signal processing, parallel and distributed computing, computer networks, cybersecurity, computer vision, artificial neural networks and software engineering.

**Power Engineering**

Power engineering deals with various aspects of the modern and emerging power systems including power electronics hardware, power grids, and renewable energy technologies. The Program covers a combination of fundamental and applied courses in power system analysis, power system dynamics, microgrids, power system optimization, modeling and analysis of photovoltaic power systems, probabilistic methods in power and energy, power system economics, electricity market, artificial intelligence for energy systems, quantum engineering, fundamentals of power electronic devices and circuits, basic converter modeling/control, EMI filtering in power converters, power module packaging and integration, and power-electronics-converter applications in motor drives & renewable energy systems.

### **Semiconductor Devices, Quantum Electronics**

The program of courses and of research pertinent to solid-state electronics, electromagnetics and optics ranges from a study of the fundamental electronic processes in solids through a description of the mechanism which yield useful devices to a study of the design simulation, and fabrication of semiconductor devices and integrated circuits. Program's scientific interests center on physics and technology of optoelectronic devices and systems. Over the past several years, major efforts were focused on the design and development of the novel semiconductor lasers and detectors. Additionally, the department has a strong experimental effort on the development of coherent optical processors, fiber optic sensors and integrated fiber optics.

### **Circuits and VLSI**

The program in the Circuits and VLSI area addresses problems associated to modeling, simulation, design and fabrication of analog, digital, and mixed-signal integrated circuits. Analog and mixed-mode integrated circuit (IC) devices have important applications in many fields including avionics, space technology, and medical technology. The department offers basic and advanced courses covering the following subjects: integrated circuit technology, device modeling, software tools for circuit design and simulation, analog and digital circuit design, VLSI circuits, testing of analog and digital ICs, design automation for analog, digital and mixed-mode circuits, VLSI systems for communications and signal processing.

Admission requirements of Electrical and Computer Engineering Department

For admission to graduate study in the Department of Electrical and Computer Engineering, the minimum requirements are:

A. A bachelor's degree in electrical or computer engineering or computer science from an accredited college or university. Outstanding applicants in other technical or scientific fields will be considered, though special make-up coursework over and above the normal requirements for a graduate degree may be required.

B. A minimum grade point average of B in all courses in engineering, mathematics, and science.

C. Acceptance by both the Department of Electrical and Computer Engineering and the Graduate

School. Facilities of Electrical and Computer Engineering Department

The department operates laboratories for both teaching and research:

**The Advanced Power Electronics Laboratory** supports research and education efforts in the field of power electronics and energy conversion systems for various application ranging from solar power to aircraft propulsion. The lab is working on design of high-density and high-efficiency converters based on wide bandgap semiconductors as well as advanced power module packaging and high-density filtering solutions. Lab research interests include design of the basic converter topologies and controls, converter system modeling/control, electro-magnetic modeling, and power module packaging architecture/process development.

**The Computer-Aided Design Laboratory** offers access to large assortment of software tools used to analyze, model, simulate, and better understand various engineering concepts. The lab comprises 40 Dell PC's, that are networked via switched Ethernet to a Dell file server.

**The Computer Vision Laboratory** has a network of PC's, digital imaging hardware, and custom-built Computer Vision Systems for experimental research in 3D vision and digital image processing.

**The COSINE Laboratory** supports the research efforts of faculty members and graduate and undergraduate students in the areas of signal processing, communications, and networking. Current and recent research projects involve Bayesian signal processing, inference, Monte Carlo signal processing, signal modeling, machine learning, deep networks, signal processing over networks, graph signal processing, sensor signal processing, positioning and navigation, biomedical signal processing, wireless networks, radio-frequency identification, the Internet of Things, computer networking, data transmission, multiple-access systems, scheduling, network performance evaluation, grid computing, information theory, and image processing.

**The Digital Signal Processing Laboratory** is involved in digital signal processing architectures and hardware and software research. The laboratory has extensive list of relevant software and hardware tools.

**The Electric Power and Energy Systems Laboratory** is dedicated to enabling innovations for different layers of grid infrastructures that will transform today's power grids into tomorrow's autonomic networks and flexible services towards self-configuration, self-healing, self-optimization, and self-protection against grid changes, renewable power injections, faults, disastrous events and cyber-attacks. Our lab conducts cutting edge research in Quantum Grid (QGrid), Smart Programmable Microgrids (SPM), networked microgrids with a focus on learning-based control and stability, formal methods and reachability analysis, software-defined smart grid, cyber-physical resilience of power grid, power system stability and control, and real-time electromagnetic transient analysis.

**The Fiber Optic Sensors Laboratory (FOSL)** - Research emphasis is on the development and fabrication of novel fiber optic systems for very diverse applications ranging from aerospace to biomedical. Research work has been supported by NSF, NASA, NIH and various state and industrial partners. Some of the current research projects include development of capillary waveguide based biosensors for detection of

pathogens in a marine environment, laser debridement, cavity sensors for flight control surfaces, and photonic power conversion for mobile platforms. The laboratory is equipped with various capabilities for optical and electronic diagnosis. These include a fiber optic fusion splicer, fiber polisher, diamond saw, optical microscope, optical spectral analyzer, single photon-counting systems, a high speed digital autocorrelator and various laser sources. Additionally, the laboratory has the facilities for designing and fabricating printed circuit boards and fabricating optical and electronic sub-systems.

**The Fluorescence Detection Laboratory** is involved in the design and development as well as implementation and testing of various instruments for Life Sciences. Research areas include laser induced fluorescence detection, single photon counting techniques, fast data acquisition and transfer, design and development of analog and digital integrated circuits, signal processing, capillary electrophoresis phenomena, DNA sequencing, and microfluidics.

**The Graduate Computing Laboratory** has extensive computational capabilities to support student's research and studies. Industry standard packages such as Cadence tools, Synopsys, Matlab, and many others are available.

**The Hardware Generation and Optimization (HGO) Laboratory** is dedicated to the design and optimization of digital systems, computer architecture, hardware for artificial intelligence, and field-programmable gate arrays (FPGAs). The lab is equipped with FPGA development environments, servers and desktop PCs, and related CAD tools.

**The High-Performance Computing and Networking Research Laboratory** is equipped to conduct research in the broad area of networking and parallel/distributed computing with emphasis on distributed quantum computing, quantum networks, edge computing, wireless/mobile networks, cloud computing, data center networks.

**The Integrated Microsystems Laboratory** focuses on advancing fundamental knowledge in the areas of near-zero-power communication, sensing and computing and design and engineering of sensory microsystems that operate using only harvested energy. We develop both core technologies and applications along several research thrusts founded on the tiny self-powered sensors distributed through an environment or implanted within a human body that coherently sense and analyze their surroundings. The applications are wide ranging with potential impact in various fields, such as smart spaces, environmental/infrastructure monitoring, and personalized healthcare.

**The Nanoscale Circuits and Systems (NanoCAS) Laboratory** focuses on developing design methodologies for high performance as well as energy efficient integrated circuits with a variety of applications ranging from future processors to ultra-low power Internet-of-things (IoT) based devices. The NanoCAS Lab is equipped with a high performance processing and storage server, workstations, and all necessary EDA tools for modeling, design, and analysis.

*The Mixed-Domain Embedded System Laboratory is equipped for research in the broad area of electronic system design and design automation. Current research projects involve design automation for mixed analog-digital systems and embedded systems for multimedia, sensor network applications and emerging technologies.*

**The Mobile Computing and Applications Laboratory (MoCA Lab)** focuses on AI/machine learning algorithms, software and infrastructure for healthcare applications, leveraging cutting edge mobile and embedded sensing systems. The lab also conducts research in novel wireless multicast technology, vehicular computing, location based services, and Internet-of-Things. The laboratory has powerful GPU servers, and has access to cloud computing facilities hosted by CEWIT and the University.

**The Mobile Systems Design Laboratory** conducts research in the broad areas of VLSI system designs for signal processing, communication, and heterogeneous mobile sensors. The laboratory is equipped for design and simulation of complex hardware and software systems.

**The Optoelectronics Laboratory** possesses the infrastructure for molecular beam epitaxial semiconductor heterostructure growth, advanced material characterization as well as fabrication (clean room) and sophisticated characterization and modeling of optoelectronics devices. The recent research projects include design and development of the novel infrared lasers, light emitting diodes, photodetectors and modulators. The laboratory is actively working on metamorphic epitaxial growth techniques to develop the new class of narrow and ultra-low bandgap alloys and superlattices for long-wave infrared photodetector and other applications.

**Spellman Power Electronics Lab** is an engineering teaching lab designed to accelerate research and educational programs in alternative energy and power conversion systems.

**The Ultra-High-Speed Computing Laboratory** conducts research in high performance energy-efficient flux quantum computing and cybersecurity. It is equipped with powerful computing, networking, and storage facilities and advanced CAD tools for superconductor circuit design.

**The Wireless and Networking Systems Laboratory** conducts research in the area of wireless networking and mobile computing. The lab has extensive computing capabilities, a set of Crossbow sensors, professional sensor test bed development kit, and other equipment for network and system research.

**The Wireless Sensor and RFID Network (WSRN) Laboratory** focuses on network design and performance analysis for wireless sensor networks and RFID networks. The laboratory is equipped with state-of-art computing equipment, wireless sensor nodes by Crossbow Technologies, Inc. and MotelV (now Sentilla), and RFID equipment. Current projects include novel RFID Tag Identification algorithms, RFID anti-collision algorithms and Consensus protocols.

**The Wireless Sensing and AUTO ID Laboratory (WSAID)** - The research at the laboratory focuses on Radio Frequency Identification (RFID), wireless sensor networks, and indoor localization. The lab contains facilities and equipment to carry out cutting edge research and small-scale prototyping and evaluation of technologies in real world scenarios. Current projects at the laboratory include development of a novel UHF RFID

system for enhanced performance, development of indoor localization systems based on technologies such as RFID, WiFi and Zigbee, and development of customized RFID systems for use in healthcare settings.

#### Requirements for the M.S. Degree in Electrical Engineering

The M.S. degree in the Department of Electrical and Computer Engineering requires the satisfactory completion of a minimum of 30 graduate credits. These requirements may be satisfied by either one of the following options:

#### **I. Non-Thesis Option**

1. At least 30 graduate credits with a cumulative and departmental grade point average of 3.0 or better. Among these 30 credits, up to six credits may be from combination of ESE 597, ESE 599, and ESE 698. Only 3 credits of ESE 698 and up to 3 credits of ESE 597 may be used. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.

2. Minimum of eight (8) regular courses. Of these eight, at least seven (7) regular courses must be taken in the department; three of the seven must be selected from the following CORE Courses:

ESE 502: Linear Systems

ESE 503: Stochastic Systems

ESE 511: Solid-State Electronics or ESE 538: Nanoelectronics.

ESE 516: Integrated Electronic Devices and Circuits I.

ESE 520: Applied Electromagnetics

ESE 528: Communication Systems or ESE 532: Theory of Digital Communication or ESE 505: Wireless Communications

ESE 545: Computer Architecture

ESE 547: Digital Signal Processing

ESE 554: Computational Models for Computer Engineers

ESE 555: Advanced VLSI System Design

ESE 566: Hardware-Software Co-Design of Embedded Systems or ESE 587: Hardware Architecture for Deep Learning.

3. ESE 597, ESE 599, ESE 697, ESE 698 and ESE 699 are not counted as regular courses in (2). Topics course, ESE 670, can be counted only once as a regular course.

4. At least one (maximum three) credit of ESE 597. Graduate Program Director approval is required (see graduate student guide for details). In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credit by ESE 599, ESE 699 or ESE 698.

#### **II. Thesis Option**

1. Students must inform the department in writing at the end of their first semester if they would like to choose the M.S. Thesis Option.

2. At least 30 graduate credits with a cumulative and departmental grade point average of 3.0 or better. Among these 30 credits, at least six credits of ESE 599, with a maximum of 12 credits total being taken from combination of ESE 597, ESE 599, and ESE 698 and up to 3 credits of ESE 597 may be used. Only 3 credits of ESE 698; may be used. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.

3. Minimum of six (6) regular courses. Of these six, at least five (5) regular courses must be taken in the department. Three of these five regular courses must be selected from the following CORE Courses:

ESE 502: Linear Systems

ESE 503: Stochastic Systems

ESE 511: Solid-State Electronics or ESE 538: Nanoelectronics.

ESE 516: Integrated Electronic Devices and Circuits I.

ESE 520: Applied Electromagnetics

ESE 528: Communication Systems or ESE 532: Theory of Digital Communication or ESE 505: Wireless Communications

ESE 545: Computer Architecture

ESE 547: Digital Signal Processing

ESE 554: Computational Models for Computer Engineers

ESE 555: Advanced VLSI System Design

ESE 566 Hardware-Software Co-Design of Embedded Systems or ESE 587: Hardware Architecture for Deep Learning.

4. ESE 597, ESE 599, ESE 697, ESE 698 and ESE 699 are not counted as regular courses in (3). Topics course, ESE 670, can be counted only once as a regular course.

5. At least one (maximum three) credit of ESE 597. Graduate Program Director approval is required (see graduate student guide for details). In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credit by ESE 599, ESE 699 or ESE 698.

6. Students must satisfactorily complete a thesis (see graduate student guide for details). Requirements for the Ph.D. Degree in Electrical Engineering

#### **A. Major and minor area requirements**

1. Major area requirement is satisfied by taking minimum of three (3) courses from a selected major area with minimum GPA of 3.5. See Graduate Student Guide for preapproved lists of courses for each area.

2. Minor area requirement is satisfied by taking courses from other areas (different from the selected major area) with minimum GPA of 3.0. Students with BS degree are required to take two (2) courses from other areas (one or two areas) while students with MS degree are required to take one (1) course.

#### **B. Course Requirements**

1. A minimum of 14 regular courses (42 regular graduate course credits) beyond the BS degree (including courses taken to satisfy major and minor requirements). The choice must have the prior approval of the designated faculty academic advisor. Any non-ESE course will need prior approval given by the Graduate Program Director before a student can register.
2. The ESE 697 Practicum in Teaching (3 credits) is required to satisfy the teaching requirement. Students must be advance to candidacy in order to take this course.
3. At least 15 credit hours of ESE 699 for conducting focused research under faculty supervision.
4. The courses ESE 597, ESE 598, ESE 599, ESE 698, and ESE 699 are not counted as regular courses.
5. Courses presented under the title ESE 670 Topics in Electrical Sciences that have different subject matters, and are offered as formal lecture courses, are considered different regular courses but may not be counted more than twice.
6. Prior MS degree in ECE or related area can reduce the course requirements down to six (6) regular courses.

#### **C. Advancement to Candidacy**

After successfully completing all major/minor/course requirements (except ESE 697) the student is eligible to be recommended for advancement to candidacy. This status is conferred by the dean of the Graduate School upon recommendation from the chairperson of the department.

It is strongly recommended that doctoral students Advance to Candidacy within 2.5 years if admitted with a BS degree (after earning 42 regular course credits), or within 1.5 years if admitted with an MS degree (after earning 18 regular course credits).

#### **D. Preliminary Examination**

A student is recommended to pass the preliminary examination within 1.5 years after advancement to candidacy. Both a thesis topic and the thesis background area are emphasized. Students must pass the Preliminary Examination at least ONE year prior to their Defense. See Graduate Student Guide for details.

#### **E. Dissertation**

The most important requirement for the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation must represent a significant contribution to the scientific and engineering literature, and its quality must be compatible with the publication standards of appropriate and reputable scholarly journals.

#### **F. Approval and Defense of Dissertation**

The dissertation must be orally defended before a dissertation examination committee (normally in three - four years after satisfying the major and the minor requirements), and the candidate must obtain approval of the dissertation from this committee. The committee must have a minimum of four members (at least three of whom are faculty members from the department), including the research advisor and committee chair, and at least one person from outside the department. (Neither the research advisor nor the outside member may serve as the chair). Within the committee there must be a member with no conflict of interest in relationship to the student (including intellectual, personal, financial, etc.) On the basis of the recommendation of this committee, the dean of engineering and applied sciences will recommend acceptance or rejection of the dissertation to the dean of the Graduate School. All requirements for the degree will have been satisfied upon the successful defense of the dissertation.

#### **G. Residency Requirement**

The student must complete two consecutive semesters of full-time graduate study. Full-time study is 9 credits minimum per semester.

## H. Time Limit

All requirements for the Ph.D. degree must be completed within seven (7) years after completing 24 credits of graduate courses in the department.

## Certificates

### 1. Networking & Wireless Communications Certificate

Matriculated students only.

Networking and wireless communications are key technologies in today's technological world. Networks such as the Internet as well as telephone, cable and wireless networks serve to interconnect people and computers in a ubiquitous and cost effective way. The area of wireless communications in particular has grown rapidly in recent years and has utilized networking technology to be successful. There is a large industrial base involving networking and wireless communications in terms of equipment and software providers, service providers and end users. Moreover this technology has made the average consumer's life more productive, flexible and enjoyable.

The Stony Brook Certificate Program in Networking and Wireless Communications is designed to give matriculated students validated graduate level instruction in this area of much recent interest. The program can be completed in a reasonable amount of time as it involves only four courses. These are regular Stony Brook graduate level courses taught by Stony Brook faculty. The SUNY approved certificate program can be tailored to the needs of the individual student. Courses used for the certificate program can also be used toward the MS or PhD degree by matriculated students.

To receive the Stony Brook Certificate in Networking and Wireless Communications, a student must complete FOUR required courses as specified below, with at least a B grade in each course.

#### At least ONE course from the following:

- ESE 505: Wireless Communications
- ESE 506: Wireless Network

#### At least ONE course from the following:

- ESE 532: Theory of Digital Communications
- ESE 546: Networking Algorithms and Analysis
- ESE 548: Computer Networks

#### In addition to the above, if needed, courses may be selected from:

- ESE 503: Stochastic Systems
- ESE 504: Performance Evaluation of Communication and Computer Systems
- ESE 522: Fiber Optic Systems
- ESE 528: Communication Systems
- ESE 531: Statistical Learning and Inference
- ESE 536: Switching and Routing in Parallel and Distributed Systems
- ESE 543: Mobile Cloud Computing
- ESE 544: Network Security Engineering
- ESE 547: Digital Signal Processing
- ESE 550: Network Management and Planning
- ESE 552: Interconnection Networks

### 2. Engineering Machine Learning Systems

Matriculated students only.

The Engineering Machine Learning Systems certificate program educates about the mathematical theory, fundamental algorithms, and optimized engineering of computational learning systems used in real-world, big data applications. Students will also study modern technologies used in devising such data systems, including software tools, architectures, and related hardware structures. Comprehensive, hands-on student projects on designing, implementing, and testing real-world learning systems are part of the certificate program. The certificate program includes a total of four courses: three required courses and one elective course.

To receive the Stony Brook certificate in the Engineering Machine Learning Systems, a student must be currently enrolled in an MS or PhD program in the Electrical and Computer Engineering Department and must complete four courses as specified below, with at least a B grade in each course.

**Foundations (1 required):** ESE 503 Stochastic Systems

**Fundamental Methods (2 required):** ESE 588 Fundamentals of Machine Learning  
ESE 589 Learning Systems for Engineering Systems

**Applications (1 out of three electives):** ESE 568 Computer and Robot Vision  
 ESE 587 Hardware Architectures for Deep Learning,  
 ESE 590 Practical Machine Learning  
 BMI 511/ESE 569 Translational Bioinformatics

To apply for the Engineering Machine Learning Systems Certificate Program, a student must complete the “Permission to Enroll in a Secondary Certificate Program” form (which requires some signatures) from the Graduate School website, and submit it within the first week of the semester when they start the certificate.

### 3. Engineering the Internet of Things

Matriculated students only.

The Engineering the Internet-of-Things certificate program provides the fundamental principles, popular technologies and optimized engineering of Internet-of-Things applications and systems. Students gain a broad set of skills and knowledge for IoT development and innovation, including sensors and interfaces, RF communication, microcontroller and embedded systems, wireless radios, network protocols, cloud services and security techniques. Students learn how to design, implement and evaluate IoT systems and applications through hands-on projects on popular embedded system hardware. The certificate program includes a total of four courses: three required courses and one elective course.

To receive the Stony Brook certificate in the Engineering the Internet-of-Things, a student must be enrolled in an MS or PhD program in the Electrical and Computer Engineering Department and must complete four courses as specified below, with at least a B grade in each course.

**Foundations (1 required):** ESE 566 Hardware Software Co-design for Embedded Systems

**Basic Skills and Knowledge (2 required):** ESE 506 Wireless Network  
 ESE 525 Modern Sensors in Artificial Intelligence Applications

**Cloud and Security (1 out of two electives):** ESE 543 Mobile Cloud Computing  
 ESE 544 Network Security Engineering

To apply for the Engineering the Internet-of-Things Certificate Program, a student must complete the “Permission to Enroll in a Secondary Certificate Program” form (which requires some signatures) from the Graduate School website, and submit it within the first week of the semester when they start the certificate.

Faculty of Electrical and Computer Engineering Department

### Distinguished Professors

Djuric, Petar M., Chairperson, Ph.D., 1990, University of Rhode Island: Signal analysis, modeling and processing; wireless communications and sensor networks.

Yang, Yuanyuan, Ph.D., 1992, Johns Hopkins University: Wireless and mobile networks, cloud computing, data center networks, optical networks, high speed networks, parallel and distributed computing systems, multicast communication, high performance computer architecture, and computer algorithms.

### Professors

Bugallo, Monica, Ph.D., 2001, Universidade da Coruna (Spain): Statistical signal processing with the emphasis in the topics of Bayesian analysis, sequential Monte Carlo methods, adaptive filtering, and stochastic optimization.

Doboli, Alex, Ph.D., 2000, University of Cincinnati: VLSI CAD and design, synthesis and simulation of mixed analog-digital systems, hardware/software co-design of embedded systems, and high-level synthesis of digital circuits.

Hong, Sangjin, Ph.D., 1999, University of Michigan: Low-power VLSI design of multimedia wireless communications and digital signal processing systems, including SOC design methodology and optimization.

Parekh, Jayant P., Ph.D., 1971, Polytechnic Institute of Brooklyn: Microwave acoustics; microwave magnetics; microwave electronics; microcomputer applications.

Zhang, Peng, PhD, 2009, University of British Columbia, Vancouver, Canada: Power system, programmable microgrids, networked microgrids, software-defined distribution network, cyber-resilient power grid, formal methods, reachability analysis, power system stability and control.

Robertazzi, Thomas G., 1981, Princeton University: Computer networking; grid computing; performance evaluation; parallel processing; e-commerce technology.

Shamash, Yacov, Ph.D., 1973, Imperial College of Science and Technology in London, England: Control Theory & Systems, Energy Systems, and Industry/University Partnerships.

Short, Kenneth L., Ph.D., 1973, University at Stony Brook: Digital system design; microprocessors; instrumentation.



Shterengas, Leon, Graduate Program Director, Ph.D. 2004, Stony Brook University: Semiconductor photonic devices, nanofabrication, molecular beam epitaxy.

Subbarao, Murali, Ph.D., 1986, University of Maryland: Computer vision; image processing; pattern recognition.

### **Associate Professors**

Dhadwal, Harbans, Ph.D., 1980, University of London, England: Laser light scattering; fiber optics; optical signal processing and instrumentation.

Donetski, Dmitri, Ph.D., 2000, Stony Brook University: Design and technology of optoelectronic devices and systems including photovoltaic and photoconductive detectors, diode lasers and diode laser arrays.

Dorojevets, Mikhail, Ph.D., 1988 Siberian Division of the USSR Academy of Sciences, Novosibirsk: Computer architectures, systems design.

Eisaman, Matthew, Ph.D., 2006 Harvard University: Photovoltaic devices, especially light trapping nanostructures for improved solar cell efficiency, and spatial variations at the nanoscale.

Gorfinkel, Vera, Ph.D., 1980, A.F. Ioffe Physical-Technical Institute, St. Petersburg, Russia: Semiconductor devices, including microwave and optoelectronics, DNA sequencing instrumentation, single photon counting techniques.

Kamoua, Ridha, Undergraduate Program Director, Ph.D., 1992, University of Michigan: Solid-state devices and circuits; microwave devices and integrated circuits.

Lin, Shan, Ph.D., 2010, University of Virginia: Cyber physical systems, networked information systems, wireless networks, sensing and control systems.

Luo, Fang, Ph.D., 2010, Huazhong University of Science and Technology, Wuhan, China (Jointly supervised by Virginia Tech, Blacksburg, VA, USA): Power electronic devices and circuits, energy conversion systems.

Milder, Peter, Ph.D. 2010, Carnegie –Mellon University: Digital hardware design, generation, and optimization focusing on signal processing, computer vision, and related domains; design for FPGA.

Salman, Emre, Ph.D. 2009, University of Rochester: Nanoscale integrated circuit design, emerging technologies for future electronic systems, highly heterogeneous integrated systems, digital and mixed-signal circuits.

Stanacevic, Milutin, Ph.D., 2005, Johns Hopkins University: Analog and mixed-signal VLSI integrated circuits and systems; adaptive Microsystems; implantable electronics.

Suchalkin, Sergey, Ph.D., 1998, Ioffe Physical Technical Institute, Russia: Design and development of optoelectronic devices. Far- and Mid-infrared spectroscopy of solids. Physics of semiconductors and nanostructures.

Tang, K. Wendy, Ph.D., 1991, University of Rochester: Interconnection networks, parallel computing, and neural networks.

Wang, Xin, Ph.D., 2001, Columbia University: Mobile and ubiquitous computing, wireless communications and networks, grid and distributed computing, advanced applications and services over Internet and wireless networks.

Ye, Fan, Ph.D., 2004, UCLA: Mobile computing/sensing systems & applications, indoor localization and floor plan reconstruction, internet-of-things and sensor networks.

Zhao, Yue, Ph.D., 2011, UCLA: Smart energy systems, renewable energy integration, electricity market, infrastructure security, sensing and signal processing, optimization theory, information theory, communication networks.

### **Assistant Professors**

Liu, Ji, Ph.D., 2013, Yale University: Distributed control and computation, multi-agent systems, social networks, epidemic networks, and power networks.

### **Professors of Practice and Instructional Specialists**

Westerfeld, David, PhD: Design and characterization of high-performance mid-infrared semiconductor light sources (LEDs and lasers).

Gouzman, Michael, PhD: Semiconductor devices, including microwave and optoelectronics.

### **Affiliated Faculty**

Hassan Arbab, M., Assistant Professor: Terahertz emission, detection and imaging technologies and their applications in biophotonics, medical imaging, non-destructive testing, material characterization and stand-off detection of chemicals.

Goldan, Amir H., Assistant Professor: X-Ray and PET Imaging, Digital Radiological Imaging Detectors, Single Photon Counting for Medical Imaging, Detector Modeling, Fabrication, Characterization and Instrumentation, Avalanche Amorphous Selenium Detectors, Quantum Mechanical Modeling of Charge Transport, Noise-Free Avalanche Detectors.

DeLorenzo, Christine, Associate Professor: Biomarkers of Major Depressive Disorder, Antidepressant Treatment Response Prediction, Multimodal Brain Imaging, and PET Radioligands.

Liang, Jerome, Professor: Low-dose computed tomography image reconstruction, Quantitative image reconstruction for single photon emission computed tomography, High resolution positron emission tomography image reconstruction, Segmentation of tissue mixtures from multi-spectral images, Computer aided detection of abnormality and diagnosis on the detected abnormality, Development of virtual colonoscopy systems.

Park, Memming, Assistant Professor: Memming Park designs statistical models and machine learning methods specialized for analyzing neural time series. He aims to understand how information and computations are represented and implemented in the brain, both at a single-neuron and at the systems level. His group collaborates with several experimental labs on important problems in neuroscience, such as sensory coding, recovery from coma, and perceptual decision-making.

Wang, Daifeng, Assistant Professor: Data mining and machine learning in bioinformatics and biomedical data science; Computational systems biology; Computational social networks

### **Adjunct Faculty**

Chi Chen: Software Engineering, Computational Models, Feedback Control Stabilization

Gianluigi De Geronimo: Development of advanced low-noise application-specific integrated circuits for sensors from concept to transistor-level design, physical layout and characterization, frequency- and time-domain noise analysis, optimum analog and digital filters, high-precision signal processing, systems-on-chip, and semiconductor device physics

Timothy Driscoll: Electric Power Systems; Renewable Energy Resource Systems; Advanced Power Systems; Smart Grid; Electric Vehicles

Carlos Fernando Gamboa: Computer Networks and Scheduling Theory; Data Intensive Distributed Systems; Database Management Systems

Yasha Karimi: Medical device technologies, Internet of Things (IoT), Wearable Electronics, Ultra-low power Circuit and System Design

Dmitri Gavrilov: Signal processing, neural networks, embedded systems.

Dmytro Gudkov

Shaorui Li

Vibha Mane: Stochastic Modeling of Biological Networks; Statistical Machine Learning; Signal Processing, Detection and Estimation

Ronald Marge: Technical communications

Tatiana Tchoubar

Donna Tumminello: Technology Commercialization; Entrepreneurship

Dantong Yu: Data mining, high performance computing and networks

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

**Electrical and Computer Engineering Department****Chairperson**

Leon Shterengas, Light Engineering Building 273 (631) 632-9376

**Graduate Program Director**

Fan Ye, Light Engineering Building 217 (631) 632-8393

**Assistant to the Chair**

Vacant, Light Engineering Building 273 (631) 632-8420

**Graduate Program Coordinator**

Chantalle McKim, Light Engineering Building 267A (631) 632-8401

**Department Coordinator**

Adam Ortiz, Light Engineering Building 267 (631) 631-8415

**Degrees Awarded**

M.S. in Artificial Intelligence

**Web Site**

<http://www.stonybrook.edu/commcms/electrical/>

[https://www.stonybrook.edu/commcms/electrical/graduate/eai\\_ms\\_program](https://www.stonybrook.edu/commcms/electrical/graduate/eai_ms_program)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Program description**

The Master of Science in Engineering of Artificial Intelligence (EAI) prepares specialists with comprehensive knowledge in all areas of this new disruptive and revolutionary technology. The program provides interdisciplinary foundations and practical experience in algorithms, sensors, hardware, control, and applications. The program consists of a three-semester course sequence which covers the fundamentals of Artificial Intelligence, probabilistic reasoning, machine learning, deep learning algorithms, sensor electronics, digital systems design and acceleration hardware, control theory and practice, convex optimization, natural language processing, and computer vision and applications in mobile, health, and other domains. The holistic nature of the program allows students to specialize in any sub-field of Artificial Intelligence (AI) and solve real world problems, many of which go beyond just algorithms and software.

**Engineering Artificial Intelligence MS Program Admission**

For admission to graduate study in the Department of Electrical and Computer Engineering, the minimum requirements are:

- A. A bachelor's degree in electrical or computer engineering or computer science from an accredited college or university. Outstanding applicants in other technical or scientific fields will be considered, though special make-up coursework over and above the normal requirements for a graduate degree may be required.
- B. A minimum grade point average of B in all courses in engineering, mathematics, and science.
- C. Acceptance by both the Department of Electrical and Computer Engineering and the Graduate

**School. FACILITIES****Facilities of Electrical and Computer Engineering Department**

The department operates laboratories for both teaching and research:

**The Advanced Power Electronics Laboratory** supports research and education efforts in the field of power electronics and energy conversion systems for various application ranging from solar power to aircraft propulsion. The lab is working on design of high-density and high-efficiency converters based on wide bandgap semiconductors as well as advanced power module packaging and high-density filtering solutions. Lab research interests include design of the basic converter topologies and controls, converter system modeling/control, electro-magnetic modeling, and power module packaging architecture/process development.

**The Computer-Aided Design Laboratory** offers access to large assortment of software tools used to analyze, model, simulate, and better understand various engineering concepts. The lab comprises 40 Dell PC's, that are networked via switched Ethernet to a Dell file server.

**The Computer Vision Laboratory** has a network of PC's, digital imaging hardware, and custom-built Computer Vision Systems for experimental research in 3D vision and digital image processing.

**The COSINE Laboratory** supports the research efforts of faculty members and graduate and undergraduate students in the areas of signal processing, communications, and networking. Current and recent research projects involve Bayesian signal processing, inference, Monte Carlo signal processing, signal modeling, machine learning, deep networks, signal processing over networks, graph signal processing, sensor signal

processing, positioning and navigation, biomedical signal processing, wireless networks, radio-frequency identification, the Internet of Things, computer networking, data transmission, multiple-access systems, scheduling, network performance evaluation, grid computing, information theory, and image processing.

**The Digital Signal Processing Laboratory** is involved in digital signal processing architectures and hardware and software research. The laboratory has extensive list of relevant software and hardware tools.

**The Electric Power and Energy Systems Laboratory** is dedicated to enabling innovations for different layers of grid infrastructures that will transform today's power grids into tomorrow's autonomic networks and flexible services towards self-configuration, self-healing, self-optimization, and self-protection against grid changes, renewable power injections, faults, disastrous events and cyber-attacks. Our lab conducts cutting edge research in Quantum Grid (QGrid), Smart Programmable Microgrids (SPM), networked microgrids with a focus on learning-based control and stability, formal methods and reachability analysis, software-defined smart grid, cyber-physical resilience of power grid, power system stability and control, and real-time electromagnetic transient analysis.

**The Fiber Optic Sensors Laboratory (FOSL)** - Research emphasis is on the development and fabrication of novel fiber optic systems for very diverse applications ranging from aerospace to biomedical. Research work has been supported by NSF, NASA, NIH and various state and industrial partners. Some of the current research projects include development of capillary waveguide based biosensors for detection of pathogens in a marine environment, laser debridement, cavity sensors for flight control surfaces, and photonic power conversion for mobile platforms. The laboratory is equipped with various capabilities for optical and electronic diagnosis. These include a fiber optic fusion splicer, fiber polisher, diamond saw, optical microscope, optical spectral analyzer, single photon-counting systems, a high speed digital autocorrelator and various laser sources. Additionally, the laboratory has the facilities for designing and fabricating printed circuit boards and fabricating optical and electronic sub-systems.

**The Fluorescence Detection Laboratory** is involved in the design and development as well as implementation and testing of various instruments for Life Sciences. Research areas include laser induced fluorescence detection, single photon counting techniques, fast data acquisition and transfer, design and development of analog and digital integrated circuits, signal processing, capillary electrophoresis phenomena, DNA sequencing, and microfluidics.

**The Graduate Computing Laboratory** has extensive computational capabilities to support student's research and studies. Industry standard packages such as Cadence tools, Synopsys, Matlab, and many others are available.

**The Hardware Generation and Optimization (HGO) Laboratory** is dedicated to the design and optimization of digital systems, computer architecture, hardware for artificial intelligence, and field-programmable gate arrays (FPGAs). The lab is equipped with FPGA development environments, servers and desktop PCs, and related CAD tools.

**The High-Performance Computing and Networking Research Laboratory** is equipped to conduct research in the broad area of networking and parallel/distributed computing with emphasis on distributed quantum computing, quantum networks, edge computing, wireless/mobile networks, cloud computing, data center networks.

**The Integrated Microsystems Laboratory** focuses on advancing fundamental knowledge in the areas of near-zero-power communication, sensing and computing and design and engineering of sensory microsystems that operate using only harvested energy. We develop both core technologies and applications along several research thrusts founded on the tiny self-powered sensors distributed through an environment or implanted within a human body that coherently sense and analyze their surroundings. The applications are wide ranging with potential impact in various fields, such as smart spaces, environmental/infrastructure monitoring, and personalized healthcare.

**The Nanoscale Circuits and Systems (NanoCAS) Laboratory** focuses on developing design methodologies for high performance as well as energy efficient integrated circuits with a variety of applications ranging from future processors to ultra-low power Internet-of-things (IoT) based devices. The NanoCAS Lab is equipped with a high performance processing and storage server, workstations, and all necessary EDA tools for modeling, design, and analysis.

*The Mixed-Domain Embedded System Laboratory is equipped for research in the broad area of electronic system design and design automation. Current research projects involve design automation for mixed analog-digital systems and embedded systems for multimedia, sensor network applications and emerging technologies.*

**The Mobile Computing and Applications Laboratory (MoCA Lab)** focuses on AI/machine learning algorithms, software and infrastructure for healthcare applications, leveraging cutting edge mobile and embedded sensing systems. The lab also conducts research in novel wireless multicast technology, vehicular computing, location based services, and Internet-of-Things. The laboratory has powerful GPU servers, and has access to cloud computing facilities hosted by CEWIT and the University.

**The Mobile Systems Design Laboratory** conducts research in the broad areas of VLSI system designs for signal processing, communication, and heterogeneous mobile sensors. The laboratory is equipped for design and simulation of complex hardware and software systems.

**The Optoelectronics Laboratory** possesses the infrastructure for molecular beam epitaxial semiconductor heterostructure growth, advanced material characterization as well as fabrication (clean room) and sophisticated characterization and modeling of optoelectronics devices. The recent research projects include design and development of the novel infrared lasers, light emitting diodes, photodetectors and modulators. The laboratory is actively working on metamorphic epitaxial growth techniques to develop the new class of narrow and ultra-low bandgap alloys and superlattices for long-wave infrared photodetector and other applications.

**Spellman Power Electronics Lab** is an engineering teaching lab designed to accelerate research and educational programs in alternative energy and power conversion systems.

**The Ultra-High-Speed Computing Laboratory** conducts research in high performance energy-efficient flux quantum computing and cybersecurity. It is equipped with powerful computing, networking, and storage facilities and advanced CAD tools for superconductor circuit design.

**The Wireless and Networking Systems Laboratory** conducts research in the area of wireless networking and mobile computing. The lab has extensive computing capabilities, a set of Crossbow sensors, professional sensor test bed development kit, and other equipment for network and system research.

**The Wireless Sensor and RFID Network (WSRN) Laboratory** focuses on network design and performance analysis for wireless sensor networks and RFID networks. The laboratory is equipped with state-of-art computing equipment, wireless sensor nodes by Crossbow Technologies, Inc. and MotelV (now Sentilla), and RFID equipment. Current projects include novel RFID Tag Identification algorithms, RFID anti-collision algorithms and Consensus protocols.

**The Wireless Sensing and AUTO ID Laboratory (WSAID)** - The research at the laboratory focuses on Radio Frequency Identification (RFID), wireless sensor networks, and indoor localization. The lab contains facilities and equipment to carry out cutting edge research and small-scale prototyping and evaluation of technologies in real world scenarios. Current projects at the laboratory include development of a novel UHF RFID system for enhanced performance, development of indoor localization systems based on technologies such as RFID, WiFi and Zigbee, and development of customized RFID systems for use in healthcare settings.

### Degree Requirements

The EAI M.S. program offers both thesis and non-thesis options. A non-thesis option is expected to be finished in three semesters, while a thesis one typically takes four semesters. In general, at least 30 graduate credits with a cumulative and departmental grade point average of 3.0 or better are needed. The details of the program structures and course/credit requirements in different subareas are given below:

Subarea	Minimum # of credits needed	List of courses in the subarea
<b>Foundations</b>	6 credits	ESE 503 (Stochastic Systems, 3 credits);  ESE 561 (Theory of Artificial Intelligence, 3 credits);
<b>Methods</b>	6 credits	ESE 577 (Deep Learning Algorithms and Software, 3 credits);  ESE 588 (Fundamentals of Machine Learning, 3 credits);
<b>Applications</b>	3 credits	ESE 564 (Artificial Intelligence for Robotics, 3 credits);  ESE 589 (Learning Systems for Eng. Appl., 3 credits);  ESE 590 (Practical Machine Learning & Artificial Intelligence, 3 credits);
<b>Hardware</b>	3 credits	ESE 507 (Advanced Dig. Sys. Design & Generation, 3 credits);  ESE 525 (Modern Sensors in Artificial Intelligence Applications, 3 credits);  ESE 587 (Hardware Architectures for Deep Learning, 3 credits);
<b>Elective</b>	6 credits for non-Thesis option	ESE 502 (Linear Systems, 3 credits);  ESE 507 (Advanced Dig. Sys. Design & Generation, 3 credits);  ESE 525 (Modern Sensors in Artificial Intelligence Appl., 3 credits);
	3 credits for Thesis option	ESE 533 (Convex Optimization & Eng. Appl., 3 credits);  ESE 537 (Mobile Sensing Systems & Appl., 3 credits);  ESE 543 (Mobile Cloud Computing, 3 credits);

ESE 558 (Digital Image Processing, 3 credits);

ESE 562 (AI Driven Smart Grids, 3 credits);  
ESE 564 (Artificial Intelligence for Robotics, 3 credits);

ESE 568 (Computer and Robot Vision, 3 credits);

ESE 587 (Hardware Architectures for Deep Learning, 3 credits);

ESE 589 (Learning Systems for Eng. Appl., 3 credits);

ESE 590 (Practical Machine Learning & Artificial Intelligence, 3 credits);

ESE 592 (Distributed Computation, Control & Learning over Networks, 3 credits);

ESE 670\* (Topics in Electrical Sciences, 3 credits)

AMS 580 (Statistical Learning, 3 credits);

MEC 529 (Introduction to Robotics, 3 credits);

CSE 538 (Natural Language Processing, 3 credits).

Any ESE or non-ESE course not listed above but approved by Graduate Program Director (3 credit max.; approval must be obtained before enrollment).

**Thesis Option****Industrial experience**

at least 1 but not more than 3 credits

ESE 597 (Practicum in Engineering [Internship], variable credit);

*In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credits by ESE 599 (Research for MS students) or ESE 698 (Practicum in teaching) credits.*

*Students who choose to take one credit of industrial experience may consult with their advisor on how to complete the remaining two credits for their degree.*

**Research experience**

at least 6 credits

ESE 599 (Research for M.S. students, variable and repetitive credit);

**Teaching experience**

not required but can be used (maximum 3 credits)

ESE 698 (Practicum in teaching, variable credits);

**Non-Thesis Option****Industrial experience**

3 credits

ESE 597 (Practicum in Engineering [Internship], variable credit);

*In exceptional circumstances, the Graduate Program Director can approve a replacement of ESE 597 credits by ESE 599 (Research for MS students) or ESE 698 (Practicum in teaching) credits.*

To meet the 30-credit minimum for the program, non-thesis students may take one of the following:

<b>Research experience</b>	Maximum 3 credits	ESE 599 (Research for M.S. students, variable and repetitive credit);
<b>Teaching experience</b>	Maximum 3 credits	ESE 698 (Practicum in teaching, variable credits);
<b>Additional Elective</b>	3 credits	Any course listed above not already used to fulfill another program requirement OR Any ESE or non-ESE course not listed above but approved by Graduate Program Director (3 credit max.; approval must be obtained before enrollment).

\* ESE 670 – *Topics in Electrical Sciences (3 credits)* is the course with variable content, and it can be approved by the Graduate Program Director as an elective course for the EAI MS degree when the course topic corresponds to the program area.

## Faculty of Electrical and Computer Engineering Department

### Distinguished Professors

Djuric, Petar M., Chairperson, Ph.D., 1990, University of Rhode Island: Signal analysis, modeling and processing; wireless communications and sensor networks.

Yang, Yuanyuan, Ph.D., 1992, Johns Hopkins University: Wireless and mobile networks, cloud computing, data center networks, optical networks, high speed networks, parallel and distributed computing systems, multicast communication, high performance computer architecture, and computer algorithms.

### Professors

Bugallo, Monica, Ph.D., 2001, Universidade da Coruna (Spain): Statistical signal processing with the emphasis in the topics of Bayesian analysis, sequential Monte Carlo methods, adaptive filtering, and stochastic optimization.

Doboli, Alex, Ph.D., 2000, University of Cincinnati: VLSI CAD and design, synthesis and simulation of mixed analog-digital systems, hardware/software co-design of embedded systems, and high-level synthesis of digital circuits.

Hong, Sangjin, Ph.D., 1999, University of Michigan: Low-power VLSI design of multimedia wireless communications and digital signal processing systems, including SOC design methodology and optimization.

Parekh, Jayant P., Ph.D., 1971, Polytechnic Institute of Brooklyn: Microwave acoustics; microwave magnetics; microwave electronics; microcomputer applications.

Robertazzi, Thomas G., 1981, Princeton University: Computer networking; grid computing; performance evaluation; parallel processing; e-commerce technology.

Shamash, Yacov, Ph.D., 1973, Imperial College of Science and Technology in London, England: Control Theory & Systems, Energy Systems, and Industry/University Partnerships.

Short, Kenneth L., Ph.D., 1973, University at Stony Brook: Digital system design; microprocessors; instrumentation.

Shterengas, Leon, Graduate Program Director, Ph.D. 2004, Stony Brook University: Semiconductor photonic devices, nanofabrication, molecular beam epitaxy.

Subbarao, Murali, Ph.D., 1986, University of Maryland: Computer vision; image processing; pattern recognition.

Zhang, Peng, Ph.D., 2009, University of British Columbia, Vancouver, Canada: Power system, programmable microgrids, networked microgrids, software-defined distribution network, cyber-resilient power grid, formal methods, reachability analysis, power system stability and control.

### Associate Professors

Dhadwal, Harbans, Ph.D., 1980, University of London, England: Laser light scattering; fiber optics; optical signal processing and instrumentation.

Donetski, Dmitri, Ph.D., 2000, Stony Brook University: Design and technology of optoelectronic devices and systems including photovoltaic and photoconductive detectors, diode lasers and diode laser arrays.

Dorojevets, Mikhail, Ph.D., 1988 Siberian Division of the USSR Academy of Sciences, Novosibirsk: Computer architectures, systems design.

Eisaman, Matthew, Ph.D., 2006 Harvard University: Photovoltaic devices, especially light trapping nanostructures for improved solar cell efficiency, and spatial variations at the nanoscale.

Gorfinkel, Vera, Ph.D., 1980, A.F. Ioffe Physical-Technical Institute, St. Petersburg, Russia: Semiconductor devices, including microwave and optoelectronics, DNA sequencing instrumentation, single photon counting techniques.

Kamoua, Ridha, Undergraduate Program Director, Ph.D., 1992, University of Michigan: Solid-state devices and circuits; microwave devices and integrated circuits.

Lin, Shan, Ph.D., 2010, University of Virginia: Cyber physical systems, networked information systems, wireless networks, sensing and control systems.

Luo, Fang, Ph.D., 2010, Huazhong University of Science and Technology, Wuhan, China (Jointly supervised by Virginia Tech, Blacksburg, VA, USA): Power electronic devices and circuits, energy conversion systems.

Salman, Emre, Ph.D. 2009, University of Rochester: Nanoscale integrated circuit design, emerging technologies for future electronic systems, highly heterogeneous integrated systems, digital and mixed-signal circuits.

Stanacevic, Milutin, Ph.D., 2005, Johns Hopkins University: Analog and mixed-signal VLSI integrated circuits and systems; adaptive Microsystems; implantable electronics.

Suchalkin, Sergey, Ph.D., 1998, Ioffe Physical Technical Institute, Russia: Design and development of optoelectronic devices. Far- and Mid-infrared spectroscopy of solids. Physics of semiconductors and nanostructures.

Tang, K. Wendy, Ph.D., 1991, University of Rochester: Interconnection networks, parallel computing, and neural networks.

Wang, Xin, Ph.D., 2001, Columbia University: Mobile and ubiquitous computing, wireless communications and networks, grid and distributed computing, advanced applications and services over Internet and wireless networks.

Ye, Fan, Ph.D., 2004, UCLA: Mobile computing/sensing systems & applications, indoor localization and floor plan reconstruction, internet-of-things and sensor networks.

Zhao, Yue, Ph.D., 2011, UCLA: Smart energy systems, renewable energy integration, electricity market, infrastructure security, sensing and signal processing, optimization theory, information theory, communication networks.

#### **Assistant Professors**

Liu, Ji, Ph.D., 2013, Yale University: Distributed control and computation, multi-agent systems, social networks, epidemic networks, and power networks.

Milder, Peter, Ph.D. 2010, Carnegie –Mellon University: Digital hardware design, generation, and optimization focusing on signal processing, computer vision, and related domains; design for FPGA.

#### **Professors of Practice and Instructional Specialists**

Westerfeld, David: Design and characterization of high-performance mid-infrared semiconductor light sources (LEDs and lasers).

Gouzman, Michael: Semiconductor devices, including microwave and optoelectronics.

#### **Affiliated Faculty**

Hassan Arbab, M., Assistant Professor: Terahertz emission, detection and imaging technologies and their applications in biophotonics, medical imaging, non-destructive testing, material characterization and stand-off detection of chemicals.

Goldan, Amir H., Assistant Professor: X-Ray and PET Imaging, Digital Radiological Imaging Detectors, Single Photon Counting for Medical Imaging, Detector Modeling, Fabrication, Characterization and Instrumentation, Avalanche Amorphous Selenium Detectors, Quantum Mechanical Modeling of Charge Transport, Noise-Free Avalanche Detectors.

DeLorenzo, Christine, Associate Professor: Biomarkers of Major Depressive Disorder, Antidepressant Treatment Response Prediction, Multimodal Brain Imaging, and PET Radioligands.

Liang, Jerome, Professor: Low-dose computed tomography image reconstruction, Quantitative image reconstruction for single photon emission computed tomography, High resolution positron emission tomography image reconstruction, Segmentation of tissue mixtures from multi-spectral images, Computer aided detection of abnormality and diagnosis on the detected abnormality, Development of virtual colonoscopy systems.

Park, Memming, Assistant Professor: Memming Park designs statistical models and machine learning methods specialized for analyzing neural time series. He aims to understand how information and computations are represented and implemented in the brain, both at a single-neuron and at the systems level. His group collaborates with several experimental labs on important problems in neuroscience, such as sensory coding, recovery from coma, and perceptual decision-making.



Wang, Daifeng, Assistant Professor: Data mining and machine learning in bioinformatics and biomedical data science; Computational systems biology; Computational social networks

**Adjunct Faculty**

Chi Chen: Software Engineering, Computational Models, Feedback Control Stabilization

Gianluigi De Geronimo: Development of advanced low-noise application-specific integrated circuits for sensors from concept to transistor-level design, physical layout and characterization, frequency- and time-domain noise analysis, optimum analog and digital filters, high-precision signal processing, systems-on-chip, and semiconductor device physics

Timothy Driscoll: Electric Power Systems; Renewable Energy Resource Systems; Advanced Power Systems; Smart Grid; Electric Vehicles

Carlos Fernando Gamboa: Computer Networks and Scheduling Theory; Data Intensive Distributed Systems; Database Management Systems

Yasha Karimi: Medical device technologies, Internet of Things (IoT), Wearable Electronics, Ultra-low power Circuit and System Design

Dmitri Gavrilov: Signal processing, neural networks, embedded systems.

Dmytro Gudkov

Shaorui Li

Vibha Mane: Stochastic Modeling of Biological Networks; Statistical Machine Learning; Signal Processing, Detection and Estimation

Ronald Marge: Technical communications

Tatiana Tchoubar

Donna Tumminello: Technology Commercialization; Entrepreneurship

Dantong Yu: Data mining, high performance computing and networks

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

English Department

### Chairperson

Benedict Robinson, Humanities Building 2020

### Graduate Program Director

Simone Brioni, Humanities Building 2084

### Department Administrator

Margaret Hanley, Humanities Building 2019

### Degrees Awarded

M.A. in English; M.A. in English with a Concentration in Writing and Rhetoric (not currently accepting applications); Ph.D. in English

### Web Site

<https://www.stonybrook.edu/english/>

English Department

Through our graduate programs, Stony Brook's English Department participates in learning communities around the world. Professionals with Stony Brook English degrees teach in secondary schools, colleges and universities, present research at scholarly conferences, and write for specialized and general-interest audiences.

Students enrolled in the Master of Arts program pursue a course of study that includes courses in historical periods, literary genres, topics in gender, race and cultural studies, and various writing workshops. The program offers students the opportunity to broaden as well as deepen their knowledge of literature while also developing their own writing skills. This course of study leads to the Master of Arts degree and requires 30 credits, including a master's thesis, for completion. Students also have the option to specialize by completing a concentration in Writing and Rhetoric. While pursuing the M.A. in English, students may also earn an interdisciplinary graduate certificate in women's, gender and sexuality studies, media, arts, cultural and technology, or composition studies. Students in the MA in English Literature program can enroll full-time or part-time. We offer flexible schedules with evening courses and online course options. **Students can complete the English MA program entirely online as of Fall 2022.**

Students enrolled in the Ph.D. program pursue a course of study that is designed, in large part, around individual interests and that moves from a broad-based survey to a more narrowly focused specialization. Eleven courses are required of each student. EGL 600, The Discipline of Literary Studies, must be taken during the first fall semester in which it is offered, as it introduces students to the variety of approaches to literature represented in current criticism. Students select their remaining courses in consultation with faculty advisors; these courses are intended to strengthen the student's literary background and theoretical knowledge, and further define chosen areas of inquiry. To accommodate the latter goal, students may take courses in other departments with approval from the graduate director. While pursuing the Ph.D. in English, students may also earn an interdisciplinary graduate certificate in women's, gender and sexuality studies, media, arts, cultural and technology, or composition studies.

Corresponding to the pattern of study that underlies the Ph.D. program are the oral examination and the dissertation prospectus meeting. The first, a three-hour general examination is taken by the end of the fifth semester. Students will be examined on the contents of three lists developed in cooperation with their examiners. Each list must be accompanied by a syllabus or other document prepared by the student that reflects their understanding of the list. Please see the department website (or handbook) for detailed information. At the prospectus meeting, held by the end of the sixth semester, the student discusses the dissertation topic with faculty advisors and develops a plan for completion of the project.

Ph.D. students receiving financial support teach one course each semester. Teaching assignments are varied and flexible. Teaching assistants teach courses in composition or introductory courses in literature, and assist professors in large lecture courses. During their first semester of teaching writing at Stony Brook, students must enroll in the Teaching Practicum, which provides them with pedagogical theory and teaching supervision. All Ph.D. students on financial support must be registered as full-time students.

### Admission requirements of English department

Applicants for admission to all graduate programs in English should submit all materials by the deadlines listed on the admissions website, linked here. In all cases, admission is determined by the graduate admissions committee of the department under guidelines established by the Graduate School. Applicants are admitted on the basis of their total records, and there are no predetermined quantitative criteria that by themselves ensure a positive or negative decision. There is midyear admission to the M.A. program but not the Ph.D. program.

Our admissions committee will review an applicant's file when all documents have been received.

### Admission to the M.A.T. in English 7-12

The M.A.T. in English 7-12 is administered by the School of Professional Development. Individuals interested in this program should refer to the School of Professional Development's section in this bulletin.

### Admission to the M.A. Program in English

The following, in addition to the minimum Graduate School requirements, are required for admission to the M.A. program:

A. A bachelor's degree from a recognized institution;

- B. An average of at least B in the last two years of undergraduate work;
- C. An official transcript of all undergraduate work;
- D. Letters of recommendation from three instructors;
- E. A writing sample (10 double-spaced pages; page count does not include bibliography);
- F. Acceptance by both the Department of English and the Graduate School.

Admission to the Ph.D. Program in English

The following, in addition to the minimum Graduate School requirements, are required for admission to the Ph.D. program:

- A. A bachelor's degree from a recognized institution;
- B. An average of at least B in the last two years of undergraduate work;
- C. An official transcript of all undergraduate work and of any graduate work that may have been done;
- D. Letters of recommendation from three instructors;
- E. A writing sample (15-20 double-spaced pages; page count does not include bibliography);
- F. Proficiency in a language other than English, equivalent to two years of college work;
- G. Acceptance by both the Department of English and the Graduate School.

Semi-finalists for admission to the PhD program will be invited to a video-conference interview with a member of the Graduate Admissions Committee.

### **Requirements for the M.A. in English**

In addition to the requirements of the Graduate School, the following are required:

The English MA is a 30-credit coursework degree consisting of multiple elements. Students must complete ten-three credit courses with a minimum 3.0 GPA.

**A. Three Courses in Language and Rhetoric:** (or Two Courses for students who have demonstrated proficiency in one language other than English through coursework or examination; 9 credits).

EGL 506 Topics in Theory: Rhetoric or Composition (or approved substitute)

EGL 509 Studies in Language and Linguistics (or EGL 510 approved substitute)

EGL 592 Problems in the Teaching of Writing

**B. Three Topics Courses:** (9 credits in at least two different topic areas)

EGL 584: Topics in Genre Studies

EGL 585: Topics in Cultural Studies

EGL 586: Topics in Gender Studies

EGL 587: Topics in Race, Ethnic or Diaspora Studies

EGL 588: Writing Workshops

**C. Electives:** (9 credits; or Four Courses, for students who have fulfilled the language requirement) Electives should be 500-level English Courses\*

Three courses must be in at least two of the following areas: genre studies; cultural studies; gender studies; race, ethnic, or diaspora studies; writing workshop.

600-level English courses and relevant courses from other departments may also be counted as electives with permission from the Program Director.

Only one course numbered EGL 599 (Independent Study), will be permitted to count toward the total courses required for the degree of Masters of Art in English

**D. Period Requirement:** At least one of these courses must be on a literary historical period before 1800.

**E. Master's thesis** (3 credits) Students must also submit a MA thesis (EGL 598).

Please refer to the English MA Student Handbook for a more detailed discussion of procedures and expectations.

### Requirements for the Ph.D. in English

In addition to the requirements of the Graduate School, the following are required:

**A. Course requirements:** Students must complete 11 courses with a minimum 3.0 GPA, including at least seven 600-level seminars, including EGL 600 (The Discipline of Literary Studies).

Courses must primarily be taken within the English Department. With permission from the Program Director, five courses from other departments may also be counted as electives.

Students with Teaching assistantships must pass the Teaching Practicum in their first semester of teaching.

Only two Independent Study courses (EGL 615) may count toward the Ph.D.

**B. Language Requirement** Students must demonstrate proficiency in one language other than English through coursework or examination.

**C. General Examination** Students must complete an oral exam by the end of the fifth semester.

**D. Dissertation Prospectus and Meeting:** Students must write and defend a prospectus. All the doctoral requirements described above must be completed before a student is allowed to schedule the prospectus meeting.

**E. Advancement to candidacy:** Advancement to candidacy takes place upon the successful completion of the following: the required courses in A, the language requirement in B, a general examination in C, and the dissertation prospectus in D.

**F. Dissertation:** Students must write and defend a dissertation acceptable to the students dissertation committee.

Please refer to the English Doctoral Student Handbook for a more detailed discussion of procedures and expectations.

Faculty of English Department - please see department website for full faculty profiles

### Distinguished Professors

Phillips, Rowan Ricardo, Ph.D., 2002, Brown University: poetry; nonfiction; translation; Black American and Caribbean literatures.

### Professors

Cook, Amy, Ph.D. University of California. Cognitive science and theories of performance and early modern drama. Dunn, Patricia A., D.A., 1991, The University at Albany: Composition and rhetoric; English education; disability studies.

Flescher, Andrew, Ph.D. 2000, Brown University: Medical Humanities, George Bernard Shaw, Narrative Approaches to Ethics, Biomedical ethics; Ethics and Health Care Policy; Ethics of Organ Donation; Compassion and Altruism; Health Care Justice; Normative Ethics; Moral Theory; Religion and Culture; Literature and Film; Hermeneutics

Graham, Jean Elyse. Ph.D., Yale University, 2015, Digital humanities; media studies; history of the book; transatlantic 20th and 21st century literature; history of the English language.

Manning, Peter, J., Ph.D., 1968, Yale University: English Romantic literature; literary theory.

Marshik, Celia., Ph.D., 1999, Northwestern University: British and American modernism, cultural studies, women's studies. SPACE

Newman, Andrew, Ph.D., 2004, University of California, Irvine: Early American literatures; Native American studies, media and memory studies.

Olster, Stacey, Ph.D., 1981, University of Michigan: American literature; 20th-century fiction; popular culture; film.

Robinson, Benedict, Ph.D., 2001, Columbia University: Early modern literature and culture; representations of Islam; religion and literature; Shakespeare; Milton.

### Associate Professors

August, Timothy, Ph.D., University of Minnesota, 2014: Critical refugee studies, diasporic Vietnamese literature; post-colonial criticism; theories of food and eating; Asian American Studies; world literature; television studies; critical theory; ethnic studies.

Brioni, Simone, Ph.D., University of Warwick, 2013: Postcolonial theory; migration studies; film studies and filmmaking; diaspora cultures from the Horn of Africa.

Hutner, Heidi, Ph.D., 1993, University of Washington: Restoration and 18th-century studies; colonial and postcolonial discourse; women writers; women's studies; eco-feminism.

Johnston, Justin Omar, Ph.D., 2012, University of Wisconsin: Contemporary Anglophone literature; biopolitics and biotechnology in post-1945 novels; feminist theories of embodiment; postcolonial critiques of humanism, ecological criticism

Kalinowska-Blackwood, Izabella, Ph.D., Yale, Polish and Soviet/Russian Cinema; gendered notions of identity; nationalism; colonial and postcolonial studies; Orientalist discourses; Polish and Russian travel to the East.

Pfeiffer, Douglas, Ph.D., 2005, Columbia University: Renaissance; humanism; history of literary theory and rhetoric; Erasmus; Spenser; Donne.

Rubenstein, Michael, Ph.D., 2003, Rutgers University: James Joyce; 20th Century British and Anglophone Literature; 20th Century Irish Literature; modernism, psychoanalysis; postcolonial literature and theory, The Novel, film.

Santa Ana, Jeffrey, Ph.D., 2003, University of California, Berkeley: 20th and 21st century American literature and culture; human migration and diaspora; postcolonial studies and globalization; gender and sexuality; environmental humanities; memory studies; Asian American studies

Scheckel, Susan, Ph.D., 1992, University of California, Berkeley: American literature and culture in the U.S. before 1900; history of race in the U.S.; U.S. visual and popular print cultures before 1900; history of medicine before 1900; theories of nationalism.

Tan, E.K., Ph.D., University of Illinois at Urbana-Champaign, 2007. Intersection of Anglophone and Sinophone literature, cinema and culture from Southeast Asia; diaspora studies; postcolonial studies; world literature and cinema; theories of cultural translation; Global Asia; Queer Asia; critical theory; film theory.

Tondre, Michael, Ph.D., 2010, University of Michigan: Nineteenth-century British literature; cultural history of science; gender and sexuality studies; aesthetics.

Weitzman, Kenneth.M.FA.,2003, University of California, San Diego. Dramatic Writing.

Wertheimer, Eric. Ph.D., 1994, University of Pennsylvania: early and nineteenth-century American literature and culture; cultural and literary theory; popular political discourses; new media; poetry.

### Assistant Professors

Johnston, Katherine D., Ph.D., 2016, University of California, Riverside: Twentieth and twenty-first American literary studies; surveillance studies; critical data studies.

### Affiliated Graduate Faculty

Faculty members from other departments who may serve as “inside” members of English Ph.D. exam committees (unless they have previously served as “outside” members).

Mary Jo Bona (Women's, Gender, and Sexuality Studies): Italian American studies; ethnic American women writers; theories of race and ethnicity.

Ritch Calvin (Women's, Gender, and Sexuality Studies) Literary theory, feminist theory, feminist science fiction, Latina literature and culture.

Cynthia Davidson (Program in Writing and Rhetoric): Rhetoric and digital media, Digital literacy, virtual identities, gaming and literacy, technical communication, feminism/gender issues in digital and technical communication, global issues in digital and technical communication

Giuseppe Gazzola (European Languages, Literature and Cultures) European Romanticism, Theories of Canon Formation, Modernist and Postmodernist Theories

Robert Kaplan (Program in Writing and Rhetoric): Writing in the Disciplines; writing transfer; Euro-American intellectual history, especially eighteenth-century rhetoric; early American literature; queer theory/gender studies.

Peter Khost (Program in Writing and Rhetoric): Writing program administration, the literature/composition connection, assessing writing, autoethnography, critical university studies, holistic education, and collaboration.

Nick Mangano (Theatre)

Loredana Polezzi (Languages and Cultures) Transnational and Diasporic Italian Studies, Italian American Studies, Travel and Migrant Writing, Translation Studies, Multilingualism and Multilingual Education, Language Teaching Methodology

Lorenzo Simpson (Philosophy): Contemporary continental philosophy (hermeneutics and critical theory); philosophy of the social sciences; philosophy of science and technology; neopragmatism and post-analytic philosophy; philosophy and race.

David Taylor (SOMAS): Environmental humanities, history of naturalist studies, American Literature, nature writing

Roger Thompson, (Program in Writing and Rhetoric): Rhetoric, literature, writing studies, veteran studies, environmental studies, trauma studies, outsider art.

Tracey Walters (Africana Studies): African American literature; African diasporic writers.

### Number of teaching, graduate, and research assistants, Fall 2022: 23

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

**MFA in Film****Lichtenstein Center****Stony Brook Manhattan Center for Creative Writing & Film****Interim Associate Provost:** Julie Sheehan 631-632-5030.**Artistic Director:** Christine Vachon, 646) 472-2025**Executive Director of Programs in Film and Television Writing:** Magdalene Brandeis, 646) 472-2025**Director of the Manhattan Center:** Scott Sullivan 646) 472-2025**Degree Awarded:** MFA in Film**Web Sites:** [https://www.stonybrook.edu/commcms/lichtenstein-center/academic-programs/Film\\_TV/index.php](https://www.stonybrook.edu/commcms/lichtenstein-center/academic-programs/Film_TV/index.php)**Application:** <https://www.stonybrook.edu/commcms/mfa-film-tv/admissions.php>**MFA in Film**

The MFA in Film is a two plus year program that includes dedicated Tracks in Directing, Screenwriting, Producing, and an Independent Track, with production periods culminating in a feature screenplay, a 20-minute or feature MFA thesis film, a screenwriter's portfolio, or a feature producer's package, which includes serving as producer on a minimum of three films. Faculty Christine Vachon, Pamela Koffler, Alan Kingsberg, Magdalene Brandeis, Perry Blackshear, Jennie Allen, Stewart Thorndike, Simone Pero, Lenny Crooks, Niav Conty, Summer Shelton, Karen Offitzer, and Jordan Roberts, along with top industry professionals, guide participants through the essential elements of independent film production and TV Writing. Hands-on, experiential, in-depth, project driven.

The curriculum requires 45-48 credits.

Interested students should request information from the department and find application information at <https://www.stonybrook.edu/commcms/mfa-film-tv/admissions.php>

Students are encouraged to apply as early as possible, especially if they plan to apply for financial aid.

**Admission to the MFA Program in Film**

This MFA program in Film is intensive and admission to it is highly selective. Upon review, finalists are invited for an interview.

Please use Stony Brook Graduate School's Online Application.

You must create an account to start a new application. You can also log in to continue an application after an account has been created.

For admission, the following, in addition to the minimum Graduate School requirements, are required.

1. A bachelor's degree from an accredited college or university.
2. Undergraduate grade point average of at least 3.0.
3. Three letters of recommendation.
4. A current résumé
5. **A statement of purpose.** Describe in a page or two why you are interested in this opportunity, how you would benefit, and what makes you a particularly deserving candidate. Upload this to the Additional Supplemental Materials, personal statement section of the application.

**6. Your specialization:** Director/Screenwriter/Producer/Independent Track (add to bottom of personal statement)(If Television Writing, select Television Writing MFA).

7. Video Pitch (Go to Portfolio Instructions and upload Video Pitch to the Digital Portfolio section of the application.)

**All candidates: This is one of the more important elements to your application.** You have probably seen people pitching for donations on a crowdsourcing site. In this case, you can pitch to us anything you want: yourself as a candidate, a project you want to work on, or something else that is exciting to you. The video pitch should be creative, polished, inventive. We want you to win us over here! SUGGESTED LENGTH: 3 MINUTES

8. **Directing and Producing Video Samples.**

**Directing candidates only (not required for Screenwriter, Television Writer, or Producer candidates):** Please include a link (or links) to up to 4 video samples of work to which you made a significant contribution. Be clear about what role you played: producer, writer, director, editor, production designer, cinematographer, etc. You may submit links for more than one piece but the total running time should not exceed 15 minutes. If you submit an excerpt, please describe the full work. Unless you are applying as a cinematographer or production designer, the entirety of your video sample should not be in the format of a professional reel but should also show us the substance of your work. (A reel might accompany another sample). In lieu of video, you may submit up to ten photographs, design samples, or photographs of your artwork.

### 9. Written materials: (All written materials may be uploaded in the Additional Supplemental Materials section)

Your written material should include:

**a. All Candidates: The Scene.** Write a short, 2-3-page scene inspired by and using one of these words that have no English language translation. We prefer a scene with two characters where one character wants something from the other and **that you do NOT explicitly use the word you have chosen.**

- • Glas wen (Welsh)  
A smile that is insincere or mocking. Literally, a blue smile.
- Yputka (Ulwa)  
The phantom sensation of something crawling on your skin.
- Iktsuarpok (Inuit)  
You know that feeling of anticipation when you're waiting for someone to show up at your house and you keep going outside to see if they're there yet? This is the word for it.

**b. All Candidates: The Logline.** Write an extended log line or a paragraph describing a project you'd like to realize with us. Attach this logline to the bottom of your scene.

**c. Screenwriting, Television Writing and Directing Candidates: The Writing Sample.** Please include a writing sample of up to 10 pages. This can be a complete short film, web episode, play, short story, or an excerpt of a feature screenplay, a TV Script, a webisode, a sketch or series of sketches. If you choose to submit an excerpt, please include a few lines describing the full work.

**d. Producing Candidates: The Writing Sample.** Please include a writing sample of up to 10 pages, including an excerpt of a feature screenplay critiques, production program notes, and/or literary criticism of a chosen screenplay, or excerpts of a film or screenplay you have acquired or produced; or a brief statement describing your view of the role of Producing in today's platform agnostic film industry.

### 10. Proficiencies. Directing Candidates Only

Please include a list of technical proficiencies in: camera, lighting, editing, and any related skills. This may be listed below the logline

### UPON ACCEPTANCE BY THE MFA IN FILM PROGRAM

Any deficiencies in these or the Graduate School admission requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation normally will require the student to take additional work, the amount to be determined by the appropriate graduate advisory committee. Additional work may not be used to fulfill MFA degree requirements.

### Eligibility

Applicants to the Master of Fine Arts program must have a bachelor's degree from an accredited college or university and, except in special circumstances, have earned a cumulative grade point average of at least 3.0 on a 4-point scale. It's fine to have an undergraduate degree in an area outside of the arts and humanities. A candidate with outstanding promise in film but a less-than-stellar academic transcript may be admitted on a conditional basis.

### Transfer Credit

The program permits the transfer of up to 12 hours of credit in suitable graduate work done elsewhere that resulted in a grade of B or better. To obtain transfer credit, the student must make special application to the program, submit official transcripts and provide course descriptions or syllabi. Transfer credits are only approved at the discretion of the academic department and the Graduate School. Courses older than five years will be accepted only in rare circumstances. No courses that have been credited toward another degree, such as an MA or an MFA in a different field, can be transferred. Transfer credit request forms are available on the Graduate School website.

### Facilities

The MFA in Film is located primarily at the Stony Brook Manhattan Center for Creative Writing and Film at 535 8th Avenue, and also in the Carriage House on the Stony Brook Southampton campus, which includes the Avram Theater and Gallery, a 429-seat theater that was substantially renovated in 2007. The program features an impressive range of industry standard camera, light, grip and sound equipment. Highlights include: RED Epic-W, Canon C200, Canon C100 MKII, Canon XC10, Canon Cine Prime Lenses, Zooms, Kino Flos, Aputure Bi-Color LEDs, ARRI 4 and 3 Light Kits, Astra Lite Panels, Dedos, Tascam Field Recorders, RODE, AT and Sennheiser Shotguns, Countryman Lavs, MYTWorks Sliders, Wireless Follow Focus and Video Transmitter systems, and several one ton grip packages. Our post-production offerings include iMacs equipped with Adobe Creative Cloud. The University Library holds in excess of 15,000 items comprised of books, eBooks, videos, periodicals, music scores, dissertations, and audio files related to the study of film, which are easily accessible through interlibrary document delivery. Our book collection contains over 7,500 volumes.

### Degree Requirements

The MFA in Film requires a minimum of 45 credits. In addition to the minimum Graduate School requirements, the following are required:

Program requirements: 45 – 49 credits

Required Core Courses: 19 credits

FLM 500 Introduction to Graduate Studies, 4 cr.

FLM 501 Film Tools, 3 cr.

FLM 537 Production I, 3 cr.

FLM 638 Directing I, 3 cr.

FLM 650 Screenwriting Workshop, 3 cr.

FLM 660 Acting Workshop, 3 cr. (SOUTHAMPTON)

Experiential Option: 3 credits

One or more of the following Experiential options:

FLM 591 Independent Project

FLM 690 Professional Internship; or

FLM 550 Teaching Practicum, 3 cr.

Required MFA Project & Thesis: 6 credits

FLM 691 MFA Project, 3 cr. (SOUTHAMPTON)

FLM 692 Thesis, 3 cr. (SOUTHAMPTON)

Select one Track from the following: 17 – 21 credits

#### Directing Track

Select six or more of the following (17-21 credits):

FLM 505 Film Management I

FLM 508 Editing I

FLM 509 Cinematography I

FLM 510 Film History

FLM 525 Topics in Film (1-3 cr.)

FLM 576 Film Workshop

FLM 639 Directing II

FLM 670 Directing III

FLM 637 Production II

FLM 669 Advanced Tools

FLM 680 Art Direction Workshop

#### Producing Track

Select six or more of the following (17-21 credits):

FLM 505 Film Management I



FLM 506 Film Management II  
FLM 510 Film History  
FLM 530 Directed Readings in Film  
FLM 575 Adaptation  
FLM 525 Topics in Film  
FLM 576 Film Workshop  
FLM 637 Production II  
FLM 680 Art Direction Workshop  
CWL 530 Forms of Scriptwriting

Screenwriting Track

Select six or more of the following (17-21 credits):

FLM 505 Film Management I  
FLM 510 Film History  
FLM 520 Film History II  
FLM 530 Directed Readings in Film  
FLM 575 Adaptation  
FLM 525 Topics in Film  
FLM 576 Film Workshop  
FLM 651 Screenwriting Workshop II  
FLM 652 Screenwriting Workshop III  
CWL 530 Forms of Scriptwriting

With permission of MFA Director, one additional course from Creative Writing and Literature (CWL 510 or above).

Television Writing Track

Select six or more of the following (17-21 credits):

FLM 505 Film Management I  
FLM 510 Film History  
FLM 526 Topics in TV Writing  
FLM 536 Forms of TV Writing  
FLM 575 Adaptation  
FLM 525 Topics in Film  
FLM 576 Film Workshop  
FLM 651 Screenwriting Workshop II  
FLM 652 Screenwriting Workshop III  
CWL 530 Forms of Scriptwriting

With permission of MFA Director, one additional course from Creative Writing and Literature (CWL 510 or above).

**Individualized Track**

Select six or more of the following (17-21 credits):

FLM 505 Film Management I

FLM 506 Film Management II

FLM 508 Editing I

FLM 509 Cinematography I

FLM 510 Film History I

FLM 520 Film History II

FLM 525 Topics in Film (1-3 cr.) FLM

526 Topics in TV Writing (1-4cr)

FLM 530 Directed Readings in Film (1-4 cr.)

CWL 530 Forms of Scriptwriting (4 cr.)

FLM 536 Forms of TV Writing (1-3 cr.)

FLM 575 Adaptation

FLM 576 Film Workshop (1-6 cr.)

FLM 608 Editing II

FLM 609 Cinematography II

FLM 637 Production II

FLM 639 Directing II

FLM 640 Film Design Workshop

FLM 651 Screenwriting Workshop II

FLM 652 Screenwriting Workshop III

FLM 669 Advanced Tools

FLM 670 Directing III

FLM 680 Art Direction Workshop

With permission of MFA Director, one additional course from Creative Writing and Literature (CWL 510 or above, 4 cr.).

***G. Residence Requirement***

This program is normally completed in three years of full-time residency. Three credits must include Southampton residency, FLM 660 Acting for Directors, (or course substitution, pending approval from Director).

**University Requirements**

The granting of master's degree is based upon the completion of any special departmental requirements in addition to the items listed below:

***A. Courses and Grade Point Average***

A student must maintain a 3.0 overall grade point average

***B. Registration***

Degree candidates must be registered in the program granting their degree. Students must be registered for the semester in which they intend to graduate. Spring (May) and Fall (December) candidates must register for at least one graduate credit; Summer (August) candidates may register for zero credits in either summer session, but it still must be graduate level.

***C. Time Limits***

The time limit for the MFA is three years for full-time study and five years for part-time study. A student's full- or part-time status is based on registration, and the time-limit may be modified if enrollment switches between part- and full-time. The student may petition for an extension of time limit for the degree. Such requests must be filed before the limit is exceeded and must contain a significant justification.

**Faculty of the MFA in Film Program****Associate Professor**

Reeves, Robert, Associate Provost. M.A., 1977, Harvard University

Kingsberg, Alan. Head of TV Writing, M.F.A. 1984, New York University.

**Visiting Professor**

Vachon, Christine, Artistic Director. B.A., 1983, Brown University

**Visiting Assistant Professor**

Brandeis, Magdalene, Director. M.F.A., 2008, Stony Brook University

Koffler, Pamela. B.A., 1987, Yale University

Allen, Jennie. M.F.A., 2013, Columbia University

Crooks, Leonard. M.B.A., 1981, Strathclyde University, Scotland. Former head of the UK Film Council's New Cinema Fund.

Pero, Simone. M.P.P., 1994, University at Albany

Russo, Kathleen. B.F.A., 1986, Rochester Institute of Technology

Blackshear, Perry. M.F.A., 2012, New York University

**Lecturer**

Burkhardt, Scott. M.F.A., 2008. Columbia School of the Arts

Summer, Shelton. M.A. Wake Forest University, 2006

Niav Conty, M.F.A. 2013, City College of New York

Offitzer, Karen. M.F.A. University of Arizona, M.A. NYU.

Roberts, Jordan. M.F.A., 2009. New York Film Academy

Thorndike, Steward. M.F.A., 2008 New York University

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

**Finance Program****College of Business****Dean**

Haresh Gurnani, Harriman Hall

**Associate Dean for Programs**

Danling Jiang, Harriman Hall

**MBA Program Directors**

Lily Blocker, Harriman Hall

Gary Sherman, Harriman Hall

**MSF Program Director**

Dmytro Holod, Harriman Hall

**MSA Program Director**

Cecilia (Qian) Feng, Harriman Hall

**MSDA Program Directors**

Aaron Kim, Harriman Hall

Herbert Lewis, Harriman Hall

**Senior Assistant Dean for Curriculum, Accreditation, & Student Services**

Amy Milligan, Harriman Hall

**Senior Assistant Dean for Finance and Administration**

Joyce Wellinger, Harriman Hall

**Office of Student Services (Admissions & Advising)**

Harriman Hall Room 109 (631) 632-7171

cobgraduate@stonybrook.edu

**Web Site**

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

**Advanced Graduate Certificates Awarded**

Finance

**Degrees Awarded**

M.B.A., M.B.A. in Accounting, M.B.A. in Finance, M.B.A. in Marketing, M.B.A. in Health Care Management, M.S. in Accounting, M.S. in Finance, M.S. in Technology Management (in Korea)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Advanced Graduate Certificate in Finance**

The 18-credit Advanced Graduate Certificate (AGC) in Finance prepares students for careers in financial management, including financial analysis, portfolio management, investment banking and corporate financial associate positions. The curriculum places an emphasis on developing financial analytical skills. It offers in-depth knowledge of the principles and techniques of finance and accounting needed to understand how corporate financial objectives are developed, measured and reported, as well as the central issues in government regulation, taxation and financial reporting.

The AGC in Finance is a part-time program designed for working professionals. All courses are scheduled in the evening, and several of them are offered completely online.

**University Badges**

As they progress through the program, AGC students may earn University Badges — digital credentials that recognize the knowledge and skills developed by successfully completing two-course sequences in specialized areas (see details). The University Badge may be displayed on LinkedIn, Facebook, and Twitter profiles, and added to a resume to bring visibility to your achievement.

**MBA Program**

Certificate students may choose to pursue admission into the University's MBA in Finance program, which has a separate application and additional admissions requirements. Students interested in the MBA program must apply prior to completing 12 credits in the certificate program. Acceptance into the MBA program is not guaranteed, but certificate credits are transferable into the MBA program.

**Financial Aid Information**

This advanced graduate certificate program is eligible for financial aid. View the federally mandated Gainful Employment Disclosure Information.

**Admission Requirements for College of Business Graduate Programs**

The College of Business graduate programs are designed for ambitious and analytical students who are capable of applying what they learn toward the solutions of organizational problems. New students can begin the Stony Brook MBA, MS in Accounting in the Fall or Spring semester. All graduate applications are submitted online through the following website: <https://graduateadmissions.stonybrook.edu/apply/>

Applicants are encouraged to submit a current resume along with their online application and personal statement. The requirements for the business graduate programs include:

A. A bachelor's degree with a minimum grade point average of 3.0. In exceptional cases, students not meeting the GPA requirement may be considered for admission on a conditional basis. Official transcripts can be mailed directly to the **Office of Graduate Admissions and Graduate Student Services 2401 Old Computer Science Building 11794-4433** or sent electronically to [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu). We strongly encourage foreign transcripts to be evaluated by World Education Services (WES) or another NACES association member.

B. Aptitude for quantitative analysis, demonstrated through previous coursework, standardized tests, or practical experience. All applicants must have successfully completed an introductory calculus course (MAT 123 or equivalent) with a grade of C or higher.

C. The GMAT/GRE are optional and should be used to enhance your application.

D. Three letters of recommendation, one of which, if possible, should be from a professional working in a private company or public agency who is capable of evaluating the applicant's motivation and potential. The three letters of recommendation should also include at least one from a college faculty member, counselor, or administrator. Letters of recommendation should be submitted through the application website.

E. Applicants whose first or primary language is not English, must submit one of the following:

A TOEFL internet-based score of 80 or above

An IELTS test with an overall score of 6.5 or above, with no sub-scores below 6.0. Acceptance by both the College of Business and the Graduate School.

F. Application fee.

In addition to the criteria stated above, the MBA in Accounting and MS in Accounting programs have further requirements. Please refer to the program website for detailed prerequisite information.

Application Deadlines:

**Application Deadlines****MBA, MS in Accounting and MS in Finance****Fall**

International Applicants, April 15th

Domestic Applicants, July 1st

**MBA, MS in Accounting****Spring**

International Applicants, November 1st

Domestic Applicants, December 15th

Applications may be considered after these dates, as long as space is available.

For additional information, please visit [www.stonybrook.edu/business](http://www.stonybrook.edu/business) or email [cobgraduate@stonybrook.edu](mailto:cobgraduate@stonybrook.edu).

Office of Student Services

Harriman Hall, Room 109

College of Business Stony

Brook University Stony

Brook, New York 11794-

3775

(631) 632-7171

E-mail: cobgraduate@stonybrook.edu

### **MS in Finance**

The Master of Science in Finance is a unique opportunity to further your education in the field of finance. This 30 credit program is well suited to financial professionals who seek advanced finance skills, as well as students from other disciplines who seek to strengthen their finance expertise. The Master of Science in Finance focuses on finance-specific topics, requiring ten finance based courses culminating in an expertise of the discipline. This program will focus on developing an understanding of financial concepts and applications, preparing students to work in various areas of commercial finance such as, banking, investments and corporate finance.

### **Course Requirements for the MS in Finance**

MBA 502 Finance

FIN 536 Financial Management

FIN 539 Investment Analysis

FIN 540 Probability & Statistics for Finance

FIN 541 Bank Management

FIN 549 Risk Management

FIN 552 Mergers and Acquisitions

FIN 562 Data Analysis for Finance

FIN 578 Behavioral Finance

FIN 580 Finance Capstone Course

### **Requirements for the MBA in Finance**

Finance lies at the heart of both corporate and governmental success. Critical financial decisions involving the creation of capital, its day-to-day management, and its redeployment into more productive areas of companies and the economy are central to the continued prosperity of businesses and nations around the world. Stony Brook's MBA in Finance will prepare students for positions in corporate finance, investment banking, financial management, broker-dealer firms, consulting firms, commercial banks, financial markets, securities firms and government agencies.

**The 48 credit MBA in Finance track** curriculum requires 16 three-credit courses. Within the 16 three- credit courses, students take 11 required core courses and 5 elective courses. Four of these electives must be FIN courses.

**The 36 credit MBA in Finance track** requires 12 three-credit courses. Within the 12 courses, students take 6 required core courses and 6 elective courses. Five of these electives must be FIN courses. \*Students will not have to take the following core courses: MBA 502, 504, 505, 589, or 592.\*

### **Core Course Requirements for the MBA in Finance**

\*MBA 502 - Finance

MBA 503 - Data Analysis & Decision Making

\*MBA 504 - Financial Accounting

\*MBA 505 - Marketing

MBA 506 - Leadership & Team Effectiveness & Communications

MBA 507 - Ethics in Management

MBA 511 - Technological Innovations or BUS 510: Biotechnology Startups and Operations

MBA 512 - Bus Planning & Strat Mgt

MBA 543 – Business Analytics

\*MBA 589 - Operations Management

\*MBA 592 - Organizational Behavior

**Elective courses:**

36 credit track: Students in the 36 credit track will take a total of six 500-level MBA elective courses, five of these must be FIN courses.

48 credit program: Students in the 48 credit program must take five elective courses, four of these must be FIN courses.

**Certificate Programs**

Applications for the Advanced Graduate Certificate Programs are available through the School of Professional Development Admission into an AGC does not guarantee admission into the MBA program. Students must submit a separate application directly to the MBA program or MS in Finance Program to be considered for admission. Students who are accepted into a Master's program may apply up to 12 credits towards their degree program. Students must declare their decision to matriculate into a master's program before the completion of 12 credits.

Note that, although it is a valuable academic credential, an Advanced Graduate Certificate is not a degree.

**Certificate Program in Finance**

The 18-credit Advanced Graduate Certificate (AGC) in Finance prepares students for careers in financial management, including financial analysis, portfolio management, investment banking and corporate financial associate positions. The curriculum places an emphasis on developing financial analytical skills. It offers in-depth knowledge of the principles and techniques of finance and accounting needed to understand how corporate financial objectives are developed, measured and reported, as well as the central issues in government regulation, taxation and financial reporting.

The AGC in Finance is a part-time program designed for working professionals. Courses are scheduled in the evening, and several of them are offered completely online.

**MBA Program**

Certificate students may choose to pursue admission into the University's MBA in Finance program, which has a separate application and additional admissions requirements. Students interested in the MBA program must apply prior to completing 12 credits in the certificate program. Acceptance into the MBA program is not guaranteed, but certificate credits are transferable into the MBA program.

**Financial Aid Information**

This advanced graduate certificate program is eligible for financial aid . View the federally mandated Gainful Employment Disclosure Information .

**AGC in Finance Admissions**

1. Personal statement.
2. A bachelor's degree, with a cumulative 3.0 grade point average.
3. 3 letters of recommendation
4. A GMAT exam is required for applicants who have less than a 3.2 cumulative undergraduate GPA. We will accept the GRE in lieu of the GMAT. A GMAT waiver may be considered for applicants earning below a 3.2 if they have significant and relevant work experience. This will be determined through a resume review and letters of recommendation.
5. In those cases where the departmental admissions committee deems it desirable, personal interviews with departmental representatives may be necessary.

**Finance Certificate Requirements**

The curriculum consists of 18 credits (6 courses; 3 credits each). Students complete two required courses and choose elective courses that explore the broad frontier of modern finance.

**Required Courses**

- MBA 502 Finance
- MBA 504 Financial Accounting

**Electives (Choose any 4 courses listed below)**

- FIN 525 Portfolio Management
- FIN 536 Financial Management

- FIN 539 Investment Analysis
- FIN 541 Bank Management
- FIN 545 Capital Markets and Financial Institutions
- FIN 552 Mergers & Acquisitions
- FIN 576 Real Estate Finance
- FIN 578 Behavioral Finance

**Time to Completion**

All certificate requirements must be completed within three (3) years from the semester date of admission as a matriculated student unless the student is also matriculated in a master's degree program. Master's students have five (5) years to complete the certificate requirements.

**Finance Faculty**

Please see the College of Business Faculty Directory: [https://www.stonybrook.edu/commcms/business/about/\\_faculty/](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.*



## Genetics Program

**Graduate Program Director**

Martha B. Furie, Centers for Molecular Medicine, Room 248 (631) 632-4232

**Graduate Program Coordinator**

Jennifer Jokinen, Life Sciences Building 130 (631) 632-8812

**Degree Awarded**

Ph.D. in Genetics

**Web Site**

<http://www.stonybrook.edu/commcms/gradgenetics/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Genetics Program

The Graduate Program in Genetics was founded in 1980 as an inter-institutional program, combining the strengths in genetics at Stony Brook University, Cold Spring Harbor Laboratory, and Brookhaven National Laboratory. With nearly 100 faculty, the Genetics Program encompasses expertise that ranges from fundamental studies on classical animal, plant, and microbial model systems to cutting-edge research on behavior, cancer, and other human diseases. Students enjoy superb opportunities for training that reflect the ever-expanding role of genetics in modern biological and biomedical research. For instance, alongside traditional mutagenic screens with model organisms, the rapidly growing discipline of genomics is producing an explosion of information, which in turn is revealing the genetic circuitry of and relationships among all forms of life. Data gathered by both traditional and new methodologies underscore the central importance of genetics in delineating the connection among genes, their biological functions, and the evolutionary processes that shape life on earth. Genetics also gives practical insights into how defects in genes contribute to disease, as well as how gene products and genetic engineering can be used to improve the human condition.

The first-year student experience includes three core courses that establish a foundation for further study. In addition, each student rotates through three laboratories; these rotations furnish a basis for selecting a dissertation research advisor in May of the first year. All Genetics students further deepen their knowledge and experience by participating in a student seminar series, thematic journal clubs, and elective courses chosen from a wide array of offerings. The breadth of the Graduate Program in Genetics draws trainees from throughout the world with varied backgrounds and research interests, and the Program provides the options and flexibility to meet each student's particular needs.

## Admission Requirements of Genetics Program

The Graduate Program in Genetics requires the following in addition to the minimum Graduate School admission requirements:

- A. Superior undergraduate performance, which should include some formal training in genetics.
- B. Three letters of recommendation, ideally from previous research mentors and faculty.

The program does not require, but prefers to see, evidence of research activity as an undergraduate. Whenever possible, prospective students are invited to visit for interviews with program faculty.

- C. Acceptance by the Graduate Program in Genetics and by the Graduate School.

All students accepted into the program receive full support in the form of a tuition scholarship, stipend and subsidized health insurance. The annual stipend for the 2023-2024 academic year is \$34,000. Although future stipend increases cannot be guaranteed, it is reasonable to expect periodic increases. Students who remain in good standing with both the Genetics Program and the Graduate School receive full tuition scholarships, health insurance benefits and stipend support throughout their graduate careers.

## Facilities of Genetics Program

The primary training facilities are Stony Brook University, Cold Spring Harbor Laboratory and Brookhaven National Laboratory. Program faculty at Stony Brook are drawn primarily from departments within the College of Arts and Sciences or the School of Medicine. The Life Sciences Building, which houses the Genetics Program office, is home of the Departments of Microbiology and Immunology, Biochemistry and Cell Biology, Neurobiology and Behavior, and Ecology and Evolution, all of which are represented in the Genetics Program. The University Health Sciences Center, located across the street from the Life Sciences Building, is the primary home for departments in the School of Medicine, including the Departments of Medicine, Pathology, Pharmacological Sciences and Physiology and Biophysics. In addition, the Program also includes faculty in the Departments of Applied Mathematics and Statistics, Biomedical Engineering, Psychology and others. The Centers for Molecular Medicine, a state-of-the-art research building adjacent to the Life Sciences Building, houses three interdepartmental thematic research centers: The Centers for Developmental Genetics, Infectious Diseases, and Structural Biology. Each of these Centers includes Genetics Program faculty. The Centers for Molecular Medicine provide both an intellectual and a physical catalyst for facilitating interactions among Stony Brook scientists with common interest in these areas of modern biology, irrespective of their departmental affiliation.

Cold Spring Harbor Laboratory is a modern, world-renowned research institute that provides numerous unique opportunities for trainees. Although the faculty at Cold Spring Harbor are not organized into departments, there is internationally recognized strength in the areas of cancer

biology, neurobiology, plant genetics, structural biology, and bioinformatics. The world-class facilities that are available at Brookhaven National Laboratory provide additional resources for trainees in the Genetics Program, including the National Synchrotron Light Source, one of the most unique instruments in the world for probing biological phenomena. Research faculty at Brookhaven have widely recognized programs in the molecular biology of microbial, plant and animal systems, and have a leading role in the fields of proteomics, structural biology and imaging.

#### Requirements for the Ph.D. Degree in Genetics

In addition to the requirements of the Graduate School, the following are required:

##### **A. Course Requirements**

1. Molecular Genetics (MCB 503)
2. Graduate Genetics (BGE 510)
3. Cell Biology (MCB 656)
4. Research Proposal Preparation (BGE 693)
5. Graduate Student Seminar in Genetics (BGE 531) must be taken each semester.
6. During their first year, Genetics students rotate in the laboratories of three or four different faculty members, with the goal of selecting a mentor and environment for their dissertation research. The specific laboratories are selected by students based on their interactions with individual faculty. Rotation selections must be approved by the Graduate Program Director.
7. Two semesters of Readings in Genetics (BGE 691) are required. These “Journal Clubs” are typically taken during the first and second years of study. Students select from thematic journal club topics that are organized each semester by faculty at the different institutions. This exercise provides important training in critical analysis of the literature while also allowing students to broaden their knowledge base on selected topics of interest.
8. Each student must take two or more elective courses, for a minimum total of 6 credits. Electives must be approved by the Program Director. Typically, these courses are in the biological sciences (e.g., Developmental Biology, MCB 657; Immunology, HBP 533; Microbiology, HBM 640; or Molecular Evolution, BEE 565), but courses may also be taken in other relevant areas (e.g., computer sciences, bioengineering).
9. Integrity in Science (GRD 500) is required of all Life Science graduate students. This half-semester course on ethics is typically taken in the Fall semester of the student’s first year.
10. Requirements for any specific student, in addition to those enumerated above, that will be beneficial due to a student’s prior training and/or area of specialization will be determined by the program director and executive committee in conjunction with the student and appropriate advisory committee.
11. Students must attain a grade of B or better in each of BGE 510, MCB 503, and MCB 656, as well as an overall average of B (3.0) or better in their elective courses.

##### **B. Comprehensive (Preliminary) Qualifying Examination**

At the beginning of the fourth semester, students will take a comprehensive (preliminary) examination covering diverse areas of genetics which tests each student’s ability to read and interpret primary scientific literature.

##### **C. Dissertation Proposal Examination**

After successful completion of the comprehensive (preliminary) examination, the student prepares a written proposal for the dissertation research project. This proposal has the format of a grant application, including information on the background and significance of the project, a detailed research plan, and any preliminary results that the student has generated that indicate the feasibility of the project. This written proposal is orally defended before a dissertation proposal examination committee. This committee does not include the student’s dissertation advisor, but is selected by the student in conjunction with his or her advisor and program director. The dissertation proposal defense should occur during the fifth semester of graduate study. Generally, the faculty who participate in a student’s proposal examination committee then join with the advisor to form the student’s dissertation advisory committee.

##### **D. Advancement to Candidacy**

After successful completion of all required and elective courses, the comprehensive (preliminary) examination, and the dissertation proposal examination, the student will be recommended to the Graduate School for advancement to candidacy. Each student must meet with his/her dissertation advisory committee at least once a year to inform the members of his/her progress and solicit the members’ advice.

##### **E. Ph.D. Dissertation**

The research for the Ph.D. dissertation is conducted under the supervision of the dissertation advisory committee. Upon approval of the completed dissertation by this committee, a formal public oral defense of the dissertation is scheduled, at which the student presents his or her findings and is questioned by members of the audience. Subsequently, the candidate defends the dissertation to the examining committee in a closed session.

##### **F. Teaching Requirement**

It is expected that each graduate student completing a doctoral degree will have functioned as a teaching assistant during at least two semesters of his or her graduate career (BIO 600).

## G. Publication Requirement

To be eligible for graduation, each student must submit as first author at least one manuscript of original research to a suitable peer-reviewed journal (as determined by the Program's Executive Committee). Moreover, the journal's editors must deem the paper of sufficient quality to merit evaluation by external reviewers.

## H. Residence Requirement

The University requires at least two consecutive semesters of full-time graduate study. The demands of the course of study necessitate a longer period of residence.

Faculty of Graduate Program in Genetics

## Distinguished Professors

Citovsky, Vitaly<sup>3</sup>, Ph.D., 1987, Hebrew University, Jerusalem: Nuclear transport and intercellular communication in plants.

## Professors

Bahou, Wadie<sup>6</sup>, M.D., 1980, Massachusetts Medical Center: Human genetics; gene therapy; genetic disorders of hemostasis and thrombosis.

Canli, Turhan<sup>12</sup>, Ph.D., 1993, Yale University: Biopsychology; neural and genetic basis of emotion and cognition.

Carter, Carol A.<sup>7</sup>, Ph.D., 1972, Yale University: HIV and retroviral assembly and replication.

Colognato, Holly<sup>10</sup>, Ph.D., 1999, Rutgers University: Extracellular matrix in the brain: roles during development and neurodegeneration.

Davalos, Liliana M.<sup>5</sup>, Ph.D., 2004, Columbia University: Conservation biology; climate change; phylogeny.

Del Poeta, Maurizio<sup>7</sup>, M.D., 1992, University of Ancona, Italy: Role of sphingolipids in mediating signaling pathways and fungal pathogenesis.

Demple, Bruce<sup>10</sup>, Ph.D., 1981, University of California, Berkeley: Mechanisms and roles of human enzymes that repair oxidative (free radical) damage in DNA.

Dubnau, Joshua<sup>1</sup>, Ph.D., 1995, Columbia University: Genetics of amyotrophic lateral sclerosis in flies and humans; genetic circuits underlying olfactory behavior in flies.

Enikolopov, Grigori<sup>1</sup>, Ph.D., 1978, Institute of Molecular Biology, Russian Academy of Sciences, Moscow: Stem cells; neurogenesis; imaging; signal transduction.

Frohman, Michael<sup>10</sup>, M.D., Ph.D., 1985, University of Pennsylvania: Lipid signaling; vesicle trafficking and fusion; mitochondrial fusion; myogenesis.

Furie, Martha B.<sup>9</sup>, Ph.D., 1980, Rockefeller University: Interactions among endothelial cells, leukocytes, and pathogenic bacteria.

Futcher, A. Bruce<sup>7</sup>, D.Phil., 1981, University of Oxford: Cell cycle control, microarrays, genomics.

Ge, Shaoyu<sup>8</sup>, Ph.D., 2002, University of Science and Technology of China: Molecular mechanisms and function of new neurons in the brain.

Gergen, J. Peter<sup>3</sup>, Ph.D., 1982, Brandeis University: Pattern information and the regulation of gene expression during *Drosophila* development.

Ghebrehwet, Berhane<sup>6</sup>, D.V.M./D.Sc., 1974, University of Paris, France: Role of complement C1q receptors during infection and inflammation.

Hannun, Yusuf A.<sup>6</sup>, M.D., 1981, American University of Beirut: Mechanisms and functions of bioactive sphingolipids in cancer.

Hearing, Patrick<sup>7</sup>, Ph.D., 1980, Northwestern University: Adenovirus regulation of cellular proliferation and gene expression; adenovirus vectors for human gene therapy.

Ju, Jingfang<sup>9</sup>, Ph.D., 1996, University of Southern California: The mechanism of translational control mediated by non-coding RNAs in cancer.

Karzai, A. Wali<sup>3</sup>, Ph.D., 1995, Johns Hopkins University: Structure and function of RNA-binding proteins and biochemical studies of the SmpB-SsrA quality control system.

Konopka, James<sup>7</sup>, Ph.D., 1985, University of California, Los Angeles: G-protein coupled receptor signal transduction; fungal pathogenesis (*Candida albicans*).

Kritzer, Mary<sup>8</sup>, Ph.D., 1989, Yale University: Sex differences in cortical microcircuitry.

- Lin, Richard Z.<sup>11</sup>, M.D., 1988, University of California, San Francisco: Physiology of phosphoinositide 3-kinase signaling.
- Mackow, Erich R.<sup>7</sup>, Ph.D., 1984, Temple University: Viral regulation of cell signaling responses; hantavirus, influenza, dengue and rotavirus pathogenesis.
- Marshall, Nancy Reich<sup>7</sup>, Ph.D., 1983, Stony Brook University: Signal transduction and activation of gene expression by cytokines; cellular defense responses to viral infection.
- Moll, Ute<sup>9</sup>, M.D., 1985, University of Ulm, Germany: Tumor suppressor genes; role of p53 in human cancer.
- Neiman, Aaron<sup>3</sup>, Ph.D., 1994, University of California, San Francisco: Vesicle trafficking and intracellular signaling in yeast.
- Powers, R. Scott<sup>9</sup>, Ph.D., 1983, Columbia University: Cancer gene discovery; cancer diagnostics and therapeutics; cancer biology.
- Seeliger, Markus<sup>10</sup>, Ph.D., 2004, Cambridge University, United Kingdom: Molecular mechanisms of protein kinase and ubiquitin ligase signaling in cancer and aging.
- Shroyer, Kenneth<sup>9</sup>, Ph.D. 1983, M.D. 1987, University of Colorado. Cancer biomarkers as diagnostic adjuncts in cervical pathology and cytopathology; cervical cancer and HPV.
- Takemaru, Ken-Ichi<sup>10</sup>, Ph.D., Graduate University for Advanced Studies, Japan: Cell signaling and ciliogenesis in mammalian development, health, and disease.
- Thanassi, David<sup>7</sup>, Ph.D., 1995, University of California, Berkeley: Biogenesis of bacterial adhesion organelles.
- Thomsen, Gerald<sup>3</sup>, Ph.D., 1988, Rockefeller University: Embryonic developmental mechanisms, regeneration, stem cells and the evolution of developmental processes.
- Tsirka, Styliana-Anna<sup>10</sup>, Ph.D., 1989, Aristotelian University of Thessaloniki, Greece: Neuronal-microglial interactions in the physiology and pathology of the central nervous system.
- White, Thomas<sup>11</sup>, Ph.D., 1994, Harvard Medical School: Gap junction functions defined by genetic diseases and gene knockouts.

### Associate Professors

- Bingham, Paul<sup>3</sup>, Ph.D., 1979, Harvard University: Regulation of differentiation; transposable elements; regulation of splicing.
- Carpino, Nicholas<sup>7</sup>, Ph.D., 1997, Stony Brook University: Positive and negative regulation of T cell receptor signaling.
- Chen, Jiang<sup>9</sup>, M.D., Ph.D., 1995, Henan Medical University, China; 2001, University of Heidelberg, Germany: Planar cell polarity and primary cilia in skin and hair follicle development and skin cancers.
- Chung, Jun<sup>9</sup>, Ph.D., 1999, Washington University School of Medicine: Mechanisms of tumor cell invasion and metastasis.
- Kernan, Maurice<sup>8</sup>, Ph.D., 1990, University of Wisconsin: Genetics of touch and hearing in *Drosophila*; ciliogenesis and ciliary signaling.
- Kim, Hyungjin<sup>10</sup>, Ph.D., 2009, Washington University: Mechanisms of mammalian DNA replication and repair in cancer development and therapy.
- Luk, Ed<sup>3</sup>, Ph.D., 2003, John Hopkins University: Chromosome biology and genome regulation.
- Martin, Benjamin L.<sup>3</sup>, Ph.D., 2005, University of California, Berkeley: Stem cell maintenance and differentiation; developmental mechanisms of cancer pathogenesis.
- Martinez, Luis A.<sup>8</sup>, Ph.D., 1998, University of Texas at Austin: Gain-of-function activity of mutant p53 oncogene.
- Pisconti, Dada.<sup>3</sup>, Ph.D., 2003, University of Bari, Italy: Muscle stem cells; muscular dystrophy; muscle development; muscle regeneration; muscle aging; extracellular matrix; biology of proteoglycans.
- Rest, Joshua S.<sup>5</sup>, Ph.D. 2004, University of Michigan: Regulatory evolution; protein network evolution; bioinformatics.
- Seeliger, Jessica<sup>10</sup>, Ph.D., 2007, Stanford University: Mechanisms of cell wall and membrane assembly in *Mycobacterium tuberculosis*.
- Shelly, Maya<sup>8</sup>, Ph.D., 2004, Weizmann Institute of Science, Israel: Molecular mechanisms of embryonic brain development; axon regeneration; neurodegenerative disorders.

Sheridan, Brian<sup>7</sup>, Ph.D., 2008, University of Pittsburgh School of Medicine: Generation and maintenance of effector and memory T cells in intestinal tissues in response to bacterial pathogens.

Sirotkin, Howard<sup>8</sup>, Ph.D., 1996, Albert Einstein College of Medicine: Specification and patterning of the neural plate; vertebrate developmental genetics.

True, John R.<sup>5</sup>, Ph.D., 1995, Duke University: Evolutionary and developmental genetics of color patterning in *Drosophila*.

van der Velden, Adrianus<sup>7</sup>, Ph.D., 2000, Oregon Health and Science University: The mammalian T cell response to *Salmonella enterica* serovar Typhimurium.

Veeramah, Krishna<sup>5</sup>, Ph.D., 2008, University College London, United Kingdom: Evolutionary genomics.

Williams, Jennie<sup>13</sup>, Ph.D., Purdue University: Cancer chemotherapeutics; cancer health disparity; tumor biology; chemoresistance and chemoresponse in racial and ethnic populations.

### Assistant Professors

Acosta-Martinez, Maricedes<sup>11</sup>, Ph.D., 2002, Albert Einstein College of Medicine: Neuroendocrine regulation of the reproductive axis; signal transduction pathways and metabolic control.

Bialkowska, Agnieszka<sup>6</sup>, Ph.D., 2003, Institute of Biochemistry and Biophysics, Polish Academy of Sciences: Pancreatitis; pancreatic cancer; animal models; pancreatic stromal and immune cell interactions; single-cell and bulk next-generation sequencing.

Brownlee, Christopher<sup>10</sup>, Ph.D., 2013, University of Arizona: Molecular mechanisms of spindle orientation, ciliogenesis, polarity, actin cortex formation, and axonogenesis.

Cheung, Leonard<sup>11</sup>, Ph.D., 2013, University College London: Physiology and genetics of the pituitary gland in development, aging, and disease.

Damaghi, Mehdi<sup>9</sup>, Ph.D., 2012, Max Planck Institute: Tumor evolution in its selective microenvironment using single-cell multi omics and spatial omics connecting genotype to phenotype.

Hu, Chi-Kuo<sup>3</sup>, Ph.D., 2011, Harvard Medical School: The biology of dormancy and its interaction with development and aging.

Kim, Hwan<sup>7</sup>, Ph.D., 2011, University of Chicago: Rickettsial pathogenesis and vaccine assembly for tick-borne rickettsioses.

Nelson, Jonathan<sup>3</sup>, Ph.D., 2016, University of Utah: Impact of retrotransposons and repetitive DNA maintenance in germline genome stability.

Rahme, Gilbert<sup>10</sup>, Ph.D., 2017, Dartmouth College: Cancer epigenetics with a focus on brain tumors.

Sher, Roger<sup>8</sup>, Ph.D., 2000, University of California, Davis: Neurobiology; neurodegenerative diseases; amyotrophic lateral sclerosis; Alzheimer's; dementias.

Talos, Flaminia<sup>9</sup>, M.D., 2002, Ph.D., 2006, Stony Brook University: Intra-tumor heterogeneity in prostate cancer; tissue reprogramming in the urinary bladder.

Wan, Ledong<sup>10</sup>, Ph.D., 2018, Zhejiang University School of Medicine: RNA metabolism; inflammation, cancer.

### Research Faculty

Luberto, Chiara<sup>11</sup>, Ph.D., 1997, Catholic University of Rome: Sphingolipid metabolism and signaling.

Zachar, Zuzana<sup>3</sup>, Ph.D., 1992, Stony Brook University: Cancer chemotherapy and drug discovery.

### Adjunct Faculty at Cold Spring Harbor Laboratory

Amor Vegas, Corina, CSHL Fellow. Ph.D., 2021, Gerstner Sloan Kettering Graduate School of Biomedical Sciences: Senescence and immune surveillance in cancer and aging.

Beyaz, Semir, Assistant Professor. Ph.D, 2017, Harvard University: Dietary regulation of immunity and cancer; epigenetics; metabolism.

Cheadle, Lucas, Assistant Professor. Ph.D., 2014, Yale University: Neuro-immune mechanisms of brain development and disease.

Dobin, Alexander, Assistant Professor. Ph.D., 2003, University of Minnesota: Computational multi-omics; biological big data; bioinformatics tools.

dos Santos, Camila, Associate Professor. Ph.D., 2007, State University of Campinas, Brazil: Epigenetic dependencies of normal and malignant breast development; gene expression in prevention and treatment of cancer.

- Egeblad, Mikala, Professor. Ph.D., 2000, University of Copenhagen and the Danish Cancer Society: Tumor microenvironment; intravital imaging; tumor-associated myeloid cells; breast cancer.
- Fearon, Douglas, Professor. M.D., 1968, Johns Hopkins University School of Medicine: Cancer immunology; immunotherapy; host response to cancer.
- Gingeras, Thomas R., Professor. Ph.D., 1976, New York University: Genome-wide organization of transcription and the functional roles of non-protein coding RNAs.
- Hammell, Christopher, Associate Professor. Ph.D., 2002, Dartmouth Medical School: Genetic regulation of temporal development and the function of animal microRNAs.
- Hammell, Molly, Associate Professor. Ph.D., 2003, Dartmouth College: Computational and functional genomics; control of transposable elements; neurodegenerative disease.
- Jackson, David, Professor. Ph.D., 1991, University of East Anglia, England: Plant development; genetics, cell-to-cell mRNA and protein trafficking.
- Janowitz, Tobias, Assistant Professor. M.D., Ph.D., 2007, University of Cambridge, United Kingdom: Host response to cancer: metabolic, endocrinological, neurological, and immunological consequences and treatment strategies in cancer medicine.
- Joshua-Tor, Leemor, Professor. Ph.D., 1990, Weizmann Institute of Science: Structural biology; nucleic acid regulation; RNAi; molecular recognition; X-ray crystallography.
- Koo, Peter, Assistant Professor. Ph.D., 2015, Yale University: Computational biology; artificial intelligence; interpretable deep learning for genomics.
- Krainer, Adrian R., Professor. Ph.D., 1986, Harvard University: Posttranscriptional control of gene expression; alternative splicing; splicing in genetic diseases and cancer; splicing-targeted antisense therapeutics.
- Li, Bo, Professor. Ph.D., 2003, The University of British Columbia: Neuroscience; glutamatergic synapse; synaptic plasticity; schizophrenia; depression; rodent models of psychiatric disorders.
- Lukey, Michael, Assistant Professor. DPhil, 2010, University of Oxford: Metabolic reprogramming during tumorigenesis and metastasis.
- Martienssen, Robert A., Professor. Ph.D., 1986, Cambridge University: Plant genetics; transposons; development; gene regulation; DNA methylation.
- McCombie, W. Richard, Professor. Ph.D., 1982, University of Michigan: Human genetics; human genome variation; personal genomics; genetics of psychiatric disorders; genetics of cancer, computational molecular biology.
- Meyer, Hannah, Assistant Professor. Ph.D., 2018, University of Cambridge, EMBL-EBI, United Kingdom: Tolerance induction and generation of diversity in the developing immune system; systems immunology; transcriptomics; bioinformatics
- Mills, Alea A., Professor. Ph.D., 1997, University of California, Irvine: Cancer; development; aging; senescence; epigenetics; autism.
- Pedmale, Ullas, Associate Professor. Ph.D., 2008, University of Missouri, Columbia: Organism-environment interactions; photobiology; signal transduction; genomics; cellular growth; decision-making in plants.
- Schorn, Andrea, Assistant Professor. Ph.D., 2009, Freie Universitaet, Berlin: Non-coding and small RNA; transposable elements; stem cells; epigenetics
- Sheltzer, Jason, CSHL Fellow. Ph.D., 2015, Massachusetts Institute of Technology: Consequences of aneuploidy and gene dosage imbalances in development and cancer.
- Siepel, Adam C., Professor. Ph.D., 2005, University of California, Santa Cruz: Computational biology; population genetics; molecular evolution; transcriptional regulation.
- Spector, David L., Professor. Ph.D., 1980, Rutgers University: Cell biology; gene expression; nuclear structure; microscopy; non-coding RNAs.
- Stillman, Bruce W., Professor. Ph.D., 1979, Australian National University: Cancer; cell cycle; DNA replication; chromatin assembly; yeast genetics.
- Tollkuhn, Jessica, Associate Professor. Ph.D., 2006, University of California, San Diego: Regulation of gene expression in the brain by estrogen and testosterone.
- Tonks, Nicholas K., Professor. Ph.D., University of Dundee: Posttranslational modification; phosphorylation; phosphatases; signal transduction; protein structure and function.
- Trotman, Lloyd C., Associate Professor. Ph.D., 2001, University of Zurich: Cancer modeling and treatment; senescence and tumor progression; cancer visualization; PTEN regulation.

Tuveson, David A., Professor. M.D., Ph.D., 1994, Johns Hopkins University: Pancreatic cancer; experimental therapeutics; diagnostics; mouse models; cancer genetics.

Vakoc, Christopher, Professor. M.D., Ph.D., 2007, University of Pennsylvania: Transcriptional regulation of mammalian cell growth.

VanAelst, Linda, Professor. Ph.D., 1991, Catholic University of Leuven, Belgium: Signal transduction; Ras and Rho proteins; tumorigenesis; neuronal development and disorders.

Westcott, Peter, Assistant Professor. Ph.D., 2015, University of California San Francisco: Cancer genomics and immunology; evolution of immune surveillance and dysfunction during cancer progression and metastasis.

Zhang, Lingbo, Assistant Professor. Ph.D., 2013, Massachusetts Institute of Technology and National University of Singapore: Normal and malignant stem and progenitor cells; self-renewal; metabolism; therapeutic tar

**Research Faculty at Brookhaven National Laboratory**

Freimuth, Paul I., Scientist. Ph.D., 1980, Stanford University: Adenovirus reproduction; virus-cellular receptor binding.

Number of teaching, graduate, and research assistants, Spring 2024: 44

<sup>1</sup>Department of Anesthesiology

<sup>2</sup>Department of Applied Mathematics and Statistics

<sup>3</sup>Department of Biochemistry and Cell Biology

<sup>4</sup>Department of Biomedical Engineering

<sup>5</sup>Department of Ecology and Evolution

<sup>6</sup>Department of Medicine

<sup>7</sup>Department of Molecular Genetics and Microbiology

<sup>8</sup>Department of Neurobiology and Behavior

<sup>9</sup>Department of Pathology

<sup>10</sup>Department of Pharmacological Sciences

<sup>11</sup>Department of Physiology and Biophysics

<sup>12</sup>Department of Psychology

<sup>13</sup>Department of Family, Population and Preventive Medicine

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

Geosciences Department

**Chairperson**

Joel Hurowitz, Earth and Space Sciences Building 255, (631) 632-8139

**Graduate Program Director**

Vacant

**Academic Programs Coordinator**

Rene Andersen (631) 632-8554

**Web Address**

[www.stonybrook.edu/geosciences](http://www.stonybrook.edu/geosciences)

**Degrees Awarded**

M.S. in Geosciences; Ph.D. in Geosciences; M.A.T. in Earth Sciences

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Geosciences Department

As the core discipline examining Earth's natural processes and materials, Geosciences boasts unparalleled diversity. Spurred by urgent scientific and social questions, ranging from environmental concerns to the origin and evolution of the planet itself, the Geosciences are experiencing remarkable growth, with excellent career opportunities. The Geosciences encompass many disciplines including geology, geochemistry, and geophysics, and its interdisciplinary nature fosters natural links not only with chemistry and physics, but also with environmental science, materials science, engineering, biology, and health fields. Developments in technology and new innovative approaches have transformed graduate study in many areas within Geosciences, and students participate in research utilizing state-of-the-art instrumentation and facilities.

Graduate students may choose among degree programs with emphasis in different areas in Geosciences. Ph.D. and M.S. thesis-based programs are offered with concentrations in areas including seismology and tectonics, mineral and rock physics, crystal chemistry, geochemistry, petrology, sedimentary geology, planetary geosciences, and hydrogeology (described in more detail below). Also offered is an M.A. in Teaching Earth Science, which leads to provisional certification for teaching earth science in secondary schools of New York State.

**Areas of Emphasis in Graduate Study and Research**

The Department's philosophy has been to pursue excellence by concentrating its research initiatives in specific areas of the Geosciences. Graduate students benefit from greater focus and also enjoy close interaction with faculty members. A distinctive aspect of graduate study in the Geosciences department is the opportunity for collaborative research, often involving several faculty members. The department's extensive state-of-the-art computers, laboratory facilities and modern instrumentation have helped to foster a well-earned reputation for observational, experimental, multifaceted approaches to Geosciences research. Cooperative programs with other departments, nearby institutions, and national laboratories provide access to unique facilities (e.g., National Synchrotron Light Source II at Brookhaven National Laboratory).

**Seismology, Tectonics, and Shallow Surface Geophysics**

A primary focus in seismology and tectonics is the determination of detailed three dimensional earth structure, from the core to the surface, and related studies on the dynamics that drives mantle convection, deformation of the lithosphere, and plate tectonics in general. Particular emphasis is placed on interdisciplinary research and collaboration, where inferences made from seismological, geodynamic, and geodetic investigations are integrated with findings from the fields of mineral and rock physics, geochemistry, and petrology. Areas of specific focus in seismology include inner core structure, anisotropy, and attenuation, outer core structure, core-mantle boundary structure, upper mantle structure, strong ground motion studies, earthquake source parameter studies, and theoretical studies on seismic wave propagation. Investigations in tectonophysics include the coupling between mantle convection and lithospheric dynamics, the development of the kinematics, mechanics, and seismicity within plate boundary deformation zones, and the inference of mantle flow beneath the lithosphere. Current projects involve using earthquake and space geodetic data to infer the deformation fields and employing numerical, analytical, and analog modeling to understand surface geodynamical observations, ranging from geoid, topography, plate motions and surface deformations in the global and regional scales to the partitioning of strain and tectonic implications at geometrically complex plate margins. All of these projects emphasize the use of integrated seismic, structural, geodetic, and field data to understand the structure, composition, and dynamics of the Earth's interior, as well as the driving forces for plate movements and deformations. The topics in shallow surface geophysics include field geophysical surveys of glaciotectonic deformation of Long Island sediments using ground penetrating radar, and electrical resistivity.

**Mineral and Rock Physics**

Research in these fields focuses on the investigation of the structure and composition of the Earth, geophysical properties of Earth materials, and the mechanical behavior of the crust and mantle. An important emphasis is the study of high-pressure and high-temperature phases and assemblages, particularly those of relevance to the mantle. In situ measurement of elastic properties, compressibility, and determination of crystal structure complement studies of high-pressure phase relations for constraining models for Earth's mantle and equations of state for mantle phases. Specific projects include determination of ultrasonic wave velocities of minerals and rheological determination of the strength of minerals at the pressure and temperature conditions of the Earth's mantle to depths greater than 500 km. Research initiatives in these areas are closely linked to the activities of the Mineral Physics Institute at Stony Brook and the NSF Consortium for Materials Properties Research in Earth Sciences [COMPRES]. Facilities available in the Department of Geosciences and the Mineral Physics Institute include equipment for ultrasonic interferometry, Brillouin spectroscopy, and multi-anvil apparatus for experiments at high pressure and temperature; these are all integrated with synchrotron X-ray sources at the NSLS. Complete single-crystal and powder X-ray diffraction facilities and transmission electron microscopy



and electron diffraction are available. Another important area of study is rock physics, fluid flow and earthquake mechanics. Experimentally and theoretically based, this program focuses on brittle fracture, mechanical compaction of porous rock, strain localization, frictional instability, and hydromechanical behavior. The rock mechanics laboratory includes a triaxial press, an acoustic emission system, and permeameters.

### **Crystal Chemistry and Crystallography**

The department has a strong background in the study of earth materials at the atomic and molecular level, and in using the results of these studies to interpret the properties of materials constituting Earth from crust to core. Two centers of excellence, the Center for Environmental Molecular Sciences (CEMS) and the Mineral physics Institute (MPI) concentrate on the behavior of upper crustal and Earth's Interior, respectively. Both employ a wide range of structural probes, some located in the department and others located at national and international synchrotron X-ray and neutron facilities. Within the department, extensive facilities for single-crystal and powder X-ray diffraction, with capabilities for in situ high-temperature and high-pressure studies exist. Projects emphasize crystal structure studies on oxides, hydroxides, sulfides, carbonates, and silicates, including characterization of phase transitions, ordering phenomena, and ion exchange. Convenient access to the Brookhaven National Laboratory and the National Synchrotron Light Source, NSLS, provides opportunities for unique experiments requiring a high-intensity X-ray source. Other projects utilize X-ray absorption spectroscopy to examine local structure in minerals, neutron diffraction for studies of hydrous phases, and solid-state NMR spectroscopy to investigate crystal chemical substitutions and defects. Many of the department's faculty are actively engaged in the design and construction of the next generation of beamlines required for high pressure and environmental investigations. These facilities are being designed with the requirements of the Stony Brook and wider national and international user base in mind. This work is complemented by electron diffraction using the department's transmission electron microscope.

### **Geochemistry**

There are broad opportunities for graduate study and research in many areas of geochemistry. Major initiatives exist in isotope and trace-element geochemistry, aqueous and hydrothermal geochemistry, geochemistry of mineral/fluid interfaces, and theoretical and experimental geochemistry of mineral-melt systems. All programs have a strong experimental foundation, and many integrate experimental work with field studies.

Specific areas of research utilizing trace elements and radiogenic isotopes include evolution of Archean and Phanerozoic crust and geochronology of lithologic assemblages. These integrate with petrologic studies of sedimentary, metamorphic, and igneous terranes throughout the world. Research involving the chemistry and structure of sulfide and carbonate mineral surfaces are among the programs in low-temperature aqueous geochemistry; these include emphasis on geocatalysis, crystallization and trace element incorporation mechanisms, as well as the role of sulfides in the origin of life. Field-related studies focus on fluid chemistry in active hydrothermal systems. Research on silicic melts combines theoretical and experimental approaches for characterizing speciation and crystal-melt equilibria, and also for examining nucleation and growth. Closely related experimental studies focus on phase equilibria, solid-solution models, and the development of geothermometers and geobarometers, including applications in field studies.

Experimental and analytical work makes use of the department's electron microprobe, transmission electron microscope, thermal ionization mass spectrometers, FT-IR, Mössbauer lab, DCP and ion chromatography labs, X-ray diffraction facilities, and three synthesis and experimental petrology labs. Additional work uses facilities in other Stony Brook departments, including NMR spectrometers located in the Dept. of Chemistry, as well as facilities at nearby Brookhaven National Laboratory, including the NSLS.

### **Petrology**

Opportunities for graduate study and research in petrology range from atomic-scale investigations, for example, dealing with the structure of glasses, to global questions regarding the relationships of magmatic suites to large-scale mantle and crustal processes. Projects include spectroscopic and quantum chemical approaches for examining mechanisms of volatile dissolution and crystal nucleation in melts and experimental investigations of the effects of pressure, temperature, and volatile composition on stabilities of minerals and melts, with corresponding development of thermodynamic models. Field and laboratory work are integrated in some studies. Experiments are being applied to Martian meteorites.

This work is supported by experimental facilities that contain controlled-atmosphere gas-mixing furnaces, cold-seal bombs, piston-cylinder apparatus, internally heated pressure vessels, as well as multi-anvil apparatus for experiments at high temperature and pressure conditions. Analytical facilities include an electron microprobe, a transmission electron microscope, thermal ionization mass spectrometers, a Mössbauer lab, and X-ray diffraction facilities.

### **Sedimentary Geology**

Research initiatives in sedimentary geology at Stony Brook integrate geochemistry with field, petrologic, and stratigraphic studies. Trace element and isotopic studies of terrigenous sedimentary rocks provide information on their provenance, age, and composition, which yield insight to broader issues of crustal evolution, including sediment subduction, growth of continental crust and the sedimentary mass, and recycling of sedimentary rocks. Carbonate rocks and their diagenesis are another important area of research that utilizes a wide range of approaches. Petrography is combined with microanalytical techniques for trace elements and both stable and radiogenic isotopes to reconstruct the diagenetic environments and the physicochemical characteristics of paleohydrologic systems. Emphasis is also placed on the quantitative modeling of rock-water interaction. A strong component of fieldwork is common for studies of both clastics and carbonates. Analytical facilities include the department's electron microprobe, optical and cathodoluminescence petrography and electron microscopy facilities, a mass spectrometry lab, a Mössbauer lab, DCP and ion chromatography labs, X-ray diffraction facilities, and a variety of facilities at the NSLS.

### **Planetary Science**

Graduate research opportunities are available in the field of planetary science, including planetary geochemistry and petrology, planetary spectroscopy, planetary geophysics and Astrobiology with current focus on Mars and the Earth's moon. Several faculty and students have been actively involved in planetary missions, including Mars Global Surveyor, Mars Exploration Rovers and Mars Odyssey. Projects are available to evaluate geological, chemical, spectroscopic and geophysical data that have been returned from these and other missions. Planetary science research is also supported by an assortment of experimental and analytical facilities. A recently installed infrared spectroscopy laboratory supports experimental and analytical studies in emission and reflectance spectroscopy of Mars and lunar analog materials as well as investigations

of the fundamental infrared spectral properties of a wide variety of minerals. High pressure—high temperature experimental laboratories (see details under Petrology and Mineral and Rock Physics) may be used for evaluating the origin and history of igneous rocks from terrestrial planets and rocky satellites. Low temperature and hydrothermal experimental laboratories are available for the study of Martian near-surface aqueous processes and for investigating issues related to Astrobiology. Experimental laboratories are also supported by a broad array of analytical facilities (see details under Crystal Chemistry and Crystallography, Geochemistry and Sedimentary Geology)

### Hydrogeology

The non-thesis M.S. program with a concentration in hydrogeology is designed to give those with a B.S. degree in physical sciences a solid foundation of theoretical and practical graduate training emphasizing the physical and geochemical aspects of hydrogeology. Coursework and a final research project totaling 30 graduate credits are arranged to accommodate working professionals, with most courses taught in the evenings. This is a part-time degree program. A formal thesis is not required. Coursework includes groundwater hydrology, aqueous geochemistry, rock and soil physics, numerical hydrology, statistics and probability, and organic contaminant hydrology. Final research projects are arranged individually with faculty supervisors and are designed to give students experience in field, laboratory, or theoretical approaches.

### Admission requirements of Geosciences Department

For admission to the Graduate Program in Geosciences, the following, in addition to the Graduate School requirements, are required:

- A. A bachelor's degree in one of the earth or space sciences or in biology, chemistry, physics, mathematics, or engineering.
- B. A minimum average of B for all undergraduate coursework and a B average for courses in the sciences.
- C. Acceptance by both the Department and the Graduate School.

Please note that Graduate Record Examination (GRE) General Test scores will not be considered or accepted in application materials.

In special cases, a student not meeting requirements A and B may be admitted on a conditional basis. Upon admission, the student will be informed of the requirements that must be satisfied for termination of this status.

The Department of Geosciences offers programs leading to the M.A.T., M.S., and Ph.D. degrees in the Geosciences.

The Master of Arts in Teaching degree in Earth Science is a non-thesis degree for which all requirements can be completed in three semesters.

The M.S. degree with concentration in Hydrogeology is a non-thesis M.S. with most courses offered at times appropriate for working professionals. **\*\*NOT accepting applications into this program for 2024 – 25 Academic Year\*\***

The M.S. degree with a concentration in Earth and Space Sciences is a non-thesis program for New York State teachers who have initial certification but need a Master's degree to become fully certified, and to become certified in Earth Science. There are no other residence or language requirements. **\*\*NOT accepting applications into this program for 2024 – 25 Academic Year\*\***

The M.S. degree with a concentration in Earth and Space Sciences is a nonthesis program for New York State teachers who have initial certification but need a Master's degree to become fully certified, and to become certified in Earth Science. There are no other residence or language requirements.

The M.S. degree in Geosciences with thesis is typically not a terminal degree. Many students seeking Ph.D. candidacy first earn an M.S. degree.

Students become candidates for the Ph.D. in Geosciences by completing preparatory work leading to successful completion of the Ph.D. preliminary examination. Students are urged to obtain a more detailed description of procedures from the Geosciences Graduate Handbook.

Final responsibility for adhering to degree requirements and meeting all deadlines rests solely with the student.

### Facilities of Geosciences Department

The Department of Geosciences occupies a well-equipped building that houses extensive experimental and analytical labs, faculty and graduate student offices, numerous computers and workstations and the Geosciences Resource Room. The Mineral Physics Institute, the Long Island Groundwater Research Institute (LIGRI), the Marine Sciences Research Center (MSRC), and nearby Brookhaven National Laboratory offer additional support and laboratory facilities for graduate student research. In particular, the National Synchrotron Light Source (NSLS) at Brookhaven offers unparalleled opportunities for faculty and graduate students to perform unique experiments requiring high-intensity X-rays and is only 20 miles away.

### Requirements for the Ph.D. Degree in Geosciences

In addition to the minimum requirements set by The Graduate School:

Advancement to Ph.D. candidacy is gained after the successful completion of the Ph.D. preliminary examination. The examination is the culmination of an evaluative process that begins when the student arrives at Stony Brook. In particular, the faculty seek evidence of scientific creativity, originality, vigor, and flexibility, along with the basic background knowledge, skills, and critical faculties needed to carry out advanced independent research in the student's chosen field.

### A. Course Requirements

During their first semester, all students must enroll in GEO 500, Geosciences Research Seminar. In addition, all students must register for GEO 696, Geoscience Colloquium, and GEO 697, Geoscience Seminar, each semester, and GEO 600, Practicum in Teaching, at least once. All other course requirements are flexible and are determined in consultation with the student's academic advisory committee.

## **B. Research Projects**

Each student carries out individual research projects with one or more faculty members, as part of the requirements leading up to the Ph.D. qualifying exam. The requirements for each of these projects are determined by the individual professors with whom the research is carried out. When working on such a project, students register for either GEO 590 or GEO 599 Research.

## **C. Ph.D. Preliminary Examination**

Students must successfully pass the preliminary examination, which consists of the preparation and oral defense of a Ph.D. dissertation proposal. Procedural details are found in the Geosciences Graduate Handbook.

The Ph.D. dissertation proposal specifies the scientific rationale for the proposed dissertation work, the relevant work done thus far, and the techniques and effort required to reach the research objective. The oral defense consists of a short public presentation of the dissertation proposal given by the student, after which there is a closed oral examination. When the graduate program director has been informed by the chairperson of the examination committee that the student has passed the Ph.D. preliminary examination, the department recommends to the Graduate School that the student be advanced to Ph.D. candidacy.

## **D. Teaching Requirement**

All graduate students must satisfactorily complete GEO 600, Practicum in Teaching, at least once.

## **E. Dissertation**

Students must prepare a dissertation document, satisfying the Graduate School and dissertation committee requirements. This document is the final culminating element of the doctoral degree and summarizes the original scientific research completed by the Ph.D. candidate. The nature, scope, and scientific content is determined at the discretion of the student, their advisor(s), and their Ph.D. dissertation defense committee.

## **F. Ph.D. Dissertation Oral Defense**

The student makes a public presentation of the major results of their dissertation. The defense is followed by a closed session, during which the student is examined primarily, but not exclusively, on the dissertation topic.

## **Requirements for the M.S. Degree with Thesis in Geosciences**

The M.S. in Geosciences with thesis is typically a nonterminal degree completed by some students before seeking Ph.D. candidacy. In addition to the Graduate School minimum requirements, the MS degree in Geosciences (with thesis) must be completed within a period of three years after entry. There are no residence or language requirements.

### **A. Course Requirements**

Students must successfully complete a program of 30 graduate credits, including a minimum of 18 credits in approved academic courses.

### **B. M.S. Thesis and Thesis Defense**

The M.S. thesis is the document that summarizes the individual research carried out by the student, under faculty advisement. The document must satisfy Graduate School and the thesis committee requirements. The M.S. thesis defense consists of a short public presentation of the major results of the thesis. This is followed by a closed examination. Final acceptance of the thesis is indicated when all committee members have signed the thesis signature page. Students will register for GEO 590 or 599 while undertaking thesis research.

Requirements for the M.S. Degree with Concentration in Hydrogeology (Consult with the Geosciences Department before attempting to complete this concentration)

The non-thesis M.S. with a concentration in Hydrogeology requires a total of 30 credits. Of these 30 credits, at least 21 credits must be from category A; category B (if a student is deficient in either writing or communication skills, computer programming, or statistics); and category C. There are no residence or language requirements.

### **Category A (4 courses for 12 credits)**

- GEO 515 Geohydrology
- GEO 564/AMS 562 Numerical Hydrology
- GEO 526 Low-Temperature Geochemistry
- GEO 519 Geochemistry of Natural Waters

### **Category B (choice of one course for 3 credits, as determined by the program)**

- AMS 576 Statistical Methods for Social Scientists
- EST 588 Technical Communication for Management and Engineering

**Category C (up to three courses for 9 credits)**

- GEO 573 Hydromechanical Behavior of Geomaterials
- GEO 521 Isotope and Trace Element Geology
- GEO 524/MAR 524 Organic Contaminant Hydrology
- EST 593 Risk Assessment
- EST 595 Principles of Environmental Systems Analysis
- EST 596 Simulation Models for Environmental Waste Management
- EST 597 Waste Management: Systems and Principles
- CEY 503 Environmental Law
- CEY 509 Man, Environment, and Health

**Research**

In addition to formal coursework, the curriculum for the M.S. with concentration in Hydrogeology includes a minimum of six credits of research, either GEO 590 or GEO 599. This research is to be carried out over a period of two or more semesters, and will be designed through a mutual consultation between the student and one or more members of the participating faculty. The program of research will culminate in a written report to be approved by three designated faculty.

**Requirements for the M.S. Degree with Concentration in Earth and Space Science**

The non thesis M.S. with a concentration in Earth and Space Science requires a total of 31 credits. Of these 31 credits, 30 credits must be from courses with the ESS designator or other approved graduate courses in the fields of astronomy, atmospheric sciences or geosciences. Individual course programs will be developed for each student in consultation with the Earth Science education advisor based on the student's academic background and intended goals.

All students are required to complete

- ESS 501 Foundations of Earth Science
- ESS 610 Capstone Project in Earth and Space Sciences

**Requirements for the M.A.T. Degree in Earth Science**

The Master of Arts in Teaching Earth Science leads to provisional certification for teaching earth science in secondary schools in New York State. It also prepares the student for the examination for permanent certification. There is no residence requirement. Students must complete at least one year of college-level study of a foreign language.

Students in the M.A.T. program must register through the School of Professional Development.

**A. Formal Coursework**

Students are required to complete with an average grade of B or higher 15 credits in earth science courses and 27 credits in pedagogical courses and teaching experience. The departmental M.A.T. advisor in consultation with the student will determine a set of earth science courses for the M.A.T. degree in Earth Science.

**B. Recommendation of the Department for the M.A.T.**

When all program requirements are completed, the departmental M.A.T. advisor will consult with the director of the Science Education Program to determine whether all state-mandated education courses have been completed. If they conclude that all requirements have been met, they will inform the associate dean of the School of Professional Development that the requirements for provisional certification have been fulfilled and recommend to the dean of the Graduate School that the M.A.T. degree should be granted.

**C. Time Limit**

Although full-time students can complete all requirements for the M.A.T. degree within three semesters, part-time students will require additional time to complete the degree requirements.

Faculty of Geosciences Department

**Toll Professor**

McLennan, Scott M., Ph.D., 1981, Australian National University: Geochemistry of sedimentary rocks; sedimentary petrology.

Weidner, Donald J., Ph.D., 1972, Massachusetts Institute of Technology: Structure of the Earth's interior as revealed by seismic waves and laboratory determinations of physical properties.

**Distinguished Professors**

Parise, John, Ph.D., 1980, James Cook University of North Queensland: Synthesis and characterization of zeolites for use as selective catalysts; characterization using normal X-ray and neutron diffraction techniques; investigation of crystallizing gels using small-angle neutron scattering; structural modeling of silicates.

**Professors**

Glotch, Timothy, Ph.D., 2004, Arizona State University: Planetary geology; remote sensing; Martian surface mineralogy.

Holt, William E., Graduate Program Director, Ph.D., 1989, University of Arizona: Seismotectonics; kinematics and dynamics of crust and mantle deformation; earthquake source parameter studies.

Li, Baosheng, Ph.D., 1996, SUNY Stony Brook: mineral physics, elasticity of minerals, high-pressure research.

Nekvasil, Hanna, Undergraduate Program Director, Ph.D., 1986, Pennsylvania State University: Experimental and thermodynamic investigations of mineral/melt equilibria in silicic magmas.

Phillips, Brian L., Department Chair, Ph.D., 1990, University of Illinois at Urbana-Champaign: Aqueous geochemistry, NMR spectroscopy, mineralogy and structural chemistry of silicates and other oxides.

Rasbury, E. Troy, Ph.D., 1998, Stony Brook University: Sedimentary geochemistry; geochronology; chronostratigraphy

Reeder, Richard J., Ph.D., 1980, University of California, Berkeley: Low-temperature geochemistry; mineralogy; crystal chemistry.

Rogers, Andrea Deanne, Ph.D., 2005, Arizona State University: Remote sensing; planetary surface processes; GIS.

Schoonen, Martin A.A., Ph.D., 1989, Pennsylvania State University: Kinetics and thermodynamics of low-temperature and hydrothermal water-rock interaction; theoretical geochemical modeling; geochemistry of natural waters.

Wen, Lianxing, Ph.D., 1998, California Institute of Technology: Mantle rheology and dynamics; seismic structures of the Earth's mantle; new techniques for calculating viscous flow and seismic wave propagation

**Associate Professors**

Ehm, Lars, Ph.D., 2003, Christian--Albrechts University zu Kiel, Germany: crystallography

Henkes, Gregory A., Ph.D., 2014, The Johns Hopkins University: Stable isotope geochemistry, paleoclimatology, biogeochemistry

Hurowitz, Joel, Ph.D., 2006, Stony Brook University: Planetary geology, planetary exploration, Sedimentary geochemistry.

**Assistant Professor**

Frouin, Marine, Ph.D., 2014, University of Bordeaux: Geochronology, Luminescence Dating

Li, Qingyun, Ph.D., 2016, Washington University: Geochemistry, Environmental Science/Engineering

Shen, Weisen, Ph.D., 2014, University of Colorado Boulder: Seismic tomography

**Emeritus**

Liebermann, Robert C., Emeritus, Ph.D., 1969, Columbia University: Mineral physics; elastic and anelastic properties of rocks and minerals and their applications to the Earth's interior.

Lindsley, Donald H., Emeritus, Ph.D., 1961, Johns Hopkins University: Application of phase equilibrium studies of silicate and oxide minerals to metamorphic and igneous petrology

**Affiliated Faculty****Distinguished Professor**

Aller, Robert C.<sup>1</sup>, Ph.D., 1977, Yale University: Marine geochemistry; early marine diagenesis

**Distinguished Service Professor**

Bokuniewicz, Henry J.<sup>1</sup>, Ph.D., 1976, Yale University: Marine geophysics.

**Professor**

O'Leary, Maureen <sup>2</sup>, Ph.D., 1997, Johns Hopkins: vertebrate paleontology, phylogenetic systematics, mammalian evolution.

**Assistant Professor**

Price, Roy<sup>1</sup>, Ph.D., 2008, University of South Florida: Geochemistry

**Research Professors**

Davis, Daniel M., Ph.D., 1983, Massachusetts Institute of Technology: Quantitative geophysical modeling of fold and thrustbelts; Field geophysics.

Liebermann, Robert C., Emeritus, Ph.D., 1969, Columbia University: Mineral physics; elastic and anelastic properties of rocks and minerals and their applications to the Earth's interior.

Northrup, Paul, PhD, 1996, Stony Brook University, biological imaging and microspectroscopy, synchrotron beamline

Wong, Teng-fong, Ph.D., 1980, Massachusetts Institute of Technology: Experimental rock physics; fault mechanics.

**Research Associate Professors**

Sperazza, Michael, Ph.D., 2006, University of Montana, Paleoclimatic change over the Pleistocene and Holocene.

Whitaker, Matthew, PhD, 2009, Stony Brook University, mineral physics, planetary science and experimental geochemistry/petrology

**Lecturer**

Stidham, Christiane Wilson, Ph.D., 1999, University of California, Berkeley: Geophysics.

- 1) School of Marine and Atmospheric Sciences
- 2) Department of Anatomical Sciences
- 3) Mineral Physics Institute

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

## Geospatial Science (GSS)

The Geospatial Science program is part of the Marine and Atmospheric Sciences (MAS) graduate program.

**Certificate Program Director**

Sung-Gheel Jang, E 2360 Melville Library, (631) 632-5364

**Graduate Coordinator**

Ginny Clancy, 105 Endeavour Hall, (631) 632-8681

**Graduate Admissions Coordinator**

Christina Fink, Endeavour Hall 107, (631) 632-8680, [christina.fink@stonybrook.edu](mailto:christina.fink@stonybrook.edu)

**Web Address**

<http://www.stonybrook.edu/commcms/gss/>

**Degrees Awarded**

Advanced Graduate Certificate

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Geospatial Science

The Geospatial Science program supports the Geographical Information Systems (GIS) and Remote Sensing needs for a wide range of departments on the Stony Brook campuses. These tools are extensively used in the sciences (including geology, marine, environmental, anthropology, etc.), the social sciences (including sociology, political science, urban planning), in the corporate and non-profit world, public health, security, and disaster response. The program is design to give each student a firm foundation in Geospatial Science while allowing the flexibility to learn the tools needed for their chosen discipline.

The Advanced Graduate Geospatial Science (GSS) Certificate will allow graduate students and working professionals to advance their GIS knowledge and employment opportunities with an industry-recognized certificate. The program will require students to earn 15 credits in addition to holding a BA, BS, or graduate degree. The program courses will be offered in the traditional semester format and during summer sessions. The program offers fully online courses that are intended to allow full time students to remotely complete the certificate requirements in one year.

## Admission requirements of Geospatial Science Certificate

Admission to the Graduate Certificate in Geospatial Science is open to any student enrolled a graduate degree-granting program at Stony Brook University or to free-standing certificate students who have completed their bachelor's degree or higher from an accredited college or university who meet the admissions criteria.

For applicants already admitted to the university, admission involves completing a "Permission to Enroll in a Secondary Certificate" form. For admission to the free-standing Certificate Program in Geospatial Science, students are required to have earned a minimum or a bachelor's degree with a cumulative grade point average of 3.0 on a 4 point scale and the following:

- A. A letter of application stating the purpose of study
- B. A Graduate School application form
- C. An official transcript of undergraduate record culminating in a bachelor's degree and graduate degree transcript if applicable
- D. Two letters of recommendation from teaching supervisors and/or professors

The forms and additional information are available through the Marine and Atmospheric Sciences (MAS) graduate program office.

## Geospatial Science

The Geospatial Science program is an umbrella program that includes the graduate educational components of Geographical Information Systems (GIS) and Remote Sensing from many different departments across campus. The main teaching lab and the Geospatial Center is in Earth and Space Sciences with other GIS and remote teaching sensing labs in Marine Sciences, Anthropology, Geology, Engineering, and Public Health. The Geospatial Center supports education and research, and houses large format print capabilities for GIS and remote sensing projects.

## Requirements for the Geospatial Science Certificate

**Prerequisites:** All applicants are required to hold either a BA, BS degree, or graduate degree. Some basic knowledge of operating personal computers is necessary to complete the course work.

**Required Courses** or equivalent (9 credits):

GSS513 GIS Fundamentals I, 3cr or GEO513 or GSS 517 or MAR587

GSS525 GIS Fundamentals II, 3cr or GEO525

GSS526 GIS Project Management, 3cr

**Elective Courses** or equivalent (6 credits):

GSS 509 Digital Cartography, 3cr

GSS 523 Geodatabase and Design, 3cr or GEO 523

GSS 550 Applied Spatial Analysis, 3cr

GSS 554 Geospatial Science for the Coastal Zone, 3cr

GSS 555 GIS and Remote Sensing, 3cr or GEO 547 or MAR 558

GSS 570 Topics in Geospatial Science, 1-3cr

GSS 575 Geospatial Teaching Practicum, 0-3cr

GSS 587 Geospatial Research, 1-3cr

GSS 588 GIS Internship, 1-3cr

HPH 534 Spatial Analysis: Health Applications, 3cr

ANT 526 Environmental Analysis Using Remote Sensing and GIS, 3cr

EST 576 Geographic Information Systems in Education and Research, 3cr

No more than 6 credits used to satisfy another graduate degree can be applied to the certificate.

**Geospatial Science 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.*



## Hispanic Languages and Literature

**Chairperson**

Paul Firbas , Humanities Building Room# 1055 631-632-6959

**Graduate Program Director**

Lena Burgos LaFuente , Humanities Building Room # 1142 631-632-6959

**Senior Staff Assistant**

Mary Moran-Luba Humanities Building Room #1055 631-632-6935

**Degrees Awarded**

M.A. in Hispanic Languages and Literature; M.A. in Teaching Spanish; M.A. in Romance Languages and Literature (Spanish); Ph.D. in Hispanic Languages and Literature

**Web Site**

<http://www.stonybrook.edu/commcms/hispanic/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Description of Hispanic Languages and Literature Program

The Department of Hispanic Languages and Literature, in the College of Arts and Sciences, offers different curricula leading to the degrees of Doctor of Philosophy, and Master of Arts. A candidate for the Ph.D. degree engages in research leading to a dissertation. Part-time study is permitted with graduate courses usually offered during the late afternoon.

**Teaching Assistantships (TAs)**

The Department of Hispanic Languages and Literature has a yearly allocation of teaching assistantships for its graduate students. Each year, the assistantships are awarded to the most promising applicants.

Teaching assistants are assigned to teach one section of a course each semester. During the first semester of their assistantship, they are required to attend an orientation session and a practicum given by the department in order to provide instruction in the methodology of language teaching. In the performance of their teaching duties, teaching assistants must conform to the program and University regulations regarding examinations, class attendance, textbooks, office hours, grading systems, and syllabi.

Meetings with a supervisor and a coordinator of language courses are regularly scheduled and attendance is mandatory. Written evaluations of each TA's teaching performance are done periodically by the department. Renewal of assistantships will depend upon compliance with the regulations listed above.

Teaching assistantships are renewable for a total of four years. Students who are ABD (all but dissertation) may be eligible for a fifth year assistantship. Renewal is subject to passing the qualifying examination and satisfactory course grades and teaching. There is a limited opportunity for summer teaching at an appropriate stipend. Other fellowships, loans, and work-study programs are available.

---

Several W. Burghardt Turner fellowships are awarded each year to promising minority students who hold American citizenship.

## Hispanic Languages and Literature

Besides filing the official graduate application forms, the prospective student must provide transcripts covering all previous college-level studies. This usually includes a bachelor's degree with a major in Spanish, three letters of reference, and a sample of written work (an essay or term paper). GRE scores, while not required, are taken into consideration. The department encourages students to take it, but all applicants with strong academic records will be considered for admission.

International applicants must score at least 90 on the Internet-Based Test of English as a Foreign Language (TOEFL IBT) with a minimum score of 22 on each of the four subsections (Reading, Listening, Speaking, Writing) and must show that they have the necessary funds to finance their education (living expenses plus tuition). It is strongly recommended that applicants take the TOEFL exam in their country of origin. An applicant whose qualifications seem deficient may be admitted on a part-time basis as a Graduate School special student (GSP) through the School of Professional Development.

All doctoral students and students with a TA/GA stipend whose native language is not English must also demonstrate a sufficient level of English-speaking proficiency. For information on the minimum scores required on the spoken English portion of the TOEFL and IELTS please see the following information at the Graduate School website: <http://grad.stonybrook.edu/ProspectiveStudents/faq.shtml#scores>.

## Requirements for Hispanic Languages and Literature Program

Before registering for each semester, students should consult with the graduate program director to schedule an approved combination of courses. All new M.A. or Ph.D. students are required to meet with the graduate program director during the first week of classes in order to fill out information sheets. Normally, for the M.A., three or four semesters of full-time study are required. For the Ph.D., the number of semesters necessary before advancement to candidacy varies (see below). A minimum of two consecutive semesters of full-time graduate study in residence

is required for the Ph.D. It is recommended that the number of Independent Studies not exceed two. However, this is determined on an individual level.

Undergraduate courses may also be considered as part of a full-time course load, but do not count toward a graduate degree. Since a tuition waiver does not cover undergraduate courses, students must pay for such courses. Graduate reading proficiency courses (FRN 500, ITL 500, POR 500) fulfill the language requirement and count toward a full-time course load but not toward a graduate degree. According to University requirements, a minimum of a B average must be maintained in all graduate coursework. After taking the practicum (SPN 691), students may choose to enroll in SPN 693 as part of a required 12-credit load until they reach the point where their full-time credit load is nine credits. Equivalent courses taken at other universities may be certified as fulfilling specific required courses in this department, but only six graduate course credits of any kind may be transferred.

#### M.A. in Hispanic Languages and Literature

Offering courses in Spanish on the languages and cultures of Latin America, Spain, and the Latinx US, the Hispanic Languages and Literature MA broadens students' opportunities for professional and academic success. In our increasingly global and multicultural society, many career opportunities exist for people with advanced Spanish language skills and cultural competence. Students can choose to take classes full-time or part-time and to take online classes in Summer and Winter.

**Fall Deadlines:** Domestic Applicants - July 1st ; International Applicants - April 15th

**Spring Deadlines:** Domestic and International Applicants: November 15th

The curriculum leading to the Master of Arts degree may be terminal or may be combined with the PhD program. There is a general requirement of 30 graduate credit hours.

Students must take a minimum of 4 courses in Spanish and Latin American Literature and Culture at the 500 level and up to 5 courses among the remaining SPN 500 level courses. Students interested in taking SPN 600 level courses or a graduate course from another department may do so with permission from the director of graduate studies.

After completion of 27 graduate credit hours, a student must complete a thesis project equivalent to 3 graduate credit hours (SPN 588). The M.A. thesis is written under the supervision of a member of the graduate faculty with the advice of a second reader. The M.A. thesis does not require an oral defense. Regulations regarding the writing of the M.A. thesis are the same as those applicable to the Ph.D. dissertation. These regulations are contained in the *Guide to the Preparation of Theses and Dissertations*, available on the Graduate School Web site.

Students working on a part-time basis should complete all requirements within five years after their first regular graduate registration.

#### M.A. in Hispanic Languages and Literature with a Concentration in Bilingualism and Second Language Acquisition

Students seeking specific tools to improve their command of the language, their teaching strategies in the classroom, and pedagogical expertise to advise schools about second language acquisition, heritage speakers and Spanish- English bilingual contexts, can choose the Concentration in Bilingualism and Second Language Acquisition. There is a general requirement of 30 graduate credit hours.

Required courses:

1. a minimum of two courses in Spanish or Latin American Literature and Culture at the 500
2. SPN 506: Bilingualism
3. SPN 513: Spanish as Second Language Acquisition
4. SPN 691 Practicum in the Teaching of Spanish Language
5. 4 courses among the remaining SPN 500 level

After completion of 27 graduate credit hours, a student must complete a thesis project equivalent to 3 graduate credit hours (SPN 588). Students working on a part-time basis should complete all requirements within five years after their first regular graduate registration.

#### M.A. in Romance Languages

The M.A. in Romance Languages is offered for students who wish to follow a traditional M.A. Program with the intention of possibly proceeding toward further study on the Ph.D. level. Its flexibility allows students to design a curriculum that includes studies in literature, linguistics, or cultural studies in a combination of two Romance languages. This M.A. gives the students a choice of writing a Master's Thesis or passing a Comprehensive Examination to qualify for the degree. For further information contact the Department of European Languages.

#### M.A. in Teaching Spanish

The Master of Arts in Teaching Spanish is offered in conjunction with the School of Professional Development (SPD), and the Professional Education Program (PEP). This degree is designed as a course of study leading to New York State certification for teaching Spanish in secondary schools, grades 7-12. The M.A.T. normally entails a minimum of three semesters of study including courses on literature, linguistics and culture, professional education courses, and a supervised student teaching experience. In order to be eligible for admission to the M.A.T. in Spanish program, students must have completed an academic major in Spanish or its equivalent with a minimum cumulative GPA of 3.0 overall in a bachelor's degree program.

The program consists of 44 required credits of course work: a minimum of 29 credits of education course work and 15 credits in the Spanish content area. Students select their five Spanish content area courses in consultation with the Graduate Director. Teacher candidates are also required to participate in 100 hours of field experience prior to their student teaching placement. A full description of the education courses and field experience may be found in this bulletin under the School of Professional Development.

#### Doctor of Philosophy

The Ph.D. degree is the highest teaching and research degree offered by the University. The Ph.D. prepares the recipient for an academic career at the level of the four-year College and/or research university, or for other careers in humanistic study, research, and writing. The entering graduate student who is considering working toward a Ph.D. should immediately consult with the graduate director to plan a broad program of reading and coursework in all areas offered by the department.

The total number of required credits for the Ph.D. degree is usually 48 (16 courses). These 16 courses include the 12 general requirements specified below and 4 courses of the student's choosing. Each student is also required to take at least one graduate-level course outside of the department (this course may, upon consultation with the graduate program director, be used to satisfy one of the general requirements). While this sets a general standard for Ph.D. coursework, each student's actual plan of study will continue to be developed on an individual basis. The exact number and type of required courses will be determined based on the student's transcript and performance during his or her first semester(s) at Stony Brook. For example, exemptions from particular subareas may be granted depending on the student's prior study, while in cases of less-than-adequate preparation in any period of Peninsular or Latin American literature (which will vary in the cases of students coming from Spanish, Latin American, or North American universities) the student will be required to take additional coursework.

#### Required Courses

A. Unless exempted, teaching assistants are required to take SPN691, Practicum in the Teaching of Spanish Language.

B. Theory/Applied Theory (a minimum of three courses), SPN 609 Literary Theory, Applied Theory (two courses)

Note: Courses qualify as applied theory if approximately 50 percent of the course material is drawn from critical and/or theoretical texts.

C. General Literary Corpus (6 courses)

Note: A minimum of one course from each subarea to be tested in the comprehensive examination. Courses from area B (above) may be included, depending on content, but no one course may be used to satisfy both requirements B and C.

D. Special Field (2 seminars)

These courses may be taken as independent studies, but generally only after the student has fulfilled requirements A, B, and C. The goal of these courses is to prepare papers for presentation and publication that may also serve as the basis for part of the thesis.

Sample of a four-year study plan for the Ph.D.:

1st year: Fall, 12 credits (including SPN 691); Spring, 12 credits (including SPN 693)

2nd year: Fall, 9 credits; Spring, 9 credits

3rd year: Fall, 6 credits; Spring, comprehensive exam

4th year: Fall and Spring, thesis

#### Language Requirements

In addition to proficiency in Spanish and English, the Ph.D. student must demonstrate a reading knowledge of two languages among French, Latin, Portuguese, Italian, German, Galician, Catalan, Basque and another language if related to the field chosen for the dissertation. The student is urged to demonstrate a reading knowledge of this language by the beginning of his or her second year of full-time study; he or she is required to fulfill both language requirements prior to being advanced to candidacy. A language requirement may be fulfilled by (1) passing the Princeton Graduate School Foreign Language Test (GSFLT), (2) successful completion (grade of B or higher) of a graduate reading course or regular graduate course in the foreign language, or (3) passing a special reading examination administered under the supervision of the Department of Hispanic Languages and Literature. If option three is chosen, the student should consult with the graduate program director, who, along with the department chairperson, will designate an appropriate examiner. Texts will be assigned for the examination, during which a dictionary may be used for the translation of sight passages.

#### Qualifying Examination

The qualifying examination is an instrument designed to give the entire faculty of the department an opportunity to evaluate the student's academic abilities and promise. The exam seeks to assess the student's sensitivity to literature, capacity to deal critically with the text, and ability to express him- or herself cogently. Elaborate bibliographical information regarding the texts, while not discouraged, is not required.

The qualifying examination is only offered once a year, at the beginning of the Fall semester. Students who wish to be confirmed as Ph.D. students must take and pass the qualifying examination (1) at the beginning of their third semester if they enter the program with a BA or MA in Spanish in the Fall; (2) at the beginning of their fourth semester if they enter with a BA in the Spring; (3) at the beginning of their second semester if they enter with and M.A. or its equivalent in the Spring.

The department selects six texts and submits the list to the student not later than four months before the exam. It consists of (1) six hours of written work; the student answers four of six questions, omitting the one that he or she has selected for the oral presentation, each response

is expected to be a minimum of four typed, double spaced pages, at least two of the responses must be written in Spanish, and (2) an oral presentation of some 20 minutes on the selected text; notes may be used, but the student should not read from a text. The oral presentation must be given in Spanish. Following the presentation, the faculty will ask questions.

Students who pass the qualifying exam are automatically admitted to the Ph.D. program. Students who do not pass the exam will be allowed to finish their master's degree but will not be permitted to advance to the Ph.D. program. Students are informed of the results of the exam only after all students have finished the oral portion of the exam. Traditionally, the chairperson or the graduate program director informs students privately about the exam results, and later meets with each student in order to discuss the results.

### **Procedure for Renewing Teaching Assistantships**

All teaching assistants (M.A., Ph.D.) are evaluated by the department as a whole to determine whether their teaching assistantships will be continued during the second year. This evaluation will be conducted according to the following criteria, which include but go beyond the strict grade point average: (1) previous intellectual experience, both general and in the area of Hispanism: breadth of courses taken in related fields, and other features that can help to determine the quality of each student. If the recent experience (i.e., the work done while at Stony Brook) is significantly better or worse than the student's previous experience, this shall be taken into consideration; (2) serious research capacity of each student as demonstrated by papers written for courses; (3) theoretical capacity of each student, as demonstrated by papers written for courses; (4) writing and speaking ability in the Spanish language; and (5) quality of each student as a teaching assistant.

The graduate committee receives evaluations from each faculty member who has worked with the student. The committee may also reread term papers written for courses. Students holding Incompletes will inevitably find themselves at a disadvantage in the process of evaluation.

Third and fourth year support for all students will be automatic provided that students remain in good academic standing and have received adequate written reviews of their teaching.

### **Comprehensive Examination**

During their fifth semester in the PhD program, all full-time graduate students will select a Comprehensive Exam committee of three faculty members from the department. By the sixth week of the fifth semester, these students must file a Comprehensive Exam Committee Form with the Director of Graduate Studies. This form will contain the names and signatures of the faculty who have agreed to serve on the student's Comprehensive Exam Committee. The student's dissertation advisor must be among the members in this exam committee. Once the Comprehensive Exam Committee Form has been submitted, any changes to this committee must be approved by the Director of Graduate Studies.

#### **Scope and timing of the Exam**

During the sixth semester in the program all full-time doctoral students take the Comprehensive Examination. In close consultation with the members of their Comprehensive Exam Committee the student will define four thematic text-clusters. Each of these text-clusters will explore a specific topic, genre, debate, problematic, or issue within a research area in our discipline and/or its connections to other academic fields. The preparation of these text-clusters is an exercise designed to develop each student's specific research interests and serve as preparation work towards their dissertation. The exam should also be considered a fundamental step in the preparation of a teaching portfolio for the student. Thus each cluster will also contain the main thematic threads to develop a proto-syllabus for a course. The text-clusters will be organized according to the following guidelines:

- 1) The primary specialization cluster will focus on the main area of concern for the student's dissertation research. This cluster will consist of no fewer than 20 items between primary sources, theory, and criticism.
- 2) Each of the three secondary clusters will consist of no fewer than 10 primary and 4 theoretical and critical texts.
- 3) Both the primary and each of the secondary clusters must include an introduction (of at least one page and a maximum of two pages) articulating the main critical issues addressed in it. This introduction must also explain why the student has selected a particular combination of areas, genres, theories, and periods.
- 4) Each of the four clusters must also contain a set of at least three questions that invite reflection on the central issues and approaches proposed in the cluster.

#### **Cluster preparation:**

The primary texts in each of the four clusters can include literature, film, art, and other cultural objects or practices. The theoretical and critical bibliography should be selected with relevance to the topic. Creative thinking about sources is encouraged: "literary" texts can be used as "secondary" sources to think about a topic (for example, Borges's short story "Pierre Menard" for a topic related to issues of reading and interpretation, the *Historia verdadera de la conquista de Nueva España* as performed theory debating, for example, the links between legal, testimonial, and fictional writing). Correspondingly, theoretical texts can be used as primary texts (for example, in a cluster about film studies in the Hispanic world, or *La ciudad letrada* as a post-chronicle).

Clusters may be based on one literary genre and/or geographical/temporal area of study (e.g., "Novels of the Spanish Civil War," Modernista poetry) but multi-genre/ transnational/ transatlantic/ transhistorical approaches and connections are required in at least 2 of the 4 clusters (for example, "Post-dictatorship transatlantic texts", which could include novels, films, art, and legal writing from Argentina, Chile, Brazil, Spain and/or other countries in addition to sites such as museums, monuments, "lugares de la memoria", etc.).

Text-clusters should engage with the geographic and temporal breadth of Latin American/Iberian/Latino cultures:

- Every cluster should include a mix of canonical and non-canonical texts.
- If the primary thematic focus of the clusters is on modern and contemporary issues, at least two of the clusters should also include pre-modern or early-modern works, and vice-versa. This aspect can be addressed in a trans-historical manner, showing connections between pre-modern and modern/contemporary issues.
- If the primary thematic focus of the clusters is on Latin America, at least two of them should also include a comparative Iberian aspect, and vice-versa.

The oral exam:

The date for the exam should be agreed on with the Committee at least one month prior. Two weeks before the exam, the student will hand in a final draft of her or his four text-clusters to the Comprehensive Exam Committee. The exam will consist of a 10-minute presentation of the primary cluster and a five-minute presentation for each of the three secondary clusters. Each presentation will be followed by 30 minutes of questions and suggestions from the faculty on the Exam Committee. The primary cluster presentation should describe the underlying rationale connecting the four clusters, foregrounding the disciplinary, interdisciplinary and theoretical dimensions of the student's research. All the presentations should address the issues that provide coherence for the cluster, describe the main issues at work in the texts, the way the existing critical/theoretical bibliography addresses these issues, and formulate questions that need to be explored within that topic and those texts. The Exam will be conducted in Spanish and English. Upon successful completion of the exam and the approval of the dissertation proposal students will be granted ABD status.

### **Dissertation Proposal**

Following successful completion of their Comprehensive Examination, students will work closely with the Dissertation Advisor (and other members of their Dissertation Committee as appropriate) on completing their dissertation proposal. The Advisor will approve the final draft, which will then be submitted to the full committee for approval. The deadline for submission is a month after having passed the Comprehensive Examination. The Dissertation Committee will then move to approve the proposal or to suggest modifications and enhancements. After the approval of the dissertation proposal students will be granted ABD status.

The proposal should be composed of three parts: (1) an introduction and description of the project consisting of approximately 15-20 pages commenting on the methodology, relevance to the field (2); an overview of each of the proposed chapters; (3) a detailed but selected bibliography of primary and critical sources. A copy of the proposal containing the signatures of the dissertation committee should also be forwarded to the Director of Graduate Studies.

### **Dissertation Committee**

The student forms a dissertation committee with the advice of the graduate program director. This committee reviews the prospectus, the open draft, and the final draft of the dissertation. There will normally be five members: a dissertation director, who will be the first reader; a second reader; and three others (one of whom must be from outside the department). The dissertation director and student will arrange a date and a time for the defense with the committee and will take care of all necessary paperwork. A faculty member other than the dissertation director will preside as chairperson at the oral defense.

### **Dissertation**

The initial draft of the dissertation is given first to the director of the dissertation (or the director and co-director as the case may be). After the approval of the director(s), each member of the dissertation committee should be provided with his or her own corrected draft of the dissertation and given at least one month to read it and make comments. The length of the dissertation should be a minimum of 225 pages, including notes and bibliography. One month prior to the defense, the candidate must submit the dissertation abstract to both the Graduate Director (who will approve it) and the Graduate School. The abstract is to be written in English and should not exceed 350 words. The abstract should consist of a short statement of the student's research, a brief exposition of the methods and procedures employed in gathering data, and a condensed summary of the dissertation's conclusion.

When the dissertation is nearing completion, the director of the dissertation and the student will jointly agree on a date for the defense. The candidate and/or the director will inform in writing the members of the defense committee, the graduate program director, and the graduate secretary of the defense date. Candidates should be aware that the department will not ordinarily reimburse outside readers for their travel to the defense or the cost of postage and other expenses related to the defense.

The defense will consist of two parts. The first part, lasting normally about 30 minutes, consists of an oral presentation of the dissertation. The public is welcome to this portion of the defense. Following the presentation, each member of the examining committee will have an opportunity to ask questions and make final suggestions regarding the dissertation. The candidate shall bring a final draft of the dissertation to the defense, not the final copy to be carried subsequently to the Graduate School, in case the committee suggests last minute changes. The candidate should also bring a draft of the dissertation abstract to the defense.

Following the dissertation period, the candidate and any others not on the dissertation committee will be asked to leave the room while deliberations are made. If all members agree to accept the dissertation, they will sign the final version of the sign-off sheet or signature sheet, which the candidate will bring to the defense (together with the appropriate pen, which must use black permanent ink). This document must also be shown to the graduate secretary of the department so that the "Clearance for Graduation" form may be typed and forwarded to the Graduate School.

All members of the department, including graduate students, should be notified at least four weeks prior to the date and time of the public defense.

**Sample Four-Year Study Timeline for PhD:**

1st year:

-1st Semester: 12 credits (including SPN 693)\*

-2nd Semester: 12 credits (including SPN 693)\*

2nd year:

-3rd Semester: 9 credits

-4th Semester: 9 credits

3rd year:

-5th Semester: 3 credits course work, 6 credits of preparation for comprehensive exam

- By the 6th week of 5th Semester: Comprehensive Exam Committee Form completed

-6th Semester: Comprehensive Examination. Student selects Dissertation Committee.

4th year: Dissertation

-Fourth week of 7th Semester: Proposal Submitted to Dissertation Committee.

\*12 credits for students entering with a B.A. or equivalent; 9 credits for students entering with an M.A. or equivalent. Students without M.A. take 693 during both semesters of their first year.

#### Faculty of Hispanic Languages and Literature Program

##### Professors

Roncero-López, Victoriano, Ph.D., 1988, University of Illinois, Champaign, 1987 Universidad Complutense de Madrid: 15th- to 17th-century literature of Spain, historiography, European humanism, modern theory.

Charmon-Deutsch, Lou<sup>1,3,4</sup>, Emeritus Ph.D., 1978, University of Chicago: 18th- and 19th-century Peninsular literature, feminist theory, women writers.

De la Campa, Román, Emeritus, Ph.D., 1976, University of Minnesota: Latin American and Caribbean literature, contemporary critical theory.

Read, Malcolm K., Emeritus, Ph.D., 1978, University of Wales: Sociology of literature, literary theory, marxism and psychoanalysis.

Lastra, Pedro, Emeritus, Ph.D., 1967, Universidad de Chile: Modern and contemporary Spanish-American literature.

Vasvari, Louise. Emeritus<sup>1</sup>, Ph.D., 1969, University of California, Berkeley: Medieval literature, translation theory; literature and linguistics, romance philology.

##### Associate Professors

Burgos-Lafuente, Lena<sup>5</sup>, Ph.D., 2011, New York University: Latin American and Caribbean literature, poetry, literary politics, Transatlantic literature.

Flesler, Daniela<sup>3</sup>, Ph.D., 2001, Tulane University: Contemporary Spanish literature, postcolonial theory, cultural studies.

Firbas, Paul<sup>5</sup>, Ph.D., 2001, Princeton University: Colonial Latin American Literature, Modernity in Perú, Textual Criticism.

Pérez-Melgosa, Adrián<sup>3, 4, 5</sup>, Ph.D., 1995, University of Rochester: Film and literature in the Americas, cultural studies, film studies.

McKenna, James B., Emeritus. Ph.D., 1965, Harvard University: 20th-century Hispanic culture and literature.

Pierce, Joseph M., Ph.D., University of Texas, Austin, 19<sup>th</sup> and early 20<sup>th</sup>-century Latin American literature, queer theory, kinship studies.

Uriarte, Javier, Ph.D. 2012, New York University: 19th century Latin American literature and culture; travel writing, war and state-sponsored violence.

Vernon, Kathleen M.<sup>3, 4, 5</sup>, Ph.D., 1982, University of Chicago: 20th-century Spanish and Latin American literature, cinema and popular culture, gender and cultural studies.

Vialette, Aurelie, 6 Ph. D., University of California, Berkeley, 19th century Iberian Cultures, Working class Culture, Catalan Studies, Gender Studies, Transatlantic Studies (Mexico, the Philippines).

##### Assistant Professor

Loffredo, Fernando, Ph.D., 2010: History of Art, University of Naples Federico II: Spanish and Latin American Visual Culture

Director of the Spanish Language Program and Senior Lecturer

Ruiz-Debbe, Lilia, Ph.D., 1997, University of Geneva, Switzerland: Applied linguistics, second language research, and language pedagogy.

Lecturers

Colón, Aura, MA, University of Puerto Rico and Stony Brook: Caribbean and Latin American Literature, Transatlantic Studies, Migration

Corniel, Zaida, Ph.D., 2015, Stony Brook University: Caribbean literature and culture, Tourism Studies, Theater.

Davidiak, Elena, Ph.D., 2010, University of Iowa: Spanish Linguistics, bilingualism and multilingualism, language acquisition.

**Number of teaching, graduate, and research assistants, Fall 2018: 17**

- Recipient of the State University Chancellor's Award for Excellence in Teaching
- Recipient of the State University Chancellor's Award for Excellence in Research
- Comparative Literature
- Women and Gender Studies
- Latin American and Caribbean Studies
- Affiliated Faculty, Center for the Study of Inequalities, Social Justice and Policy

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

History Department

**Chairperson**

Sara Lipton, email [sara.lipton@stonybrook.edu](mailto:sara.lipton@stonybrook.edu), SBS-S329

**Graduate Program Director**

Shobana Shankar, email [graddirectorhistory@stonybrook.edu](mailto:graddirectorhistory@stonybrook.edu), SBS-S323

**Graduate Program Coordinator**

Roxanne Fernandez, Ward Melville Social and Behavioral Sciences Building, Room S-303

Email: [Roxanne.Fernandez@stonybrook.edu](mailto:Roxanne.Fernandez@stonybrook.edu)

Phone: (631) 632-7490

**Degrees Awarded**

M.A. in History; Ph.D. in History

**Web Site**

<http://www.stonybrook.edu/commcms/history/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description of the History Department**

While strong in many conventional geographical fields of historical study, our graduate program takes an innovative thematic approach to encourage comparative, transnational, interdisciplinary, and theoretically-informed scholarship and teaching. Working closely with our award-winning faculty, our graduate students develop expertise and teaching experience in *both* thematic areas and geographical fields, while pursuing extensive original research. In the process, they learn how to apply important concepts—such as class, gender, race, culture, power, and environment—to the study of the past. By emphasizing active engagement, discussion, and collaboration, our program fosters a dynamic, collegial learning environment where graduate students receive substantial mentorship. The program is designed so individual students may customize their course of study

to their own intellectual interests and career objectives. All graduate students are welcome and encouraged to participate in university and departmental events and programs.

The graduate program is structured around five areas of thematic inquiry: 1) Global Connections, Empire, Capitalism; 2) Health, Science, Environment; 3) Race, Citizenship, Migration.; 4) Religion, gender, cultural identity; and 5) States, nations, political cultures. Courses developed around these expansive themes are the heart of the department's commitment to the theoretically informed, interdisciplinary study of history.

The History Department has a faculty of 25 distinguished scholars with outstanding records in research, education, and public service. In addition, it has close ties with many other departments, including Affiliated Faculty in: Africana Studies; English; Hispanic Languages and Literature; Cultural Studies and Comparative Literature; Women's, Gender, and Sexuality Studies; Sociology; Music; Economics; and Technology and Society. We collaborate regularly with the Stony Brook Humanities Institute, the Latin American and Caribbean Studies Center, and the Institute for Globalization Studies, among others.

Each year we admit 6-8 students to the doctoral (Ph.D.) program and 5-10 students to the terminal master's (M.A.) and joint B.A./M.A. programs. The department currently has approximately 60 full- and part-time graduate students.

**Master's Degree:** Our M.A. program includes two separate paths to the degree—*Professional Track* or *Academic Track*—designed to meet our diverse students' varied needs and goals. To secure the M.A. degree, students must complete 30 credits of graduate study (with a grade of B or higher) and pass an oral examination. When pursued full-time, the program can be completed in approximately 4 semesters; part-time options are also available.

**Ph.D. Program:** Our Ph.D. program prepares students to undertake original research and ultimately to pursue a career in higher education or a wide range of other history-related fields. Doctoral students may focus their study on a particular region and period and/or concentrate on one of the thematic areas described above. While students interact most closely with History faculty, they are encouraged to work with faculty from other departments as well. Full-time Ph.D. students typically concentrate on coursework for Years 1-2, take an Oral Examination and prepare a Dissertation Prospectus during Year 3, and commence with dissertation research and writing during Year 4.

**Admission Requirements for the M.A. and Ph.D. Programs**

A. Bachelor's degree in History, or equivalent, with minimum grade point average of 3.0 (B) in all undergraduate coursework and History courses.

B. 3 Letters of Recommendation for Ph.D. applicants; 2 Letters of Recommendation for M.A. applicants. Letters should address student's potential to succeed in a rigorous course of graduate study.



- C. All students who are not native or primary speakers of English must demonstrate proficiency in English to be admitted to the Graduate School by submitting scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Required minimum scores: IELTS overall score of 6.5, with no subsection below 6; TOEFL score of 80 for M.A. and 90 for Ph.D. and to be eligible for TA/GA support. See the relevant Graduate Bulletin section for more detailed explanation: <https://www.stonybrook.edu/sb/graduatebulletin/current/admissions/requirements/english.php>
- D. Writing sample (12 pages for M.A.; 20 pages for Ph.D.) that exemplifies the applicant's writing skills and capacity for research, analysis, and creative thought.
- E. Any additional requirements of the Graduate School.

With approval from the dean of the Graduate School and the History Department, a student with an M.A. degree from another accredited institution may be admitted directly to the Ph.D. program at Stony Brook. In special cases, students whose GPA does not meet the requirements stated above may be admitted on a provisional basis for M.A. study only.

Degree Requirements

Requirements for M.A. Tracks (Academic or Professional)

Our M.A. program offers two separate paths to the degree—*Professional Track* and *Academic Track*—that are designed to meet our diverse students’ varied needs and goals. If in doubt about which option is best suited to your needs, confer with the Graduate Program Director.

**1. Professional Track** This option allows students maximum flexibility to design their own curriculum. It is especially suitable for Social Studies teachers who need an M.A. degree for professional certification; persons seeking advanced study or preparation for careers involving research, writing, and historical knowledge; and interested individuals seeking personal enrichment, whether or not history is related to their occupation.

On this track, students must earn **30 credits (see chart below)**, in addition to fulfilling any Graduate School requirements. Credits may be from coursework alone—including, if desired, up to 6 credits of content-based pedagogy courses—or may include writing an optional M.A. thesis (6 credits). Lastly, students must pass an Oral Examination as the culmination of their studies. Students may enroll on a full- or part-time basis, beginning usually in the Fall semester.

**2. Academic Track** This option is designed for individuals aspiring to a career in higher education or advanced historical scholarship, but who are not yet ready to enter a Ph.D. program. Students on this track are encouraged to develop a concentration in a region, period, or interdisciplinary field. They are also required to take the Core Seminar to develop a strong foundation in historical methods and theory and applied research.

On this track, students must earn **30 credits (see chart below)**, in addition to fulfilling any Graduate School requirements. Credits may be from coursework alone—including the required Core Seminar—or may include writing an optional M.A. thesis (6 credits). Lastly, students must pass an Oral Examination as the culmination of their studies. Students may enroll on a full- or part-time basis, beginning in the Fall semester.

A. Coursework for M.A. Program (Academic or Professional Track)

Professional Track	Credits	Academic Track	Credits
	n/a	Core Seminar I and II	6
		(HIS 524 & 525)	
3 Field Seminars	9	2 Field Seminars	6
2 Theme Seminars	6	2 Theme Seminars	6
1 Directed Reading	3	1 Directed Reading	3
Elective Courses	12	Elective Courses	9
M.A. thesis		M.A. thesis (optional; 6 credits)	
(optional; 6 credits)			
Oral Examination		Oral Examination	
<b>Total Credits</b>	<b>30</b>	<b>Total Credits</b>	<b>30</b>

**Core Seminar I and II** (HIS 524 and HIS 525; 3 credits each): This year-long course provides an intensive introduction to historical methods and theory based around the graduate program’s themes. The second semester includes the immersive experience of completing a major research project under close faculty supervision. The Core Seminar is offered as a Fall/Spring sequence only. Students on the M.A. *Academic Track* are required to take it during their second year (or first year, with permission from the Graduate Program Director).

**Field Seminars** (3 credits each): Designed to familiarize students with the history and historiography of specific regions and periods, these courses include: Medieval and Early Modern Europe (HIS 501); Modern Europe (HIS 502); Early American History (HIS 521); Modern American History (HIS 522); Colonial Latin America (HIS 541); Modern Latin America (542); Introduction to African History (HIS 562); Introduction to Asian History (HIS 562); South Asian History (HIS 563); Chinese History (HIS 564); and Japanese History (HIS 565). While some of these courses are offered on a one- or two-year cycle, others may be offered slightly less frequently. Students concentrating on a specific

region are encouraged to complete both parts of the Field Seminar chronological sequence where available. Depending on their track, M.A. students must take 2 or 3 Field Seminars. These seminars are also open to Master of Arts in Teaching students.

**Theme Seminars** (3 credits each): While specific topics and approaches vary, these seminars generally fall within the framework of our program's themes (discussed above) and at least two are offered each semester. M.A. students must take a minimum of 2 Theme Seminars.

**Directed Reading(s)** (HIS 584/HIS 585, 3 credits each): This course, customized to student's individual interests, involves independent study under the supervision of a faculty member. During their first semester, M.A. students are recommended to take a Directed Reading with their Advisor so they can meet regularly and receive academic support. M.A. students must take a minimum of 1 Directed Reading.

**Electives** (3 credits each). In addition to required courses, M.A. students take their remaining credits as Electives which allows them to customize their studies. Possibilities include additional Field or Theme Seminars, Directed Reading(s), or graduate courses offered in conjunction with other departments (e.g., Sociology, English, Art History, Africana Studies, Women's, Gender, and Sexuality Studies, etc.). Students may take an Orals Workshop (HIS 586) to prepare for their Oral Exam. All M.A. students must take a minimum of 12 credits as Electives. If they choose to write an M.A. thesis (6 credits), it must be completed over two semesters and thus counts as two Electives.

**B. Oral Examination:** After completing 24 credits, the M.A. student convenes a two-person Oral Examination Committee, including their Advisor (who focuses on the student's major geo-political field) and one additional faculty member (who focuses on a complementary field, usually based on a theme seminar). At least 2 months in advance, the student compiles a list of books and topics to be included on the exam, which the committee must approve. To prepare for the exam, the student may enroll in an Orals Workshop (or Directed Reading). The student is responsible for scheduling the exam at a mutually convenient time and for submitting all necessary paperwork to the Graduate Program Coordinator. The exam lasts approximately 1 hour and is graded as "pass with distinction," "pass," or "fail." In the event of failure, the student may petition to re-take the exam a second time at a later date.

**C. Master's Thesis (optional):** Students who opt to write an M.A. thesis must enroll in HIS 586 (Thesis Preparation for M.A. Candidates) and/or HIS 584/585 (Directed Readings for M.A. Candidates), under their Advisor's supervision. An M.A. thesis is expected to range from 40 to 70 pages, as agreed with Advisor, and contain significant original research and analysis. Part of the Oral Examination will be devoted to defense of the thesis.

**D. Language Requirement:** Master's students with a concentration in European history must pass a written exam in an appropriate foreign language. Students in Latin American history must pass a written exam in Spanish or Portuguese. Other areas of concentration currently do not require a foreign language for the M.A. degree.

**Admission to Ph.D. Program:** Students with an M.A. degree, including those conferred by Stony Brook University, who wish to be considered for the Ph.D. Program must submit a formal application to the Graduate School. Admission is not guaranteed.

#### Requirements for the Ph.D. Degree in History

The Stony Brook doctoral program offers an intensive, far-ranging education, culminating in an original research and writing project. The program is geared towards preparing students for a range of professional careers, from higher education to media, public history, government, and other fields which rely upon the skills and knowledge of the historian. Our students acquire thorough training in their chosen geographical field (Latin America, U.S., Europe, Asia, or Africa, among others) and/or time period (medieval, early modern, 18th, 19th, or 20th centuries). As discussed above, our department embraces an innovative thematic approach—now emulated by history departments around the country—that encourages students to explore important concepts, trends, or phenomena that transcend any particular time or place. These courses are the heart of the department's commitment to the theoretically informed, interdisciplinary study of history. By actively engaging with peers and faculty from a wide range of backgrounds and with diverse perspectives, our students are invigorated to think across and beyond traditional geographical, temporal, and disciplinary boundaries in ways that make for cutting-edge scholarship and timely, insightful teaching.

During the *first phase* of the Ph.D. program (Year 1 and 2), students take a variety of courses—required and elective—to develop a strong foundation of historical knowledge, to craft an individualized course of study to serve their evolving interests, and to hone their research skills. They must also fulfill the language requirement(s). In the *second phase* (Year 3), students continue to take classes, delving more deeply into research; take their Oral Examination (end of Fall semester); and enroll in the Dissertation Prospectus Seminar (Spring semester) to initiate planning and preliminary research for their dissertation. Students are "advanced to candidacy" when they've fulfilled all requirements but the dissertation (i.e. ABD status).

In the *third phase* (Year 4 -7, max.), each student researches and writes a dissertation, under the supervision of their advisor and other key faculty. The dissertation is to be a substantial piece of original research that makes a significant contribution to the historical literature. All students are required to defend their dissertation orally before their Doctoral Defense Committee at the end of their course of study. In accordance with Graduate School rules, the *maximum time limit* is 7 years from "advancement to candidacy" to dissertation defense and submission.

#### A. Coursework

1. **Core Seminar I and II** (HIS 524 and HIS 525; 3 credits each): This year-long course provides an intensive introduction to historical methods and theory based around the graduate program's themes. The second semester includes the immersive experience of completing a major research project under close faculty supervision. This year-long course provides an intensive introduction to historical theory and applied research based around the graduate program's themes. In addition to reading and discussing a wide range of historical works, students in this foundational seminar embark on a major research project under close faculty supervision. The Core Seminar is offered as a Fall/Spring sequence only. All full-time students in the Ph.D. program are required to take it during their first year.

2. **Two Field Seminars** (3 credits each): Designed to familiarize students with the history and historiography of specific regions and periods, these courses include: Medieval and Early Modern Europe (HIS 501); Modern Europe (HIS 502); Early American History (HIS 521); Modern American History (HIS 522); Colonial Latin America (HIS 541); Modern Latin America (542); Introduction to African History (HIS 562); Introduction to Asian History (HIS 562); South Asian History (HIS 563); Chinese History (HIS 564); and Japanese History (HIS 565). While some of these courses are offered on a one- or two-year cycle, others may be offered slightly less frequently. Students concentrating on a specific region are encouraged to complete both parts of the Field Seminar chronological sequence where available. These seminars are also open to Master of Arts in Teaching students. If an area of interest is not offered, Ph.D. students may take a comparable course in another department or institution, with permission from the Graduate Director and their Advisor.
3. **Three Theme Seminars** (3 credits each): While specific topics and approaches vary, these seminars generally fall within the framework of our program's themes (discussed above). If a subject of specialized interest is available elsewhere, students may request permission to take a comparable course in another department or institution. On occasion, students may "convert" a Theme Seminar into a Research Seminar by completing an additional research paper with the prior arrangement with the professor, if approved by the student's Advisor.
4. **Two Research Seminars** (3 credits each): A Research Seminar is offered every semester which gives students the opportunity to pursue individual research projects, using primary sources related to their developing scholarly interests. Research seminars are generally taken during the second and third years, and may be used to begin preliminary dissertation work.
5. **Teaching Practicum** (HIS 582, 3 credits): Generally taken during Ph.D. students' first semester, this course helps them develop effective teaching strategies grounded in sound pedagogical practice. The class typically includes such activities as developing a sample syllabus, lesson plans, classroom presentations, and student assessments. To aid new Teaching Assistants, it also includes orientation to SBU's extensive educational resources, technical support, and undergraduate support services. Students may occasionally be required to attend teaching workshops offered by the Graduate School as well. While Teaching Practicum is open to all Ph.D. students, it is required for those serving as Teaching Assistants.
6. **Supervised Teaching** (HIS 581, 3 credits): All students who hold teaching assistantships and are not enrolled in Teaching Practicum (HIS 582) are expected to register for this course; if it is not possible, the student should notify the Graduate Director.
7. **Directed Readings** (HIS 682, 3 credits each): Customized to student's individual interests, a Directed Reading involves independent study under the supervision of a faculty member. During their first and/or second semester, students entering the Ph.D. program *without* an M.A. are advised to take a Directed Reading with their Advisor so they can meet regularly and receive academic support. In later semesters, if their needs cannot be met by the scheduled Field and Theme seminars, students may—with their Advisor's approval—arrange a Directed Reading with an individual faculty member to undertake a specific set of readings on a topic of mutual interest.
8. **Orals Workshop** (HIS 684, 3 or 6 credits): To prepare for their Oral Examination, students may enroll in this workshop to work semi-independently on reviewing the scholarly literature of their developing fields of specialization. Students usually enroll for 3 or 6 credits, depending on credits still needed, in the Fall semester of Year 3. Prior to the Workshop, students should define 3 areas of specialization (2 in their major geo-political field, and 1 in a thematic field) and convene an Orals Committee, comprised of the Advisor and two relevant History or Affiliated faculty. In consultation with each committee member, the student then compiles 3 reading lists—one for each subject area—drawing primarily from readings completed during coursework. Students may use the Orals Workshop to read independently or in small groups, to meet periodically with Orals Committee members, and importantly, to do a dress rehearsal prior to actually taking the exam. See also section on Oral Examination below.
9. **Dissertation Prospectus Workshop** (HIS 695, 3 credits): In this class, students participate in activities geared towards helping them develop a viable dissertation proposal. Working in close consultation with the instructor and their Dissertation Committee (Advisor plus 2 other faculty members), students formulate research questions, compile historiographical and archival resources, prepare a dissertation plan and grant proposal. At the end of the course, they present their Dissertation Prospectus (15-20 pages) to the History Department. Successful completion of the workshop and written approval of their Prospectus by all Dissertation Committee members is required for advancement to candidacy. The course grade is S/U and must be completed in the Spring semester of Year 3.
10. **Electives** Students are encouraged to take courses in other departments or at other institutions in order to enhance their skills and gain an interdisciplinary perspective on their fields of interest. Many of our students take courses in such departments as Sociology, English, Art History, and Cultural Analysis and Theory, as well as such interdisciplinary programs as Women's, Gender, and Sexuality Studies, and Latin American and Caribbean Studies. Such courses should be selected in consultation with the student's Advisor.

If a particular subject is unavailable at Stony Brook, Ph.D. students may also take graduate courses through the *Inter-University Doctoral Consortium*. Offering a vast array of courses and faculty with specific expertise, member institutions include New York University, Columbia University, Teacher's College of Columbia University, Fordham University, Rutgers University, CUNY Graduate Center, the New School, and Princeton University. To take a class through the Consortium, students must submit a request form, signed by their Advisor and the Graduate Director, to the Graduate School for approval. Whether it can be used to fulfill a requirement as a Field, Theme, or Research course is decided on a case-by-case basis by the Graduate Director, in consultation with the student's Advisor.

Below is a sample course of study that might be followed by a first-year Ph.D. student *without* an M.A. degree who also holds a teaching assistantship.

Fall	Credits	Spring	Credits
Core Seminar I (HIS 524)	3	Core Seminar II (HIS 525)	3
Teaching Practicum (HIS 582)	3	Supervised Teaching (HIS 581)	3

Field Seminar	3	Theme or Field Seminar	3
Theme Seminar	3	Theme or Field Seminar	3
		or Directed Reading	
<b>Total</b>	<b>12</b>		<b>12</b>

## B. Full-time Status

Students entering the program *without* an M.A. degree (or less than 24 graduate-level credits) must register for 12 credits to maintain full-time status. Students entering *with* an M.A. (or with 24 graduate-level credits) are considered G4 status and must register for 9 credits only. Students serving as Teaching Assistants must be full-time load (including, if possible, Supervised Teaching, HIS 581). Once a student advances to candidacy, s/he must maintain full-time status by registering for 9 credits of dissertation research (HIS 699, HIS 700, HIS 701) each semester until the degree is awarded.

## C. Award of Master's Degree to Doctoral Students

Upon completing the M.A. requirements, Ph.D. students may petition the Graduate School to be awarded the M.A. degree, while continuing in the doctoral program.

## D. Foreign Language Requirement(s)

All students must demonstrate proficiency in at least one relevant foreign language before being advanced to Ph.D. candidacy. This is a Graduate School requirement that may not be waived, except for students who are native speakers in the language of their field of specialization. Note: Americanists who are native English speakers are *not* exempted and must fulfill the language requirement. Relevant language(s) are determined according to the student's area(s) of specialization. To demonstrate proficiency, students may either pass a written exam or earn a satisfactory grade in a graduate language course (e.g., French 500). Administered and evaluated by an appropriate faculty member, the language exam consists of translating a passage from a scholarly work with the aid of a dictionary. At the discretion of the Advisor, a student may be required to study additional languages as part of his or her degree program. Students are responsible for establishing with their Advisor which foreign languages are necessary for the completion of the Ph.D. To advance to candidacy, students must complete the language requirement no later than the Fall semester of Year 3.

## E. Oral Examination and Advancement to Candidacy

By the end of Year 2 or earlier, each Ph.D. student names a three-person Oral Exam Committee, consisting of their Advisor and two additional departmental or affiliated faculty. They will advise the student on defining examination fields, language requirements, coursework, and preparing for the Oral Examination. The student shall compile an examination list of books and topics in each field that must be approved by all members of their Committee. The student is responsible for scheduling the exam at a mutually convenient time and for submitting all necessary paperwork to the Graduate Program Coordinator. The Oral Exam usually lasts about 1 ½ or 2 hours and is graded as "pass with distinction," "pass," "weak pass," or "fail." Students who fail may petition to take the exam a second time at a future date. Full-time Ph.D. students must pass their Oral Exam by the end of their fifth semester (Fall semester of Year 3) or early in their sixth semester, so as not to conflict with the required Dissertation Prospectus Workshop (Spring semester of Year 3).

## F. Dissertation Committee and Prospectus

The dissertation is the most important requirement for conferral of the Ph.D. In their last semester of coursework, third-year Ph.D. students prepare a dissertation proposal in the supportive setting of Prospectus Dissertation Workshop. Each student works in close consultation with their three-member Dissertation Committee, comprised of their Advisor and 2 History faculty or Affiliates (who may or may not be the same as their Oral Exam Committee). Before advancing to candidacy, the student must receive official approval of the prospectus from all Dissertation Committee members. In the rare case that a change of Advisor is necessary, the student may request another faculty member in the History Department to serve as their new Advisor; the student may not advance to candidacy, however, until the new Advisor has officially agreed to serve. Once all degree requirements, but the dissertation, are completed, the student is Advanced to Candidacy.

## G. Dissertation ABD Status and Defense

Following Advancement to Candidacy, ABD students proceed with dissertation research and writing, which often takes them off-campus to archives, libraries, and research institutes. They are still, however, required to enroll for one credit of dissertation research each semester (HIS 699, HIS 700, or HIS 701, depending on the student's location) until the dissertation defense. Teaching assistants must register for 9 credits of Dissertation Research on Campus (HIS 699). The ABD student should continue to communicate with their Advisor—at least once a semester—to provide a progress update on their dissertation and discuss any challenges that might arise.

Upon nearing completion of the dissertation, the ABD student must confirm their four-member Dissertation Defense Committee, including their Advisor, two History faculty or Affiliates, and one "outside reader" (i.e. faculty from another department or university). Before the defense can be scheduled, the Graduate School must approve the Dissertation Defense Committee. The student is responsible for submitting all necessary paperwork to the Graduate Program Coordinator well in advance. The form for the defense (same as that used for Oral Exams) is available from the Graduate Program Coordinator and must be submitted to the Graduate School by the 15th day of class during the semester when the defense is to be scheduled.

At least 2 months before the date of the defense, the student MUST deliver the entire dissertation to all Committee members to allow sufficient time for them to read and critique it. Committee members should promptly provide written feedback, indicating any required revisions so the student has at least one month to address them. If any Committee member does not provide a written critique, the student can assume that person approves the dissertation in the form submitted. The student must make all required revisions and resolve any written objections—to each committee member's satisfaction—prior to submitting the dissertation to the Graduate School. The defense is open to interested students and faculty. See Graduate School website for further information on deadlines and regulations concerning dissertation submission and scheduling of the dissertation defense.

Faculty of History Department

### Professors

Hong, Young-Sun, Ph.D., 1989, University of Michigan: Modern Germany, humanitarianism and human rights, race, gender.

Kelton, Paul, Ph.D., 1998, University of Oklahoma: Indigenous peoples of North America, environment and medicine, early American history.

Lim, Shirley, Ph.D., 1998, UCLA: Twentieth-century U.S., Asian-American history, cultural history, women.

Lipton, Sara, Ph.D., 1991, Yale University: Medieval Europe, Jewish history, religion, gender.

Sellers, Christopher, Ph.D., 1992, Yale University; M.D., University of North Carolina-Chapel Hill, 1992: U.S. environmental history, medicine and the body, transnational industrial and urban history.

Shankar, Shobana, Ph.D., 2003, University of California, Los Angeles: Africa (particularly West Africa), colonial and postcolonial politics, religion, health, Muslim-Christian interactions, Africa-South Asia connections.

Tomes, Nancy J., Ph.D., 1978, University of Pennsylvania: U.S. social and cultural history, history of medicine, women, gender.

Wilson, Kathleen, Ph.D., 1985, Yale University: Modern British cultural and political history.

Zolov, Eric, Ph.D., 1995, University of Chicago: Modern Latin America, U.S.-Latin American relations, popular culture, global 1960s.

### Associate Professors

Anderson, Jennifer, Ph.D., 2007, New York University: Atlantic World, race, colonialism, labor, commodities, environmental history.

Beverley, Eric L., Ph.D., 2007, Harvard University: Early modern and modern South Asia, Indian Ocean, Muslim world, urban studies, law and crime, transnational history.

Chase, Robert, Ph.D., 2009, University of Maryland: Post-1945 U.S., civil rights law and politics, the Civil Rights, Black Power, and Chicano movements, prisons and policing.

Cooper, Alix, Ph.D., 1998, Harvard University: Early modern Europe, science, medicine, environment, women and gender, cross-cultural encounters.

Flores, Lori, Ph.D., 2011, Stanford University: Twentieth-century U.S., Latino, immigration, race, labor, gender, U.S.-Mexico borderlands.

Frohman, Larry, Ph.D., 1992, University of California, Berkeley: Modern Europe, surveillance studies and the information society, welfare and social policy, intellectual history.

Masten, April, Ph.D., 1999, Rutgers University: Nineteenth-century U.S. cultural history.

Mimura, Janis, Ph.D., 2002, University of California, Berkeley: Modern Japan, imperialism, fascism, political-economy, technology and society.

Newman, Elizabeth Terese, Ph.D., 2008, Yale University: Mexico, environmental humanities, anthropology, archaeology.

Rilling, Donna J., Ph.D., 1993, University of Pennsylvania: Colonial and early national U.S., economic, business, social history.

### Assistant Professors

Ballan, Mohamad, Ph.D., 2019, University of Chicago: Medieval and Early Modern Mediterranean, Borderlands, Intellectual History, Iberian Studies.

Fernando, Tamara, Ph.D., 2022, University of Cambridge: Indian Ocean world, Persian/Arabian Gulf, Sri Lanka, histories of science, environment, and labour.

Glickman, Susannah, Ph.D., 2023, Columbia University: Computing, Political Economy, 20th century US and the World, Histories of Science.

Mantilla Morales, Valeria, Ph.D., 2024, University of Toronto: Latin America and the Caribbean; Colombia; cultural history; colonialism; race; Food; Environment; cartography.

### Lecturers & Visiting Scholars

Backfish, Charles, A.M., 1968, New York University: Social studies education.

Chambers, Mark, Ph.D., 2021, State University of New York, Stony Brook: Environmental, African American & U.S., Science, Technology, and Medicine along the color line.

### Affiliated Faculty

Adams, Margarethe, Music: Kazakhstan and Northwest China; music, sound, and belief; temporality and popular culture; Islam in Central Asia.

Asare, Abena, Africana Studies: Contemporary Africa, international human rights, penal abolition, truth and reconciliation, historical justice, historical theory.

Burgos-LaFuente, Lena, *Hispanic Languages & Literature*: Caribbean literatures, poetry, Latin American essay writing, sound studies, and transatlantic literary crossings in the first half of the twentieth century.  
 Firbas, Paul, *Hispanic Languages and Literature*: Epic poetry, textual criticism, historiography and colonial geography of South America.  
 Gulema, Shimelis, *Africana Studies*: Modern and contemporary Africa, migration and diaspora, modernity and modernization, urbanization.  
 Hesford, Victoria, *Women's, Gender, and Sexuality Studies*: Gender, sexuality, queer and feminist theory, U.S. queer and feminist history, popular and mass culture in the postwar era, critical theory.

Honisch, Erika Supria, *Music*: Music, politics, and religious culture in early modern Europe, historical sound studies, music's materialities, historiography, and music in ritual.

Levy, Daniel, *Sociology*: Political Sociology, Comparative Historical Sociology, Globalization, Collective Memory Studies.

Lloyd, Karen, *Art*: European Renaissance and Baroque Art, Italian Sculpture, Early Modern Europe and the Americas, Early Modern Art Theory.

Miletsky, Zebulun, *Africana Studies*: African-American history, civil rights, black power, urban history, racial identities, hip-hop studies.

Newman, Andrew, *English*: Early American History, indigenous studies, media studies, memory studies.

Schaffer, Wolf, *Technology and Society*: Global history, science, technology.

Uriarte, Javier, *Hispanic Languages and Literatures*: Travel writing, war, state power, global capital, Southern Cone, Brazil, Amazon.

Vernon, Kathleen M., *Hispanic Languages and Literatures*: contemporary Spanish and Latin American cinema, literature and popular culture.

Vialette, Aurélie, *Hispanic Languages and Literatures*: Social movements, working-class organization, carceral studies, archival studies, 19th-century Iberian studies, Spanish/Catalan popular music.

Wilson, Nick, *Sociology*: Historical sociology, political economy, social theory, colonialism, empire, British Studies.

### **Emeriti Faculty**

Barnhart, Michael, Ph.D., 1980, Harvard University: U.S. foreign policy; 20th-century U.S. history; modern Japan.

Bottigheimer, Karl S., Ph.D., 1965, University of California, Berkeley: Tudor-Stuart England and Ireland; early modern Europe and Ireland.

Cowan, Ruth Schwarz, Ph.D., 1969, Johns Hopkins University: modern science, technology and medicine.

Goldenberg, Robert, Ph.D., 1974, Brown University: Jewish history and religion in late antiquity; rabbinic literature and exegesis.

Gootenberg, Paul, Ph.D., 1985, University of Chicago: Modern Latin America, Andes, economic-social history, drug history, commodities.

Kuisel, Richard F., 1963, University of California, Berkeley: modern Europe, France, Germany.

Landsman, Ned, Ph.D., 1979, University of Pennsylvania: Early American History and Scotland.

Larson, Brooke, Ph.D., 1978, Columbia University: Colonial and postcolonial Andes, peasants, race, ethnicity.

Lebovics, Herman, Ph.D., 1965, Yale University: Modern Europe; intellectual and cultural history; Germany and France.

Lemay, Helen R., Ph.D., 1972, Columbia University: Medieval and Renaissance history; history of science and medicine; women's history.

Man-Cheong, Iona, Ph.D., 1991, Yale University: Late imperial China, empire, oceans, diaspora, transnationalism.

Marker, Gary J., Ph.D., 1977, University of California, Berkeley: Russian social and intellectual history; history of printing; European labor history.

Miller, Wilbur R., Ph.D., 1973, Columbia University: U.S. social and political history, Civil War and Reconstruction, crime and criminal justice history.

Rosenthal, Joel T., Ph.D., 1963, University of Chicago: Medieval history; medieval England; social history.

Roxborough, Ian, Ph.D., 1977, University of Wisconsin (joint appointment with Sociology): Latin America, labor, war and the military.

Williams, John A., Ph.D., 1963, University of Wisconsin: British Empire; Africa; the Commonwealth; expansion of Europe.

Wishnia, Judith, Ph.D., 1978, Stony Brook University: Modern Europe; France; labor history; women's history.

Zimansky, Paul, Ph.D., 1980, University of Chicago: Ancient Near East, ancient imperialism, archaeology.

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

**History of Philosophies, East and West (HPEW)****Chairpersons of the Participating Departments**

E. K. Tan, Department of Asian & Asian American Studies, Humanities 1116 (631) 632-7590

Robert Crease, Department of Philosophy, Harriman Hall (631) 632-4098

**HPEW Program Director**

Jeff Edwards, Jeff.Edwards@stonybrook.edu

**Graduate Secretary**

Lisa-Beth Platania, Harriman Hall 213 (631) 632-7580

**Degree Awarded**

MA in History of Philosophies, East and West

**Website**

[www.stonybrook.edu/hpew](http://www.stonybrook.edu/hpew)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**History of Philosophies, East and West (HPEW)**

The HPEW curriculum includes courses on Islamic philosophy, Buddhist philosophy, Chinese philosophy, Japanese philosophy, Hindu philosophy, ancient Greek philosophy, as well as medieval and modern western philosophy. The systematic areas covered from historical perspectives are ethics, political philosophy, metaphysics, cosmology, psychology, aesthetics, theology and theories of knowledge. The program's courses and seminars on eastern thought include treatments of its western interpretations, and vice versa. Teaching is based on primary texts, with selective use of secondary sources. Special emphasis is put on the understanding of native terms and concepts from the original languages of the works read. (Languages may include German, French, Italian, Greek, Latin, Arabic, Persian, Sanskrit, Pali, Chinese, Japanese, and Korean. Achieving reading competency in one or more of these languages is strongly encouraged.) This program is one of the few in the western world allowing students to earn a philosophy graduate degree while pursuing coursework in both eastern and western thought. Because of its distinctive character, it aims to attract students with a comparative perspective who wish to deepen their understanding of the history of philosophy under the guidance of internationally renowned scholars of modern, medieval, and classical philosophical traditions.

**Program Administration and Advising**

The administration of this joint MA program is carried out by HPEW's program director in consultation with the Graduate Program Committee (GPC). The GPC consists of HPEW core faculty (see below) and one graduate student representative. Academic advising is carried out primarily by the core faculty, who also meet regularly to evaluate all individual students' progress toward graduation.

Students must fulfill most degree requirements by taking HPEW's regularly scheduled graduate courses and seminars. Any student who takes the MA thesis option (6 credits) will request the formation of a faculty committee for the thesis project. This committee consists of the thesis advisor and one other faculty member.

**Admissions**

- At the program level, decisions on admission are made by the faculty members of the HPEW Graduate Program Committee. Admission requirements are as follows:
- Bachelor's degree (Some knowledge of the history of philosophies, East and/or West, is highly desirable but not required.)
- Two official transcripts of undergraduate record and of any work completed at the graduate level
- Letters of recommendation from three previous or current instructors
- Writing sample (This may be a paper written for a previous course.)
- Graduate Record Examination (GRE) General Test scores\*
- TOEFL scores for applicants whose native languages are not English\*\*
- Acceptance by HPEW and the Graduate School

\* HPEW's Graduate Program Committee may request that the GRE requirement be waived for qualified applicants.

\*\*HPEW adheres to Graduate School standards setting the acceptable score on the TOEFL test for international students at 550 and above, or a minimum score on the Internet-based TOEFL (IBT) of 90 with a minimum score on each subsection of 22 respectively.

Application dossiers, including cover letter, recommendations and writing sample, should be submitted electronically through the Graduate School's admissions website. Official transcripts should be sent to: HPEW Program Director, Department of Philosophy, Stony Brook University, Stony Brook, New York, 11794.

[www.stonybrook.edu/hpew](http://www.stonybrook.edu/hpew)

### Financial support

At this point in time, no financial support in the form of fellowship funding or tuition scholarships is available. It should be noted, however, that tuition and fees (set by the State University of New York) may be quite considerably below those of comparable MA programs. For current tuition and fee schedules, please consult the Stony Brook University website.

### Facilities

In addition to the broad array of scholarly resources offered by Stony Brook University's Melville Library, the following specialized libraries and collections are open to HPEW students:

- The Stony Brook Philosophy Department's Solzberg Library (218 Harriman Hall)
- The Center for India Studies Library (Melville E5350)
- The Ino Collection of Japanese and Chinese literature, (Melville Library)
- The Korean Studies Collection (Melville Library)

HPEW students are also strongly urged to take advantage of some of the world's premier research and professional networking organizations for philosophy, which are based in the New York area. Organizations particularly relevant to HPEW students and faculty are the following:

- New York German Idealism Workshop
- New York City Workshop in Early Modern Philosophy
- New York/New Jersey Research Group in Early Modern Philosophy
- Society for Ancient Greek Philosophy
- Ancient Philosophy Society
- Society for the Study of Islamic Philosophy and Science
- Columbia University Society for Comparative Philosophy

### Requirements for the M.S. Degree

The 30-credit HPEW curriculum can be completed in one year. But it is recommended that full-time students complete the HPEW program as follows:

- Year one: 24 credits (four 3-credit courses per semester)
- Year two: (two 3-credit courses in the semester of full-time enrollment)

It is also possible to enroll in HPEW on a part-time basis (i.e., by taking fewer than 12 credit hours per semester).

### Program Requirements

Students will choose a concentration in either eastern or western philosophy. The relevant distribution requirements are these:

- 6 credits earned in the program's foundational survey courses on eastern philosophy
- 6 credits earned in the program's foundational survey courses on western philosophy
- 3 credits earned in a seminar outside the declared concentration (in eastern or in western philosophy)
- EITHER 9 credits earned in seminars in the declared concentration plus 6 credits of thesis research OR, if the MA thesis option is not chosen, 15 credits in the declared concentration, 6 of which may be earned in a graduate-level language course relevant to the chosen concentration.

### HPEW Core Faculty

William Chittick, Professor, Department of Asian and Asian American Studies. Ph.D. 1974, Tehran University. Islamic philosophy and intellectual history. <http://www.stonybrook.edu/commcms/asianamerican/facultystaff/WilliamChittick.html>

Allegra De Laurentiis, Associate Professor, Department of Philosophy. Ph.D., 1982, University of Frankfurt, Germany. Nineteenth-century philosophy, especially Hegel; ancient Greek philosophy, especially Aristotle. [http://www.stonybrook.edu/commcms/philosophy/people/faculty\\_pages/delaurentiis.html](http://www.stonybrook.edu/commcms/philosophy/people/faculty_pages/delaurentiis.html)

Jeffrey Edwards, Associate Professor, Department of Philosophy. Ph.D., 1987, Universität Marburg, Germany. Early modern European philosophy; Kant. [http://www.stonybrook.edu/commcms/philosophy/people/faculty\\_pages/edwards.html](http://www.stonybrook.edu/commcms/philosophy/people/faculty_pages/edwards.html)

Sachiko Murata, Professor, Department of Asian and Asian American Studies. Ph.D., 1971, Tehran University. Islamic and far eastern thought. <http://www.stonybrook.edu/commcms/asianamerican/facultystaff/SachikoMurata.html>

Andrew Nicholson, Associate Professor, Department of Asian and Asian American Studies. Ph.D., 2005, University of Chicago. Indian philosophy and intellectual history. <http://www.stonybrook.edu/commcms/asianamerican/facultystaff/AndrewNicholson.html>

### Associated Faculty



Alan Kim, Assistant Professor, Department of Philosophy. Ph.D., 2001, McGill University. German and ancient Greek philosophy; phenomenology; neo-Kantianism; Plato. [http://www.stonybrook.edu/commcms/philosophy/people/faculty\\_pages/kim.html](http://www.stonybrook.edu/commcms/philosophy/people/faculty_pages/kim.html)

Sung Bae Park, Professor (*emeritus*), Department of Asian and Asian American Studies. Ph.D. 1978, University of California / Berkeley. Buddhism, East Asian Philosophy and Religion. <http://www.stonybrook.edu/commcms/asianamerican/facultystaff/SungBaePark.html>

Andrew Platt, Assistant Professor, Department of Philosophy. Ph.D., 2010, University of Massachusetts, Amherst. History of 17th and 18th century philosophy; social-political philosophy;

philosophy of religion. [http://www.stonybrook.edu/commcms/philosophy/people/faculty\\_pages/platt.html](http://www.stonybrook.edu/commcms/philosophy/people/faculty_pages/platt.html)

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

## Human Origins

### **Director of Turkana Basin Institute and Advanced Graduate Certificate in Human Origins**

Dino Martins, Ward Melville Social and Behavioral Sciences Building, N-507, (631) 632-5800

### **Academic Programs Coordinator**

Alicia DeRosalia, Ward Melville Social and Behavioral Sciences Building, N-507, (631)632-5803

### **Degrees Awarded**

Advanced Graduate Certificate in Human Origins

Advanced Graduate Certificate in Human Origins

The Advanced Graduate Certificate in Human Origins is a 15-credit field education program in Kenya that can be taken after completion of a bachelor's or other advanced degree. It is a good option for anyone who would like to hone critical thinking skills, increase personal knowledge, and gain field experience in sciences relating to prehistory. The program addresses the place humans occupy in the natural world and how we came to occupy that place. It is comprised of five sequential two-week 500-level graduate modules in ecology, archaeology, paleontology, physical anthropology, and geology.

Participants will gain hands-on experience in field survey and excavation methods, paleoenvironmental reconstruction, taphonomy, and will take field trips to important paleontological and archaeological sites, diverse ecological settings, and remarkable geological features throughout the Turkana Basin. It combines the excitement and hands-on experiential learning of a field school with the immersion of a full semester study abroad.

### **Admission to the Advanced Graduate Certificate**

The Advanced Graduate Certificate in Human Origins is a stand-alone semester-long program. Students can apply as a non-matriculated graduate student between receiving their Bachelor's Degree and entering other graduate programs, or during their Masters or PhD program. The only official requirement for admission to this program is having a GPA of 2.5 or higher in the applicant's previous Bachelor's Degree or current graduate coursework. There are no course or experiential requirements, as this program is designed to take students from a broad range of backgrounds, quickly get all of them up to the same high level of foundational knowledge in the core human origins disciplines, and advance from there to mastery.

### **Facilities of the Advanced Graduate Program in Human Origins**

The Advanced Graduate Certificate in Human Origins program is based at TBI's Ileret and Turkwel research facilities, built respectively on the east and west sides of beautiful Lake Turkana. Students live in comfortable, safe, dormitory-style quarters. There is clean water, showers, flushing toilets and electricity. Mosquito nets, towels and bedding are provided. Food is plentiful, fresh and varied. Internet and cell phone service is available.

TBI built its state-of-the-art campuses on both sides of Lake Turkana to reduce the enormous logistical challenge of accessing many of the most important sites in the vast and remote Turkana Basin, allowing year-round research to take place. As a field school student, you'll be living, working, and studying where many of the top scientists in the have made, and continue to make, groundbreaking discoveries that have shaped the way we understand our origins.

TBI-Ileret is situated about 3 miles from Ileret village, close to the Kenya-Ethiopia border, on the east side of the lake. TBI-Turkwel is situated on the west side of Lake Turkana, near the village of Nakechichok on the Turkwel River. Both campuses have large laboratories with fossil preparation and storage areas, spacious, breezy classroom areas, and dining areas with beautiful views of the Lake Turkana landscape and fossil exposures.

Please see <http://www.kenyastudyabroad.org/facilities/> for more details.

### **Requirements for the Advanced Graduate Certificate in Human Origins**

Completion of the Advanced Graduate Certificate in Human Origins requires 15 credits. Students must complete the Turkana Basin Institute Origins Semester program in its entirety via the following courses:

- ANT 504- Ecology of the Turkana Basin
- ANT 505- Vertebrate Paleontology and Paleocology of the Turkana Basin
- ANT 506- Human Evolution in the Turkana Basin
- ANT 507- Archaeology of the Turkana Basin
- GEO 504- Geology of the Turkana

### **Basin Faculty for the program**

Faculty information for this program can be found at <http://www.stonybrook.edu/commcms/anthropology/faculty/tbi.html> and <http://www.kenyastudyabroad.org/about/instructors/>

---

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

**Human-Centered Data Science, Graduate Certificate****Program Director(s):**

Susan E. Brennan, Psychology B-152, 631-632-7815, Director  
 C.R. Ramakrishnan, Computer Science 233, 631-632-8218, Co-Director  
 Wei Zhu, Math Tower P-138, 631-632-8374, Co-Director

**Graduate Certificate Coordinator**

Kristen Kalb-DellaRatta, Psychology B-133, 631-632-6098

**Degree Awarded**

Advanced Graduate Certificate, Human-Centered Data Science

**Web Address**

[https://www.stonybrook.edu/commcms/bias-nrt/\\_ProgramElements/HCDS.php](https://www.stonybrook.edu/commcms/bias-nrt/_ProgramElements/HCDS.php)

**Description**

The overarching goal of the Advanced Certificate in Human-Centered Data Science (HCDS) is to provide interdisciplinary training to PhD students who are currently enrolled in Stony Brook University's Applied Mathematics & Statistics, Computer Science, Economics, Linguistics, Neurobiology & Behavior, Political Science, Psychology, and Sociology programs. The HCDS combines statistical training in artificial intelligence and machine learning techniques with human-centered STEM training to enable students to bridge data science and human-centered science. Students from the human-centered science disciplines will acquire cutting-edge skills in applying data science, machine learning, and other computational techniques to human-centered problems within their own disciplines. Students from data science disciplines will acquire methodological skills and content grounding from graduate coursework in human-centered sciences, in order to understand the ethical and practical constraints and limitations associated with data collected from human beings.

This certificate will require 12 credits (4 courses): 2 core data science or machine learning courses (6 credits), and 2 elective human-centered science courses (6 credits). In addition to the 12-credits, all students enrolled in the HCDS Certificate will have to complete the online Citi Training Module, "Human Research," (for 0 credits; students will receive a certificate of completion to document this requirement). <https://www.citiprogram.org/>

**Admissions**

To enroll in the HCDS certificate, students must first be admitted and enrolled full-time in a PhD program in one of the following departments: Applied Mathematics & Statistics, Computer Science, Economics, Linguistics, Neurobiology & Behavior, Political Science, Psychology, or Sociology. Students must receive permission to enroll from their home program's Graduate Program Director and from the Graduate Certificate Director(s) and Coordinator.

**Facilities**

The Advanced Graduate Certificate in Human-Centered Data Science is part of an NSF-funded training grant housed in the Psychology Department. This NSF grant incorporates all participating departments: Applied Mathematics & Statistics, Computer Science, Economics, Linguistics, Neurobiology & Behavior, Political Science, Psychology, and Sociology.

**Degree Requirements**

This certificate will require 12 credits (four courses): two core DS/CS courses and two electives.

DS/CS Core: Both of the following

- Algorithms: CSE 582: Computer Science Fundamentals: Data Structures and Algorithms
  - Alternative: AMS 542/CSE 548: Analysis of Algorithms or AMS 561/DCS 521: Introduction to Computational and Data Science
- Machine Learning: AMS 580: Statistical Learning
  - Alternative: AMS 520: Machine Learning in Quantitative Finance or CSE 512: Machine Learning

Two electives are required, chosen from the HCDS course catalog; at least one must be outside of the student's home department and not cross-listed. Courses outside this list may be used to satisfy the electives requirement with prior permission of this certificate program's director.

In addition to the 12-credits, all students enrolled in the HCDS Certificate will have to complete the online Citi Training Module, "Human Research," (for 0 credits; students will receive a certificate of completion to document this requirement). <https://www.citiprogram.org/>

**Faculty**

John Frederick Bailyn, PhD, Cornell University, Linguistics  
 Susan E. Brennan, PhD, Stanford University, Psychology  
 Rezaul Chowdhuri, PhD, University of Texas, Austin, Computer Science  
 Crystal Fleming, PhD, Harvard University, Sociology  
 Georges Eugene Fouron, EdD, Teachers College, Columbia University, Education  
 Pramod Ganapathi, PhD, Stony Brook University, Computer Science  
 David Green, PhD, Massachusetts Institute of Technology, Computational Biology

Robert Harrison, PhD, University of Cambridge, Chemistry  
Jennifer Heerwig, PhD, New York University, Sociology  
Jeffrey Heinz, PhD, University of California, Los Angeles, Linguistics  
Leonie Huddy, PhD, University of California, Los Angeles, Social Psychology  
Bonita London, PhD, Columbia, Psychology  
Christian Luhmann, PhD, Vanderbilt, Psychology  
Arianna Maffei, PhD, University of Pavia, Physiology  
Mark R. Montgomery, PhD, University of Michigan, Economics  
Anne Moyer, PhD, Yale University, Social & Health Psychology  
Klaus Mueller, PhD, OSU, Computer Science  
Pawal Polak, PhD, Swiss Finance Institute and University of Zurich, Economics  
Lori Repetti, PhD, University of California, Los Angeles, Linguistics  
Carrie Shandra, PhD, Brown University, Sociology  
Oleg Smirnov, PhD, University of Oregon, Political Science  
Steven Stern, PhD, Yale University, Economics  
Yifan Sun, PhD, University of California, Los Angeles, Electrical Engineering  
Praveen Tripathi, PhD, University of Texas at Arlington, Computer Science  
Adryan Wallace, PhD, University of Hartford, Political Science and Psychology  
David Wiezer, PhD, University of Minnesota, Economics  
Qiaojie Xiong, PhD, Johns Hopkins University, Physiology  
Gregory Zelinsky, PhD, Brown University, Psychology  
Wei Zhu, PhD, University of California, Los Angeles, Biostatistics

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

Master of Science in Journalism

**Dean of the School of Communication and Journalism**

Laura Lindenfeld, PhD

**Graduate Program Director**

Brenda Hoffman, PhD

**Graduate Program Coordinator**

Stefanie Ambrosio-Mullady, MA

*Prospective and current students, please email us for additional information and/or questions at:*

**socj\_grad@stonybrook.edu**

**Website**

<https://www.stonybrook.edu/commcms/journalism/graduate-students/journalism-masters.php>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Program Description**

The Master of Science in Journalism prepares students to tell the stories society needs to understand and combat the significant challenges facing people and the planet. This program takes a modern approach to journalism, offering students firm grounding in solutions journalism, where they become media professionals who understand and are committed to working within and among the communities they cover. They will take classes that help them develop targeted, meaningful stories for a variety of digital platforms such as online news outlets, social media, and mobile applications. They will gain an understanding of media law and fully engage with journalistic ethics defined by the Society of Professional Journalists. They will learn to how to use data to find and tell stories in ways that are accurate and engaging. Underpinning all of these skills, students will learn to question their own biases and recognize how their experiences shape how they see and interact with individuals and societies.

Designed to meet the needs of a diverse student population, this program welcomes students who are new to journalism, recent graduates, and working media professionals seeking to advance their skills and their careers. Students will learn from a diverse faculty, including leading journalists, Pulitzer-Prize winners, foreign correspondents, and experts in audience engagement and innovation. They will have access to a two-story newsroom, state-of-the-art broadcast studio and control room, and an innovative podcasting studio, to practice and hone their skills. They will complete professional capstone projects and network with industry professionals working in and around Long Island and New York City.

The Master of Science in Journalism is designed to meet programmatic outcomes that are outlined in the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)'s professional values and competencies. For more information about ACEJMC competencies, please visit their website at <http://www.acejmc.org/policies-process/nine-standards/>

**Admission Requirements**

**Application Deadlines**

*Note: Applications accepted for fall admission only.*

March 15

**Applicants must submit the following:**

1. CV or Resume
2. Personal statement (500 words): Applicants should describe why solutions journalism is important to them, their reason(s) for applying to the program, and how they feel as though a degree in journalism will advance their future career goals.
3. Three letters of recommendation: We are interested in hearing from three different recommenders who can comment on the applicant's academic strengths, journalistic or professional skills, and/or their potential for success in this graduate program.
4. Official transcripts: Applicants must demonstrate a 3.0 cumulative grade point average and a completed Bachelor's degree.
5. Two writing samples: Students may elect to submit two academic/professional writing samples OR one academic/professional writing sample and one creative work.  
Academic writing samples may include but are not limited to course papers, academic publications, or published news pieces. Creative works may include but are not limited to video recorded live broadcasts, professional social media campaigns, or recorded podcast content.
6. Language proficiency scores (international applicants). Please refer to the most up to date requirements found in the Graduate Bulletin.
7. GRE scores are optional.

For admissions questions or to meet with an advisor, please email: [socj\\_grad@stonybrook.edu](mailto:socj_grad@stonybrook.edu)

### Facilities

The School of Communication and Journalism maintains a technologically advanced, \$1.3 million, bi-level Newsroom. It is located in Melville Library, and is equipped with 38 workstations, a collaborative learning system that allows any piece of work to be displayed simultaneously on any or all desktops, and a large projection screen. Each workstation has two displays and industry standard software.

The School of Communication and Journalism also has a fully equipped HD broadcast studio, with multiple studio cameras, teleprompters, an anchor desk, an interview set, chroma key green-screen set and a control room.

Mobile equipment available for use by journalism students in the field includes Padcasters to broadcast live remotely, JVC 4K video cameras, Nikon D610 and D7500 DSLR video/still cameras SB700 Speedlights and digital audio recorders. Students can collaborate on projects between the Newsroom and studio spaces using state-of-the-art production software. The broadcast studio includes a podcasting studio, equipped with a mixing board and four professional-level microphones.

### Degree Requirements

The 33-credit Master of Science in Journalism consists of six required courses (18 credits) and five elective courses (15 credits). Students will work closely with the graduate program director and faculty advisors each semester to develop an individualized plan of study that best fits their interests and career goals. Students may elect to enroll part-time or full-time. Full-time graduate work is defined as a minimum of 9 credits per semester.

Note: Courses marked with an asterisk are offered online with synchronous meeting patterns.

### REQUIRED COURSES (18 CREDITS)

JRN 510: Basic Reporting and Writing for Journalism

JRN 520: Multimedia Journalism

JRN 521: Solutions Journalism

COM 577: Communication Law and Ethics\*

COM 583: Principles of Inclusive Engagement\*

JRN 600: Master's Project in Journalism

### ELECTIVE COURSES (15 credits)

JRN 530: The Big Story

JRN 544: Freelance Writing

JRN 545: Mobile Podcasting\*

JRN 587: Independent Study

JRN 588: Graduate Internship

JRN 590: Special Topics in Journalism\*

JRN 603: Storytelling and Narrative Design

JRN 613: International Journalism

JRN 615: Data-Driven Storytelling

JRN 625: Media Reporting on Crime

Note: Journalism students may complete select COM courses for elective credit, with departmental approval.

### Faculty

Please see the School of Communication and Journalism faculty directory: <https://www.stonybrook.edu/commcms/journalism/about/fac-staff.php#/faculty>

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

## Languages and Cultural Studies

**Chairperson**

Sarah Jourdain, Humanities Building 2128 (631) 632-7440

**Graduate Program Director**

Giuseppe Gazzola, Humanities Building 2121 (631) 632-7440

**Graduate Secretary and Interim Graduate Program Coordinator**

Libby Tolson, Humanities Building 2127, (631) 632-7440

**Degrees Awarded**

M.A. in Romance Languages and Literature

M.A.T. (Administered by S.P.D.)

**Web Site**

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

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Languages and Cultural Studies**

The Department of Languages and Cultural Studies, within the College of Arts and Sciences, offers a wide variety of programs emphasizing study of the European languages, literatures, and cultures, courses in pedagogical methodology, supervised teaching experience, and advanced training for careers related to international affairs. The Department is committed to providing the best possible graduate education: two of several of its members have been named Distinguished Professors, and four have received the Chancellor's Award for Excellence in Teaching. The proximity of numerous cultural institutions such as the Center for Italian Studies on campus, the Goethe House in New York, Alliance Française, the Kosciuszko Foundation, the New York Public Library, and the Harriman Institute of Columbia University, enhance the quality of graduate study in the Department.

The programs have been designed with today's career opportunities in mind. Students are encouraged to shape a personal curriculum, drawing on other Departments engaged in issues pertinent to European languages, cultural history and pedagogy such as Comparative Studies, History, Linguistics, Music, Philosophy, Political Science, and Theater Arts. The Department supports exchange programs with European universities abroad, in France, Germany, Russia, Poland, and Italy.

More detailed program information is available from the Department office and on the Internet at [www.sunysb.edu/eurolangs](http://www.sunysb.edu/eurolangs) <https://www.stonybrook.edu/commcms/languages-cultural-studies/>. Part-time study is permitted; most graduate courses are offered during the late afternoons or evenings. Our advisors work closely with students in designing a program to meet individual needs and interests.

**Degree Programs****M.A. Curriculum**

The M.A. curriculum for each language program is designed to introduce students to research in European languages, literatures, and cultures leading to a doctoral degree, preparation for teaching on the college, university, or secondary school level, as well as careers involving international expertise. Students specialize in one of the offered languages, literary histories, and cultures, or create a combined program (i.e., two Romance languages), with the help of their advisors. Most courses are conducted in the target language. Experienced teaching assistants are encouraged to design and teach advanced courses on the undergraduate level. A carefully developed advising system enables students to tailor specially structured programs to suit their individual needs and interests.

**M.A. Program in Romance Languages**

The Department offers an M.A. in Romance Languages with possible concentrations in French and Spanish, Italian and Spanish, and French and Italian. The curriculum is formulated according to the individual student's needs and interests. It is a flexible program that suits students who wish to go on to doctoral work as well as those who wish to complete their studies with the Master's degree. There are two possible tracks:

**Track A, Literature and Culture:** Designed for students who wish to follow a traditional M.A. program or intend to proceed toward further study on the Ph.D. level. Typically students design a curriculum that includes literature, linguistics, and culture courses in one of the Romance languages or in a combination of two Romance languages. This track gives the students a choice of writing a Master's Thesis or passing a Comprehensive Examination to qualify for the degree.

**Track B, Language Pedagogy for Secondary School Teachers:** Designed for students who have completed provisional requirements to teach languages in secondary schools and are required by State regulations to complete a Master's degree. The track is specifically designed for students who have completed the Teacher Preparation Program in Foreign Languages at the undergraduate level. It allows secondary school teachers to further concentrate in the target language and culture they teach, or in a combination of two Romance languages. All courses are offered no earlier than 5:30 p.m. to meet the time constraints of secondary school teachers.

Graduate courses in other fields, including those offered by the School of Professional Development, are open to qualified students. Departmental students are encouraged to take courses in related areas. With the permission of their advisor, students may obtain six credits outside the program.

**M.A.T. Program in French 7-12, Italian 7-12**



Consult the S.P.D. section in this bulletin.

#### Admission to the M.A. Programs of Languages and Cultural Studies

For admission to graduate studies in the M.A. programs, the following, in addition to the minimum standards of the Graduate School, are normally required:

1. A Bachelor's degree in the major language of study or its equivalent from a reputable scholarly institution. For the M.A. applicants selecting the concentration in two Romance Languages, a Bachelor's degree or its equivalent with a major in French, Italian, or Spanish and at least 18 credits in a second language (French, Italian, or Spanish).
2. Three letters of recommendation written by persons qualified to assess the candidate's preparation.
3. For foreign students, a TOEFL score meeting the current standards set by the Graduate School.
4. Transcripts of undergraduate records.
5. Acceptance by both the Department and the Graduate School.
6. Normally, a grade average of at least B in the undergraduate major.

Provisional admission may be offered in exceptional cases.

While it is expected that the applicant demonstrate superior preparation in a European language, an undergraduate major in that language is not always required. Students judged to be deficient in language proficiency are required to take remedial courses during the academic year or in the summer.

Foreign students must furnish as much information as possible about their training abroad (official certification degrees, lists of courses taken, and papers submitted, whenever possible), together with letters of recommendation. Each application will be judged individually. Transfer credit for previously taken graduate courses will be assessed by the faculty and approved within the regulations of the Graduate School.

#### Languages and Cultural Studies

The Language Learning and Research Center offers a variety of tutorial tools in the languages taught at the University and includes two computer laboratories, and two multimedia classrooms. The LLRC regularly hosts workshops and courses relating to the intersection between technology and language, literature, and culture learning. <https://llrc.stonybrook.edu>

Students are encouraged to take advantage of the on-campus Humanities Institute. The Institute brings leading national and international specialists in the humanities to speak on current issues, and to provide Stony Brook students with the latest research in culture studies, literature, and the arts.

Students can also participate in many activities sponsored by the Center for Italian Studies and the Alfonse M. D'Amato Chair in Italian and Italian American Studies.

The holdings of the Frank Melville, Jr., Memorial Library include extensive collections in print and other media pertinent to each of the four major language groups taught by the Department. The Department maintains a high profile in state-of-the-art technologies, including Internet applications of language, literature, and culture pedagogy.

#### Requirements for the M.A. Degree in Romance Languages (Languages and Cultural Studies)

##### *Track A: Literature and Culture*

*The M.A. requires a specialization in French, in Italian, or in a combination of two Romance languages (French, Italian, and Spanish). It requires at least ten three-credit courses (eight courses for students who opt to write a Thesis), to be completed with a grade of B or better, for a total of 30 credits.*

#### **A. Course Requirements**

##### French

1. FRN 501 Contemporary Culture and Civilization (3 credits)
2. FRN 507 Stylistics, Syntax and Composition (3 credits)
3. Eight additional courses (six for students who opt to write a Thesis), chosen in consultation with the advisor to formulate an area of specialization (18-24 credits). These courses may include three courses in related disciplines.
4. Master Thesis (optional) (6

credits) Total credits: 30

##### *Italian*

1. ITL 501 Contemporary Italy (3 credits)
2. ITL 508 Syntax and Composition (3 credits)
3. One of the following courses: ITL 507, ITL 511, ITL 512, ITL 513 (3 credits)

Seven additional courses (five for students who opt to write a M.A. Thesis) chosen in consultation with the advisor to formulate an area of specialization (15-21 credits). These courses may include three courses in related disciplines.

4. Master Thesis (optional) (6

credits) Total credits: 30

#### *Romance Languages*

1. Syntax and Composition in the two chosen languages (FRN 507, ITL 508, SPN 515) (6 credits)
  2. One of the following Romance Linguistics courses: ITL 513, FRN 513, SPN 503, SPN 504 (3 credits)
  3. Seven additional courses in two Romance languages (five for students who opt to write a M.A. Thesis), to formulate a major and a minor (15-21 credits). These courses are to be chosen in consultations with the advisors and approved by the respective programs to formulate an area of specialization. These courses may include three courses in related disciplines.
  4. Master Thesis (optional) (6
- credits) Total credits: 30

#### **B. Language Requirement**

Competence at the intermediate level in a language other than the language of specialization, preferably in a second modern Romance language or Latin. Students opting for a combination of two Romance languages will automatically satisfy this requirement. This requirement may be fulfilled through a departmental examination or a suitable language course designed for graduate students.

#### **C. M.A. Thesis or Examination (Choice of Option 1 or 2)**

1. *M.A. Thesis*: Students write a Master's Thesis under the supervision of a faculty advisor, along with a second faculty member in his/her major program, and a third faculty member in a related field. Upon completion of the Thesis, the student prepares a formal presentation of the Thesis.
2. *M.A. Examination*: Students who opt not to write a Master's Thesis must complete a four-hour written examination and a one-hour oral examination. The examination is based on a comprehensive reading list in the student's area of specialization. Three faculty members will serve as examiners.

#### *Track B: Language Pedagogy for Secondary School Teachers*

*The M.A. in Romance Languages for Secondary School Teachers consists of a total of 30 credits. Students will take three core courses (9 credits) and seven courses (21 credits) in their target language(s). Students must maintain a B average, and receive at least a B in their language courses (FRN 507, ITL 508, SPN 515).*

#### **A. Course Requirements**

Core Courses (9 credits)

1. FLA 540 Foreign Language Acquisition Research (3 credits)
2. DLL/FLA 571 Foreign Language Technology and Education (3 credits)
3. FLA 581 Foreign Language Teaching Independent Project (3 credits)
4. Competence in a foreign language other than the target language

Courses of Study for Areas of Specialization (21 credits)

#### *French*

1. FRN 501 Contemporary Culture and Civilization (3 credits)
2. FRN 502 French Civilization in Its Historical Perspective (3 credits)
3. FRN 507 Stylistics, Syntax and Composition (3 credits)
4. FRN 510 French Phonetics and Diction (3 credits)
5. One course in literature in French (3 credits)
6. Two elective courses relevant to the program chosen in consultation with the advisor (6 credits)

Total credits: 21

*Italian*

1. *ITL 501 Contemporary Italy* (3 credits)
2. *ITL 502 Special Topics in Italian Cinema* (3 credits)
3. *ITL 508 Syntax and Composition* (3 credits)
4. *ITL 511 History of the Italian language* or *ITL 507 Italian Linguistics* (3 credits)
5. One course in literature in Italian (3 credits)
6. Two elective courses relevant to the program chosen in consultation with the advisor (6 credits)

Total credits: 21

*Romance Languages*

This is a combination of two Romance Languages with the first language considered the "primary" language. For the primary languages of either French or Italian, the application is through the department of European Languages. However if Spanish is placed first in the selection of two Romance languages, then the application is through the department of Hispanic Languages. Configuration of courses will be developed on an individual basis according to each student's needs and interests. The following courses are required:

1. *ITL 513, FRN 513, SPN 503, or SPN 504 (Romance Linguistics)* (3 credits)
2. Two of the following: *FRN 507, ITL 508, SPN 515 (Syntax and Composition)* (6 credits)
3. Two of the following: *FRN 501, ITL 501, SPN 510 (Culture)* (6 credits)
4. Two elective courses relevant to the program chosen in consultation with the advisor (6 credits)

Total credits: 21

Note: Culture and linguistics courses can be substituted with permission of the Department, subject to availability.

**B. Language Requirement**

Competence in a language other than the language of specialization, preferably in a second modern Romance language or Latin. Competence will be determined by departmental examination, or by completing specific graduate courses approved by the Department. Students opting to choose a combination of two Romance languages will automatically satisfy this requirement. For non-native English language speakers, fluency in English is also required.

**C. Research Project**

Students must complete a Research Project under the supervision of a faculty advisor and subject to approval by a second faculty member in his/her major program and by a third faculty member in a related field. Upon completion, the student prepares a formal presentation of his/her research.

## Requirements for the M.A. Degree in German

[Program temporarily suspended.]

*Track A***A. Course Requirements**

1. One 19th-century German literature course (3 credits); one 20th-century German literature course (3 credits); GER 545 or GER 546 (3 credits); GER 539 Contrastive Structures or GER 557 History of the German Language (3 credits); GER 599 Thesis (6 credits).
2. Four additional offerings at the graduate level from courses within the Department or, upon prior approval by the Department, from those of other Departments within the Graduate School (12 credits).

Total credits: 30

**B. Performance**

Average of B or higher in all graduate courses taken at Stony Brook.

**C. M.A. Thesis**

Submission of a scholarly essay on a topic and of a standard acceptable to the Department is required.

*Track B***A. Course Requirements**

There is no Thesis required. All 30 credits can be fulfilled by coursework as follows:

1. GER 504 German Cultural History (3 credits); GER 539 Contrastive Structures or GER 557 History of the German Language (3 credits); one course in older Germanic languages, e.g., GER 558, GER 562, or GER 563 (3 credits); one course in 20th-century German literature, e.g., GER 545 or GER 546 (3 credits).

2. Six additional offerings at the graduate level from courses within the Department or, upon prior approval by the Department, from those of other Departments within the Graduate School (18 credits). Total credits: 30

### **B. Performance**

Average of B or higher in all graduate courses taken at Stony Brook.

Requirements for the M.A. Degree in Slavic Languages and Literatures

[Program temporarily suspended.]

### **A. Course Requirements**

1. Three courses in advanced language and/or linguistics (9 credits)

2. One course in culture (3 credits)

3. Two courses in Russian literature (6 credits)

4. Four electives in the student's major area with the approval of the Department (12 credits)

Total credits: 30

### **B. Language Proficiency in Russian**

The Russian language proficiency requirement may be satisfied by one of the following:

1. Passing an examination

2. Appropriate coursework in Russian (RUS 311, RUS 312, or equivalent)

3. One semester of study abroad in the Commonwealth of Independent States (C.I.S.), in an approved program, such as the SUNY-Albany/MGU Exchange.

### **C. Second Slavic Language Requirement**

This requirement may be satisfied by one of the following:

1. A proficiency examination

2. Appropriate coursework in the language (e.g., SLV 580, SLV 581)

3. Study abroad in an approved program in Eastern Europe or the C.I.S.

With the approval of the program, a non-Slavic language of Eastern Europe or the C.I.S. may be substituted for the second Slavic language.

### **D. Thesis or Comprehensive Examination**

A Master's Thesis or Comprehensive Examination based on a reading list and coursework is required.

## **Faculty - Languages and Cultural Studies**

### **Professors**

Polezzi, Loredana, **Alfonse M. D'Amato Chair in Italian American and Italian Studies**, Ph.D., 1999, University of Warwick: Italian and Italian American studies; translation studies.

### **Associate Professors**

culture; French language.

Fedi, Andrea, Ph.D., 1994, University of Toronto: Italian Literature; Digital Humanities

Gazzola, Giuseppe, Ph.D., 2008, Yale University: 19th-century Italian literature; travel literature.

Jourdain, Sarah, Ph.D., 1996, Indiana University: pedagogy and teacher training; French language.

Raynard-Leroy, Sophie, Ph.D., 1999, Columbia University: French Literature

Westphalen, Timothy, Ph.D., Harvard University: Russian Literature

**Senior Lecturers**

Marchegiani, Irene, **Outstanding Provost Lecturer**, Dottore in Lettere e Filosofia, 1973, University of Florence: Italian language and literature; pedagogy.

**Lecturers**

Giesherik, Anna, D.A., 2005, Stony Brook University: Russian language; heritage speaker pedagogy.

de Riesthal, Kathleen, M.Latin, 2017, University of Florida. M.Ed., 1999, Vanderbilt University: Latin language and literature; Classical studies; pedagogy.

Sanou, Sini Prosper, Ph.D., 1992, University of Minnesota: French language and pedagogy.

Turan, Madeline, M.S., 1975, Long Island University: foreign language pedagogy; French language. Named Chevalier dans l'Ordre des Palmes Académiques, 2016

**Affiliates**

Bailyn, John F., *Department of Linguistics, Professor*, Ph.D., 1995, Cornell University: Slavic linguistics; Russian language and linguistics; syntax.

Bona, Mary Jo, Department of Women's, Gender, and Sexuality Studies, Professor, Ph.D., 1989, University of Wisconsin at Madison: Italian American studies; English literature, American literature, Italian American literature, multiethnic American literature, women's literature, gender/genre theory, theories of narrativity, theories of ethnicity, migration histories.

Fouron, Georges, Department of Africana Studies, Professor, Ed.D., 1985, Columbia University: transnationalism.

Repetti, Lori, *Department of Linguistics, Professor*, Ph.D., 1989, University of California, Los Angeles: Romance linguistics; Italian dialectology; history of the Italian language.

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

## Linguistics Department

**Chairperson**

Francisco Ordóñez, Social and Behavioral Sciences S-233, Francisco.ordonez@stonybrook.edu

**PhD Program Director**

Jiwon Yun, Social and Behavioral Sciences N-255, jiwon.yun@stonybrook.edu

**MA CompLing Program Director**

Jordan Kodner, Social and Behavioral Sciences N-247, jordan.kodner@stonybrook.edu

**MA TESOL Program Director**

Tatiana Luchkina, Social and Behavioral Sciences N-249, Tatiana.Luchkina@stonybrook.edu

**Staff**

Brian Frank (Department Administrator)

S-201 Social and Behavioral Sciences, (631) 632-7777, brian.frank@stonybrook.edu

Michelle Carbone, (Graduate Coordinator)

S-201 Social and Behavioral Sciences, (631) 632-7774, michelle.carbone.1@stonybrook.edu

**Degrees Awarded**

M.A. in Linguistics

M.A. in Computational Linguistics

M.A. in Teaching English to Speakers of Other

Languages Ph.D. in Linguistics

**Web Site**

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

## Description of the Linguistics Department

The Stony Brook Linguistics Department, in the College of Arts and Sciences, is a leading center for research and training in all areas of modern linguistics. The Department offers graduate training that leads to the M.A. and Ph.D. in Linguistics, the M.A. in Computational Linguistics, and the M.A. in Teaching English to Speakers of Other Languages (TESOL).

The department has a long-standing focus on theoretical linguistics, with core research areas in syntax, semantics, morphology, phonology, phonetics, and language acquisition, and particular strength in Computational Linguistics. Departmental research includes both theoretical issues --- how the human language capacity is organized --- and computational ones -- how language is processed and computed by humans and what the computational complexity of natural language is. In addition to the full range of theoretical and computational areas of linguistics, faculty have expertise in a wide range of languages/language areas including, East Asian, Germanic, Romance, Semitic, Slavic and signed languages.

The Ph.D. program prepares students for advanced research in all branches of theoretical linguistics, especially Phonetics, Phonology, Morphology, Syntax, Semantics and Computational Linguistics. Ph.D. students also work with students and faculty in Psychology, Computer Science, Philosophy, Music, and the Institute for Advanced Computational Science (IACS). Ph.D students assist in and/or teach MA and BA courses in Linguistics.

The M.A. in Theoretical Linguistics is a stand-alone 30 credit degree in all core areas of linguistic theory designed to give students an opportunity to carry out graduate work in linguistics in preparation for a doctoral degree in Linguistics, or other career.

The M.A. in Computational Linguistics focuses on core competencies in programming, algorithms and data structures, mathematical linguistics, linguistic theories of sound and grammar) and the computational analysis of natural language. Students will also have practical experience with existing software solutions and toolkits that are widely used in the Computational Linguistics industry.

The M.A. in TESOL is designed to prepare students to become professional teachers, teacher educators, and curriculum designers. The program offers courses in theoretical linguistics and its applications as well as pedagogy. Graduates of the program are successfully employed in public and private schools at K-12 levels, colleges, and universities in the United States and abroad. The requirements of the M.A. TESOL program satisfy a substantial portion of the requirements for New York State certification in TESOL.

## Admission requirements for Linguistics Department

## LINGUISTICS (LIN) Deadlines (for Fall admission):

- Ph.D.:December 1
- M.A. Linguistics: May 1
- M.A. Computational Linguistics: May 1
- M.A. TESOL: July 15

For admission to all graduate program in the Department of Linguistics, the following, in addition to the minimum Graduate School requirements, are normally required:

1. **Baccalaureate Degree:** Students must present evidence that such a BA or BS degree will be awarded by the time they begin graduate work. A final transcript is required prior to registration.
2. **Minimum grade point average of 3.0:** A minimum cumulative GPA of 3.0 or higher (or its foreign equivalent) on a 4-point scale is required.
3. **Recommendations:** Three letters of recommendation are required.
4. **Graduate Record Examination (GRE):** The GRE is not required for the MA LIN, the MA CompLing, the MA TESOL, and the PhD in Linguistics.
5. **Curriculum Vitae (CV)**
6. **Writing Sample**

**MA LIN and PhD:** The writing sample should be a paper written for a previous course taken in linguistics, or if that is not available, a paper on any subject is acceptable.

**MA CompLing:** The writing sample may take one of two forms: (a) a short paper written for a previous course, ideally related to language, mathematics, or computation, or (b) a 2-page document describing a completed or ongoing programming project, including a link to an online repository hosting the code.

### 1. Foreign Language Requirement:

**PhD program:** Proficiency in a foreign language equivalent to two years of college work is required.

**MA programs:** Native speakers of English must provide evidence of at least one year (or six credits) of study of one language other than English at the college level with a grade of C or better. Students who are seeking New York State certification will need to satisfy additional requirements for foreign language study before receiving certification.

1. **English proficiency** (for students whose native language is not English):
  - **PhD, MA LIN, MA Comp Ling:** 250 (computer), 90 (iBT TOEFL) or 6.5 (IELTS).
  - **MA TESOL:**
  - **Minimum total score:** 90 (iBT TOEFL) or 6.5 (IELTS).
  - **Minimum speaking component scores:** 22 (iBT TOEFL) or 6.5 (IELTS).

Please note that non-native speakers who are seeking New York State certification must achieve a speaking component score of 28 (iBT) or the equivalent.

Note: For all programs, students who do not meet the above requirements may be admitted conditionally. Their status will be reviewed after their first semester of graduate study.

Facilities of the Linguistics Department

The Department of Linguistics has several lab facilities.

### Computational Linguistics Lab (Director: Jordan Kodner)

Research in the Computational Linguistics Lab is concerned with the analysis of natural language phenomena using tools and concepts from mathematics and computer science, in particular statistics and probability theory, formal language theory, machine learning, algebra and logic. The lab suite includes a classroom, workstations, a library, and access to a large number of corpora and software

### Phonetics Lab (Director: Marie Huffman)

The phonetics lab provides equipment for investigation of a wide range of linguistic questions, with special emphasis on speech acoustics, dialogue, and speech perception. The lab suite includes a lab classroom, a recording room and a research annex, with digital tape recorders, microphones, and headphones as well as facilities for computer-based data acquisition and video recording of spoken or signed language.

### Semantics Lab (Director: Richard Larson)

The semantics Lab was created in 1992 by Richard K. Larson (Linguistics) and David S. Warren (Computer Science) as part of the NSF-sponsored Grammar as Science Project. Along with primary research in semantics, a focus of the lab has been the creation of software tools for linguistics research and education. Productions to date include *Syntactica*, a program for teaching transformational syntax and *Semantica*, a companion program for teaching truth-conditional natural language semantics.

### Requirements for the Ph.D. in Linguistics

In addition to the requirements of the Graduate School, the following are required:

**A. Course requirements:** Students must complete a minimum of 60 credits; 30 of them before advancing to candidacy.

Required Courses (12 credits)

- LIN 521 Syntax I
- LIN 621 Syntax II
- LIN 523 Phonology I
- LIN 623 Phonology II

Electives (minimum of 18 credits)

Linguistics 500 and 600 level courses may be taken as electives. With permission from the Program Director, courses from other departments may also be counted as electives

**B. Qualifying papers:** Students must write and defend two (2) *qualifying papers*. Each qualifying paper must be of publishable quality in order to be accepted by the department.

**C. Advancement to candidacy:** Advancement to candidacy takes place upon the successful completion of the following: the required courses in A and the qualifying paper requirement in B.

**D. Dissertation:** Students must write and defend an acceptable dissertation.

Please refer to the Linguistics Doctoral Student Handbook for a more detailed discussion of procedures and expectations.

### Requirements for the M.A. in Linguistics

The MA LIN is a 30 credit Masters program aimed at students interested in pursuing linguistics beyond the BA level, but not yet ready for, or not planning to go on to, the PhD. The curricular focus of the MA LIN is on theoretical rather than applied linguistics. Students interested in applied or computational linguistics at the MA level are encouraged to consider the MA TESOL or MA Computational Linguistics program.

The MA LIN is a coursework degree, consisting of 12 credits of required courses and 18 credits of electives.

**A. Core courses:** (12 credits, required):

LIN 521 Syntax I  
LIN 621 Syntax II  
LIN 523 Phonology I  
LIN 623 Phonology II

**B. Electives:** minimum of 18 credits of Linguistics 500 and 600 level courses\*

\*Courses from other departments may also be counted as electives with permission from the Program Director.

### Requirements for the M.A. in Computational Linguistics

The MA in Computational Linguistics is a 36-credit coursework degree consisting of multiple components.

**A. Core courses:** (12 credits, required):

- LIN 521 Syntax I
- LIN 522 Phonetics or LIN 523 Phonology I
- LIN 537 Computational Linguistics 1
- LIN 637 Computational Linguistics 2

**B. Formal methods:** (1 of the following: 3 credits):

- LIN 538 Statistics,
- LIN 539 Mathematical Methods in Linguistics

**C. Advanced Linguistics:** (1 of the following not taken as another requirement: 3 credits)

- LIN 522 Phonetics,
- LIN 523 Phonology I
- LIN 621 Syntax II,
- LIN 623 Phonology II,
- LIN 624 Morphology and Word Formation,
- LIN 625 Semantics

**D. Electives\*** (4 of the following not taken as a Core or Linguistics course above = 12 credits):

Electives can be taken in Linguistics or other departments, with approval of the Program Director.

**E. Final project.** Students must also complete a final project as part of LIN 595. (6 credits)



Courses that appear in more than 1 category multiple cannot be used to satisfy multiple requirements at once. For example, if LIN 522 is taken as part of the core sequence, it cannot be used to satisfy the linguistics requirement.

**Requirements for the M.A. in TESOL**

The MA in TESOL is a Master's program in Teaching English to Speakers of Other Languages.

**Master of Arts in TESOL (48 credits)**

The 48-credit track is designed for those who have little or no previous coursework in education or formal classroom teaching experience and leads to the MA-TESOL degree and the initial New York State certification for teaching English to Speakers of Other Languages (preK-12). The MA-TESOL consists of approximately four semesters of study (excluding summer session) for the full-time student and a somewhat longer period of time for the part-time student.

**A. Coursework**

This degree and certification program consists of 48 credits distributed among the areas listed below. All courses are three credits except for the one-credit fieldwork courses (LIN 579 taken twice, and LIN 578).

**Linguistics and Foundation (15 credits):**

LIN 522 Phonetics

LIN 527 Structure of English

LIN 530 Introduction to General Linguistics

LIN 541 Bilingualism

LIN 532 Second Language Acquisition

**and two of the following (6 credits):**

LIN 526 Analysis of an Uncommonly Taught Language

LIN 542 Sociolinguistics

LIN 555 Error Analysis

LIN 571 TESOL Pedagogy: Curriculum Design and Evaluation

LIN 572 Course Design: Theory and Practice

Any other TESOL-related course approved by the Program Director

**Professional Preparation (18 credits):**

CEE 505 Education: Theory and Practice

CEF 547 Principles & Practices of Special Education

CEE 565 Human Development

LIN 524 TESOL Pedagogy: Theory and Practice

LIN 529 TESOL Pedagogy: Language & Literacy Development Through Content Areas

LIN 579 Field Experience N-12 (1 credit course, taken twice)

LIN 578 Field Experience in Educational Contexts (1 credit course)

**B. Field Experience and Clinical Practice**

Students are required to complete 100 clock hours of field experience (LIN 579) related to coursework prior to student teaching. These experiences include ESOL classroom observations, practicing skills for interacting with parents, and experiences with students who are English language learners.

**Supervised Student Teaching (9 credits):**

LIN 574 Managing Instruction, Assessment, and Resources

LIN 581 Supervised Student Teaching Grades N-6

LIN 582 Supervised Student Teaching Grades 7-12

Teacher Candidates are placed in partner schools and are required to complete 75 days of full-time student teaching under the supervision of a NYS Certified Cooperating Teacher. During this experience, candidates assume the professional responsibilities of the teacher. Students are responsible to provide their own transportation to local school districts. See this webpage for more information about the student teaching requirement for initial certification.

LIN 574, 581, and 582 are co-requisites and cannot be taken until completion of all other course and ancillary requirements. As part of LIN 574, 581, and 582, students are required to submit the TCWSSL (Teacher Candidate Work Sample for Student Learning).

### **Final Project**

Students are required to submit a professional portfolio at the completion of the program.

### **C. Teacher Certification**

In order to be recommended for New York State certification, students must complete all courses required for the MA and achieve a minimum grade of B in all pedagogy courses. In addition, transcripts must indicate completion of at least two years (12 credits) of college-level study of a language other than English. Non-native speakers who are seeking New York State certification must achieve a speaking component score of 28 (iBT) or the equivalent.

#### **All teacher candidates must complete the following NYS Teacher Certification Exams:**

Educating All Students (EAS)

Content Specialty Test (CST) – ESOL

See this webpage for more information about the current New York State initial certification requirements.

#### **Application Procedure for the MA TESOL 48 credit track**

Applicants must have completed an undergraduate degree in a liberal arts or science major with a minimum GPA of 3.00 in the overall bachelor's degree. Applicants must demonstrate, through their application and recommendations, that they possess the temperament and disposition to be an effective teacher.

Applications and instructions are available on the MA-TESOL program website (<https://linguistics.stonybrook.edu/TESOL/ma-tesol/requirements-2>). A completed application consists of: Completed Graduate School application with a non-refundable application fee; Three letters of recommendation; Official copies of all previous college transcripts; Curriculum Vitae (Resume); A statement of purpose.

#### **English proficiency** (for students whose native language is not English):

- **Minimum total score:** 90 (iBT TOEFL) or 6.5 (IELTS).
- **Minimum speaking component scores:** 22 (iBT TOEFL) or 6.5 (IELTS).

Non-native speakers who are seeking New York State certification must achieve a speaking component score of 28 (iBT) or the equivalent.

Admission is competitive and no single factor will exclude anyone from being admitted. Similarly, no single factor will ensure admission.

Applications and supporting documentation for the fall semester must be received by June 1. International students must apply by April 15.

Faculty of Linguistics Department

Please see the faculty directory here: <https://www.stonybrook.edu/commcms/linguistics/people/faculty.php#LinguisticsFaculty>

Number of teaching, graduate, and research assistants, 2025: 21

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

**Marine and Atmospheric Sciences (MAS)****Dean**

Paul Shepson, Endeavour Hall 145 (631) 632-8700

**Graduate Program Director**

Jackie Collier, Discovery Hall 145 (631) 632-8696, [somas\\_gpd@stonybrook.edu](mailto:somas_gpd@stonybrook.edu)

**Faculty Director Marine Conservation and Policy Program**

Ellen Pikitch, Discovery Hall 169, (631) 632-9599, [ellen.pikitch@stonybrook.edu](mailto:ellen.pikitch@stonybrook.edu)

**Graduate Admissions Coordinator**

Christina Fink, Endeavour Hall 107, (631) 632-8680, [christina.fink@stonybrook.edu](mailto:christina.fink@stonybrook.edu)

**Graduate Program Coordinator**

Ginny Clancy, Endeavour Hall 105 (631) 632-8681, [ginny.clancy@stonybrook.edu](mailto:ginny.clancy@stonybrook.edu)

**Degrees Awarded**

M.A. in Marine Conservation and Policy; M.S. in Marine, Atmospheric, and Sustainability Sciences; Ph.D. in Marine, Atmospheric, and Sustainability Sciences; M. Phil. Marine, Atmospheric, and Sustainability Sciences; Graduate Certificate in Geospatial Sciences

**Web Site**

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

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Marine and Atmospheric Science**

The Marine and Atmospheric Sciences (MAS) graduate program of the School of Marine and Atmospheric Sciences (SoMAS) offers programs in marine conservation and policy, marine science, atmospheric science, geospatial science, and sustainability leading to M.A., M.S., and Ph.D. degrees. SoMAS is one of the leading centers for research, graduate education, and public service in the marine sciences, atmospheric sciences and in sustainability studies – for marine science it is the center for the State University of New York system. SoMAS faculty have active research programs in all major oceanographic and atmospheric disciplines, as well as in sustainability research, and many focus on interdisciplinary approaches to understanding environmental processes and issues. Specific areas of cross-disciplinary focus include biogeochemical transformation of energy and elements, ocean-atmosphere connections, conservation and management of marine resources, environmental health and contaminants, environmental modeling and prediction, and patterns and impacts of global climate change.

SoMAS is ideally situated for studies of a variety of coastal environments including estuaries, lagoons, salt marshes, barrier islands, and continental shelf waters. Long Island has a greater diversity of coastal environments in a limited geographical range than any other comparable area in the United States. The proximity of New York City and the burgeoning population of Long Island and Connecticut make New York coastal waters an excellent laboratory for assessing human impacts on the coastal seas and understanding land/sea interactions at all levels. In addition to working on coastal issues, SoMAS scientists have active research programs on all the world's oceans and examine atmospheric processes on the Earth and other planets.

SoMAS offers an M.A. in Marine Conservation and Policy and an M.S. and Ph.D. in Marine, Atmospheric, and Sustainability Sciences. Interested students should address inquiries to the graduate program director. Tuition scholarships and stipends are available for students in the research-based M.S. and Ph.D. programs.

SoMAS also offers accelerated B.S./M.S. and B.A./M.A. programs, allowing high-achieving Stony Brook undergraduate students in the Marine Sciences (MAR B.S.), Marine Vertebrate Biology (MVB B.S.), Atmospheric Sciences (ATM B.S.), and Environmental Studies (ENS B.A.) to begin working on their masters degree prior to completing their bachelors degree, allowing up to 12 credits of course work to count towards both degrees.

**Graduate Degree Program Descriptions****The M.A. Program in Marine Conservation and Policy**

The Graduate Program in Marine Conservation and Policy (MCP) provides students with an understanding of contemporary marine conservation issues and helps them develop the necessary skills to apply this knowledge in positions that require advanced training and a broad skill set, but are not research-based. Graduates of this program should be able to compete effectively for positions in government, environmental consultancy, and non-governmental organizations, and to apply marine conservation and policy knowledge in other fields including law, teaching, communications, or business. This program requires a minimum of 30 credits of graduate coursework (at least 24 credits must be completed after matriculation into the M.A. in MCP program) and is designed to be completed in 12 months of full-time study.

## **The M.S. Program in Marine, Atmospheric, and Sustainability Sciences**

The M.S. program offered by SoMAS takes a rigorous approach to oceanography, atmospheric, and sustainability sciences with interdisciplinary course work and a research thesis. It is designed to prepare students for positions in research, management, environmental protection, and resource development. The program provides students with a firm basis for more advanced study, but also is designed to equip students with the background and tools needed for effective careers without additional training. Required course work is very similar to the Ph.D. program, allowing M.S. students to continue in the Ph.D. program provided they have demonstrated adequate performance and found a suitable faculty advisor. The time required to complete this program depends on the scope of research undertaken. Most students complete their degree in 2 to 3 years.

## **Ph.D. Program in Marine, Atmospheric, and Sustainability Sciences**

The Ph.D. program is designed to prepare students to independently identify and approach problems in marine sciences, atmospheric sciences, and sustainability. It builds on a series of core required courses and allows students to create their own plan of advanced study, helping them to become independent problem solvers. The Ph.D. in Marine, Atmospheric, and Sustainability Sciences prepares students to compete effectively for academic positions or to direct research and assessment programs at government, private, or nongovernmental organizations. A M.S. degree is not required for admission to the Ph.D. program. Most students take 5 to 6 years to complete their Ph.D.

## **Certificate Program**

In comparison to the M.A., M.S. and Ph.D., certificate programs provide the opportunity for shorter and more focused programs of advanced study. Students interested in these programs should contact the certificate program's Faculty Director.

## **Advanced Graduate Certificate in Geospatial Science (GSS)**

The advanced graduate GSS certificate allows graduate students and working professionals to advance their GIS and/or remote sensing knowledge and employment opportunities with an industry-recognized certificate. The program requires students to earn 15 credits in addition to holding a B.A., B.S., or graduate degree. The program offers fully online that are intended to allow full-time students to complete the certificate requirements in one year. Some basic knowledge of operating personal computers is necessary to complete the course work. No more than 6 credits used to satisfy another graduate degree can be applied to the GSS certificate. For further information contact the GSS program's Faculty Director.

### **Admission Requirements**

All students must meet the general requirements of the Graduate School which include:

- A. Completion of a B.A. or B.S. with a cumulative grade point average of at least 3.0 (B);
- B. Acceptable scores on the TOEFL (paper: 600, computer: 230, iBT: 90) or IELTS (6.5) for foreign students;
- C. Three letters of recommendation;
- D. Official transcript(s);

All applications should be submitted electronically through the Graduate School.

For admission to the M.A. program, students must have completed at least 4 semesters of college courses in math or science, including at least one course in biology. The Graduate Record Examination (GRE) is not required for admission to the M.A. program.

For admission to either the M.S. or Ph.D. graduate program, the following are normally required:

- A. B.A. or B.S. degree in a discipline related to the intended field of study, or coursework equivalent to such a degree;
- B. At least eight semesters total of some combination of introductory coursework in mathematics, biology, chemistry, geology, physics, sustainability, and/or related disciplines, with more advanced work in at least one of these disciplines;
- C. The Graduate Record Examination (GRE) is not required; however, we will accept and consider scores for applicants who feel it strengthens their application.

In their personal statements, all students should describe why they wish to enter the specific SoMAS graduate program and what their career goals are. In addition, M.S. and Ph.D. students should provide an indication of both the specific research areas they are interested in and potential faculty advisors. Obtaining a position in specific research groups is very competitive, so applicants are encouraged to contact potential advisors prior to submitting their application. Further information and guidance for applicants can be found on our website <https://www.stonybrook.edu/commcms/somas/education/graduate/apply>

### **Facilities**

The main laboratories and offices of SoMAS are housed in a cluster of buildings on South Campus with more than 8,000 square meters of usable floor space. Laboratories are well equipped for most analyses, and students and faculty have access, with special arrangements, to nearby Brookhaven National Laboratory (BNL) and Cold Spring Harbor Laboratory. SoMAS is home to the Institute for Terrestrial and Planetary Atmospheres, Institute for Ocean Conservation Sciences, the Marine Animal Disease Laboratory, the Waste Reduction and Management Institute, the Living Marine Resources Institute, the Long Island Groundwater Institute, the New York Sea Grant College Program, and several analytical facilities. The Safina Institute also maintains an office at SoMAS. The Marine and Atmospheric Sciences Information Center (MASIC) is the branch of the campus library system located at SoMAS.

SoMAS manages the Flax Pond Marine Laboratory located on a 0.6 square kilometer salt marsh approximately seven kilometers from campus. This facility provides flow-through seawater and space suitable for culture and experimentation on living marine resources. Part of the facility is in a greenhouse offering ambient light and temperature conditions. Laboratory and sea-table space are available to faculty and students at SoMAS and other collaborating university programs. SoMAS also manages the marine station at Stony Brook Southampton, located 46 miles away on the beautiful east end of Long Island. State of the art classrooms, laboratories and animal culture facilities are available in the Southampton Marine Station. Several SoMAS faculty keep research laboratories at Stony Brook Southampton, and additional wet lab space is available in the Marine Station for student and faculty research.

SoMAS operates a fleet of research vessels, the largest of which is the *R/V SEAWOLF*, a 24-meter research vessel designed specifically for oceanographic research. The *SEAWOLF* is ideally suited for extended research trips, large-scale oceanographic sampling, and trawling. Several other smaller boats are available for local cruises out of either the Stony Brook or Southampton campuses.

### **Requirements for the M.A. Degree in Marine Conservation and Policy**

In addition to the minimum Graduate School requirements, the following are required:

#### **A. Skill Area Requirements - 9 courses in 6 different areas**

1. Marine Sciences: 2 courses, one of which has to be in a basic biological field
2. Conservation: 2 courses, MAR 507 Marine Conservation Biology (req.), plus 1 elective
3. Communications: 2 required courses: MAR 557 Case Study and Project Planning Seminar, and a Journalism Course (either JRN 500, or other relevant coursework).
4. Policy/law/economics/management: 1 course
5. Quantitative assessment: 1 course
6. Field biology: 1 course

B. Capstone Project or Internship in Marine Conservation and Policy, MAR 589 or MAR 592 (6 credits required); can be completed during the summer session, or during academic year.

C. Students make an oral presentation of their Capstone Project or Internship and submit a project or internship report.

### **Requirements for the M.S. Degree in Marine, Atmospheric, and Sustainability Sciences**

A. An overall B (3.0) average in the Core and Foundation courses with no grade lower than a C. Details of required coursework below;

B. The three Core courses MAR 527, MAR 591, MAR 543 and two semesters of either MAR 580 or SUS 580 seminars;

C. Two Foundation courses selected from the following: MAR 501, MAR 502, MAR 503, MAR 504, MAR 506, MAR 508, MAR 509, MAR 516, MAR 541, MAR 542, MAR 545, MAR 547, SUS 502;

D. Three Specialty courses (9 credits) selected from among all the regular MAR and SUS graduate courses excluding the Core and Foundation courses listed above except by permission, 'seminar' courses (MAR 519, MAR 584, MAR 585, MAR 603), courses specific to the M.A. program (MAR 556, MAR 557, MAR 589, MAR 592), and with no more than 3 credits of MAR 552 (Directed Study). Courses from outside SoMAS may also count toward this requirement with approval of the Advisory Committee and Graduate Programs Committee;

E. Six credits of MAR 590 Thesis Research;

F. Five additional credits of elective coursework;

G. Master's research proposal due by end of first year, signed by advisor and two readers;

H. Oral presentation of thesis work;

I. Submission of approved thesis.

### **Requirements for Ph.D. Degree in Marine, Atmospheric, and Sustainability Sciences**

In addition to the minimum Graduate School requirements, the following are required:

A. An overall B (3.0) average in the Core and Foundation courses with no grade lower than a C. Details of required coursework below;

B. The three Core courses MAR 527, MAR 591, MAR 543 and two semesters of either MAR 580 or SUS 580 seminars;

C. MAR 670 Teaching Practicum;

D. Three Foundation courses selected from the following: MAR 501, MAR 502, MAR 503, MAR 504, MAR 506, MAR 508, MAR 509, MAR 516, MAR 541, MAR 542, MAR 545, MAR 547, SUS 502;

E. Five Specialty (15 credits) courses selected from among all the regular MAR and SUS graduate courses excluding the Core and Foundation courses listed above except by permission, 'seminar' courses (MAR 519, MAR 584, MAR 585, MAR 603), courses specific to the M.A. program

(MAR 556, MAR 557, MAR 589, MAR 592), and with no more than 3 credits of MAR 655 (Directed Study). Courses from outside SoMAS may also count toward this requirement with approval of the Advisory Committee and Graduate Programs Committee;

F. 10 credits of MAR 650 Dissertation Research;

G. 21 additional credits of elective coursework; ; the remaining 15 (for students entering with an M.S.) or 21 (for students entering without an M.S.) credits comprise additional elective coursework and/or research credits

H. Preliminary Examination: The primary purpose of the Preliminary Examination is to assess the student's knowledge of his or her field and the student's ability to relate his or her specific research interests to the broader field. The student must demonstrate a general knowledge of their discipline, including an understanding and ability to apply the current concepts of their field. Success on the examination implies the ability to use this information to address questions of a multidisciplinary nature;

I. Ph.D. degree dissertation proposal approved by a dissertation committee and successful oral qualifying examination;

J. 18 credits of MAR 699 Dissertation Research

K. Oral defense of dissertation

L. Submission of approved dissertation

### **Core Courses for the M.S. and Ph.D. in Marine, Atmospheric, and Sustainability Sciences**

MAR 527: Current Issues in Global Climate Change (2 credits)

MAR 543: Critical Reading and Proposal Development (1 credit)

MAR 580: Oceans, Sustainability, and Atmospheres Colloquium (0 credits)

MAR 591: Responsible Conduct in Research and Scholarship and Professional Development (1 credit)

SUS 580: Research Seminar (0 credits)

### **Foundation Courses for the M.S. and Ph.D. in Marine, Atmospheric, and Sustainability Sciences (all three credits)**

MAR 501: Physical Oceanography

MAR 502: Biological Oceanography

MAR 503: Chemical Oceanography

MAR 504: Statistics and Experimental Design

MAR 506: Geological Oceanography

MAR 508: Foundations Marine Science 1: Biogeochemical

MAR 509: Foundations Marine Science 2: Physics of Oceans, Atmos, Climate

MAR 516: Ecosystem Science for Fisheries Management

MAR 541: Foundations of Atmospheric Sciences I

MAR 542: Foundations of Atmospheric Sciences II

MAR 545: Paleoceanography and Paleoclimatology

MAR 547: Geophysical Fluid Dynamics I

SUS 502: Perspectives on Sustainability

Graduate Faculty

### **Distinguished Professors**

Aller, Robert C., Ph.D., 1977, Yale University: Marine geochemistry; marine animal-sediment relations.

Cochran, J. Kirk, Ph.D., 1979, Yale University: Marine geochemistry; use of radionuclides as geochemical tracers; diagenesis of marine sediments.

Fisher, Nicholas S., Ph.D., 1974, State University of New York at Stony Brook: Marine biogeochemistry of metals; marine pollution; phytoplankton; herbivore interactions.

Gobler, Christopher, Ph.D., 1999, Stony Brook University: Phytoplankton; harmful algal blooms; estuarine ecology; aquatic biogeochemistry.

Shepson, Paul B., Ph.D., 1982, Penn State: Atmospheric chemistry in the Arctic, forests, and urban environments; GHG emission quantification.

Zhang, Minghua, Ph.D., 1987, Institute for Atmospheric Physics, Academia Sinica, Beijing: Atmospheric sciences; modeling of climate.

**Distinguished Service Professors**

Bowman, M.J., Ph.D., 1971, University of Saskatchewan, Canada: Coastal dynamics; oceanic fronts; productivity and physical processes.

Bokuniewicz, Henry J., Ph.D., 1976, Yale University: Near shore transport processes; coastal sedimentation; marine geophysics.

**Professors**

Allam, Bassem, Ph.D., 1998, University of Western Brittany, France: Diseases of shellfish.

Aller, Josephine Y., Ph.D., 1975, University of Southern California: Marine benthic ecology; invertebrate zoology; marine microbiology; biogeochemistry.

Cerrato, Robert M., Ph.D., 1980, Yale University: Benthic ecology; population and community dynamics; recolonization.

Chang, Edmund K.M., Ph.D., 1993, Princeton University: Atmospheric dynamics and diagnoses climate dynamics; synoptic meteorology.

Chen, Yong, Ph.D., 1995, University of Toronto: Fisheries ecology; stock assessment; population dynamics; fisheries

Colle, Brian A., Ph.D., 1997, University of Washington: Synoptic meteorology; mesoscale numerical modeling and forecasting; coastal meteorology.

Frisk, Michael, Ph.D., 2004, University of Maryland: Biology, life history, and conservation of elasmobranchs.

Hameed, Sultan, Ph.D., 1968, University of Manchester, England: Atmospheric sciences.

Khairoutdinov, Marat, Ph.D. 1997, University of Oklahoma: Climate modeling; high resolution cloud modeling; cloud microphysics; super parameterization; massively parallel super-computing; cloud parameterization.

Knopf, Daniel A., Ph.D., 2003, Swiss Federal Institute of Technology, Switzerland: Atmospheric chemistry; microphysics and chemistry of atmospheric aerosols; heterogeneous atmospheric chemistry and kinetics; instrument development.

Kollias, Pavlos, Ph.D. 2000, University of Miami: Radar applications for weather and climate research.

Lonsdale, Darcy J., Ph.D., 1979, University of Maryland: Zooplankton ecology with special interest in physiology; life history studies.

Lopez, Glenn R., Ph.D., 1976, Stony Brook University: Benthic ecology; animal-sediment interactions.

Mak, John E., Ph.D., 1992, University of California, San Diego (Scripps): Atmospheric chemistry and biosphere-atmosphere interactions; isotope geochemistry.

McElroy, Anne E., Ph.D., 1985, Massachusetts Institute of Technology, Woods Hole Oceanographic Institute: Aquatic toxicity, fate and effects of organic contaminants.

Peterson, Bradley, Ph.D., 1998, University of South Alabama: Community ecology of seagrass dominated ecosystems.

Pikitch, Ellen, K. Ph.D., 1983, Indiana University: Fisheries science, conservation biology and marine policy.

Reed, Kevin, Ph.D., 2012, University of Michigan: Climate modeling; tropical cyclones; climate extremes; atmospheric dynamics.

Scranton, Mary I., Ph.D., 1977, Massachusetts Institute of Technology, Woods Hole Oceanographic Institution: Marine biogeochemistry; geochemistry of reduced gases; chemical cycling in anoxic systems.

Taylor, Gordon T., Ph.D., 1983, University of Southern California: Marine microbial ecology; microbial mediation of biogeochemical processes; biofouling.

Wang, Dong-Ping, Ph.D., 1975, University of Miami: Coastal ocean dynamics.

Wang, Zhen, Ph.D., 2020, University of Utah: Multi-sensor remote sensing of aerosol, cloud, and atmospheric boundary layer; airborne Raman lidar and Doppler lidar development and applications.

Warren, Joseph, Ph.D., 2001, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution: Acoustical oceanography; zooplankton behavior and ecology.

**Associate Professors**

Beaupré, Steven R., Ph.D., 2007, Global carbon cycle; isotope biogeochemistry; isotope reaction analyses.

Black, David E., Ph.D., 1998, Rosenstiel School of Marine and Atmospheric Science, University of Miami: Paleoclimatology; paleoceanography; deep-sea sediments; marine micropaleontology.

Brownawell, Bruce J., Ph.D., 1986, Massachusetts Institute of Technology, Woods Hole Oceanographic Institution: Biogeochemistry of organic pollutants in seawater and groundwater.

Collier, Jackie L., Ph.D., 1994, Stanford University: Phytoplankton physiology and ecology; freshwater and marine plankton; molecular microbial ecology.

Collins, Mary B., Ph.D., 2012, University of California, Santa Barbara: Environmental health; socio-environmental systems; environmental justice; industrial pollution modeling

Farhadzadeh, Ali, Ph.D., 2011, University of Delaware: Numerical and experimental modeling of storm surge and wave; sediment transport and nearshore morphology evolution; impacts of sea level rise and storm intensification on coastal infrastructure and communities.

Finn, Donovan, Ph.D., 2009, University of Illinois at Urbana-Champaign: Sustainable and resilient communities; climate change adaptation; long term disaster recovery.

French, Michael, Ph.D., 2012, University of Oklahoma: Supercell and tornado dynamics; Doppler weather radar applications; mesoscale meteorology.

Hamideh, Sara, Ph.D., 2015, Texas A&M University: Urban and regional sciences; hazard mitigation; post-disaster housing recovery; resilience planning.

Kim, Hyemi, Ph.D., 2008, Seoul National University: Low frequency climate variability; tropical meteorology; ocean-atmosphere interaction; prediction and predictability; tropical cyclone activity; extreme events.

Lwiza, Kamazima M.M., Ph.D., 1990, University of Wales: Structure and dynamics of shelf seas.

Taylor, David, Ph.D., 1994, University of Tennessee: Environmental humanities; natural history and nature writing; outreach/community engagement; Cuba Studies; environmental ethics.

Thorne, Lesley, Ph.D., 2010, Duke University: Bio-physical and trophic interactions in marine ecology; application of spatial analysis and landscape ecology techniques to marine conservation.

Volkenborn, Nils, Ph.D., 2005, University of Bremen, Germany: Sediment biogeochemistry; benthic ecology; animal-sediment relationships; benthic-pelagic coupling; environmental change and coastal ecosystem functioning.

Wehrmann, Laura, Ph.D., 2010, Max Planck Institute for Marine Microbiology, Bremen, Germany: Biogeochemistry; trace-metal cycling in marine environments; early diagenetic processes; geomicrobiology; deep biosphere.

Wilson, Robert E., Ph.D., 1973, Johns Hopkins University: Estuarine and coastal ocean dynamics.

Wolfe, Christopher, Ph.D., 2006, Oregon State University: Physical oceanography; large-scale circulation; theory and modeling.

Zhu, Qingzhi, Ph.D., 1997, Xiamen University, China: Biogeochemistry; environmental analytical chemistry; trace element sensors.

#### **Assistant Professors**

Gilbert, C., Ph.D., 2022, University of Connecticut: Science communication; climate communication; social science; public perception of science.

Jang, Sung-Gheel, Ph.D., 2005, University of Illinois at Urbana-Champaign: Coastal GIS; spatial data analytics; sustainable and resilient urban systems.

McClenachan, Giovanna M., Ph.D., 2016, Louisiana State University: Coastal ecology, socio-ecological response to disturbances, ecosystem and resilience shifts, GIS.

McSweeney, Jacqueline, Ph.D., 2017, Rutgers University: Sediment transport dynamics in Delaware Estuary.

Pochron, Sharon, Ph.D., 1999, University of New Mexico: Soil Health, Ecotoxicity, Glyphosate, Roundup, Microplastics, Earthworms, undergraduate STEM Education.

Price, Roy, Ph.D., 2008, University of South Florida: Cycling of elements in coastal marine environmental and hydrothermal vents.

Qiu, Minghao, Ph.D., 2021, Massachusetts Institute of Technology: Climate change impacts on air pollution and health, air quality and health effects, climate and energy policy.

Yager, Karina, Ph.D., 2005, Yale University: Impacts of climate change in mountain environments.

#### **Joint and Associate Faculty**

Baines, Stephen, Ph.D., 1993, Yale University: Aquatic biogeochemistry of carbon and trace elements. Assistant Professor, Ecology and Evolution



Huang, Guanyu, Ph.D., 2015, University of Alabama Huntsville: Satellite remote sensing, atmospheric chemistry, environmental health, and environmental justice. Assistant Professor, Program in Public Health

Levinton, Jeffrey, Ph.D., 1971, Yale University: Marine ecology. Professor Ecology and Evolution

Lynch, Heather, Ph.D., 2006, Harvard University: Spatiotemporal dynamics of Antarctic penguins and development and application of statistics and mathematics to conservation biology. Professor, Ecology and Evolution

Padilla, Dianna, Ph.D., 1987, University of Alberta: Mollusc ecology; marine ecology; invasive species. Professor, Ecology and Evolution

#### **Adjunct Faculty**

Curtis, Tobey, Ph.D., 2018, University of Massachusetts-Dartmouth: Fisheries science, marine policy, fish spatial ecology and movements.

Dheille, Nolwenn M., Ph.D., 2010, Macquarie University, Australia: Evolution of host-parasite interactions, functional genomics.

Dvarskas, Anthony, Ph.D., 2007, University of Maryland, College Park: Environmental economics, ecosystem services and resilience of coastal ecosystems, economics of restoration, natural capital accounting.

Flagg, Charles, Ph.D., 1977, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution: Structure and dynamics of coastal oceans.

Flood, Roger D., Ph.D., 1978, Massachusetts Institute of Technology, Woods Hole Oceanographic Institution: Marine geology; sediment dynamics; continental margin sedimentation.

Liu, Ping, Ph.D., 1999, Chinese Academy of Sciences: Climate change, dynamics, and modeling.

McDonough, Carrie, Ph.D., 2017, University of Rhode Island Graduate School of Oceanography: Fate, transport, and bioaccumulation of organic contaminants in aquatic environments; human exposure to pollutants; high-resolution mass spectrometry.

Nye, Janet, Ph.D., 2008, University of Maryland: Fish ecology; climate variability; global environmental change; ecosystem-based management.

Oue, Mariko, Ph.D., 2010, Nagoya University, Nagoya, Japan: Atmospheric Sciences; Cloud and precipitation dynamics and microphysics using remote sensing measurements.

Pales-Espinosa, Emmanuelle, Ph.D., 1999, University of Nantes, France: Shellfish physiology; particle selection mechanisms in suspension feeding bivalves; algology.

Shipley, Oliver, Ph.D., 2020, Stony Brook University: Ecophysiology, food-webs, stable isotope biogeochemistry, movement ecology.

Venkatesan, Arjun K., Ph.D., 2013, Arizona State University: Contaminant fate & transport; organic contaminants; environmental analytical chemistry; physical-chemical treatment of water.

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

**Materials Science and Engineering Program****Department of Materials Science and Chemical Engineering****Chairperson**

Dilip Gersappe, Engineering Building 316  
Dilip.Gersappe @stonybrook.edu

**Graduate Program Director**

Michael Dudley, Engineering Building 312  
Michael.dudley@stonybrook.edu

**Department Administrator**

Ms. Chandrani Roy (631) 632-4174

**Department Staff Assistant**

Ms. Elaine Soto (631) 632-8483

**Graduate Program Coordinator**

Vacant

ESMandCME\_GradInfo@stonybrook.edu (Existing students must email here)

ESMandCME\_GradAdmissions@stonybrook.edu (Prospective students/applicants please email here)

**Degrees Awarded**

B.E./M.S. in Materials Science and Engineering

M.S. in Materials Science and Engineering;

Ph.D. in Materials Science and Engineering

**Website**

<https://www.stonybrook.edu/matscieng>

**Application**

<https://graduateschool.stonybrook.edu/apply/>

**Materials Science and Engineering Department**

The program of Materials Science and Engineering in the College of Engineering and Applied Sciences, offers graduate work leading to the Master of Science and Doctor of Philosophy degrees. The motivating philosophy of the graduate program is to provide the student with a broad synthesis of the theoretical and experimental techniques required to work with all classes of materials. Emphasis is placed on courses that unify the field in terms of fundamentals treated with sufficient depth to enable the student to make technological contributions in diverse areas of materials science and engineering. Laboratory and coursework are structured to provide programs for students who (1) are entering intensive basic research-oriented programs leading to Ph.D. or Master of Science degrees, (2) are currently employed and can complete their studies in the evening, or (3) are working in materials-related industries and integrate their work experience into their degree requirements.

Industrial Cooperative Ph.D. Program: A special extramural Ph.D. degree program is offered by the Department of Materials Science and Engineering for highly qualified individuals working in an industrial materials research area. Candidates for this program must have met the graduate coursework requirements for the Ph.D. typically by earning a master's degree. Doctoral research is generally done at the student's place of employment, rather than on the University campus. Contact the Department for further information.

**ESM M.S. & Ph.D. Admission Requirements-**

We are excited that you are considering our Graduate Program. Materials Science and Engineering program offers admission to M.S. and Ph.D. programs. Admission to the M.S. and Ph.D. Programs are handled separately by the departmental Admissions Committee.

Minimum requirements for admission to graduate study in Materials Science and Engineering (ESM) are as follows:

1. A bachelor's degree in Engineering, Mathematics, Physics, Chemistry, or a closely related area from an accredited college or university; (or a closely related field).
2. A grade point average of at least B (i.e., 3.0/4.0) in all mathematics, engineering, and science courses.
3. Results of the Graduate Record Examination (GRE) general test (*Waived for Spring or Fall 2025*);
4. For non-native speakers of English, results of the TOEFL exam with a score is required. Please reference for minimum score Official scores sent directly to the graduate school via ETS-Institutional code: 2548; Departmental code 69.
  1. *Masters students that have completed a degree program from a U.S. institution may be eligible for a TOEFL waiver and need to request the waiver, please email Graduate Admissions at gradadmissions@stonybrook.edu .*
  2. *All PhD applicants with a TA stipend whose native language is not English must demonstrate a sufficient level of English-speaking proficiency (TOEFL Speaking score) and may be required to take OAE courses based on these measures.*
5. Acceptance by both the Department of Materials Science and Chemical Engineering and the Graduate School.

**Application Instructions**

All applications must be completed online here.. All additional required documents, such as, diplomas, transcripts, recommendation letters, Statement of Purpose etc. must be sent using the application portal.

You may download our Complete Application Checklist

All official and final transcripts, and other admission materials should be sent to:

Stony Brook University

Graduate School Office of Student Services

2401 Computer Science Building

Stony Brook, New York 11794-4433

Official E-Transcripts should be sent to: gradadmissions@stonybrook.edu

For application status and submission questions, including using the Slate system, please email: gradadmissions@stonybrook.edu.

For program or curriculum related questions, please email: ESMandCME\_GradAdmissions@stonybrook.edu

**Application Deadlines:****Spring 2025:**

**MS Domestic - December 31, 2024, 11:59pm (EST)**

**MS International – November 15, 2024, 11:59pm (EST)**

\*\*\*\*

**PhD Domestic & International - November 15, 2024, 11:59pm (EST)**

*(Apply only if you are currently doing research with a faculty member who can support you for PhD studies.)*

**Fall 2025:**

**MS Domestic Application – July 15, 2025 by 11:59 PM (EST)**

**MS International Application – May 15, 2025 by 11:59 PM (EST)**

\*\*\*\*

**PhD Domestic & International- January 1, 2025, 11:59pm (EST)**

\*\*\*\*\*

For Graduate Application & Admission FAQs, click [here](#)

**Accelerated BE/MS & BS/MS Programs Admission Requirements-**

ESG or ECM students are encouraged to apply to the five-year ESG BE/ESM MS or ECM BS/ESM MS accelerated degree program in the spring semester of their junior year. The application must include:

- Students in their Junior Spring semester with a GPA of 3.0 in the major courses and/or above in the Engineering Science Undergraduate program; Engineering Chemistry Undergraduate program; must email ESMandCME\_GradAdmissions@stonybrook.edu and inform the department about their interest to be admitted in the BE or BS/MS Accelerated Program in Materials Science and Engineering
- Email your recent unofficial transcript.
- Consult with ESG/ECM Undergraduate Program Director (UPD) and ESM Graduate Program Director (GPD) regarding UG Senior Year and MS accelerated program Schedule.

- Once the department receives the above information and the GPD/Graduate committee accepts the student into the accelerated program, the student is extended an offer to accept admission in the ESM Accelerated program- the student signs and returns the offer letter. The department then completes the Accelerated Participant Program (APP) Declaration Form and submits to the Graduate School.
- Once accepted by Graduate school, the student must obtain email approval from the GPD and their respective UPD to enroll in ESM classes. Once approved via email, the student must complete the Permission for APP students to Enroll in Grad Courses form and upload the email approvals to get approvals from Graduate School to enroll in classes at least 3 weeks before the semester begins. Please note that the student may elect to take all 6 credits of the M.S. coursework in one semester, although it is not recommended.

### Transfer Students

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BE/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

**Applicants interested in the combined DDS/MS Program** must first be admitted to the DDS program at Stony Brook University first. Outstanding applicants will be invited to submit a second application after matriculation in the graduate school, submitted at any time during the first two years of study. For the combined DDS/MS, applicants must apply separately to both the DDS program and the MS program.

To obtain applications and for more information, please access the [Graduate School website](#)

For program or curriculum related questions, please email: [ESMandCME\\_GradAdmissions@stonybrook.edu](mailto:ESMandCME_GradAdmissions@stonybrook.edu)

It is recommended if you have confirmation that your transcripts and other documents are received by Graduate School, please inform us (the department) via email at [ESMandCME\\_GradAdmissions@stonybrook.edu](mailto:ESMandCME_GradAdmissions@stonybrook.edu)

The Graduate School application fee is \$100\* and is non-refundable. It is required for applicants from all countries.

### Financial Support

Admitted Ph.D. students are typically offered financial support in the form of teaching or research assistantships, which include full tuition and broad-based fees. Admission into this program is very competitive.

M.S. students are typically admitted with no financial support; however, full time MS students in the thesis track may be appointed as Research Project Assistants with an opportunity to enter the PhD program at the discretion of a faculty member upon availability of funds. Information regarding tuition and other costs can be found [here](#).

Facilities of Materials Science and Engineering Department

### Research Activities

Since its inception, the MSCE Department has had a strong research component, with a recent emphasis on advanced materials, materials and processes for energy generation and storage, and sustainability. The Department has been successful in obtaining external funding for research and currently has the highest per capita faculty funding within the University. In 2022, the Department had faculty research expenditures totaling over \$10.5M. Our department is home to many research centers including an **EFRC on Energy Storage Technologies**, the **Center for Mesoscale Transport Properties**, the **Garcia Polymer Center**, the **Center for Thermal Spray Technologies** and the **Institute of Gas Innovation and Technology**. These centers offer a unique and rich environment for interdisciplinary graduate research and education.

The proximity to **Brookhaven National Laboratory (BNL)** and its advanced national facilities has been a major benefit to both faculty and students within the Department. Three of our faculty members hold joint appointments at BNL, while Brookhaven scientists participate in research and teaching within the Department. The DOE awarded the contract to manage BNL in 1998 to Brookhaven Science Associates, a consortium of other universities led by Stony Brook and the Battelle Memorial Institute. The University's relationship with this premier research facility greatly enhances both the Department's and Stony Brook's research programs.

At BNL, the facilities available to the Department include particle accelerators for carrying out ion beam surface modification experiments and highly sophisticated surface analysis probes. The **National Synchrotron Light Source (NSLS)** is also located at BNL. As one of the participating research teams at NSLS, the **Synchrotron Topography Research Group**, centered in Stony Brook's Department of Materials Science and Engineering, is using special X-ray methods to image nondestructively dislocation microstructures. This enables image-detailed descriptions of dislocation motion and structures attendant to crystal growth and plastic deformation and fracture, as well as to interesting materials behaviors. The topographic method is also being used in department-based studies of surface chemical reactivity.

Our ties with industry are growing stronger: faculty members are working with industry on joint research projects and submitting cooperative proposals to outside agencies. The Materials Science Department has led the effort in joint industry-University projects within the College of Engineering through the **New York State Strategic Partnership for Industrial Resurgence (SPIR) program**. Both the **Center for Thermal Spray Research** and the **Institute for Gas Innovation and Technology** have several industrial partners.

Stony Brook's own facilities include **state-of-the-art low-energy electron diffraction LEED**; a **state-of-the-art scanning electron microscope** and a **transmission electron microscope**, both equipped with analytical capabilities and the latest software for electron diffraction simulation and image processing; an **atomic force microscope**; and **electron spectroscopy for chemical analysis (ESCA) IAES/SIMS Infrared Microscopy units**, as well as **characterization facilities that include equipment for microanalysis and X-ray techniques**.

Much of the research work has included collaborations with other universities, industries, national laboratories, and government facilities. such as the Army Research Laboratory, Weapons and Materials Directorate (Aberdeen, MD). Our faculty having funding from a range of federal agencies including the NSF, DOE, Department of Defense and Department of Education.

A common theme in all our programs is that we integrate the research experience as part of our educational mission. As a result, we have a vibrant, active department in which undergraduate students, graduate students, faculty and staff work together to tackle grand challenges that require new materials and processes

Consistent with Stony Brook's designated mission as a research center, the cornerstone of the Department's academic program is the graduate work leading to the research-oriented M.S. and Ph.D. degrees.

#### Requirements for the M.S. Degree in Materials Science and Engineering

In addition to the minimum requirements of the Graduate School, the requirements for the M.S. degree in the Department of Materials Science and Engineering can be satisfied by either one of the two following options:

##### ***M.S. Non-Thesis Option***

###### **A. Election**

The election of this option must be made by the student upon admission to the program and is considered a terminal degree.

###### **B. Coursework**

1. A minimum of 30 graduate credits with a grade point average of 3.0 or better in all graduate courses taken is required to graduate. All credits must be from coursework.
2. The 30 credits must include the following three core courses: ESM 511 Thermodynamics of Solids; ESM 513 Strength of Materials; and ESM 521 Diffusion in Solids.
3. Only six credits of ESM 696 Special Problems in Materials Science are allowed. Additional ESM 696 credits require permission of the Graduate Program Director.
4. All courses taken outside the Department require permission from the Graduate Program Director.

##### ***M.S. Thesis Option***

###### **A. Election**

The election of this option must be made by the student upon admission to the program and is normally considered part of the Ph.D. sequence. Students may not transfer to the Non-Thesis Option while registered for a Thesis Master's or a Ph.D. degree.

###### **B. Coursework**

1. A minimum of 30 graduate credits is required to graduate; 24 credits must be from coursework.
2. The 30 credits must include the following three core courses: ESM 511 Thermodynamics of Solids; ESM 513 Strength of Materials; and ESM 521 Diffusion in Solids.
3. The 30 credits must include six credits of ESM 599 Research.
4. Only six credits of ESM 696 Special Problems in Materials Science are allowed. Additional ESM 696 credits require permission of the Graduate Program Director.
5. All courses taken outside the Department require permission from the Graduate Program Director.

###### **C. Thesis**

For the student who elects to complete a thesis for the M.S. degree, the thesis must be approved by three faculty members, at least two of whom are members of the Department of Materials Science and Engineering, including the research advisor.

###### **D. Final Recommendation**

Upon fulfillment of the above requirements, the Graduate Program Committee will recommend to the Dean of the Graduate School that the Master of Science degree be conferred or will stipulate further requirements that the student must fulfill.

###### **E. Transfer to Other Options**

Transfer to another degree option in the Department can be made only with the written permission of the Graduate Program Director.

#### Requirements for the Ph.D. Degree in Materials Science and Engineering

###### **A. Plan of Work**

Before completion of one year of full-time residency, the student must have selected a research advisor who agrees to serve in that capacity. The student will then prepare a plan of further coursework. This must receive the approval of the student's advisor and of the Graduate Program Committee.

**B. Coursework**

1. An average grade of B or higher is required for all courses.
2. A minimum of 24 graduate course credits is required to graduate (excluding ESM 501, ESM 514, ESM 599, ESM 697, ESM 698, and ESM 699).
3. The 24 course credits must include the following three core courses: ESM 511 Thermodynamics of Solids; ESM 513 Strength of Materials; and ESM 521 Diffusion in Solids. If the student does not receive a minimum of a B in a core course, he or she may repeat that course one other time.
4. All students must complete ESM 501 Teaching and Mentoring Techniques and ESM 514, Technical Writing for Scientist. These 2 courses do not count towards the 24 graduate course credits required.
5. The student must pass at least three credits of ESM 698 Practicum in Teaching and six credits of ESM 699 Dissertation Research on Campus.
6. Only six credits of ESM 696 Special Problems in Materials Science are allowed. Additional ESM 696 credits require permission of the Graduate Program Director.
7. All courses taken outside the Department require permission from the Graduate Program Director.
8. All PhD students must act as teaching assistants for five semesters (regardless of support), and they must register for ESM 698 Practicum in Teaching in all five semesters for a total of 3 credits and 0 credits for the rest.

**C. Preliminary Examination**

The preliminary examination must be taken before the beginning of the student's fifth semester. This is an oral examination designed to test the student's ability to utilize his or her materials science background to carry out research in a chosen field of study, and to make clear written and oral presentations of research. At least ten days prior to the examination, the candidate should submit a research proposal (10-15 pages) to the examiners that places the research in context and outlines a scenario for its completion. The student must have finished the required coursework for the PhD program prior to taking the oral exam.

The examination committee will consist of three(3) Materials Science and Engineering Department faculty members. If a second examination is required, it must be completed by the tenth week of the sixth semester.

**D. Advancement to Candidacy**

After the prelims, the department processes the Advancement to Candidacy once the student's preliminary examination committee has signed to confirm that the student has passed the prelims. It is important to note, that a student must have no "I" or "U" grades for courses that count towards the degree to advance to candidacy. He/she must have completed all coursework requirements to advance to candidacy.

**E. Dissertation**

The most important requirement of the Ph.D. degree is the completion of a dissertation, which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate and reputable scholarly journals. At least two semesters should elapse between the preliminary exam and submission of the dissertation.

**F. Defense**

The candidate shall defend the dissertation before an examining committee consisting of four members, including the research advisor, two members of the Materials Science and Engineering Department, and one member from outside the Department.

**G. Time Limit**

All requirements for the Ph.D. degree must be completed within seven years after completing 24 graduate course credits and other requirements as needed to complete the program.

**Requirements for the Bachelor of Science Degree/Master of Science Degree Accelerated Program**

The Accelerated BE/MS program is designed to allow undergraduate students in Engineering Science (ESG), Engineering Chemistry (ECM), and Physics (PHY) majors, in good academic standing with a GPA of 3.0 and above, to apply at the end of their junior year for admission to this special program, which leads to a Bachelor of Engineering or Bachelor of Science degree at the end of the fourth year and a Master of Science degree at the end of the fifth year. This is achieved by allowing undergraduate students in the program to take up to two graduate courses as their undergraduate technical electives. These graduate courses will also be counted towards their Master's degree. According to Graduate School policy, up to 6 credits taken as an undergraduate senior student may be counted for both degrees. As a result, students can complete both degrees in five years (i.e., just one extra year or two semesters for the MS)

Engineering Science students in the junior undergraduate year take 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. For details of the B.E./M.S. program, please see the graduate program coordinator in the department.

Students are not allowed to enroll in ESM 513 if they have already taken ESM 335. Then that student will be required to replace ESM 513 with another ESM course to fulfill the requirement to complete the PhD program.

**Requirements for Application**

1. Applicant must be an Engineering Science (ESG) or Engineering Chemistry (ECM) or Physics (PHY) major with a cumulative undergraduate GPA of at least 3.00 at the time of application in their junior year.
2. Students are encouraged to apply to the five-year program by the end of the spring semester of their junior year.
3. 3.0 GPA must be maintained to begin the student's graduate career in the 5th year of the accelerated program.
4. Please contact the department at [ESMandCME\\_GradAdmissions@stonybrook.edu](mailto:ESMandCME_GradAdmissions@stonybrook.edu) to apply to the program.

Applications are reviewed by the ESM Graduate Program Committee and students are generally accepted by the beginning of their senior undergraduate year and are then notified if they have been admitted to the Accelerated Program. The BE/MS is a sequential degree program. Students in the Accelerated Bachelor's/Master's program typically matriculate to the graduate career at the beginning of their third semester. Students must have a cumulative GPA of 3.0 or higher to be admitted to the Graduate School. The Master's in Materials Science and Engineering is a 30 credit program and 24 of those credits must be earned as a matriculated graduate student.

Applicants interested in a graduate degree who do not meet these criterias are encouraged to apply directly to the M.S. program in their senior year.

As an undergraduate, students will be charged tuition at the undergraduate rate for both graduate and undergraduate courses. Once the graduate career begins in the 5th year of the program, the student will be subject to graduate tuition, fees and Graduate School regulations. Students will be permitted to live in Graduate Housing however they will no longer be eligible for Undergraduate Financial Aid.

Students who transfer to Stony Brook must complete at least one semester at Stony Brook before they will be considered for admission to the five-year BE-BS/MS program and decisions will be made on a case-by-case basis to ensure they meet all other requirements to qualify for the combined degree program.

### **Transfer of credits into M.S. or Ph.D. programs**

Students may transfer up to 9 credits of graduate courses obtained from another US accredited university. The following conditions and procedure is required to transfer any credits.

In order to be counted towards graduation, the credits must be evaluated by Materials Science Graduate Program committee and faculty. The evaluation must establish equivalence between a course being transferred from another institution and an ESM course in Stony Brook, which is accepted as part of the graduation requirements. The faculty member must be one of those who are teaching the corresponding graduate course on a regular basis. The professor typically evaluates the course materials/contents, student transcripts, etc. The approval is not automatic and we generally take a very careful look at such transfer requests.

Graduate courses that do not meet the previous requirement can be transferred without being counted towards graduation. This can sometimes be useful because students who have earned 24 graduate credits of any kind need to be registered for only 9 credits (instead of 12) in order to have full status. Therefore, gaining this status early might reduce tuition liability.

### **M.S. to Ph.D**

A student in the M.S. program from ESM or any related field at Stony Brook can subsequently apply for admission into the Ph.D. program, only if the student can be supported by an advisor to complete the PhD program in ESM at Stony Brook. Student will require to complete a change of level/program form and will enter the PhD program as a G-4 student.

The ESM Ph.D. program also recognizes M.S. degree from other accredited US institutions, person that has M.S. degree in CME will still require to complete courses totaling 24 credits. The student will be accepted as G4 level student and expected to complete all requirements towards the Ph.D. degree.

## **Faculty of Materials Science and Chemical Engineering Department**

### **Materials Science & Engineering Program**

#### **Distinguished Professors**

Rafailovich, Miriam, Ph.D., 1980, Stony Brook University: Polymeric liquids; phase transitions; thin film wetting phenomena; atomic force microscopy; ion, X-ray, and neutron scattering.

Sampath, Sanjay, Ph.D., 1989, Stony Brook University: Thermal spraying; protective coatings; functioning graded materials; thick film electronics and sensors.

Takeuchi, Esther, Ph.D., 1981, The Ohio State University, Organic Chemistry: Materials for Energy Storage

#### **Professors**

Clayton, Clive R., Ph.D., 1976, Surrey University, England: Environmental degradation of materials; XPS; AES; dynamic and static SIMS; electrochemical analysis synthesis by ultra-fast laser ablation; RHEED; protective coatings.

Dudley, Michael, Ph.D., 1982, University of Warwick, England: Synchrotron topography; crystal defects; mechanical properties.

Frenkel, Anatoly., PhD 1995, Tel Aviv University, Application of synchrotron measurements in materials, Structure-property-function relationships in applied nanomaterials, catalysis

Gersappe, Dilip., Interim Chairperson, Ph.D., 1992, Northwestern University: Polymer theory and simulation, Modeling of complex fluids and electrochemical processes

Orlov, Alexander, Ph.D., 2005, University of Cambridge, UK, Physical Chemistry: M.Phil. Chemistry University of Cambridge, UK; M.S.E. Engineering, University of Michigan, USA; M.E./B.E. Engineering, National Technical University, Ukraine. Materials for environmental applications; physical chemistry, environmental nanotechnology and photocatalysis

Sokolov, Jonathan C., ESM Graduate Program Director, Ph.D., 1983, Stony Brook University: Surface and interface properties of polymers and blends; phase transitions; neutron and X-ray scattering; EXAFS; SIMS.

Trelewicz, Jason, Ph.D., 2008, M.I.T.; thermodynamic and mechanical properties of binary nanocrystalline alloys by implementing a combination of analytical theory and experimental mechanics

#### **Associate Professors**

Chen-Wiegart, Karen, PhD, 2011, Northwestern University, x-ray imaging and spectroscopic techniques to study novel functional materials. Energy storage and conversion, nano-/meso-porous materials, thin film & surface treatment

Halada, Gary, Ph.D., 1993, Stony Brook University: Electron spectroscopy; electrochemistry; surface engineering; optical spectroscopy; environmental remediation.

Venkatesh, T.A., Ph.D., 1998, Massachusetts Institute of Technology: Nanomaterials, Smart Materials, Materials for MEMS and biomedical applications

#### **Assistant Professor**

Sprouster, David, Ph.D., 2010, Physics, Australian National University (Canberra), Research School of Physics and Engineering: "Ion Beam Formation and Modification of Cobalt Nanoparticles"

#### **Associate Professor of Practice**

Koga, Maya Ph.D. 2005, Kyoto University, Japan, Polymer Physics.

#### **Crossover with Chemical Engineering**

#### **Professors**

Koga, Tadanori, Ph.D., 1998, Kyushu University, Japan, Physics: green nanofabrication of polymer thin films; chemical recycling of waste plastics and methane hydrate as a future energy resource

Mahajan, Devinder, CME Graduate Program Director, Ph.D., 1979, University of British Columbia: Inorganic chemistry; fuel cells; catalysis.

Tannenbaum, Irena, PhD 1982, ETH Zurich: Polymers, Biomaterials, nanotechnology and nanomedicine.

#### **Associate Professors**

Kim, Taejin, PhD, 2007, Lehigh University, Catalysis and Reaction Engineering, Operando methods of characterizing catalytic reactions, biomass conversion to fuels and chemicals

#### **Assistant Professors**

Lee, Dennis, Assistant Professor, Ph.D., North Carolina State University (2019). Research: Chemical Protective Metal-Organic Framework Thin Films on Fiber Systems Driven by Atomic Layer Deposition

Rajput, Nav Nidhi, Assistant Professor, Ph.D., Louisiana State University (2013). Research: Molecular dynamics studies of ionic liquids, Nanoporous materials; Electrochemistry

Seo, Hyowon, Assistant Professor, Ph.D., Massachusetts Institute of Technology (2019). Research: Electrocatalytic synthesis of chemicals and materials, Catalyst design, Catalytic conversion of CO<sub>2</sub>, Continuous flow process, Green chemistry, Sustainability

#### **Faculty of Practice**

Meng, Yizhi, PhD, 2003, Cornell University, Food Engineering

Nitodas, Steve PhD, 2001, University of Rochester, Materials Science & Chemical Engineering, Kinetic Investigation and Modeling of the Chemical Vapor Deposition of Aluminum Oxide, Silicon Oxide and Aluminosilicates from Mixtures of Metal Chlorides, Carbon Dioxide, and Hydrogen

#### **Research Faculty**



Marschilok, Amy, Associate Professor, Stony Brook University; Co-Director, Institute for Energy Sustainability and Equity, Stony Brook University; Scientist and Division Manager, Brookhaven National Laboratory; Ph.D., University at Buffalo, Chemistry; Areas of Interest: Electrochemistry, Electrochemical Materials Science

Raghothamachar, Balaji, Ph.D., 2001, Stony Brook University, Materials Science and Engineering

Snead, Lance, Ph.D., 1992, Rensselaer Polytechnic Institute, Nuclear Engineering

Samuilov, Vladimir, Ph.D., 1986, Belarus State University: Physics.

### **Adjunct Faculty**

Abboud, Marcus, Ph.D., 2003, University of Bonn, Dental Medicine; “Correlation between gingival recession and tooth deflections in patients with mandibular crowding”

Abdelaziz, Sherif, Ph.D., 2012, Virginia Polytechnic Institute and State University, Geotechnical; Thermo-active Deep Foundations, Energy Piles, Geothermal Energy Foundations

Arbab, Hassan, M., Dual Ph.D., 2011, Electrical Engineering and Nanotechnology

Berndt, Christopher, Ph.D., 1981, Monash University, Materials Science Engineering

Bhatt, Vatsal, Ph.D., 2014, CEPT University Ahmedabad, India, Urban Energy, Water and Climate Change

Boscoboinik, Jorge Anibal, Ph.D., 2010, University of Wisconsin Milwaukee, Chemistry; Small Organic Molecules in Transition Metal Surfaces and Monte Carlo Simulations of Bimetallic Surface Alloys.

Butcher, Thomas, Ph.D. 1987, Stony Brook University, Mechanical Engineering

Cen, Jiajie, Ph.D., 2019, Stony Brook University, Materials Science Engineering

Choi, Wanhuk Brian, Ph.D, 2007, Stony Brook University, Materials Science and Engineering -Dissertation: Inelasticity in metallic thermal spray coatings: continuum and micromechanical approaches

Concepcion, Javier, Ph.D 2002, Pontifical Catholic University of Chile (Chile) and Georgia Institute of Technology (USA): Inorganic Chemistry

DiMarzio, Donald, Ph.D, 1987, Physics, Rutgers University New Brunswick, NJ.

Dwivedi, Gopal, Ph.D., 2011, Stony Brook University, Materials Science & Engineering

Fukuto, Masafumi, Ph.D., 2001, Harvard University, Cambridge, MA, Physics, Thesis: “Two-Dimensional Structures and Order of Nano-Objects on the Surface of Water: Synchrotron X-ray Scattering Studies”

Gangwal, Santosh, Ph.D., 1977, University of Waterloo, CA, Chemical Engineering

Ge, Mingyuan, Ph.D., 2015, Materials Science, University of Southern California (USC), CA

Hainfeld, James, Ph.D., 1974, University of Texas, Chemistry and Biochemistry

Harrison, Robert, Ph.D., 1984, University of Cambridge, Theoretical Chemistry

Htun, Nay, Ph.D, Chemical Engineering, Imperial College, U.K.

Hu, Enyuan, Ph.D., 2015, Stony Brook University, Mechanical Engineering, Solid-State Chemistry

Huang, Xiaojing, Ph.D., 2009, Stony Brook University, NY: Physics; Cryo Soft X-ray Diffraction Microscopy with Biological Samples

Huang, Xianrong, Ph.D., 1995, Nanjing University, China: X-ray typography

Jerome, Luckner John, Ph.D., 2005, Stony Brook University, Materials Science and Engineering.

Johnson, Curtis, Ph.D., Pennsylvania State University, Metallurgy

Keister, Jeffrey, Ph.D. 1997: University of North Carolina at Chapel Hill, Physical Chemistry.

Krstic, Predrag Ph.D., 1982, City College of CUNY, NY; Theoretical Physics; Atomic Physics

Kwon, Gihan, Ph.D., 2009, University of Alabama, Chemical & Biological Engineering

Lee, Wilson, Ph.D., 2007, Stony Brook University, Materials Science, Cosmetics Research and Development

Li, Qiang, Ph. D., 1991, Iowa State University at Ames: Energy and electronic materials; synthesis and characterization.

Lindberg, Jake C., Ph. D., 2021, Stony Brook University, Chemical & Molecular Engineering

- Liu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry; Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures
- Liu, Qun, Ph.D., 2006, Cornell University, Ithaca, NY: Biophysics, Biochemistry
- Lombardi, Jack, Ph.D., 2015, Stony Brook University, Materials Science and Engineering
- Lu, Deyu, Ph.D., Physics, University of Illinois at Urbana-Champaign: Empirical nanotube model: Applications to water channel and nano-oscillators
- Liu, Mingzhao, Ph.D., 2007, The University of Chicago, Chemistry; Solar water splitting; Pulsed Laser Deposition (PLD), Atomic Layer Deposition (ALD); Colloidal nanoparticle synthesis; Numerical simulation for nanophotonic/plasmonic structures.
- Lu, Fang, Ph.D., 2007, Chinese Academy of Sciences: Condensed Matter Physics
- May, Katherine Flynn, Ph.D, 2014, Stony Brook University, Materials Science and Engineering, Research field: Thermal Spray Formed Ceramic
- Meng, Qingpeng, Ph.D, 2002, Shanghai Jiao Tong University, Materials Science and Engineering, Research field: Phase Transformation & Nanostructured Materials
- Nam, Chang-Yong, Ph.D., 2007, University of Pennsylvania, Materials Science and Engineering; Infiltration synthesis, with a focus on material hybridization & nanopatterning; Atomic layer deposition for oxidation catalysts; Organic & hybrid photovoltaics; Nanowire electronics; Semiconductor device physics & characterization
- Neiser, Richard A, Ph.D. 1989, Stony Brook University, Materials Science, and Engineering
- Okoli, Celest, Ph.D., 2018, Stony brook University, Materials Science & Chemical Engineering
- Petrovic, Cedomir, Ph.D. 2000, Florida State University, Physics.
- Petrash, Stansislav, Ph.D., 1998, Polymer Science, University of Akron: "Neutron Reflectivity Studies of Human Serum Albumin Adsorption onto Well-Defined Surfaces"
- Rodriguez, Jose, Ph.D., 1988, Indiana University, Chemistry, Catalysis and Surface Science
- Sadasivan, Chandramouli, Ph.D. 2008, University of Miami, Neurosurgery
- Salatto, Daniel, Ph.D. 2022, Stony Brook University, Chemical and Molecular Engineering
- Shah, Raj, Ph.D, 1995, Pennsylvania State University, Chemical Engineering.
- Sharma, Priyanka, Ph.D., 2014, CSIR-National Chemical Laboratory, India, Material Chemistry and Nanomaterials
- Sharma, Sunil, Ph.D., 2016, IIT Bombay, Mumbai, India, Material Chemistry and Nanomaterials
- Singh, Gurtej, Ph.D., 2012, Rensselaer Polytechnic Institute (RPI), Troy, NY; Chemical and Biological Engineering
- Simon, Marcia, Ph.D., 1981, Brandeis University: Biology of oral and cutaneous epithelial and mesenchymal cells, retinoid metabolism and the control of differentiations, wound healing, development and assessment of products for treatment of chemical and thermal burn injury.
- Smith, Gregory, PhD. 2018, Stony Brook University, Materials Science and Engineering
- Stach, Eric, Ph.D., 1998, University of Virginia, Materials Science and Engineering
- Stacchiola, Dario, Ph.D., 2002, University of Wisconsin-Milwaukee, Physical Chemistry, Surface Science
- Taboada, Stephanie, Ph.D., 2023, Stony Brook University, Chemical and Molecular Engineering.
- Tan Kun, Ph.D., 2022 Stony Brook University, Chemical and Molecular Engineering
- Tawfik, Hazem, P.E. and a Certified Manufacturing Engineer; Director of the Institute of Research and Technology Transfer (IRTT) at Farmingdale State College - State University of New York
- Veerasamy, Victor, Ph.D., 1994 University of Cambridge, England
- Veerasamy, Yovana, Ph.D., 2020 University of Toledo, Administration and Policy, Internationalization Policy
- Wang, Feng, Ph.D., 2007, University of Alberta, Canada, Condensed Matter Physics; Thesis: "Electron Energy-Loss Spectroscopy of Nanostructures"
- Wang, Jia, Ph.D., 1987, Physical Chemistry, City University of New York: Surface Electrochemistry and Electrocatalysis
- Wang, Mu, Ph.D., 1991, Physics, Nanjing University, Jiangsu, China
- Weil, Edward, Ph.D., 1953, University of Illinois, Organic Chemistry

Wiegart, Lutz, Ph.D., 2007, Physics, Université Joseph Fourier (Grenoble, France), Commissariat à l'énergie atomique (CEA, Grenoble, France), European Synchrotron Radiation Facility (ESRF, Grenoble, France) and University of Dortmund (Germany)

Wu, Qin, Ph.D., 2004, Duke University, Chemistry

Xiao, Xianghui, Ph.D., 2002, Institute of High Energy Physics, Chinese Academy of Science, China, Physics

Xin, Huolin, Ph.D., 2011 Cornell University, Physics

Xue, Yuan, Ph.D. 2019, Stony Brook University, Materials Science and Engineering

Yang, Haotian, Ph.D. 2023, Stony Brook University, Materials Science and Engineering

Zhang, Zhiwei, Ph.D. 2003, Colorado School of Mines, Chemical Engineering, Reaction Kinetics and Reactor Engineering

#### **Affiliate Faculty**

Bhatia, Surita, Ph.D., 2000, Princeton University

Takeuchi, Kenneth, Ph.D. Ohio State University

#### **Emeritus Faculty**

Herman, Herbert, Emeritus, Ph.D., 1961, Northwestern University: Protective coatings; thermal spray; composites; marine materials.

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

## Mathematics Department

**Chairperson**

Scott Sutherland, Mathematics Building 5-116, (631) 632-8280  
Lynne Barnett (ATC), (631) 632-8260

**Graduate PhD Program Director**

Mark McLean, Mathematics Building 3-112 (631) 632-8351

**MA Masters Program Director**

Marco Martens, Mathematics Building Room 4-113 (631) 632-4893

**Mathematics Education Program Director**

Lisa Berger, Mathematics Building 4-100A (631) 632-8278

**Graduate Administrator**

Christine Gathman, Mathematics Building P-143 (631) 632-8250

**Degrees Awarded**

M.A. in Mathematics 7-12; M.A. in Mathematics; Ph.D. in Mathematics

**Application**

<http://www.math.stonybrook.edu/applying-phd-program>

**Mathematics Department**

The Department of Mathematics, in the College of Arts and Sciences, offers degree programs leading to the M.A. in Mathematics (Secondary Teacher Option), the M.A. in Mathematics, and the Ph.D. in Mathematics. The mathematics graduate program is currently ranked 16<sup>th</sup> in the world by Shanghai Rankings, ranked 26<sup>th</sup> in the US by the U.S. News, while U.S. News ranks the department 10<sup>th</sup> in the US in Topology and 5<sup>th</sup> in the US in Geometry.

The Department's research and educational missions are considerably enhanced by its close collaboration with the Simons Center for Geometry and Physics and the Institute for Mathematical Sciences. While these two research institutes function as independent entities, their faculty members may, when appropriate, teach courses or supervise students under the department's auspices.

**Ph.D. Program (with Professional-Option M.A. Track)**

The Mathematics Ph.D. program is internationally prominent and highly reputed, with a very selective admission process. The program prepares the students for a career in mathematical research and university teaching, while the skills learned enable many of the graduates to pursue highly successful careers in financial, software, and other industries.

Students admitted to the Ph.D. program may also choose to be considered for our Professional Option MA degree. By itself, a Master's degree of this type qualifies the recipient for many careers, including teaching at the community-college level.

**Master of Arts in Teaching Mathematics 7-12**

This is a 42-credit master's program, administered by the School of Professional Development, designed for students who already have a bachelors degree in mathematics or the equivalent, and who wish to teach mathematics in grades 7-12. Individuals interested in this program should refer to the School of Professional Development (SPD) online Bulletin: [www.stonybrook.edu/spd/graduate/matmath](http://www.stonybrook.edu/spd/graduate/matmath)

**Combined Bachelors/Masters (BS/MAT) in Teaching Mathematics 7-12**

Individuals interested in this program should refer to the School of Professional Development (SPD) online Bulletin: [www.stonybrook.edu/spd/graduate/matmath](http://www.stonybrook.edu/spd/graduate/matmath)

**The M.A. Program: Secondary Teacher Option**

The Secondary Teacher Option is a 30 credit two-year, part-time program designed for secondary school mathematics teachers who are seeking permanent certification. The nine required courses in the program are given in the evenings and in the summer on a rotating basis; each required course is offered at least once every two and a half years.

**Admission Requirements of the Mathematics Department of the Ph.D. Program (with Professional-Option M.A. Track)**

In addition to the Graduate School requirements, the minimum requirements for admission to this program are:

A. A bachelor's degree with a major in mathematics, or the equivalent.

B. Evidence that the student is likely to succeed. This must include three letters of recommendation from mathematicians (usually from present or former teachers). The breadth and depth of mathematics courses taken, and performance, in these courses will also be carefully considered.

C. Non-native speakers of English must demonstrate an adequate command of the English language, as evidenced by an acceptable score on the TOEFL examination. A paper-based score of 550, computer-based score of 213, or an iBT-based score of 90 would be considered minimally satisfactory for this purpose. The TOEFL exam will be waived only for native speakers of English or, in rare cases, for students whose previous education was conducted almost entirely in English.

D. Acceptance by both the Department of Mathematics and the Graduate School.

#### Admission Requirements of the M.A. Program: Secondary Teaching Option

In addition to the Graduate School requirements, the minimum requirements for admission to this program are:

- A. A bachelor's degree.
- B. Two years of college-level mathematics, including one year of single variable calculus, one semester of linear algebra, and one additional semester of mathematics beyond single variable calculus.
- C. Provisional New York State Certification for Teaching Mathematics, Grades 7-12.
- D. A grade point average of at least 3.0 in all calculus and post-calculus mathematics courses.
- E. Evidence that the student is likely to succeed: this usually consists of three letters of recommendation from former teachers or supervisors.
- F. Acceptance by both the Department of Mathematics and the Graduate School.

#### Facilities of the Mathematics Department

Since the beginning of the modern department under the leadership of Jim Simons, Stony Brook has been world-renowned as a center of research in geometry broadly interpreted. With the opening of the Institute for Mathematical Sciences, headed by its inaugural director John Milnor, dynamics emerged as an additional area of excellence. In more recent times, these traditional strengths have broadened, and the department now has multiple active research groups, numerous weekly seminars, and regularly organizes conferences, graduate schools, and other events.

The distinguished faculty of the mathematics department include 2 Abel prize winners, 2 Fields Medal laureates, 13 members of the National Academy of Science (Mathematics), 16 past speakers of International Congresses of Mathematicians, and recipients of multiple international awards. The current active research areas include algebra, dynamics, representation theory, complex analysis, algebraic geometry, geometric function theory, differential geometry, topology, geometric analysis, mathematical physics, symplectic geometry.

There are weekly research seminars in differential geometry, dynamics, algebraic geometry, topology, analysis and a departmental colloquium, as well as a graduate student seminar.

#### Institute for Mathematical Science

The IMS is another active center of research, closely aligned with the mathematics department, and headed by its codirectors Mikhail Lyubich and John Milnor. Many of the research activities of the Institute are centered around dynamics. The Institute has an active post doctoral program, and weekly research and learning seminars in dynamics, broadly interpreted. IMS hosts many visitors and regularly organizes research events.

#### Simons Center for Geometry and Physics

The Simons Center for Geometry and Physics (SCGP), a major international research center located next door to the department has greatly enhanced the scientific life of the department since its opening in 2007. The mathematics faculty of the center also hold appointments and they supervise PhD students in the mathematics department. The center hosts 12 post-docs divided between mathematics and physics. It runs many international workshops in mathematics (not just geometry) and theoretical physics every year, attracting leading researchers from around the world: over 1000 scientists visit each year. In addition, the SCGP and the Math Department run a collaborative research and training program funded by the NSF. The abundant activities of the center are open to the community, the mathematics department, and graduate students are encouraged to attend the talks that are of relevance for their research.

#### Requirements of the MA Degree in Mathematics

The M.A. degree in the Department of Mathematics requires the satisfactory completion of a minimum of 30 graduate credits in letter-graded (A, B, C, F) graduate courses. All credits in satisfaction of the degree must be at the graduate level. In addition, the cumulative grade point average for all courses taken must be 3.0 or higher. Students may select from the M.A. Professional option or the M.A. Secondary Teacher option. The M.A. Secondary Teacher option is designed for provisionally certified teachers of mathematics in grades 7-12. Students who are not currently certified teachers of mathematics should consult the M.A.T. program through the School of Professional Development.

#### **Core Requirements for the M.A. Degree Professional Option**

1. Satisfactory completion of four of the following courses (12 credits).
  - MAT 530 Topology, Geometry I\* or MAT 540 Advanced Topology, Geometry I/MAT 531 Topology, Geometry II\*
  - MAT 532 Real Analysis I\*/MAT 533 Real Analysis II\*
  - MAT 534 Algebra I\*/MAT 535 Algebra II\*
  - MAT 536 Complex Analysis I\*

Note: Courses listed next to each other should be viewed as a sequence, and students should complete at least one of the sequences. Each course is 3 credits.

2. Master's Thesis *or* Comprehensive Examination: Up to six credits of Master's Thesis (enrollment in MAT 599). Students will work with an advisor to write a paper on a significant topic of mathematics. It need not be original research.

Alternatively, students may choose to pass either the PhD comprehensive examination, or the separate MA comprehensive exam. The MA comprehensive exam consists of the final examinations in [MAT 530/540](#), [MAT 531](#), [MAT 532](#), [MAT 533](#), [MAT 534](#), [MAT 535](#), and [MAT 536](#), or the equivalent. If students choose the comprehensive examination option, they will enroll in an additional 6 credits of coursework (see below) for a total of at least 30 credits for degree completion.

3. 12-18 credits of additional coursework (for a total of 30 credits for completion of the degree program): To complete the 30 credits, students may enroll in any MAT course in the Mathematics department numbered 500 or above except MAT 598. With the permission of the Director of the Program, students may substitute courses related to mathematics from AMS, PHY, or other departments.

### ***Core Requirements for the M.A. Degree Secondary Teacher Option***

1. Satisfactory completion of the following nine courses (27 credits):
  - [MAT 511](#) Fundamental Concepts of Mathematics
  - [MAT 512](#) Algebra for Teachers
  - [MAT 513](#) Analysis for Teachers I
  - [MAT 514](#) Analysis for Teachers II
  - [MAT 515](#) Geometry for Teachers
  - [MAT 516](#) Probability and Statistics for Teachers
  - [MAT 517](#) Calculators and Computers for Teachers
  - [MAT 519](#) Seminar in Mathematics Teaching
  - [MAT 520](#) Geometry for Teachers II
2. Elective Course (3-4 credits). One course selected from the following (other courses may be substituted with permission of the Director of the Program):
  - AMS 593 Mathematical Theory of Interest
  - BEE 552 Biometrics
  - CEB 555 History of Science Education
  - CEI 589 Technology and the Classroom
  - CEM 570 Manipulatives and Mathematics
  - EST 563 Computational Literacy
  - EST 565 Instructional Technologies
  - MBA 504 Financial Accounting
  - PHY 570 Introduction to Physics for Teachers
  - PHY 576 Thermodynamics for Teachers
  - PHY 578 Quantum Physics for

### **Teachers Requirements for the Ph.D. Degree**

In addition to the requirements of the Graduate School, the following are required:

- A. Passing the doctoral comprehensive examination.
- B. Passing the doctoral preliminary examination.
- C. Demonstrating proficiency in reading mathematics in two relevant foreign languages, usually French, German or Russian. Non-English-speaking international students can demonstrate their proficiency in one of these languages, in addition to their native language.
- D. Advancement to candidacy.
- E. Writing an acceptable dissertation.
- F. Two consecutive semesters of full-time study.

### **Doctoral Comprehensive Examination**

This examination, which is offered twice a year (just before the start of each semester), is designed to test mastery of the fundamentals of mathematics. This exam is based on the syllabi of the core courses; MAT 530, MAT 531, MAT 532, MAT 533, MAT 534, MAT 535, MAT 536. Students who transfer from graduate programs at other universities may, in some cases, be granted exemption from this requirement.

### **Doctoral Preliminary Examination**

This examination is oral. Each student must take this examination no later than 1 ½ years after passing the comprehensive examination or receiving an exemption therefrom. The chairperson and one additional member of the examining committee are chosen by the student; one additional member is chosen by the program.

### Professional Academic Training Program

All full-time graduate students are required to participate in this program, consisting of supervised teaching/tutoring at the lower undergraduate levels.

Faculty of the Mathematics Department

### Professors

Bishop, Christopher <sup>4,7</sup>, Ph.D., 1987, University of Chicago: Geometric Function Theory, Complex Analysis, Applied Math, Riemann Surfaces, Dynamical Systems, Geometric Analysis.

Chas, Moira, Ph.D., 1998, Universidad Autónoma de Barcelona: Geometric Topology, Dynamical Systems.

Chen, Xiuxiong <sup>4,7</sup> 1994, University of Pennsylvania: Differential geometry, Complex Differential Geometry.

De Cataldo, Mark, Ph.D., 1995, University of Notre Dame: High-Dimensional Algebraic Geometry.

Donaldson, Simon <sup>2,3,4,9</sup>, Ph.D., 1983 Oxford University: Differential Geometry, Gauge Theory, topology of Smooth Manifolds, Symplectic Geometry.

Ebin, David <sup>4</sup>, Ph.D., 1967, Massachusetts Institute of Technology: Global analysis, Continuum Mechanics, Partial Differential Equations.

Fukaya, Kenji <sup>4,9</sup>, Ph.D, 1986 University of Tokyo: Symplectic Geometry, Riemannian Geometry.

Grushevsky, Samuel <sup>7,9</sup>, Ph.D. 2002 Harvard University: Complex Geometry, Several Complex Variables.

Jones, Lowell <sup>4</sup>, Ph.D., 1970, Yale University: Topology of Manifolds, Differential Geometry.

Kirillov Jr., Alexander, Undergraduate Program Director, Ph.D., 1995, Yale University: Representation Theory, Low Dimensional Topology, Mathematical Physics.

Khuri, Marcus, Ph.D., 2003, University of Pennsylvania: Differential Geometry, Partial Differential Equations, General Relativity.

Lawson, H. Blaine, Jr. <sup>3,4,7</sup>, Ph.D., 1968, Stanford University: Differential Geometry, Topology, Algebraic Geometry.

Laza, Radu, Ph.D., 2006, Columbia University: Algebraic geometry, Several Complex Variables.

Lazarsfeld, Robert <sup>4,7</sup>, Ph.D., 1980 Brown University: Algebraic Geometry, Commutative Algebra.

LeBrun, Claude <sup>4,7</sup> Ph.D., 1980, University of Oxford, England: Differential Geometry, Complex Analysis, Mathematical Physics, Algebraic Geometry.

Lyubich, Mikhail <sup>4,7,8</sup>, Director of Institute for Mathematical Sciences, Ph.D., 1983, Tashkent State University, Russia: Dynamical Systems, Kleinian Groups and their Deformation Spaces.

Martens, Marco, MA Masters Professional Option Program Director Ph.D., 1990, Delft University, The Netherlands: Dynamical Systems.

Michelsohn, Marie- Louise, Ph.D., 1974, University of Chicago: Differential Geometry.

Milnor, John W. <sup>1,2,3,4,7,8</sup>, Co-Director of Institute for Mathematical Sciences, Ph.D., 1954, Princeton University: Dynamical Systems Topology, Geometry.

Schnell, Christian, Ph.D., 2008 Ohio State University: Algebraic Geometry.

Plamenevskaya, Olga, Undergraduate Program Associate Director, Ph.D., 2004, Harvard University: Contact and Symplectic Geometry, Low-Dimensional Topology.

Schul, Raanan Ph.D., Associate Graduate Program Director 2004 Harvard University: Real Analysis, Geometric Measure Theory.

Simons, James H. <sup>3,4</sup>, Ph.D., 1962, University of California, Berkeley: Differential Geometry, Functionals of Riemannian Metrics and Connections.

Starr, Jason Ph.D., 2000 Harvard University: Algebraic Geometry.

Sullivan, Dennis <sup>3,4,7,8</sup>, Ph.D., 1965, Princeton University: Dynamical Systems, Topology, Geometry, Partial Differential Equations, Quantum Topology.

Sutherland, Scott <sup>6,8</sup>, Undergraduate Program Director Ph.D., 1989, Boston University: Dynamical Systems, Computing.

Takhtajan, Leon, <sup>4</sup>, Ph.D., 1975, Leningrad Branch of the Steklov Mathematical Institute, Russia: Mathematical Physics and Applications to Complex and Algebraic Analysis.

Varolin, Dror, Associate Chair, Ph.D., 1997, University of Wisconsin-Madison: Complex Analysis and Geometry.

Viro, Oleg <sup>4</sup>, Ph.D., 1974, Leningrad University: Geometry and Topology.

Zinger, Aleksey, Ph.D., 2002, Massachusetts Institute of Technology: Symplectic Topology, Enumerative Algebraic Geometry.

### **Associate Professors**

Berger, Lisa, Mathematics Education Program Director, Ph.D., 2007, University of Arizona: Number Theory, Mathematics Education of Teachers.

McLean, Mark, Graduate Director, Ph.D., 2008 Cambridge University: Algebraic Geometry; Differential Geometry, Symplectic Topology.

Movshev, Michael, Ph.D., 1997, University of Pennsylvania: Algebra

Nestoridi, Evita, Ph.D., 2016 Stanford University: Analysis; Probability

### **Assistant Professors**

Chen, Jingrui, Ph.D., 2018 University of Wisconsin Madison: Non- linear partial differential equations.

Drivas, Theodore, Ph.D., 2017 The John Hopkins University: Analysis and partial differential equations arising in fluid dynamics.

Dudko, Dzmitry, Ph.D. 2012 Jacobs University: Dynamical Systems

Ntalampikos, Dimitrios, Ph.D., 2018 University of California Los Angeles: Analysis on metric spaces, Quasiconformal mappings Complex Analysis, Metric geometry.

### **Research Assistant Professors**

Kamenova, Ljudmila, Ph.D., 2006: Massachusetts Institute of Technology: Complex Geometry.

### **James H. Simons Instructors**

Lee, Eun Hye, Ph.D., 2019 University of Chicago: Number Theory, Automorphic forms and representations

Kotelskiy, Artem, Ph.D., 2018 Princeton University: Low-dimensional topology and symplectic geometry

Martin, Olivier, Ph.D., 2020 University of Chicago: Algebraic Geometry.

Wang, Jian, Ph.D., 2019 Universite Grenoble Alpes: Differential Geometry

### **Gromoll Instructor**

Lin, Peter, Ph.D., 2019 University of Washington: Complex Analysis and Probability

### **Ronald Douglas Instructor**

Romney, Matthew, Ph.D., 2017 University of Illinois at Urbana Champaign: Geometric function theory and analysis on metric spaces.

### **RTG Postdoctoral Fellow**

Erchenko, Alena, Ph.D., 2018 The Pennsylvania State University: Dynamical systems and ergodic theory

Hanlon, Andrew, Ph.D., 2019 University of California, Berkeley: Symplectic topology and homological mirror symmetry

Sackel, Kevin, Ph.D., 2019 MIT: Symplectic and contact topology and geometry

### **Lecturers**

Abd-el-hafez, Alaa, Ed.D., 2015 LIU Brookville, NY: Interdisciplinary Educational Studies, Director of Field Experience and Clinical Practice

Chen, Holly, M.S., 1996 SUNY Buffalo: Mathematics and Computation.

Christiane Stidham, Ph.D., 1999 University of California: Tectonic and Structural modeling and simulations of earthquake wave propagation.

Viro, Julia, Ph.D., 1991 Leningrad University: Low-Dimensional Topology.

### **Institute for Mathematical Sciences**

Lyubich, Mikhail, <sup>3,4,8</sup> *Director*, Ph.D., 1983, Tashkent State University, Russia: Dynamical Systems.



Milnor, John W.<sup>1,2,3,4,7</sup>, *Co-Director*, Ph.D., 1954, Princeton University: Dynamical Systems; Topology, Geometry.

### **Institute for Mathematical Sciences, Lecturers**

Karafyllia, Christina, Ph.D., 2020 University of Thessaloniki, Greece: Conformal invariants and the Hardy number of conformal maps.

Luo, Yusheng, Ph.D., 2019 Harvard University: Trees, Berkovich spaces and the barycentric extension in complex dynamics.

Nie, Hongming, Ph.D., 2018 Indiana University: Dynamical systems and ergodic theory

Waterman, James, Ph.D., 2020 The Open University: Dynamical systems and ergodic theory

Zhao, ShengYuan, Ph.D., 2020, Université de Rennes I, Campus De Beaulieu, France: complex algebraic geometry and holomorphic dynamical systems.

Zhang, Yongquan Ph.D., 2021 Harvard University: hyperbolic 3-manifolds and Kleinian groups, hyperbolic surfaces, homogeneous dynamics and complex dynamics.

### **Visitors**

Bedford, Eric Ph.D., 1974 University of Michigan: Several Complex Variables, Dynamical Systems, Geometric Function Theory, Geometric Analysis.

### **Professors Emeriti**

Anderson, Michael<sup>4</sup>, Ph.D., 1981, University of California, Berkeley: Differential Geometry, Geometric Analysis, Mathematical Physics.

Barcus, William Ph.D., 1955 University of Oxford, England: Algebraic Topology.

Hill, C. Denson, Ph.D., 1966, New York University: Partial Differential Equations, Several Complex Variables.

Knapp, Anthony<sup>4</sup>, Ph.D., 1965 Princeton University: Lie Groups, Representation Theory.

Kra, Irwin Ph.D., 1966 Columbia University: Complex Analysis, Kleinian Groups.

Maskit, Bernard Ph.D., 1964 New York University: Complex analysis, Riemann surfaces, Kleinian Groups and Deformation spaces, Computational Psycholinguistics.

McDuff, Dusa<sup>3</sup>, Ph.D., 1971 Cambridge University, England: Geometry, Symplectic Topology.

Morgan, John<sup>3,9</sup>, Ph.D., 1969, Rice University: Topology of Manifolds, Algebraic Geometry, Three and Four Dimensional Manifolds.

Phillips, Anthony V., Ph.D., 1966, Princeton University: Differential Topology and Applications to Mathematical Physics. Pincus, Joel Ph.D., 1959 New York University: Operator Theory, Integral Equation

1. Abel Prize Winner
2. Fields Medal laureates
3. Member of the National Academy of Science (Mathematics)
4. Speaker of the International Congress of Mathematicians
5. Recipient of the State University President's and Chancellor's Award for Excellence in Teaching, 1990
6. Recipient of the State University President's and Chancellor's Award for Faculty Service, 2006
7. Distinguished Professor
8. Member, Institute for Mathematical Sciences
9. Member, Simons Center for Geometry and Physics
10. Joint appointment, Applied Mathematics and Statistics

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

Mechanical Engineering Department

**Chairperson**

Jon Longtin, Light Engineering Building 113 (631) 632-8300

**Graduate Program Director**

Toshio Nakamura, Light Engineering Building 137 (631) 632-8312

**Graduate Coordinator**

Graceanne Rossano, Light Engineering Building 113A (631) 632-8340 email: MechanicalEngineeringGraduate@stonybrook.edu

**Degrees Awarded**

M.S. in Mechanical Engineering; Ph.D. in Mechanical Engineering

**Web Site**

<https://me.stonybrook.edu/graduate>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description of the Mechanical Engineering Department**

The Department of Mechanical Engineering, in the College of Engineering and Applied Sciences, offers graduate work leading to the Master of Science and Doctor of Philosophy degrees. The department offers a broad curriculum with concentrations in Design and Manufacturing, Solid Mechanics, and Thermal Sciences and Fluid Mechanics. Additional information is also available at the department's Web site: <https://me.stonybrook.edu/>

**Admission Requirements**

For admission to the M.S. and Ph.D. programs in Mechanical Engineering the following are required:

- A bachelor's degree in mechanical engineering, or a closely related field.
- A grade point average of at least B in undergraduate study and previous graduate study (if applicable).
- GRE scores are currently required for admission.

**Accelerated B.E./M.S. Degree**

Undergraduate mechanical engineering majors with strong academic performance (GPA of 3.2 or above) may apply for admission to the Accelerated Bachelor of Engineering/Master of Science (B.E./M.S.) degree program in mechanical engineering at the end of their junior year. Once accepted into this program, students will be permitted to take up to 9 graduate credits in replacement of the required technical electives. These credits will be applied towards both their Bachelor's degree and Master's degree. Note in order to count more than 6 credits (i.e., 3<sup>rd</sup> graduate course), the student must be enrolled in the graduate program. More information about this program may be obtained from the graduate program director or the [Department Web site](#).

**Facilities and Areas of Specialization for the Mechanical Engineering Department****Design and Manufacturing**

Studies include CAD/CAM, kinematics and mechanisms, robotics, vehicles, manufacturing systems, dynamics and vibration, control, design optimization, mechatronics, microelectromechanical systems (MEMS), micro/nano-technologies, smart structures, and energy harvesting. Research topics cover task driven creative design of mechanical and electro-mechanical systems, such as high performance machinery and robots, mechanisms, and sensors, including dynamics, motion, control, and vibration-related problems; traditional and advanced manufacturing, manufacturing process modeling, human augmented systems, and intelligent fault detection and diagnosis; clean energy systems. Applied courses emphasize case studies, dynamics and control, finite element methods, and computer graphics. Also featured are an array of equipment and software for research and teaching, such as mechatronic systems, robots, CAD/CAM stations, CMM, desktop rapid prototyping machine, software for computer-aided engineering.

Mechatronics synergistically integrates mechanical engineering, electrical engineering, software, and controls into smart electromechanical products and systems. Research in this area highlights modeling, analysis, design, control, and prototyping in a system-level approach, which requires a broad knowledge of mechanics, materials, mechanical design, manufacturing, vibration, dynamics, sensors, actuators, electronics, signals and control. Applications include industrial and laboratory automation, biomedical devices, servo machines, vehicle systems, smart structures, and energy systems.

**Solid Mechanics**

The mechanical behavior of advanced materials and structures is studied with emphasis on mathematical modeling and simulation of deformation, failure, stability, and microstructural transformation. These issues span a wide range of interests that focus on various materials, systems, and multiple length scales. Research topics include fracture mechanisms of embedded flaws in coatings and thin films, delamination in composites, and the mechanical properties and behavior of micron-scale structures and systems, such as microelectromechanical systems.

Also investigated are the constitutive modeling and failure characterization of ceramics, polymers, and heterogeneous multi-component materials, soft materials and nano- and micro-mechanics of defect formation. Experimentally based research programs focus on the mechanical,

thermomechanical, and failure behavior of a wide variety of materials such as metals, polymers, ceramics, hard and soft biological tissues, and composites under both static and dynamic loading conditions. Optical techniques of strain analysis, including moiré methods, laser and white-light speckle methods, holographic interferometry, photoelasticity, and classical interferometry are developed and applied to solid mechanics problems such as fracture, wave propagation, metal forming, vibration, and deformation of micron-scale structures and systems such as MEMS. Characterization of micron and nano-scale materials and structures is accomplished with instrumented-indentation and scanning probe microscopy techniques for wear and harsh environment applications. Research is also conducted to characterize the failure mechanics of various engineered heterogeneous materials systems, ranging from functionally layered/ graded coatings to nanocomposites under impact loading and high-temperature conditions. Specialized equipment includes high-speed digital cameras, scanning electron microscope, and split Hopkinson pressure bars, and in situ micromechanical high-temperature fatigue testing system.

### Thermal Sciences and Fluid Mechanics

*Fluid Mechanics:* Current research areas include theoretical, computational, and experimental studies of micro- and nanofluidic devices, complex fluids and colloidal materials for applications in separation processes and energy conversion. Wetting and adsorption in micro/nanostructured materials and nanoparticle transport in multiphase systems. Numerical and theoretical studies including direct simulation of turbulent flows and turbulent transport at modest Reynolds numbers, stochastic modeling of the turbulent transport of temperature, and spectral closure approximations for chemically reactive flows. Additional current topic includes advanced combustor design and flow control, and the behavior of chemically reacting species in turbulent flows.

*Thermal Sciences:* Current topics include measurement of thermophysical properties, laser-material interaction, materials processing, heat transfer in advanced energy systems, advanced combustion processes, and internal combustion engines. The ultra-fast thermal processing and laser-based measurement laboratory has an amplified oscillator/ regenerative amplifier, a femtosecond autocorrelator, and a host of optoelectronics and light sources. The thermal science research laboratory has a visualization and digital image processing system. Studies also include methods and analytical tools for predicting, modeling and correlating the thermodynamic/thermophysical properties of the fluids. Current studies include the development of statistical mechanical techniques to assess the relation between intermolecular forces and the thermodynamic, dielectric, optical, and transport properties of fluids, fluid mixtures, and suspensions. Research is also being conducted on the modern formalism of thermodynamics; on combustion heat engines, aiming at achieving high fuel efficiency and engine performance; and on building energy dynamics. The Advanced Combustion Research laboratory includes three single-cylinder research engines equipped with state-of-the-art instrumentation and data acquisition systems. These research engines are used to investigate advanced and low temperature combustion processes for use in future power generation and propulsion systems. Experimental research on combustion is supported by modeling activities using Computational Fluid Dynamics (CFD) and system level modeling

*Energy Technologies:* The Energy Technologies program consists of a set of graduate courses designed to offer practical laboratory and design experience on modern energy conversion systems. The Energy Technologies Laboratory contains experimental facilities and equipment that are used to study the design and operating characteristics of fuel cells, wind turbines, photovoltaics, thermo-electrics, heat pumps, optical and infrared sensors, as well as motors, generators, and batteries. Thermal sciences and fluid mechanics are the core disciplines of the emerging field of energy technologies and sustainability science—a vibrant field of research and innovation. The Energy Technologies Laboratory contains fuel cell, wind turbine, photovoltaic, thermoelectric, heat pump, optical and infrared sensors, and motor/generator/battery facilities.

### Requirements of the Mechanical Engineering Department

#### Academic Standing

An average GPA of 3.0 or higher in all coursework, exclusive of MEC 599, 698 and 699, is a minimum requirement for satisfactory status in the graduate program. In the doctoral program, a 3.5 grade point average or higher is expected.

#### Requirements for the M.S. Degree in Mechanical Engineering

A minimum of 30 credits is required for the M.S. degree. There are two options, M.S. with thesis and M.S. without thesis as noted below.

##### A. Course Requirements

1. M.S. with thesis: With successful thesis, up to 9 combined 'thesis' credits of MEC 596, 597, 599 and/or 696 may be counted toward the requirement. Note the thesis credits may be less than 9 credits, but the total graduate credits must be at least 30 credits.
2. M.S. without thesis: No more than 6 combined 'project' credits of MEC 596, 597 and/or 696 may be applied toward the 30 credit requirements. Note submission of the Final Report is required for those project courses. No credit for MEC 599 is approved for fulfilling this requirement.
3. All full-time graduate students are required to register for MEC 691 (Mechanical Engineering Seminar) each semester and obtain a satisfactory grade.
4. A minimum of 18 graduate credits, of which 15 credits are in courses other than MEC 599 and MEC 696, must be taken in the Department of Mechanical Engineering. All courses taken outside the department for application to the graduate degree requirements are subject to approval of the student's advisor and the graduate program director.

##### B. Transfer Credits

A maximum of 12 graduate credits may be transferred from other programs toward the M.S. degree. These may include up to 6 credits from other institutions. The maximum also includes any credits received from taking Mechanical Engineering courses while having non-degree status at Stony Brook as an SPD or GSP student. Credits used to obtain any prior degrees are not eligible for transfer. All requests for transfer of credits require the approval of the graduate program director. For non-mechanical engineering courses, those directly relevant and/or fundamental to mechanical engineering topics may be approved.

**C. Thesis Requirements**

A student choosing the thesis option must select a research advisor. Upon completion, the thesis must be defended in an oral examination before a faculty committee of at least three members of which at least two must be Mechanical Engineering faculty. A student choosing the thesis option may not switch to the non-thesis option without permission of the graduate program committee. A student who has ever been appointed as a teaching, graduate, or research assistant must choose the thesis option unless otherwise approved by the graduate program committee.

- Thesis title, defense date, and committee list must be submitted to the Graduate Program Secretary at least two weeks before the scheduled date.
- The thesis defense date must be scheduled at least two weeks before the thesis submission deadline set by the Graduate School
- Thesis format must adhere to the guideline set by the Graduate School. An electronic copy of the thesis (i.e., PDF file) including the signature page must be submitted to the Department before the semester end.

**Requirements for the Ph.D. Degree in Mechanical Engineering****A. Course Requirements**

1. 18 approved graduate course credits beyond the M.S. degree requirement. A minimum of 9 credits, excluding MEC 599, MEC 696 and MEC 699, must be taken in the department.
2. MEC 507. The graduate program director may waive this requirement if the student has taken sufficient applied mathematics courses elsewhere.
3. All full-time graduate students are required to register for MEC 691 each semester and obtain a satisfactory grade.
4. All courses taken outside the department for application to the graduate degree requirements are subject to approval of the student's advisor and the graduate program director. The advisor may impose additional course requirements.

**B. Transfer Credits**

A maximum of 6 graduate credits from other programs, including those of other institutions, may be transferred toward the Ph.D. degree. Credits used to obtain any prior degrees are not eligible for transfer. Requests for transfer of credits must be approved by the graduate program director.

**C. Written Qualifying Examination**

The written qualifying examination is offered once every year, usually in January. Students who enter the graduate program with an M.S. degree from another institution are encouraged to take the examination the first time it is offered after they begin academic residency. Students who enter the graduate program without an M.S. degree are encouraged to take the examination the first time it is offered following three academic semesters in residence. Both categories of students who fail to take this opportunity must take the examination the next time it is offered during their residency. Part-time students should follow a rule based on graduate course credit hours (determined by the equivalence of 9 credits with one semester in residence). Each student can take the written qualifying examination two times before being dismissed from the Ph.D. program.

The written qualifying examination consists of two parts. Part I covers applied mathematics. Part II corresponds to the student's core area of concentration, selected from one of the following:

1. Design and Manufacturing
2. Solid Mechanics
3. Thermal Sciences and Fluid Mechanics

More precise information on the exam, including a list of suggested courses for each subject in the exam, is available in the departmental office, as are samples of previous examination questions.

Each student taking the examination is required to submit a written statement to the graduate program director with a declaration of both areas chosen at least one month before the announced exam date.

**D. Minor Area of Concentration**

In addition to the major area of concentration, each student must select a minor area from the following list: Thermodynamics and Heat Transfer, Fluid Mechanics, Solid Mechanics, Design and Manufacturing, Electrical Engineering, Material Science and Engineering, Computer Science, Applied Mathematics (not in the general area), and Biomedical Engineering. A petition to select a minor area that is not contained in this list must be approved by the Graduate Program Director. More information is available at <https://me.stonybrook.edu/graduate/phdminorreq.php>.

A student will be required to take a coherent sequence of three graduate level courses in the minor area and obtain a grade of B or better in each of the courses. However, students must submit a list of five courses from the proposed minor field no later than the time he or she applies to take the qualifying exam. The courses in the minor field must be approved by the Graduate Program Director, with the recommendation of the student's advisor. Upon submission of the list of five courses, students must provide an explanation for the list, how the courses are related, and the rationale for the courses. Note that students are not required to have taken the courses in the minor field before taking the qualifying exam. However, the minor requirement must be satisfied before the student can be admitted to candidacy.

**E. Advancement to Candidacy**

A student will be advanced to candidacy for the Ph.D. degree when all formal coursework has been completed and all the requirements listed in items A through E have been satisfied. These requirements must be completed within one calendar year after passing the written qualifying

examination. Advancement to candidacy must be one year before the beginning of the semester in which a student plans to defend his/her dissertation.

### F. Teaching

Ph.D. students are required to take 3 credits of MEC 698 Practicum in Teaching II or obtain approval of equivalent teaching experience from the Graduate Program Director as part of the degree requirement. MEC 698 is taken under a faculty advisor who is responsible for providing feedback and making a formal evaluation of the student's work. The form of this practicum may include making class presentations, teaching in recitation classes, and preparation and supervision of laboratory classes. All Teaching Assistants are required to take MEC 697 Practicum in Teaching I, which does not meet this requirement.

### G. Dissertation

The student chooses a dissertation topic in consultation with his/her doctoral dissertation advisor as soon as possible after passing the written qualifying examination. Dissertation research is an apprenticeship for the candidate, who, under the supervision of the dissertation advisor, independently carries out original work of significance. Within one year after passing the written qualifying examination, a dissertation examining committee is established. The committee must include at least three members from the Department of Mechanical Engineering, including the dissertation advisor, and at least one member from another program or from outside the University. The committee must be approved by the graduate program director upon recommendation by the dissertation advisor. The official recommendation for the appointment of the dissertation examining committee is made to the Dean of the Graduate School.

The dissertation examining committee provides a means of exposing the candidate's ideas to a variety of views, and helps to guide and oversee the candidate's research progress, which is reviewed by the committee each year. The chairperson of the committee must submit a written report to the graduate program director on the student's progress after each review.

**Dissertation Proposal:** In addition, the student is required to submit a written dissertation proposal and present it in an oral examination conducted by the dissertation examining committee. The written dissertation proposal must be distributed to the committee members at least two weeks before the oral examination. The oral examination probes the doctoral student's ability and examines the progress, direction and methodology of the dissertation research. The student will be examined on the dissertation topic and its objective, the problem formulation, research approach, and knowledge in related areas. The majority of the dissertation examining committee must approve the student's performance. The approved dissertation proposal is expected to be submitted at least 1 year before the dissertation defense.

**Dissertation Defense:** At the completion of the dissertation, approval of the dissertation involves a formal oral defense. The formal defense is open to all interested members of the University community. The final approval of the dissertation must be by a majority vote of the dissertation examining committee.

- The proposed dissertation defense must be scheduled at least two weeks before the thesis submission deadline set by the Graduate School (generally the semester end date).
- Committee Appointment Form must be submitted to the Graduate Program Secretary at least five weeks before the scheduled
- Doctoral Defense Announcement Form which includes title, abstract, date, the location must be submitted to the Graduate Program Secretary at least four weeks before the scheduled
- Copies of proposed dissertation must be given to the committee members as well as to the Department office for examination by the faculty at least two weeks before the scheduled
- The approved dissertation (with the signature page) must be submitted before the thesis submission deadline set by the Graduate School for each semester.
- Dissertation format must adhere to the guideline set by the Graduate School. It must be also electronically submitted (ProQuest). See <https://www.grad.stonybrook.edu/CurrentStudents/t&d.shtml> for the detailed information.
- One copy of the approved dissertation, including the signed signature page must be submitted to the Department.

### Faculty of Mechanical Engineering Department

#### Professors

Chiang, Fu-pen, Distinguished Professor, Ph.D., 1966, University of Florida: Experimental mechanics; solid mechanics; photoelasticity; moiré and laser methods for stress analysis; mechanics of soft tissues and heart.

Ge, Q. Jeffrey, Professor and Chair, Ph.D., 1990, University of California, Irvine: Design kinematics; robotics; CAD/CAM; mechanical systems analysis and simulation.

Kao, Imin, Professor. Ph.D., 1991, Stanford University: Robotics; stiffness control; wiresaw manufacturing process; manufacturing automation; Taguchi methods.

Longtin, Jon P. Professor, P.E., Ph.D., 1995, University of California, Berkeley: Heat transfer at fast time scales; ultrafast laser liquid- and laser-solid interactions; laser processing, sensors, building energy, energy efficiency, novel heating and cooling technologies.

Nakamura, Toshio, Professor, Ph.D., 1986, Brown University: Solid mechanics, composite materials, computational fracture mechanics, mechanics of thermal sprayed coatings.

#### Associate Professors

Chakraborty, Nilanjan, Associate Professor, Ph. D., 2008, Rensselaer Polytechnic Institute: Robot motion planning, multi-robot coordination, human-robot interaction, mechanism design, multi-body dynamics, distributed intelligent systems for energy automation, sensor networks, Distributed Algorithms, Combinatorial Optimization.

Chen, Shikui, Associate Professor. Ph.D., 2010, Northwestern University: Mechanical Engineering. Ph.D., 2006, Chinese University of Hong Kong: Automation and Computer Aided Engineering.

Colosqui, Carlos, Associate Professor, Ph.D. 2009, Boston University: Thermal-fluids, microfluidics, colloidal systems, fuel cells, and nano/micro-electromechanical Systems (N/MEMS).

Cubaud, Thomas, Associate Professor, Ph.D., 2001, Paris-Sud University/ESPCI, France: microfluidics, interfacial fluid phenomena and wetting, multiphase flows, miscible flows, and complex fluids.

Gao, Jie, Associate Professor, Ph.D., 2012, Columbia University: Optical nanostructures, 2D materials, light emission devices, optical sensing and imaging, nanomanufacturing, optical and thermal energy harvesting, opto-mechanics and quantum optics.

Hwang, David (Jae-Seok), Associate Professor. Ph.D., 2005, University of California at Berkeley: Micro-and nanoscale heat transfer, laser-assisted solar photovoltaic manufacturing and diagnostics, advanced diagnostics of light-matter interaction.

Kirane, Kedar, Associate Professor. Ph.D. 2014, Northwestern University: Solid mechanics, fracture mechanics, scaling, fatigue quasibrittle materials, geo-mechanics, poro-mechanics, poly-crystal plasticity, probabilistic mechanics, multi-scale modeling

Kukta, Robert V., Associate Professor, Ph.D., 1998, Brown University: Solid mechanics; mechanics of thin films; micromechanical modeling of defects in crystals, crystal growth, self-assembly, surface science.

Ladeinde, Foluso, Associate Professor, Ph.D., 1988, Cornell University: Turbulent flows, high-speed chemically reacting flows; noise source prediction and propagation.

Wang, Lifeng, Associate Professor. Ph.D., 2006, Tsinghua University: materials modeling, computational mechanics, micro- and nano-mechanics, materials testing and characterization, rapid prototyping and 3D printing, and composites.

#### Assistant Professors

Assanis, Dimitris, Assistant Professor. Ph.D., 2016, University of Michigan: Power generation and propulsion systems with an emphasis on advanced combustion modes and alternative fuels for internal combustion engines. Assessment of energy and environmental implications of connected & automated vehicles.

Purwar, Anurag, Assistant Professor. Ph.D., 2005, Stony Brook University: CAD/CAM, computational kinematics, design automation, robotics

Stewart, William, Assistant Professor. Ph.D., 2018, North Carolina State University: Aerial/Soft/Multimodal Robotics, Soft Structures, Experimental Mechanics, Dynamics, Aerodynamics.

Yao, Shanshan, Assistant Professor. Ph.D., 2016, North Carolina State University: Nano/micro materials and structures, nano/micro manufacturing, flexible and stretchable electronics, soft actuators and robotics.

Zimmerman, Spencer, Assistant Professor. Ph.D., 2019, University of Melbourne: Fluid mechanics, turbulent transport of mass, momentum and energy, hydroacoustics, interferometric and conventional flow imaging, anemometry.

Number of teaching, graduate, and research assistantships, Spring 2022: 42

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

**Medical Humanities, Compassionate Care & Bioethics (HCB)****Graduate Program Director**

Stephen G. Post, HSC Level 3, Room 080, (631) 444-9797

**Graduate Program Coordinator**

April Bortzfield, HSC Level 3, Room 080, (631) 444-8029

**Degree Awarded**

Medical Humanities, Compassionate Care & Bioethics

**Website**

<http://stonybrook.edu/bioethics/masters>.

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Masters in Medical Humanities, Compassionate Care & Bioethics (HCB)**

Our Program devotes equal attention to the mutually enhancing themes of bioethics, medical humanities, and the dynamic of compassionate care in a time when both patients and healthcare professionals find the healthcare system dehumanizing. Recognizing the need for an interdisciplinary approach to education, our faculty includes experts in Medicine, Ethics, History, Law, Literature, Philosophy, Religious Studies, the Social Sciences and Disability Studies. Our clinical faculty integrate perspectives from the humanities with their experience as health-care providers.

Those who should consider applying for the program include

- 1.) current MDs, RNs, JDs, PhDs, and other professionals seeking further expertise and career development;
- 2.) medical students and others pursuing professional degrees in fields such as health care, health sciences, humanities, pastoral care, law, business, social work, and journalism; and
- 3.) post-baccalaureate students in transition from the BA or BS to a professional degree who wish to expand their knowledge.

**Admission**

Requirements for admission to the MA in Medical Humanities, Compassionate Care & Bioethics include:

1. The admissions requirements of the Graduate School.
2. Writing Sample: A personal statement describing the applicant's relevant academic and work experience, and immediate and long-term goals.
3. Letter of Recommendation: Three letters of recommendation. At last two need to be from professors/instructors.

Note: Students who do not meet the above requirements may be admitted conditionally. Their status will be reviewed after the first semester of graduate study.

Make sure to check the program website for the latest instructions, <http://stonybrook.edu/bioethics/apply>

**Requirements for the MA Degree in Medical Humanities, Compassionate Care & Bioethics**

The program requires students to complete 30 credit hours (10 courses) and can be completed in one to three years. Four core courses, including our capstone course, are required. For the remaining six elective courses, students must take at least four with our Center faculty and may take the remaining two either from our own courses or from select courses across campus that meet the criteria for credit in the program.

For a list of required courses, elective courses and course descriptions please visit our website.

**Required Courses**

HCB 501 Compassionate Care, Medical Humanities, and the Illness Experience

HCB 502 Landmark Cases in Bioethics OR HCB 521 Clinical Ethics Practicum

HCB 503 Traditions and Values in Bioethical Conflicts

HCB 599 Special Projects Capstone Course

**Electives**

HCB 502 Landmark Cases in Bioethics (*if HCB 521 is taken as a required course, HCB 502 can be taken as an elective*)

HCB 504 Special Topic in Biotechnology

HCB 510 Literature, Compassion, and Medical Care

HCB 511 Bioethics, Disability & Community

HCB 512 Altruism and Bioethics

HCB 513 Disease and Society

HCB 514 Global Bioethics

HCB 515 Health Policy, History & Ethics

HCB 516 Ethical Issues in Human Reproduction

HCB 517 The Problem of Evil: Philosophical, Biological, and Social Dimensions

HCB 518 Empirical Bioethics

HCB 519 Public Health Law

HCB 520 Bioethics and Film

HCB 521 Clinical Ethics Practicum (*if HCB 502 is taken as a required course, HCB 521 can be taken as an elective*)

HCB 522 The Role of Virtue Ethics in Medicine

HCB 523 Special Topics in Medical Humanities

HCB 524 Special Topics in Bioethics

HCB 598 Independent Study

**Requirements for the MA Degree in Medical Humanities, Compassionate Care & Bioethics for those enrolled in the MD/MA program**

The joint MD/MA program in Medical Humanities, Compassionate Care and Bioethics is designed to be easily completed in 4 years (concurrent with medical school coursework). The MA is 30 credit hours (10 courses), of which 12 credit hours (4 courses) are covered by enrollment in the Scholarly Concentration Program and the MCS curriculum. This leaves only 18 credit hours (6 courses) remaining for students to take during their matriculation at the Renaissance School of Medicine at Stony Brook University.

**Required Courses**

HCB 501 Compassionate Care, Medical Humanities, and the Illness Experience

HCB 502 Landmark Cases in Bioethics OR HCB 521 Clinical Ethics Practicum

HCB 503 Traditions and Values in Bioethical Conflicts

**Electives**

HCB 502 Landmark Cases in Bioethics (*if HCB 521 is taken as a required course, HCB 502 can be taken as an elective*)

HCB 504 Special Topic in Biotechnology

HCB 510 Literature, Compassion, and Medical Care

HCB 511 Bioethics, Disability & Community

HCB 512 Altruism and Bioethics

HCB 515 Health Policy, History & Ethics

HCB 516 Ethical Issues in Human Reproduction

HCB 517 The Problem of Evil: Philosophical, Biological, and Social Dimensions

HCB 518 Empirical Bioethics

HCB 519 Public Health Law

HCB 520 Bioethics and Film

HCB 521 Clinical Ethics Practicum (*if HCB 502 is taken as a required course, HCB 521 can be taken as an elective*)

HCB 522 The Role of Virtue Ethics in Medicine

HCB 523 Special Topics in Medical Humanities

HCB 524 Special Topics in Bioethics



**Requirements for the MA Degree in Medical Humanities, Compassionate Care & Bioethics for those enrolled in the MSW/MA program**

The joint MSW/MA program in Medical Humanities, Compassionate Care and Bioethics is designed to be completed in 24 months for full-time students (4 semesters plus 2 winters and 2 summers) while part-time students would have up to 5 years (10 semesters, plus winters and summers) to complete the program. All students in the MSW program must complete the Integrated Health specialization. The MA is 30 credit hours (10 courses), of which 6 credits (2 courses) of elective credit is fulfilled by MSW coursework. This leaves only 24 credit hours (8 courses) remaining for students to take during their time in the MSW/MA program.

**Required Courses**

HCB 501 Compassionate Care, Medical Humanities, and the Illness Experience

HCB 502 Landmark Cases in Bioethics

HCB 503 Traditions and Values in Bioethical Conflicts

HCB 511 Bioethics, Disability and Community

HCB 521 Clinical Ethics Practicum

HCB 599 Special Projects Capstone Course

**Electives**

HCB 504 Special Topic in Biotechnology

HCB 510 Literature, Compassion, and Medical Care

HCB 512 Altruism and Bioethics

HCB 513 Disease and Society

HCB 514 Global Bioethics

HCB 515 Health Policy, History & Ethics

HCB 516 Ethical Issues in Human Reproduction

HCB 517 The Problem of Evil: Philosophical, Biological, and Social Dimensions

HCB 518 Empirical Bioethics

HCB 519 Public Health Law

HCB 520 Bioethics and Film

HCB 522 The Role of Virtue Ethics in Medicine

HCB 523 Special Topics in Medical Humanities

HCB 524 Special Topics in Bioethics

HCB 598 Independent Study

**Program Faculty****Director**

Stephen G. Post, PhD

Center Director

History of Bioethics; Geriatrics; Dementia; Healthcare; Compassion and Altruism

Associate Director

Maria A. Basile, MD/MBA

Clinical Assistant Professor

Human Values and Medicine; Literature and Medicine; Medical Professionalism; Medical Education; Leadership

**Research & Teaching Faculty**

Michelle S. Ballan, PhD  
Professor and Associate Dean for Research, School of Social Welfare  
Professor, Department of Family, Population and Preventive Medicine

Richard A. Bronson, M.D.  
Professor of Obstetrics/Gynecology and Pathology  
Reproductive Medicine; Poetry; Narrative in Medicine; Medical Education

John L. Coulehan, MD, MPH  
Director Emeritus  
Literature and Medicine, Empathy, Narrative, Clinical Ethics

Craig Malbon, PhD, MDiv  
Leading Professor of Pharmacology  
Medical Ethics, Social Justice, End-of-Life Ethical Issues

Phyllis Migdal, MD  
Clinical Assistant Professor  
Institutional Ethics Committee  
Medical Ethics, Health Disparity, Implicit Bias

Jeffrey Trilling, MD  
Associate Professor  
Medical Humanities and Ethics  
Physician-Patient Relationship  
Primary Care and Family Medicine

Michael Vetrano, PhD  
Associate Course Director, Medicine in Contemporary Society  
Clinical Ethics and Decision Making, Doctor-Patient Communication, Spirituality and Health Care  
Religion and Bioethics

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

Microbiology and Immunology Department

**Chair**

David Thanassi, Life Sciences Building 280C (631) 632-4549

**Graduate Program Director**

Nicholas (Nick) Carpino, Life Sciences Building 160 (631) 632-4610

**Graduate Program Coordinator**

Jennifer Jokinen, Life Sciences Building 130 (631) 632-8812

**Degree Awarded**

Ph.D. in Microbiology and Immunology

**Web Site**

<http://www.mgm.stonybrook.edu/index.shtml>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Microbiology and immunology Department

Graduate study in Molecular Genetics and Microbiology offers a diversified course of study leading to the Ph.D. degree. The major areas of study are the basic mechanisms of viral, bacterial, and fungal pathogenesis, immunology, and cancer biology.

Studies are directed toward an understanding of cell biology, molecular genetics, immunology, and microbial pathogenesis and are designed to prepare a student to become an effective research scientist.

**Admission Requirements of Microbiology and Immunology**

Pre-doctoral trainees in Microbiology and Immunology are admitted to the Graduate School of Stony Brook University by application to the Program.

In addition to the minimum Graduate School requirements, the following elements are considered when making admissions decisions:

- A. Undergraduate performance in science courses.
- B. Three letters of recommendation.
- C. Research Experience

All students who are accepted into the Microbiology and Immunology Program are accepted with full support. The level of support for 2019 is \$29,000 per calendar year plus full tuition scholarship. Health insurance is provided for all students as a fringe benefit.

**Facilities of Microbiology and Immunology Department**

The Department of Microbiology and Immunology occupies the second floor of the Life Sciences Building as well as space on the lower level, first and third floors of the Life Sciences Building. Program faculty members' laboratories are also located on the first, second and third floors of the Centers for Molecular Medicine (CMM) and within other departments at Stony Brook University and Cold Spring Harbor Laboratory. Approximately 47,000 square feet of research space are available within the Department of Microbiology and Immunology. Each research laboratory is fully equipped, and, in addition, the Department provides access to a variety of communal central facilities and services. These include a flow cytometry facility, glassware washing and sterilization facility, analytical equipment lab, deconvolution microscopy facility, environmental rooms, and darkrooms. Major items of equipment are organized into these central facilities, which are readily available to trainees. The Centers for Molecular Medicine, a state-of-the-art research and teaching facility, serves as a physical and intellectual bridge between investigators in the adjacent Life Sciences Building and the nearby University Health Sciences Center. The Health Sciences Library and Barry S. Collier Learning Center, located in the Health Sciences Center, contains collections of biological and medical books and journals presently totaling 262,000 volumes, including more than 3,200 journal titles. In addition, the Health Sciences Library provides access to more than 2,300 full-text electronic journals. Other campus libraries include the Frank Melville, Jr. Memorial Library

**Requirements for the Ph.D. Degree in Microbiology and Immunology**

The predoctoral training program offers its students the opportunity to study questions in virology, bacteriology, mycology, immunology, biochemistry, cancer biology, and cell and developmental biology utilizing the experimental approaches of the molecular biologist and geneticist.

Instruction and course planning involve faculty members from the Department of Microbiology and Immunology and selected members from the Departments of Biochemistry and Cell Biology, Medicine, Pathology, Physiology and Biophysics, and Pharmacology, and from Cold Spring Harbor Laboratory. The general philosophy of the Program is that a successful research career in the diverse and heterogeneous area of molecular biology requires a broadly-based background, familiarity with at least all of the above areas, and a frame of mind that is receptive to new approaches.

The Department of Microbiology and Immunology has an active seminar program of outside speakers who present topics relevant to Microbiology and Immunology, and there is a yearly retreat in which ongoing research in the Department and recent progress in the field are

presented and discussed. This retreat is held early in the fall in order to introduce new students to the faculty, to other students, and to the areas of ongoing research within the Department. The Department also presents a colloquium periodically on human diseases, with outstanding scientists from throughout the world presenting their current work on the selected topic. Students in the program are encouraged to attend all of these programs as part of their training.

In addition to the minimum requirements of the Graduate School, the following are required:

### **A. Course Requirements**

It is the policy of the Department of Microbiology and Immunology that a student must obtain a grade of B or higher in each course. The decision to have students who receive a final grade below 3.0 re-take a course will be made by the Program's Executive Committee on a case-by-case basis.

#### *First Year*

##### *Fall*

MCB 520 Graduate Biochemistry I

HBM 503 Molecular Genetics

HBM 509 Experimental Microbiology and Immunology (laboratory rotations)\*

HBM 696 Professional Development

##### *Spring*

HBM 522 Biology of Cancer

MCB 656 Cell Biology

HBM 510 Experimental Microbiology and Immunology (laboratory rotations)\*

HBM 692 Experimental Methods in Microbiology and Immunology

HBM 696 Professional Development

\*Students rotate through three different laboratories over the course of their first year. At the end of that year, students must identify and enter the laboratory in which they will conduct their graduate and dissertation research.

##### *Summer*

HBM 800 Full-time Summer Research

#### *Second Year*

##### *Fall*

HBM 640 Molecular Mechanisms of Microbial Pathogenesis

HBP 533 Immunology

HBM 599 Graduate Research

HBM 691 Readings in Microbiology and Immunology Literature

HBM 696 Professional Development

##### *Spring*

HBM 599 Graduate Research

HBM 693 Research Proposal Preparation in Microbiology and Immunology

HBM 696 Professional Development

##### *Summer*

HBM 800 Full-time Summer Research

#### *Third Year Until Completion*

Students register for HBM 599 Graduate Research every fall and spring semester until they advance to candidacy at which time they register for HBM 699 Dissertation Research every fall and spring semester. Students registers for HBM 800 Full-time Summer Research every summer until graduation.

### **B. Qualifying Exam**

After the successful completion of all required courses, the student must write and defend a research proposal in an area distinct from his/her graduate research for the qualifying exam.

### C. Dissertation Proposal Exam

Within 10 months of passing the qualifying exam, each student submits a written proposal of his or her dissertation research (similar to an NIH grant proposal) and orally defends the proposal before his or her dissertation committee shortly thereafter.

### D. Advancement to Candidacy

After successfully completing all required and elective courses, the qualifying exam, and the dissertation proposal exam, the student will be recommended to the Graduate School for advancement to candidacy.

### E. Attendance and Participation in Student Seminar

Students are expected to participate actively in the departmental seminar series. Students who perform their graduate and dissertation research off-campus are expected to participate in a similar seminar series at their off-campus location.

### F. Ph.D. Dissertation

The research for the Ph.D. dissertation is conducted under the supervision of the dissertation committee, which is appointed by the Program and approved by the Dean of the Graduate School. A formal public oral defense of the dissertation is scheduled, at which the student presents his or her research and is questioned by members of the dissertation committee and other members of the audience. A closed oral examination before the dissertation committee follows the seminar.

### G. Teaching Practicum

It is expected that each graduate student completing a doctoral degree will have functioned as a teaching assistant during at least one semester of his or her graduate studies.

### H. Publication Requirement

All students must be the first author of at least one publication of original research in order to graduate. Students may schedule the dissertation defense, with the approval of the dissertation advisor and advisory committee, once the first-author manuscript has been submitted for publication.

## Faculty of the Department of Microbiology and Immunology

### Toll Distinguished Professors

Benach, Jorge, Ph.D., 1971, Rutgers University: Pathogenesis of spirochetal infections and their host responses.

### Distinguished Professors

Wimmer, Eckard, Ph.D., 1962, University of Gottingen, Germany: The molecular biology of poliovirus replication and the molecular basis of picornaviral pathogenesis.

### Professors

Bliska, James B., Ph.D., 1987, University of California, Berkeley: Molecular and cellular basis of bacterial-host interactions.

Carter, Carol A., Ph.D., 1972, Yale University: HIV and retroviral assembly and replication.

Del Poeta, Maurizio, M.D., 1992, University of Ancona, Italy: Role of sphingolipids in mediating signaling pathways and fungal pathogenesis.

Fries, Bettina<sup>1</sup>, M.D., 1991, Albert Ludwig Universitaet Freiburg, Germany: Staphylococcal enterotoxin B; *Cryptococcal neoformans* pathogenesis

Futcher, Bruce, D.Phil., 1981, University of Oxford, England: Control of cell division in eukaryotic cells.

Hayman, Michael J., Ph.D., 1973, National Institute for Medical Research, England: Mechanism of transformation by retroviral oncogenes; erythroid differentiation.

Hearing, Patrick, Ph.D., 1980, Northwestern University: Viral molecular genetics; eukaryotic transcriptional regulation; gene therapy.

Konopka, James B., Ph.D., 1985, University of California, Los Angeles: G-protein coupled receptor signal transduction; fungal pathogenesis (*Candida albicans*).

Mackow, Erich R., Ph.D., 1984, Temple University: Rotavirus and hantavirus pathogenesis.

Marshall, Nancy Reich, Ph.D., 1983, University at Stony Brook: Signaling switches in gene expression by hormones or viral infection.

Thanassi, David, Ph.D., 1995, University of California, Berkeley: Secretion of virulence factors by bacterial pathogens; pilus biogenesis by uropathogenic *E. coli*.

### Associate Professors

Bhaduri-McIntosh, Sumita, M.D., Ph.D., 1991, Byramjee Jeejeebhoy Medical College; Epstein-Barr virus-host interactions.

Carpino, Nicholas, Ph.D., 1997, University at Stony Brook; Positive and negative regulation of T cell receptor signaling.

Karzai, Wali<sup>4</sup>, Ph.D., 1995, Johns Hopkins University: Structure and function of RNA-binding proteins and biochemical studies of the SmpBsrA quality control system.

Krug, Laurie, Ph.D., 2001, Emory University: Virus-host interactions during chronic gammaherpesvirus infection.

Leatherwood, Janet, Ph.D., 1993, The Johns Hopkins University: Cell cycle control of DNA replication.

van der Velden, Adrianus, Ph.D., 2000, Oregon Health and Science University: Salmonella pathogenesis.

#### **Assistant Professors**

Kim, Hwan, PhD, 2011, University of Chicago; Pathogenesis of diseases caused by Rickettsia species

Kumar, Pawan, DVM, PhD, 2009, University of Southampton, UK; Immunology and intestinal microbiota

Seeliger, Jessica<sup>5</sup>, Ph.D., Stanford University; Membrane biosynthesis, structure and behavior in bacterial pathogenesis

Sheridan, Brian, Ph.D., 2008, University of Pittsburgh; Mucosal immunity to microbial pathogen

Salamango, Daniel, PhD, 2015, University of Missouri; HIV replication, regulation of cellular antiviral responses.

#### **Adjunct Faculty**

Stillman, Bruce W., Professor.<sup>6</sup> Ph.D., 1979, Australian National University: Mechanism of eukaryotic DNA replication.

#### **Research Faculty**

Boon, Elizabeth, Associate Professor.<sup>7</sup> Ph.D., 2002, California Institute of Technology: Biofilms.

Hannun, Yusuf, Professor.<sup>8</sup> M.D. American University in Beirut, Lebanon, 1983: lipid mediators of cancer cell signaling.

Kew, Richard, Associate Professor.<sup>9</sup> Ph.D., 1986, Stony Brook University: Leukocyte chemotaxis; inflammation; pulmonary immunopathology.

Krainer, Adrian, Professor.<sup>6</sup> Ph.D., 1986, Harvard University: Posttranscriptional control of gene expression; alternative splicing; splicing in genetic diseases and cancer; antisense therapeutics.

London, Erwin, Professor.<sup>10</sup> Ph.D., 1979, Cornell University: Membrane protein folding and lipid interaction.

Moll, Ute, Professor.<sup>9</sup> M.D., 1985, University of Ulm: Tumor suppressor genes; role of p53 in human cancer.

Neiman, Aaron, Professor.<sup>10</sup> Ph.D., 1994, University of California, San Francisco: Vesicle trafficking and intracellular signaling in yeast.

Obeid, Lina, Professor.<sup>8</sup>, M.D., 1983, American University in Beirut, Lebanon: signaling lipids in cell stress and disease.

Tonge, Peter J., Professor.<sup>7</sup> Ph.D., 1986, University of Birmingham: Enzyme mechanisms and rational drug design.

Vakoc, Christopher, Assistant Professor.<sup>6</sup> M.D., Ph.D., 2007, University of Pennsylvania: chromatin regulators and oncogenic signal transduction cascades.

Wigler, Michael, Professor.<sup>6</sup> Ph.D., 1978, Columbia University: Signal transduction and growth control in eukaryotes.

Number of teaching, graduate, and research assistants, fall 2019: 26

- Joint appointment, Department of Medicine
- Joint appointment, Department of Pathology
- Joint appointment, Department of Pediatrics
- Joint appointment, Department of Biochemistry and Cell Biology
- Joint appointment, Department of Pharmacological Sciences

- Cold Spring Harbor Laboratory
- Department of Chemistry

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

The Molecular and Cellular Biology Program

**Graduate Program Director**

Benjamin Martin, Life Sciences Building, Room 480, Tel: (631) 632-1531

**Graduate Program Coordinator**

Sharon Schmidt, Life Sciences Building, Room 338, Tel: (631) 632-8613

**Degree Awarded**

Ph.D. in Molecular and Cellular Biology

**Web Site**

<http://www.stonybrook.edu/biochem/mcb/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description of the Molecular and Cellular Biology Program**

The Molecular and Cellular Biology (MCB) Graduate Program offers a multidisciplinary course of study leading to the Ph.D. degree. Diverse biological systems of study from plants to humans are pursued in MCB research laboratories. These systems are used to investigate a variety of biological topics including: Cancer, Infectious Disease, Gene Expression, Structural Biology, Neurobiology, DNA Replication, Development, Immune Response, Cell Cycle, Protein Trafficking, Signal Transduction, and Biological Membranes. The MCB Program provides students with the opportunity to select an academic program in one of three specializations:

1. Molecular Biology and Biochemistry
2. Cellular and Developmental Biology
3. Immunology and Pathology.

Each of the specializations enhances knowledge within the field to ensure our graduates are well equipped for a successful career in research.

The program of study in Molecular Biology and Biochemistry includes Physical Biochemistry and any of a number of electives. Training stresses biochemical and structural approaches to solve biological problems. The program of study in Cellular and Developmental Biology includes a course in Developmental Biology and any of a number of electives. Emphasis is placed on the control mechanisms that define and regulate growing and developing systems. The program of study in Immunology and Pathology includes courses in Immunology and General Pathology. This area of specialization emphasizes the cellular and molecular basis of human disease to foster a bridge between basic and clinical research.

The goal of this approach is to provide the student with the widest range of research possibilities. During the first year, students participate in several core courses that serve to build a scholastic foundation for further study. The core courses include Graduate Biochemistry, Molecular Genetics, and Cell Biology. In addition, students receive training to critically evaluate original research articles in a Journal Club/Readings course. Students can select an area of specialization at the time of enrollment or they can decide on a course of study during their first year.

The MCB Program involves students in ongoing research projects as soon as they arrive on campus. During the first academic year, students train in four different research laboratories to help in choosing a mentor for thesis dissertation. The first laboratory training, or rotation, is usually at Stony Brook University, but subsequent rotations can be performed at Cold Spring Harbor Laboratory or Brookhaven National Laboratory. The MCB Program crosses departmental boundaries and institutions to offer the student thesis research training in nearly 100 different laboratories. A decision for a thesis advisor is generally made by the end of the first academic year and research studies will subsequently form the foundation of a Ph.D. thesis.

All students in the MCB Program gain experience and skills in teaching and oral presentation of their research studies. Students assist in teaching undergraduate laboratory or lecture courses during two consecutive semesters, usually the second and third semesters. The teaching experience can include assistance in formulation/grading of examinations and individual tutoring sessions. In the third and subsequent years graduate students present their research progress to other students and faculty in a seminar forum. The student seminars are an opportunity to gain communication skills and to learn about ongoing research of other students in different laboratories. In addition to student seminars, a number of faculty from outside the institution are invited for weekly seminars. These are opportunities to meet visiting scientists who are leaders in their field and to learn of their latest findings.

In the second year of the MCB Program students take a comprehensive qualifying exam. Following successful performance, students focus on their thesis research. By the end of the second year, students prepare a written Ph.D. Thesis Proposal in consultation with their faculty thesis advisor. The proposal is defended orally before a proposal committee comprised of faculty selected by the student. Following successful defense of the proposal, the student advances to candidacy and the proposal committee along with the faculty advisor become the student's Ph.D. Thesis Committee. The Ph.D. Thesis Committee meets at least once a year with the student to assess progress and discuss research strategies.

For more information, visit [www.sunysb.edu/biochem/mcb](http://www.sunysb.edu/biochem/mcb).

**Admission requirements for the Molecular & Cellular Biology Graduate Program**

In addition to the minimum requirements of the Graduate School, the following are suggested requirements:



A. A bachelor's degree with the following minimal preparation: mathematics through one year of calculus, chemistry (including organic chemistry and laboratory), general physics, and one year of biology (including laboratory);

B. A minimum grade point average of 3.0 (B) in undergraduate courses including science and mathematics courses;

C. Letters from three previous instructors;

D. Acceptance by both the Graduate Program in Molecular and Cellular Biology and the Graduate School. In special cases, students not meeting requirements A and B may be admitted on a provisional basis. These students must act to remedy deficiencies within the first year according to the program's requirements.

#### Facilities of the Molecular and Cellular Biology Program

The Biological Sciences Division and Health Sciences Center are well equipped for work in developmental and cellular biology. Individual faculty laboratories and central services provide a full array of state-of-the-art equipment. These include the Flow Cytometry Facility, the Cell Culture and Hybridoma Facility, the Transgenic Mouse Facility, the University Microscopy Imaging Center, and the Center for Analysis and Synthesis of Macromolecules. (proteomic and metabolomics). The Health Sciences Library contains a comprehensive collection of biomedical journals and books and is complemented by the Melville Library on the main campus.

#### Requirements for the PhD in Molecular and Cellular Biology

##### A. Course Requirements

##### **Biochemistry and Molecular Biology Specialization:**

1. Molecular Genetics (MCB 503)
2. Graduate Biochemistry (MCB 520)
3. Biomembranes (MCB 517)
4. Cell Biology (MCB 656)
5. Structural Biology and Spectroscopy (MCB 512)
6. One approved elective graduate course
7. Students in their first academic year also rotate in four laboratories with the goal of selecting an environment for their thesis research.
8. Participation in Journal Club (MCB 531, MCB 532); Student Seminars (MCB 603, MCB 604); Visiting Scientists Seminars (MCB 601, MCB 602)
9. Enrollment in the first year in Ethics (GRD 500)
10. Enrollment in the first semester in Computational Methods in Biochemistry and Structural Biology (BSB 515)

##### **Cell and Developmental Biology Specialization:**

1. Molecular Genetics (MCB 503)
2. Graduate Biochemistry (MCB 520)
3. Biomembranes (MCB 517)
4. Cell Biology (MCB 656)
5. Developmental Biology (MCB 657)
6. One approved elective graduate course
7. Students in their first academic year also rotate in four laboratories with the goal of selecting an environment for their thesis research.
8. Participation in journal club (MCB 531/532); Student Seminars (MCB 603, MCB 604); Visiting Scientists Seminars (MCB 601, MCB 602)
9. Enrollment in the first year in Ethics (GRD 500)
10. Enrollment in the first semester in Computational Methods in Biochemistry and Structural Biology (BSB 515)

##### **Immunology and Pathology Specialization:**

1. Molecular Genetics (MCB 503)
2. Graduate Biochemistry (MCB 520)
3. Biomembranes (MCB 517)
4. Cell Biology (MCB 656)

5. General Pathology (HBP 531)
6. Immunology (HBP 533)
7. Students in their first academic year also rotate in four laboratories with the goal of selecting an environment for their thesis research.
8. Participation in journal club (HBP 590); Student Seminars (MCB 603, MCB 604); Visiting Scientists Seminars (MCB 601, MCB 602)
9. Enrollment in the first year in Ethics (GRD 500)
10. Enrollment in the first semester in Computational Methods in Biochemistry and Structural Biology (BSB 515)

Students must achieve a B or better in all required courses and must maintain a B average in elective courses.

#### **B. Qualifying Examination**

At the beginning of the fourth semester, the student must pass a written qualifying examination.

#### **C. Research Proposal**

Following successful completion of the qualifying examination, the student writes a research proposal based on the probable area of the student's Ph.D. dissertation. The proposal is defended orally to a faculty examination committee that does not include the student's research advisor. The proposal examination normally takes place by the end of the second year. After passing the proposal examination, the faculty committee and Ph.D. research advisor usually become the student's Ph.D. thesis committee and meet with the student at least once a year to follow his or her thesis progress.

#### **D. Teaching Experience**

All students are required to gain experience in teaching by assisting in laboratory sections, leading discussion sections, or helping to formulate and grade examination papers. The teaching experience may be in either undergraduate or graduate courses, and extends over a period of two semesters.

#### **E. Advancement to Candidacy**

When the above requirements have been satisfactorily completed, a recommendation for advancement to candidacy for the Ph.D. will be forwarded to the Graduate School.

#### **F. Ph.D. Dissertation**

During the second year, the student initiates a dissertation research project in the laboratory of a particular member of the program faculty. After the student has passed the proposition examination, a research committee is appointed to guide the dissertation research, and when the research nears completion, a dissertation examining committee is appointed by the dean of the Graduate School.

#### **G. Dissertation Defense**

The dissertation defense, which completes the requirements for the Ph.D., consists of a public seminar presentation of the dissertation work followed by an oral examination before the dissertation examining committee. Successful completion of the Ph.D. degree requires that a candidate publish a first-authored paper in a refereed journal. The paper must be published, accepted, or in press by the time of the thesis defense.

#### **H. Residence Requirement**

The University requires at least two consecutive semesters of full-time graduate study. The demands of the course of study necessitate a longer period of residence.

#### **I. MCB Policies for Master's Degrees**

The MCB program does not enroll new students in a Masters program; however, the program does provide its active Ph.D. students the option for a terminal Master's degree.

In addition, the student must:

1. Complete 30 credits of Graduate Course work from the approved PhD curriculum in Molecular and Cellular Biology, with a minimum GPA of 3.0.
2. Take the qualifying exam and achieve a grade considered satisfactory for a M.A.
3. Prepare a written Thesis. The thesis need not contain a significant amount of experimental data. It will be sufficient for such a thesis to review the background of a research project initiated by the student, plus a description of the experimental strategy that was to be undertaken, and any results obtained.

For a student who has achieved a satisfactory grade in the qualifier exam, maintained progress towards the Ph.D., and has conditionally passed the Proposition Exam, a written Thesis will not be required. The written portion of the Proposition Exam will be considered an acceptable substitute for the thesis.

**Please note that students who opt for either an M. A. or M. Phil. degree are no longer eligible to pursue a Ph.D. degree in the MCB program.**

Faculty of the Molecular and Cellular Biology Graduate Program

### Distinguished Professors

Benach, Jorge L.2, Ph.D., 1972, Rutgers University: Host response to bacterial infections.

Citovsky, Vitaly1, Ph.D., 1987, Hebrew University, Israel: Nuclear targeting and intercellular communication in plants.

Grollman, Arthur, P.4, M.D., 1959, John Hopkins University: DNA damage, mutagenesis and repair; chemical carcinogenesis.

London, Erwin1, Ph.D., 1979, Cornell University: Membrane protein structure/translocation/folding Structure and function of sphingolipid/cholesterol rafts in membranes.

Sternglanz, Rolf1, Ph.D., 1967, Harvard University: Chromatin structure and function in yeast, histone modifying enzymes.

Wimmer, Eckard2, Ph.D., 1962, University of Gottingen, Germany: RNA virus genetics, replication, and pathogenicity; cellular virus receptors; whole viral genome synthesis; development of novel vaccines.

### Professors

Bingham, Paul M.1, Ph.D., 1979, Harvard University: Genetic control of development and gene expression in animals.

Bogenhagen, Daniel F.4, M.D., 1977, Stanford University: Mitochondrial DNA; Mitochondrial proteomics.

Brown, Deborah1, Ph.D., 1987, Stanford University: Cholesterol/sphingolipid-rich membrane domains; role in endocytosis.

Bynum, David R.1, Ph.D., 1981 Dartmouth College: Director, Long Island Group Advancing Science Education, Stony Brook University.

Chen, Wen-Tien8, Ph.D., 1979, Yale University: Proteases and integrins in cancer invasion, metastasis, and angiogenesis.

Dean, Neta1, Ph.D., 1988, University of California, Los Angeles: Protein glycosylation, fungal cell wall biosynthesis; fungal pathogenesis.

Demple, Bruce4, Ph.D., Defining new repair pathways for oxidative DNA damage in the nucleus and the mitochondria of mammalian cells.

Deutsch, Dale1, Ph.D., 1972, Purdue University: Metabolism and uptake of the endocannabinoids (anandamide and 2-AG).

Dill, Ken, Ph.D., 1978, UCSD, Computer modeling of protein molecules and theory and principles of the machine mechanisms and evolution of cells

Frohman, Michael A.4, M.D./Ph.D., 1986, University of Pennsylvania: Mammalian signal transduction, development, vesicular trafficking, mitochondrial fusion diabetes.

Futcher, Bruce2, Ph.D., 1981 Oxford University; Cell cycle control, microarrays, genomics.

Gergen, J. Peter1, Ph.D., 1982, Brandeis University: Pattern information and the regulation of gene expression during Drosophiladevelopment.

Ghebrehwet, Berhane8, D.V.M./D.Sc., 1974, University of Paris, France: Biochemistry; Role of complement C1q receptors during infection and inflammation.

Halegoua, Simon3, Ph.D., 1978, Stony Brook University: Control of the neuronal phenotype and survival by growth factors using biochemical, molecular and cell biological approaches.

Hannun, Yusuf, 1,7, MD, 1, Bioactive lipids in cancer pathogenesis and therapeutics.

Hayman, Michael2, Ph.D., 1973, Institute for Medical Research, England: Viral/cellular oncogenes; differentiation of erythroid cells.

Hearing, Patrick2, Ph.D., 1980, Northwestern University: Adenovirus-host cell interactions, adenovirus assembly and vectors for gene therapy.

Hollingsworth, Nancy1, Ph.D., 1988, University of Washington, Seattle: Regulation of meiotic recombination in yeast.

Karzai, Wali1, Ph.D. 1995, Johns Hopkins University: Post-transcriptional Regulation of Gene Expression.

Konopka, James2, Ph.D, 1985 University of California, Los Angeles: Signal transduction, morphogenesis, and genetics of pathogenic fungi.

Lin, Richard6, M.D., 1988, University of California, San Francisco: Physiology of phosphoinositide 3-kinase signaling

Ma, Yupo12 M.D., Jinan University, Ph.D., University of South Alabama: Leukemic stem cells, stem cell therapy and tissue repair.

Mackow, Erich R.2, Ph.D., 1984, Temple University: Viral regulation of cell signaling responses. Hantavirus, Influenza, Dengue and Rotavirus pathogenesis.

Malbon, Craig C.4, Ph.D., 1976, Case Western Reserve University: Signal transduction and gene regulation in differentiation and development: Roles of G-proteins.

- Marcu, Kenneth B.1, Ph.D., 1975, Stony Brook University: NF-kappaB kinase signaling in stress, immunity and cancer; mechanisms of action of AID in adaptive immune responses.
- McKinnon, David3, Ph.D., 1987, John Curtin School of Medical Research, Australia: Molecular physiology of sympathetic neurons and cardiac muscle.
- Miller, Todd W.6, Ph.D., 1989, Rockefeller University: The regulation and substrate specificity of tyrosine kinases.
- Moll, Ute M.5, M.D., 1985, Ulm, Germany: Function/regulation of the p53 gene family in apoptosis and cancer.
- Neiman, Aaron1, Ph.D., 1994, University of California, San Francisco: Vesicle trafficking and intracellular signaling in yeast. Obeid, Lina, 7, Ph.D Bioactive lipids in Inflammation, Aging and Cancer.
- Powers, Scott13, Ph.D., 1982, Columbia University: Genetic basis of cancer.
- Reich, Nancy L.2, Ph.D., 1983, Stony Brook University: Signal transduction and gene expression in response to cytokines and virus.
- Shroyer, Kenneth5, Ph.D. 1983, M.D. 1987, University of Colorado. Cancer biomarkers as diagnostic adjuncts in cervical pathology and cytopathology; cervical cancer and HPV.
- Simon, Sanford R.1,5, Ph.D., 1967, Rockefeller University: Proteinases and their inhibitors in invasiveness inflammation and tumor metastasis; Inhibition of bacterial metalloproteinases.
- Smith, Steven O.1, Ph.D., 1985, University of California, Berkeley: Structure and function of membrane proteins.
- Simmerling, Carlos9, Ph.D. 1994, University of Illinois at Chicago: Development of tools for efficient and simulation of chemical systems and using them to study the structure and dynamics of molecules involved in biological processes.
- Thanassi, David G.2, Ph.D., 1995 University of California at Berkeley: Virulence factors of pathogenic bacteria.
- Thomson-Carino5, Patricia, Ph.D., The evolution of molecular and cellular changes during the development of colorectal and breast cancer
- Thomsen, Gerald H.1, Ph.D., 1988, Rockefeller University: Embryonic development mechanisms and their evolution.
- Tsirka, Styliani-Anna4, Ph.D., 1989, University of Thessaloniki, Greece: Neuronal-microglial interactions in the physiology and pathology of the central nervous system.
- Tonge, Peter J.4, Ph.D., 1986, University of Birmingham, England: Chemical biology and spectroscopy; Enzyme mechanisms, rational inhibitor design and antibacterial drug discovery; Fluorescent and light-activated proteins.
- White, Thomas6, Ph.D., 1994, Harvard University: Molecular biology and physiology of gap junction channels.
- Wollmuth, Lonnie3, Ph.D., 1992 University of Washington: Molecular mechanisms regulating excitatory synaptic transmission in the brain.
- Yang, Vincent W., Ph.D., Princeton University; 1984, M.D., Rutgers Robert Wood Johnson Medical School: Mammalian stem cell biology and oncogenesis.
- Associate Professors**
- Boon, Elizabeth M.9, Ph.D., 2003, California Institute of Technology: Nitric oxide signaling in bacteria.
- Bowen, Mark6, Ph.D., 1998, University of Illinois, Chicago: Molecular recognition at the synapse.
- Cao, Jian8, M.D., 1986, Zhengzhou University School of Medicine; M.S., 1992, Peking Union Medical College/Chinese Academy of Medical Sciences: Cancer invasion/metastasis and anti-cancer drug discovery.
- Carpino, Nicholas6, Ph.D., 1997, Stony Brook University: Positive and negative regulation of T cell receptor signaling.
- Chen, Emily4, Ph.D., 2002, University of California, San Diego: identifying determinants of breast cancer metastasis and mass spectrometrybased proteomics.
- Chen, Jiang, PH.D., 2001, University of Heidelberg, Skin and hair follicle development, maintenance and malignancy
- Colognato, Holly4, Ph.D., 2000, Rutgers University: Extracellular matrix in the brain; roles during development and during neurodegeneration.
- Fleit, Howard B.5, Ph.D., 1980, New York University: Leukocyte Fc receptors; macrophage differentiation.
- Garcia-Diaz, Miguel4, Ph. D., 2003, UAM University (Madrid, Spain): DNA repair and mitochondrial gene expression.
- Ghazizadeh, Soosan10, Ph.D., 1994, Stony Brook University: Epithelial stem cell biology; skin bioengineering and gene therapy.
- Glynn, Steven1, Ph.D., Structure and mechanism of protein-unfolding machines in mitochondria.

- Holdener, Bernadette<sup>1</sup>, Ph.D., 1990, University of Illinois: The role of protein folding and O-fucosylation during embryonic development and stem cell differentiation
- Ju, Jingfang<sup>8</sup>, Ph.D., 1996, University of Southern California: The mechanism of translational control mediated by non-coding RNAs in cancer.
- Kernan, Maurice<sup>3</sup>, Ph.D., 1990, University of Wisconsin: Genetics of touch and hearing in *Drosophila*; ciliogenesis and ciliary signaling.
- Kew, Richard R.<sup>5</sup>, Ph.D., 1986, Stony Brook University: Role of complement activation and leukocyte chemotaxis in inflammation.
- Krug, Laurie<sup>6</sup>, Ph.D., 2001, Emory University: Virus-host interactions during chronic gammaherpesvirus infection.
- Leatherwood, Janet<sup>2</sup>, Ph.D., 1993, Johns Hopkins University: Cell-cycle control and DNA replication; fission yeast molecular biology.
- Martin, Benjamin L.<sup>21</sup>, Ph.D., 2005, University of California, Berkeley: Stem cell maintenance and differentiation; developmental mechanisms of cancer pathogenesis.
- Martinez, Luis A.<sup>5</sup>, Ph.D., understanding how alterations in the p53 gene contribute to the development of cancer.
- Prives, Joav<sup>4</sup>, Ph.D., 1968, McGill University, Canada: Cytoskeletal membrane interactions in muscle cells.
- Seeliger, Markus<sup>4</sup>, Ph.D., 2003, Cambridge University: Function and mechanism of protein kinases and ubiquitin ligases.
- Simmerling, Carlos<sup>9</sup>, Ph.D. 1994, University of Illinois at Chicago: Development of tools for efficient and simulation of chemical systems and using them to study the structure and dynamics of molecules involved in biological processes.
- Sirotkin, Howard<sup>3</sup>, Ph.D., 1996, Albert Einstein College of Medicine: Vertebrate neural development and patterning. Spector, Illan<sup>6</sup>, Ph.D., 1967, University of Paris, France: Neuronal differentiation and microfilaments.
- Spitzer, Eric D.<sup>5</sup>, M.D./Ph.D., 1985, Johns Hopkins University: Molecular biology of *Cryptococcus neoformans*.
- Takemaru, Ken-Ichi<sup>4</sup>, Ph.D., 1997, The Graduate University for Advanced Studies, Japan: Wnt signaling in development and disease.
- van der Velden, Adrianus<sup>6</sup>, Ph.D., 2000, Oregon Health and Science University: The mammalian T cell response to *Salmonella enterica* serovar Typhimurium.
- Wang, Hsien-yu<sup>6</sup>, Ph.D., 1989, Stony Brook University: Wnt/Frizzled and G-protein signal transduction in development.
- Zong, Wei-Xing<sup>2</sup>, Ph.D., 1999, University of Medicine & Dentistry of New Jersey: Molecular regulation of apoptotic and necrotic cell death.

### Assistant Professors

- Michael Airola<sup>1</sup>, Ph.D., Structural biology of lipid modifying enzymes
- Nurit, Ballas<sup>1</sup>, Ph.D., 1989, Hebrew University, Israel: The cellular and molecular mechanisms underlying the initiation and rescue of Rett syndrome.
- Chan, Chia-Hsin<sup>9</sup>Hsin<sup>4</sup>, Ph.D. 2007, National Taiwan University: Molecular mechanisms of cancer development; cancer metabolism and stemness.
- Chen, Jiang<sup>8</sup>, M.D., Ph.D., 1995, Henan Medical University, China; 2001, University of Heidelberg, Germany: Planar cell polarity and primary cilia in skin and hair follicle development and skin cancers.
- Chowdhury, Saikat, Ph.D., Cytoskeletal dynamics and regulation, cryo-electron microscopy and cell biology
- French, Jarrod<sup>1</sup>, Ph.D., Structural Biology, Chemical Biology and Enzymology of Metabolic Pathways and Protein complexes.
- Kaczocha, Martin, Ph.D., 2009, Stony Brook University: Endocannabinoids, lipid metabolism, inflammation, and pain.
- Kim, Hyungjin<sup>4</sup>, Ph.D., Genome instability, Ubiquitin/SUMO Signaling, Cancer pathogenesis - Regulation of DNA repair in cancer susceptibility pathways.
- Kumar, Pawan<sup>2</sup>, Ph.D., Immunology, gut microbiota-immune cells interaction. Intestinal and autoimmune inflammation. Levy, Sasha F. <sup>41</sup>, Ph.D., 2005, University of California, Santa Barbara: Physical and quantitative biology.
- Luk, Ed<sup>2</sup>, Ph.D., 2003, John Hopkins University: Chromosome biology and genome regulation.
- Matus, David Q.<sup>21</sup>, Ph.D., 2006, University of Hawaii: Evolutionary, cellular, and developmental approaches to studying nematode uterine-vulval morphogenesis.
- Seeliger, Jessica<sup>4</sup>, Ph.D., 2007, Stanford University: Chemical biology, biochemistry, microbiology. Mechanisms of lipid biosynthesis and transport in bacterial pathogens.
- Sheridan, Brian<sup>2</sup>, Ph.D., Mucosal Immunology, T cell memory, Vaccine design, Host-pathogen interactions.

Sneider, Ashly, Ph.D., Bioactive lipids and dietary fatty acids in inflammation and cancer.

Tan, Dongyan<sup>3</sup>, Ph.D., Structure and function of macromolecules involved in epigenetic regulation; biophysical behavior of model lipid membranes.

Zhan, Huichun Stem cell biology in normal and neoplastic hematopoiesis

### Adjunct Faculty

Hammell, Christopher<sup>15</sup> Ph.D., Understanding how temporal precision in gene regulation contributes to normal development and how the modulation of protein translation impacts human cancer biology.

Joshua-Tor, Leemo<sup>15</sup> Ph.D., 1991, The Weizmann Institute of Science: Structural biology; X-ray crystallography; molecular recognition; nucleic acid regulation; RNAi.

Krainer, Adrian <sup>15</sup> Ph.D., 1986, Harvard University: mRNA splicing; gene expression; RNA-protein interaction.

Martienssen, Robert, Professor.<sup>15</sup> Ph.D., Cambridge University: Plant genetics; transposons; development; gene regulation; DNA methylation.

Mills, Alea, A., Associate Professor.<sup>15</sup> Ph.D., 1997 University of California: Cancer; development; aging; senescence; epigenetics.

Setlow, Richard, Professor.<sup>1,13</sup> Ph.D., 1947, Yale University: DNA damage and repair; carcinogenesis and mutagenesis in fish, light-induced malignant melanoma.

Spector, David L., Director of Research & Professor.<sup>15</sup> Ph.D., 1980, Rutgers University: Spatial organization of gene expression.

Stenlund, Arne, Associate Professor.<sup>15</sup> Ph.D., 1984, Uppsala University, Sweden: DNA replication of papillomaviruses.

Stillman, Bruce, President & Professor.<sup>15</sup> Ph.D., 1979, Australian National University: DNA replication and chromatin assembly in human and yeast cells.

Studier, William, Professor.<sup>1,13</sup> Ph.D., 1963, California Institute of Technology: Molecular genetics of phage T7: recombinant protein productions. Tansey, William P., Professor.<sup>15</sup> Ph.D., 1991, University of Sydney, Australia: Regulation of oncoprotein stability.

Tonks, Nicholas, Professor.<sup>15</sup> Ph.D., 1985, University of Dundee, Scotland: Characterization of protein tyrosine phosphatases.

Trotman, Lloyd C., Associate Professor, Ph.D., 2001, University of Zurich: Cancer modeling and treatment; senescence and tumor progression; cancer visualization; PTEN regulation.

Vakoc, Christopher, Assistant Professor.<sup>615</sup> M.D., Ph.D., 2007, University of Pennsylvania: chromatin regulators and oncogenic signal transduction cascades.

Van Aelst, Linda, Associate Professor.<sup>15</sup> Ph.D., 1991, University of Leuven, Belgium: Role of ras in mammalian cell transformation.

Wigler, Michael, Professor.<sup>15</sup> Ph.D., 1978, Columbia University: Genomics and cancer.

Number of teaching, graduate, and research assistantships, Fall 2018: 75

- Department of Biochemistry and Cell Biology
- Department of Molecular Genetics and Microbiology
- Department of Neurobiology and Behavior
- Department of Pharmacological Sciences
- Department of Pathology
- Department of Physiology and Biophysics
- Department of Psychiatry
- Department of Medicine
- Department of Chemistry
- Department of Oral Biology and Pathology
- Department of Obstetrics and Gynecology
- Department of Anatomical Sciences
- Brookhaven National Laboratory
- Recipient of the State University Chancellor's Award for Excellence in Teaching, 1975
- Cold Spring Harbor Laboratory
- Department of Applied Math and Statistics
- Department of Neurosurgery

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

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

## Molecular and Cellular Pharmacology Program

**Chairperson**

Michael A. Frohman, Center for Molecular Medicine CMM 438 (631) 444-3050

**PhD Program Director**

Holly Colognato, Basic Sciences Tower Level 8, Room 189 (631) 444-7815

**MS Program Director**

Bruce Demple, Basic Sciences Tower Level 8, Room 173 (631) 444-3978

**PhD Program Administrator**

Odalís Hernández, Basic Sciences Tower (BST)-8, Room 140 631-444-3057 Fax: (631) 444-9749

**MS Program Administrator - Interim**

Jill Locurcio, Basic Sciences Tower (BST) 8-140, 631-444-3027, jill.locurcio@stonybrook.edu

**E-mail**

phmgradadmit@stonybrook.edu

**Web Site**

<https://www.stonybrook.edu/commcms/mcp/index.php>

**Degrees Awarded**

Ph.D. in Molecular and Cellular Pharmacology; MS in Biomedical Science (Molecular and Cellular Pharmacology track)

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Molecular and Cellular Pharmacology Ph.D. Program

The faculty of the Department of Pharmacological Sciences, in conjunction with faculty in other departments at Stony Brook, offers the Graduate Program in Molecular and Cellular Pharmacology leading to the Ph.D. degree. Because the program emphasizes early research experience and provides a broad curriculum, students lay the foundation for subsequent independent research. Graduate research opportunities are provided in a broad range of areas including biochemical and molecular pharmacology, chemical pharmacology and toxicology, and cellular and physiological pharmacology. Students, in consultation with faculty advisors, pursue basic and elective courses and begin thesis research during the first two years of training. During this time, they participate in several research projects directed by faculty members associated with the program. Students then select a research advisor from the faculty and, upon completion of the qualifying exam, devote full effort to dissertation research. Students have the opportunity to perform research rotations and/or thesis research in any of 52 associated laboratories in Department of Pharmacological Sciences or other University departments or at Brookhaven National and Cold Spring Harbor Laboratories. Further details may be obtained from the graduate program director.

## Admission Requirements of Molecular and Cellular Pharmacology Graduate Programs

For admission to the Graduate Program in Molecular and Cellular Pharmacology, the following, in addition to the minimum Graduate School requirements, are normally required:

- A. A bachelor's degree in an appropriate field (biology, chemistry, biochemistry, microbiology, physics) with evidence of superior performance in science courses. Coursework in biochemistry, physical chemistry, organic chemistry, and physiology is highly recommended.
- B. Three letters of reference are required.
- C. TOEFL may be required for foreign students. GRE is not required.
- D. Acceptance by both the Department of Pharmacological Sciences and the Graduate School.
- E. Only Students accepted into the graduate Ph.D. graduate program = receive stipend support and full tuition scholarships.

## Facilities of the Department of Pharmacological Sciences

The Department of Pharmacological Sciences is the primary training facility for graduate studies in Molecular and Cellular Pharmacology. The department occupies 32,000 square feet in the University's Basic Sciences Tower, 5,000 square feet in the Center for Molecular Medicine, and 5,000 square feet in the Graduate Chemistry Building. Faculty laboratories are equipped for all types of modern molecular and cell biological, biochemical, neurochemical, chemical, biophysical, and toxicological research. Specialized facilities are provided for tissue culture, recombinant DNA work, ultracentrifugation, scintillation and gamma spectrometry, transgenic mouse research, electron microscopy, confocal microscopy, molecular modeling, gas and high-performance liquid chromatography, proteomics, nuclear magnetic resonance, X-ray crystallography, and mass spectrometry. Research activities are supported by various shops, University computing facilities, animal-care facilities, and media services. Excellent library facilities, including include the Health Sciences Library, the Pharmacological Sciences Library and online resources, comprising of databases, E-books and E-journals, Program faculty members currently receive more than \$14 million in annual research support from federal and private agencies.

**Requirements for the Ph.D. Degree in Molecular and Cellular Pharmacology**



In addition to the minimum Graduate School requirements, the following are required:

**A. Course Requirements**

1. Biomolecular Structure & Analysis (CHE 541)
2. Graduate Physiology (HBY 501)
3. Biochemical Laboratory Techniques (HBH 545, HBH 546)
4. Cell Biology (MCB 656)
5. Principles of Pharmacology series (HBH 631, HBH 632)
6. Integrity in Science (GRD 500)
7. Proposal Preparation in Regulatory Biology (HBH 560)
8. One elective
9. Practicum in Teaching Pharmacology (HBH 601)
10. Journal Club (HBH 580)
11. Seminar (HBH 590)—every semester
12. Research (HBH 599 before advancement to candidacy, HBH 699 after advancement to candidacy).

Depending on prior course work, students may adjust these requirements with the consent of the Steering Committee of the Graduate Program.

**B. Research Rotations**

Students are required to complete three rotations in laboratories affiliated with the program during the first two semesters and the following summer. The host laboratory for thesis research is typically selected from one of these three rotations.

**C. Qualifying Exam**

In the second year, students are required to write and orally defend a research proposal on a topic unrelated to their thesis research.

**D. Thesis Proposal Examination**

In the fall semester of the third year, students select a thesis committee including three program faculty and one extramural faculty member to evaluate their written thesis proposal and their oral defense of the proposal.

**E. Advancement to Candidacy**

Following completion of coursework, and satisfactory performance on the qualifying examination and research proposal examination, students will be recommended to the Graduate School for advancement to Ph.D. degree candidacy.

**F. Ph.D. Dissertation**

The research for the Ph.D. dissertation is conducted under the supervision of the thesis committee. Upon approval of the completed dissertation by this committee, a dissertation examining committee is appointed by the Dean of the Graduate School. A formal public oral defense of the dissertation is scheduled, at which the student presents his or her findings and is questioned by members of the examining committee and by other members of the audience.

**G. Teaching Requirement**

It is expected that each graduate student completing a doctoral degree will have functioned as a teaching assistant during at least one semester of his or her graduate career (HBH 601).

**H. Residence Requirement**

The University requires at least two consecutive semesters of full-time graduate study. The demands of the program necessitate a longer period of residence.

**I. Electives**

To complete their course requirements, students must take one elective course. The following is a list of courses offered by other programs in the university. This subset of elective courses represents courses that are recommended or that students have taken in the last several years.

Biology: MCB 657 Principles of Development

Biology: MCB 517 Biomembranes

Biology: MCB 503 Molecular Genetics

Chemistry: CHE 542 Chemical Biology

Genetics: BGE 510 Graduate Genetics

Biochemistry: BMO 512 Physical Biochemistry

Microbiology: HBM 640 Mol. Mechanisms of Microbial Pathogenesis

Pathology: HBP 533 Immunology

Pharmacology: HBH 550 Statistics in the Life Sciences Pharmacology/Neurobiology: HBH 655 Neuropharmacology Pharmacology: HBH 585

Advanced Structure Biology/Structural Methods in Drug Discovery

Physiology: HBY 561 Statistical Analysis of Physiological Data

Physiology: HBY 564 Experimental Techniques in Systems Physiology

### **Requirements of the MS Degree in Biomedical Science (Molecular and Cellular Pharmacology track)**

Completion will require 33 graduate level credits and a thesis. 23-28 credits in required courses, up to 6 credits in electives and 5-10 research credits.

#### **Thesis-Option Requirements:**

1. Principles of Pharmacology (HBH 501)
2. Advanced Pharmacology (HBH 502)
3. Seminar (three times) (HBH 590)
4. Graduate Biochemistry (MCB 520)
5. Cell Biology (MCB 656)
6. Integrity in Science (GRD 500)
7. Lab Methods (HBH 545, HBH 546)
8. Statistics (HBH 550)
9. Research (HBH 599)

Electives (choose 0 to 6 credits)

1. Principles of Development (MCB 657)
2. Signal Transduction (HBH 553)
3. Neuropharmacology (HBH 655)
4. Molecular Genetics (MCB 503)
5. Communicating Science (JRN 501-505)
7. Pharmacology Colloquium (HBH 506)

#### **Final Written Thesis**

In their final semester of the Program, students will select a thesis committee that includes three program faculty to evaluate their written thesis. Students will also give a seminar on their research during their final semester in the program.

#### **Non-Thesis-Option Requirements:**

1. Principles of Pharmacology (HBH 501)
2. Advanced Pharmacology (HBH 502)
3. Pharmacology Colloquium (HBH 506)
4. Seminar (three times) (HBH 590)
5. Graduate Biochemistry (MCB 520)
6. Cell Biology (MCB 656)
7. Integrity in Science (GRD 500)
8. Lab Methods (HBH 545, HBH 546)
9. Research (HBH 599)

Electives (choose 0 to 6 credits)

1. Principles of Development (MCB 657)
2. Signal Transduction (HBH 553)
3. Neuropharmacology (HBH 655)
4. Molecular Genetics (MCB 503)
5. Communicating Science (JRN 501-505)
6. Statistics (HBH 550)

The non-thesis option requires a total of 33 graduate level credits and a culminating literature review project that must be developed in consultation with the Program Director. Additional approved elective courses are also required, and must be chosen in consultation with the Program Director.

**Faculty of the Molecular and Cellular Pharmacology Program****Distinguished Professors**

Frohman, Michael A., Chair, M.D., Ph.D., 1985, University of Pennsylvania: Neural differentiation and signal transduction.

Hannun, Yusuf, M.D., 1981, American University in Beirut. Sphingolipid metabolism.

Tsirka, Styliani-Anna (Stella) E., Ph.D., 1989, University of Thessaloniki, Greece: Neuronal-microglial interactions in the physiology and pathology of the central nervous system.

**Leading Professor**

Cohen, Ira S., M.D., Ph.D., 1974, New York University: Electrophysiology of the heart.

**Professors**

Boon, Elizabeth, Ph.D., California Institute of Technology, 2003, Chemical Biology, Enzymology, Bioinorganic Chemistry, and Spectroscopy

Demple, Bruce, Ph.D., UC Berkeley; Mechanisms and roles of human enzymes that repair oxidative (free radical) damage in DNA

Chen, Fei, Ph.D., Nantong Medical College/Peking University Health Sciences Center, Oncogenic drivers and mechanisms of carcinogenesis.

Colognato, Holly, Ph.D. 1999, Rutgers University: Extracellular matrix in the brain: roles during development and during neurodegeneration.

Du, Congwu, Ph.D. Luebeck University, Germany; In vivo optical imaging of neuronal-glio-vascular interactions and the effects of drug-elicited brain functional changes.

Dubnau, Josh, Ph.D., Columbia University. Investigate novel mechanism proposed to underlie amyotrophic lateral sclerosis (ALS) and Frontotemporal lobar degeneration (FTLD).

Enikolopov, Grigori, Ph.D., Moscow State University; Adult neural stem cells and adult neurogenesis.

Futcher, Bruce, Ph.D., Oxford University. Molecular genetics in yeast and computational analysis. Control of cell division, and mechanisms of protein translation.

Garcia-Diaz, Miguel; Ph.D. 2003, University Autonoma of Madrid, Spain: Mechanisms of mitochondrial gene expression/Mechanisms of DNA synthesis and repair.

Ge, Shaoyu, Ph.D. University of Science and Technology (China). To examine the functional integration of new neurons into brain circuit

Ghebrehwet Berhane, D.V.M., D.Sc.: C1q receptor mediated cellular responses with particular emphasis on inflammation and microbial infection.

Hearing, Patrick, Ph.D., 1980, Northwestern University: Adenovirus regulation of cellular proliferation and gene expression; adenovirus vectors for human gene therapy.

Joshua-Tor, Leemor, Ph.D., 1991, The Weizmann Institute of Science. Nucleic acid regulation; RNAi; molecular recognition.

Karzai, Wali A., Ph.D., 1995, Johns Hopkins University: Biochemistry and structural biology of RNA-protein interactions, translational control of gene expression, and drug discovery.

Lin, Richard, M.D., University of California San Francisco. Intracellular signaling molecules that regulate cell growth.

Liu, Ke Jian 'Jim', Ph.D., The University of Leeds, UK. Molecular mechanisms of metal carcinogenesis; DNA repair and somatic mutations

Ma, Yupo, M.D., Ph.D., Jinhan College of Medicine/University of South Alabama. Leukemic stem cells/Stem cell therapy.

Mallipattu, Sandeep K., MD, Boston University. Investigating the molecular mechanisms involved in the development and progression of kidney disease.

McKinnon, David, Ph.D., 1987, Australian National University, Australia: Molecular physiology of neurons and cardiac muscle.

Miller, W. Todd, Ph.D., 1987, Rockefeller University: Signal transduction by tyrosine kinases.

Miller, Lisa, Ph.D., 1995, Albert Einstein College of Medicine. The chemical makeup of tissue in disease using high-resolution infrared and xray imaging.

Moll, Ute M., M.D., 1970, Ulm, Germany: Tumor suppressor gene research; mechanism of p53 inactivation.

Reich, Nancy C., Ph.D., 1983, University at Stony Brook: Signal transduction and gene expression induced by cytokines and viral infection.

Rigas, Basil, M.D. 1972, Athens Univ Med School; D.Sc. 1975, Athens Univ. Med. School, Greece: NSAIDs in the prevention of colon cancer.

Rizzo, Robert, Ph.D. 2001, Yale University: Computational Research Projects in Cancer, HIV/AIDS, Influenza, and Method Development.

- Seeliger, Markus, Ph.D., 2003, Cambridge University, Trinity College; Using NMR and ligand binding kinetics to study Abl and Src kinase domains.
- Simmerling, Carlos, Ph.D., 1994, University of Illinois, Chicago: Computational chemistry and structural biology; molecular dynamics of biological macromolecules.
- Shroyer, Kenneth, M.D. 1987, Ph.D. 1983, University of Colorado. The molecular characterization of benign, premalignant, and malignant lesions of the female genital tract.
- Takemaru, Ken-Ichi, Ph.D., 1997, Graduate University for Advanced studies, Japan: Wnt Signaling in Development and Disease.
- Tang, Shao-Jun, Ph.D., University of Toronto. Neuron-glia interaction in pain pathogenesis induced by opioids, HIV, or antiretroviral drugs.
- Thomsen, Gerald H., Ph.D., The Rockefeller University. Vertebrate Embryonic Development.
- Tonge, Peter, Ph.D. 1986, University of Birmingham: Biological chemistry and enzyme mechanisms; quantitating substrate strain in enzyme-substrate complexes using vibrational spectroscopy; rational drug design.
- Tuveson, David, M.D./Ph.D., Johns Hopkins University; Detection and treatment of pancreatic cancer
- Vorkas, Charles, MD. Weill Cornell Medicine. Innate lymphocyte biology of infectious diseases and cancer; Mycobacterium tuberculosis, tick-borne diseases, and hematologic malignancies
- Wang, Zhishan, MD, Ph.D., Tongji Medical University. Environmental carcinogenesis, Cancer biology and Cancer therapy.
- Yang, Chengfeng, Ph.D., National University of Singapore/Tongji Medical University. RNA dysfunction in carcinogenesis and resistance to cancer therapies.
- Yang, Vincent, MD, Ph.D., Princeton University/Rutgers University. Identifying the causes and treatment of gastrointestinal malignancies .
- White, Thomas, Ph.D., 1994, Harvard University; Molecular biology and physiology of gap junction channels.
- Wollmuth, Lonnie, Ph.D., 1992, University of Washington: Molecular mechanisms of synaptic transmission.
- Associate Professors**
- Airola, Michael V., Ph.D. Membrane biochemistry, lipid metabolism and transport, cancer and antifungal drug development
- Bowen, Mark, Ph.D., University of Illinois, 1998, Single molecule spectroscopy; Coordination of post-synaptic glutamate receptor signaling by the MAGUK family of scaffolds.
- Brouzes, Eric, Ph.D. Institut Curie, Paris. Analyzing heterogeneity of cancer tissues.
- Carpino, Nicolas, Ph.D., 1997, Stony Brook University. Positive and Negative Regulation of T cell Receptor Signaling.
- Carrico, Isaac, Ph.D., 2003, California Institute of Technology. Chemical Biology, Bioorganic Chemistry and Protein Engineering.
- Clarke, Christopher, Ph.D. University of Manchester. Oncogenic reprogramming of sphingolipid metabolism as a driver of anoikis resistance and metastasis.
- Chung, Jun, Ph. D. 1999, Washington University, St. Louis. Cancer invasion and metastasis.
- Enikolopov, Grigori N., Ph.D. 1978, Institute of Molecular Biology, USSR Academy of Science: Stem cells; neurogenesis; development; signal transduction
- Glynn, Steven, Ph. D. The University of Sheffield. Proteolytic machines in mitochondria.
- Kaczocha, Martin, Ph.D., Stony Brook University; Neuroscience, acute and chronic pain, drug development, lipid signaling.
- Kim, Hyungjin, Ph.D., Washington University, St. Louis. Regulation of DNA repair in cancer susceptibility pathways.
- Kumar, Pawan, Ph.D., University of Southampton. IL-17 and IL-22 mediated intestinal mucosal host defense.
- Laughlin, Scott, Ph.D., University of California, Berkeley. Chemical Biology & Neuroscience.
- Li, Feng-Qian, Ph.D., Graduate University of Advanced Studies, Japan. Signaling: Cell Signaling, Cancer, Stem cells, Protein trafficking and Disease
- Luk, Ed, Ph.D., How cells organize chromatin structure to accommodate and control gene expression.
- Martin, Benjamin, Ph.D., Molecular basis of stem cell development and cancer pathogenesis.
- Martinez, Luis, Ph.D. 1994, University of Texas at Austin. Alterations of p53 in cancer development.

Plotkin, Joshua, Ph.D. UCLA; Striatal microcircuitry underlying normal behavior and disorders such as OCD

Puopolo, Michelino, Ph.D., University of Ferrara; Ion channels and neuronal excitability. Mechanisms of pain.

Seeliger, Jessica, Ph.D., Stanford University. Membrane biosynthesis, structure & behavior in bacterial pathogenesis

Van der Velden, Adrianus, Ph.D., Oregon Health and Science University; The mammalian T cell response to Salmonella enterica serovar Typhimurium

Yang, Wei, Ph.D., Peking University. Harnessing the power of multi-level proteomics to understand and prevent cancer metastasis.

Zhan, Huichun, M.D., Peking Union Medical College; Pathogenesis and treatment of myeloproliferative neoplasms.

#### **Assistant Professors**

Acosta-Martinez, Maricedes, PhD. 202, Albert Einstein College of Medicine; Neuroendocrine regulation of the hypothalamus-pituitary-gonad (HPG) axis.

Brownlee, Christopher W., Ph.D., University of California, Berkeley Molecular mechanisms of spindle orientation, ciliogenesis, polarity, cytokinesis, and axonogenesis.

Cheung, Leonard, Ph.D., University College London, UK. Genetic manipulation of the Wnt and Notch signaling pathways in the pituitary gland in vivo.

Damaghi, Mehdi, Ph.D., Max Planck Institute, Dresden, Germany. Evolution of metabolic phenotypes in variable tumor microenvironment.

Dos Santos, Camila, Ph.D. Universidade Estadual de Campinas, Brazil; epigenetic regulation of normal and malignant mammary gland development.

Hsieh, Helen, MD/Ph.D., Stony Brook University. Necrotizing Enterocolitis (NEC) and Neurodevelopment: the Role of Inflammation in Brain Development.

Hu, Chi-Kuo, Ph.D., Harvard University. Biology of dormancy during development and aging, with the African killifish as the main research organism.

Luberto, Chiara, Ph.D., Catholic University of Rome, School of Medicine. Regulation of sphingolipid signaling and the impact dysregulation might have on certain diseases, such as specific types of cancer.

Misra, Jyoti R., Ph.D., University of Utah. Growth regulation by the Hippo Signaling pathway in development and cancer.

Montrose, David, Ph.D. University of Connecticut; Colon cancer, inflammatory bowel disease, microbiota, metabolism.

Nadkarni, Neil, M.D., Boston University. Translational stroke, inflammation, physiology and behavior.

Rahme, Gilbert J., Ph.D., Dartmouth College. Cancer epigenetics with a focus on brain tumors.

Serbryany, Eugene, Ph.D., Massachusetts Institute of Technology. Chemical biophysics of proteins in vitro and in vivo.

Sher, Roger, Ph.D., University of California, Davis. My research is committed to studying the complexity inherent in biological systems for the purpose of improving human health, focusing on Amyotrophic Lateral Sclerosis, Alzheimer's Disease, and neurodegenerative diseases.

Talos, Flaminia, Ph.D., 2006, Stony Brook University; Specification and clonal fate analysis of prostate epithelial cells in organogenesis and cancer.

Tan, Dongyan, Ph.D., Albert Einstein College of Medicine; Structure and function of macromolecules in epigenetic regulation.

Wan, Ledong, Ph.D., Zhejiang University. RNA Metabolism, Pancreatic Cancer, Inflammation.

Number of teaching, graduate, and research assistants, Fall 2018: 42

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

Department of Music

**Chairperson**

Christina Dahl Staller Center 3304 (631) 632-7330

**Graduate Program Director**

Judith Lochhead Staller Center 3346 (631) 632-7349

**Graduate Program Coordinator**

Monica Winchell (631) 632-7352

**Degrees Awarded**

M.A. in Music (Critical Music Studies); M.A. in Music (Composition); M.M. in Music Performance; Ph.D. in Music (Critical Music Studies); Ph.D. in Music (Composition); D.M.A. in Music Performance.

**Website**

<https://www.stonybrook.edu/commcms/music/>

**Application**

Applications to our programs can be found on our website here: <https://www.stonybrook.edu/commcms/music/academics/apply.php>

**Description of the Department of Music**

The Department of Music offers programs that normally lead to the Doctor of Philosophy degree in Music, with tracks in Critical Music Studies and in Composition. The Department also offers programs that normally lead to the Doctor of Musical Arts degree in Music Performance. Master's Degrees in Music with tracks in Critical Music Studies, in Composition, and in Music Performance are also available.

Stony Brook's graduate programs in Music have grown out of a unique partnership between the academy and the conservatory. The Music Department has a distinguished and well-balanced faculty in the scholarly study of music, composition, and performance. Graduate curricula are designed to facilitate interaction among musical disciplines that have traditionally been kept separate. A number of courses are team-taught by two or more faculty members, examining topics from several disciplinary viewpoints, and academic courses typically have a mix of students from all areas. Several examine music in a broader social context, drawing on such disciplines as ethnomusicology, cultural studies, and feminist theory. Interdisciplinary studies are central to the educational philosophy of the department, and the Department encourages the development of professional competence in more than one area of musical study. For students at the Doctoral level who propose to do serious work both in performance and in some other area, a variety of options are available, including some dual degrees.

Music of the 20th and 21st centuries is a particular emphasis of both the performance and academic programs, but other areas are also amply represented. Students can choose seminars from a broad spectrum of topics, ranging from the history of music theory to American popular music. Performing organizations include Baroque Chamber Ensemble, Chamber Music, Jazz Ensemble, Contemporary Chamber Players, Camerata Singers, Stony Brook Symphony Orchestra, VOLTA West African Music Ensemble, and Opera Workshop.

**Admission to the M.A./Ph.D. Programs at the Master's Level in Music (Critical Music Studies) and in Music (Composition)**

The following are required for admission to the Graduate program in Music (Critical Music Studies) and in Music (Composition) leading to an M.A. and/or Ph.D. degree, in addition to the requirements of the Graduate School:

- A. A bachelor's degree from a recognized institution.
- B. Official transcripts of all undergraduate records, and all graduate records, where applicable.
- C. A minimum grade point average of 3.0 (B) in undergraduate music courses.
- D. Three letters of recommendation from persons familiar with the student's work.
- E. Examples of undergraduate work:
  - 1. For Critical Music Studies track applicants, essays in music history, analysis, theory, ethnomusicology, or criticism.
  - 2. For Composition track applicants, musical scores and recordings.
- F. Acceptance by both the Department of Music and the Graduate School.

Applicants are invited to submit any other evidence of their abilities in support of their application for admission, such as recordings of music performances.

All students entering the M.A. program will be assessed in the following areas:

- 1. Ear training.
- 2. Basic keyboard skills (for Composition students only).
- 3. The history and cultural study of music.

#### 4. The analysis of music.

These exams are advisory only; students will be advised on which courses to take to address any gaps or develop specific skills.

### **Admission to the M.M./D.M.A. Program at the Master's Level**

The following are required for admission to the M.M. Program in Performance, in addition to the requirements of the Graduate School:

A. A bachelor's degree from a recognized institution.

B. Official transcripts of all undergraduate records, and all graduate records, where applicable.

C. An audition in the major field of performance. Students residing at a distance from the University may gain provisional acceptance by sending a recorded audition. Audition dates, usually designated for February, are announced by the Department mid-fall. These dates, as well as specific requirements for auditions, are posted on the Departmental website.

D. Letters of recommendation from the former principal teacher and at least two other persons familiar with the student's work. One letter should come from a person familiar with the student's academic work.

E. While acceptance into the program is based primarily upon excellence in performance, the program contains a significant academic component. Applicants to the program are therefore required to submit two examples of their work in music history, music theory, or ethnomusicology, such as papers completed as part of coursework in those. One paper is required for entry at the master's level; two are required for entry at the doctoral level.

F. Acceptance by both the Department of Music and the Graduate School.

Entering students will be examined in ear training during the week before the beginning of classes, and will be placed in the appropriate courses. Entering students in Voice will also be examined in basic keyboard skills.

### **Admission to the Ph.D. Programs in Music (Critical Music Studies) or in Music (Composition)**

See Admission to the M.A./Ph.D. Program, above. In addition, a master's degree, usually in the pertinent area of competence, is required. As evidence of ability to carry on doctoral work in the area of specialization, applicants should submit examples of recent work as follows:

1. For the Composition track: recordings and scores.

2. For the Critical Music Studies track: essays that demonstrate a breadth of knowledge in two or more of the following areas: the history, theory, analysis, or criticism of any music tradition, music's relationship to culture and politics, musical and sonic media, the ethnography of music and sound.

Applicants who plan to include study in performance as a part of their degree program should follow the audition procedure outlined under Admission to the D.M.A. Program, above. Students who intend to work in a secondary area of specialization must demonstrate to the pertinent faculty competence commensurate with a master's degree at a distinguished level in that area.

Students who do not possess the Master of Arts degree in Music from Stony Brook will be asked to demonstrate achievement commensurate with that degree by the end of the first or second year of study, as advised, by taking the relevant M.A. qualifying examinations.

Entering students who have not already done so must successfully complete the appropriate advisory examinations described under Admission to the M.A./Ph.D. Program. These exams are advisory only; students will be advised on which courses to take to address any gaps or develop specific skills. These must be completed by the end of the first year of study.

Although most students will move directly from the master's to the doctoral level of the M.A./Ph.D. program, successful completion of the Stony Brook M.A. degree does not guarantee acceptance into the Ph.D.-level program. Students wishing to continue from the M.A. to the Ph.D. degree must formally apply for admission to the Ph.D. program by the posted deadlines for fall admission. This should be accompanied by two letters of recommendation from Stony Brook faculty. In order to demonstrate the ability to continue on at the doctoral level, students must submit appropriate examples of work: master's papers for Critical Music Studies; the Master's Composition Portfolio for Composition. Students may also elect to finish with the M.A. degree.

### **Admission to the D.M.A. Program**

See Admission to the M.M./D.M.A. Program, above. In addition, a master's degree, usually in the pertinent area of performance, is required. Applicants must audition in person before a faculty committee. Students residing at a significant distance from the University may gain provisional acceptance by sending a recorded audition. Audition dates, usually designated for February, are announced by the Department mid-fall. These dates, as well as specific requirements for auditions, are posted to the Department's website.

Students who do not possess a Master of Music degree from Stony Brook must demonstrate a level of achievement in ear training, and demonstrate preparation in music history and theory, commensurate with the M.M. requirements. Voice students who do not possess a Master of Music degree from Stony Brook must also satisfy the piano proficiency and foreign language requirements of the Stony Brook M.M. degree in Voice. Harpsichord students who do not have a Stony Brook M.M. must also satisfy the foreign language requirement of the Stony Brook M.M. in Harpsichord.

Applicants who plan to include a secondary area of specialization in Composition or Critical Music Studies within their D.M.A. program must apply by submitting examples of work in the proposed secondary area and demonstrating to the pertinent faculty competence commensurate with

a master's degree at a distinguished level in that area. Students who are accepted in a secondary area of specialization must take the appropriate advisory examinations described under Admission to the M.A. Program. These exams are advisory only; students will be advised on which courses to take to address any gaps or develop specific skills. These must be completed by the end of the first year of study.

Although most students will move directly from the Master's to the Doctoral level of the M.M./D.M.A. program, successful completion of the Stony Brook M.M. degree does not guarantee acceptance into the D.M.A.-level program. Students wishing to continue from the master's to the Doctorate degree must formally apply for admission to the Ph.D. program by the posted deadlines for fall admission. This should be accompanied by two letters of recommendation from Stony Brook faculty; typically this will be the studio teacher and one academic faculty member. In order to demonstrate the ability to continue at the doctoral level, students must play an audition. Students may also elect to finish with the M.M. degree.

### **Facilities of the Department of Music**

Stony Brook's Staller Center for the Arts includes an acoustically excellent theatre-concert hall and a more intimate recital hall. The music building contains both rehearsal and teaching facilities, more than 70 practice rooms and studios for graduate students, and more than 40 Steinway grand pianos. A fully-equipped electronic and computer music studio complex provides advanced facilities for electronic and computer music composition. On campus, students have access to computing resources via SINC (Students in Need of Computers) sites (run by the Division of Information Technology) which has multimedia software and hardware. The Department also has a collection of early instruments, including several harpsichords and organs, a consort of viols, and Renaissance wind instruments. Our music library contains an extensive research collection of books, periodicals, scores, microfilms, DVDs, and audio recordings.

### **Degree requirements\***

#### **General Requirements for the M.A Degree in Music:**

Thirty graduate credit hours (exclusive of those in MUS 505: Foundations of Musicianship, and MUS 591: Practicum in Teaching) chosen in consultation with the student's advisor. A student must achieve an overall 3.0 grade point average in order to receive a degree. The program must include:

1. MUS 502: Proseminar in Tonal Analysis or MUS 504: Analysis of Music of the 20th and 21st Centuries, to be taken during the first year of Students who are well prepared in analysis may be exempted from this requirement through an examination that the student takes in the summer before matriculating or (Critical Music Studies) via an advisory assessment taken before classes start.
2. MUS 505: Foundations of Musicianship and MUS 506: Graduate Musicianship, to be taken during the first year of Qualified students may be exempted from these courses through a placement exam given at the beginning of the fall semester.

If a course in a department or program other than Music is taken toward the degree, approval from the Graduate Studies Committee must be obtained.

\*Note: All graduate students whose programs have a foreign language requirement (M.A. and Ph.D. in Music for the Critical Music Studies track, M.M in Music Performance in Harpsichord and Voice, and D.M.A.) must take the appropriate foreign language exam, typically during their first semester of residence. Students who fail the examination must take an appropriate language course or retake the examination (depending on the program).

#### **Specific Requirements for the M.A. Degree in Music, Critical Music Studies Track**

##### **A. Course Requirements**

In addition to the general course requirements for the M.A. degree listed above, the M.A. in Music (Critical Music Studies) requires:

1. MUS 500: Introduction to Music Research.
2. MUS 537: Research Methods in Ethnomusicology.
3. One course from Elective Group 1: MUS 536: Area Studies in Ethnomusicology, MUS 539: Proseminar in Ethnomusicology, MUS 540: Studies in Cultural Historiography, MUS 541: Topics in the Cross-Cultural Study of Music, MUS 542: Ethnomusicology and Social Theory.
4. One course from Elective Group 2: MUS 543: Topics in Medieval Music, MUS 547: Topics in Baroque Music, MUS 549: Topics in 18<sup>th</sup>-Century Music, MUS 553: Topics in 19<sup>th</sup>-Century Music, MUS 555: Topics in 20<sup>th</sup>-Century Music.
5. One course from Elective Group 3: MUS 538: Phenomenological Approaches to Music Analysis, MUS 557: Topics in Theory, MUS 559: Topics in Analysis.
6. One additional elective course chosen from one of the Elective Groups.
7. Additional electives approved by program faculty (17 credits).

##### **B. Foreign Languages**

Proficiency in one non-English language determined in consultation with the Critical Music Studies faculty. Proficiency is demonstrated through translation exams given each semester.

##### **C. Qualifying Examinations**



Written and oral examinations in the historical, cultural, and analytical study of music.

#### **D. Master's Paper**

A substantial essay, normally from an advanced seminar that the student has revised under the supervision of program faculty, is required. The revised paper should be submitted no later than the twelfth week of the semester in which the student expects to receive the degree.

### **Specific Requirements for the M.A. Degree in Music, Composition Track**

#### **A. Course Requirements**

In addition to the general course requirements for the M.A. degree listed above, the M.A. in Music (Composition) requires:

1. MUS 501: Compositional Skills of Tonal Music, to be taken during the fall semester when offered (alternate years). Students who have taken a graduate-level counterpoint course will be considered for exemption from the course.
2. A course in the history of music, typically MUS 503: Music in the 20th and 21st Centuries or MUS 507: Studies in Music. Students who are sufficiently prepared may, in consultation with relevant faculty, substitute an advanced course in the history of music.
3. MUS 504: Analysis of 20th-Century Music. Students who are well prepared in 20th-century analysis may be exempted from this course by examination, and must substitute an advanced course in 20th-century theory or analysis (for example, MUS 557: Topics in Theory, or MUS 559: Topics in Analysis, when either of these courses is devoted to a 20th-century topic).
4. MUS 515: The Fundamentals of Electronic Music
5. MUS 516: Electronic Music Workshop or MUS 517: Introduction to Computer Music
6. MUS 523: Advanced Composition, to be taken every semester of residence
7. Additional electives approved by program faculty.

#### **B. Comprehensive Examination**

Written examination in the analysis of pre-assigned compositions.

#### **C. Master's Composition Portfolio**

Students must satisfy the Departmental requirement that they have written compositions of sufficient quality and variety during the period of study after admission to the Graduate School. Fair copies of all these compositions must be submitted electronically to the Graduate Program Coordinator by the eighth week of the semester in which the student intends to graduate. The last day for graduate students to submit theses and dissertations, as specified in the academic calendar, will be the final deadline for all works to be submitted.

### **General Requirements for the M.M. Degree in Music Performance**

#### **A. Courses**

1. Thirty graduate credit hours (exclusive of those in MUS 501 Compositional Skills of Tonal Music, MUS 505 Foundations of Musicianship, and MUS 591 Practicum in Teaching) chosen in consultation with the student's Advisor. A student must achieve a 3.0 overall grade point average or better to receive a degree. Up to 15 credits in individual study of the major instrument or voice may be counted toward the degree. None of the remaining 15 degree credits may be in individual study of another instrument or voice.
2. GRD 500: Responsible Conduct of Research and Scholarship
3. MUS 505: Foundations of Musicianship; must be taken during the first year of study. Qualified students may be exempted from this course through a placement exam given at the beginning of the fall semester.
4. MUS 506: Graduate Musicianship; must be taken during the first year of study. Qualified students may be exempted from this course through a placement exam given at the beginning of the fall semester.
5. MUS 520: Introduction to Research and Writing for MM and DMA Students; Qualified students may be exempted from this course if they have taken an equivalent course previously. Students wishing to request an exemption must provide a syllabus outlining the material covered to the GPD for review.
6. One course from Elective Group 1: MUS 503: Music in the 20th and 21st Centuries; MUS 507: Studies in Music History; Students who can demonstrate adequate preparation may take more advanced courses to fulfill this requirement. If a course in a department other than Music is taken toward the degree, approval from the Graduate Studies Committee must be obtained.
7. One course from Elective Group 2: MUS 502: Proseminar in Tonal Analysis; MUS 504: Analysis of Music in the 20th and 21st Centuries; Students who can demonstrate adequate preparation may take more advanced courses to fulfill this requirement. If a course in a department other than Music is taken toward the degree, approval from the Graduate Studies Committee must be obtained.
8. Four semesters of MUS 571: Masters Instruction in Performance
9. Four semesters of MUS 590: Masters Practicum in Professional Skills (required every semester of degree work).

#### **B. Large Ensembles**

All M.M. students have a large ensemble requirement for four semesters. For details, see Track-Specific Requirements below.

#### **C. Chamber Music**

All M.M. students have a chamber music requirement for four semesters. For details, see Track-Specific Requirements below.

**D. Languages**

Some M.M. students have a language requirement. For details, see Track-Specific Requirements below.

**E. Jury Examinations**

Jury examinations are offered each semester. All M.M. students must take one jury examination, generally the semester before the degree recital. For M.M. students in harpsichord, the examination will include continuo realization.

**F. Public Recitals**

All M.M. students are required to present two public recitals. The student's major teacher must determine whether or not the recitals are passing quality. If unable to attend a recital in person, the major teacher may assess a recording of it.

**Track-Specific Requirements for the M. M. Degree in Music Performance****A. Strings, Woodwinds, Brass and Percussion**

1. Large Ensemble Requirement: Four semesters of MUS 565: Stony Brook Symphony Orchestra, every semester of full-time residence until graduation. Students who are registered part-time are required to participate in the Stony Brook Symphony Orchestra on a part-time basis. Under extraordinary circumstances a student may petition to have this requirement waived on a per-concert basis; a memorandum outlining policies and procedures for such a waiver is available from the Music Department's Graduate Office.

2. Chamber Music Requirement: Four semesters from the following Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.

**B. Voice**

1. Large Ensemble Requirement: Four semesters of MUS 579: Opera Workshop

2. Chamber Music Requirement: Four semesters from the following Vocal Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, or MUS 596: Contemporary Chamber Players. Courses may be repeated for credit.

3. Vocal Coaching Requirement: Additional Performance Requirement: Four semesters of MUS 575: Master Class in Solo Repertory for Instrument or Voice

4. Language Requirements: Voice students must provide proof of equivalency of one year's college-level study of one of the following three languages: French, German, or Italian. Working/reading knowledge is determined by exam given by the Stony Brook Language Learning Resource Center (LLRC) and/or proof of coursework. Students who do not pass the examination must take the courses recommended by the LLRC and achieve a grade of B or higher. Students who have not had any previous foreign language study must take a year of college-level elementary foreign language courses and achieve a grade of B or higher to satisfy the requirement.

5. Piano Proficiency Requirement: All M.M. students must enroll in MUS 509: Performance Studies for piano proficiency for one or two semesters contingent on assessment. Qualified students may be exempted from this course through a placement exam given at the beginning of the fall semester.

**C. Piano**

1. Large Ensemble Requirement: Four semesters of Collaborative Keyboard (MUS 586 in Fall semesters and MUS 587 in Spring semesters). Participation in the accompaniment pool is required of all pianists and harpsichordists during each semester of full-time residence. After the fulfillment of four semesters of MUS 586/587, pianists must also enroll in MUS 586/587 in each semester in which they take lessons or in which they want to be paid for accompanying. Pianists enrolled in MUS 586/587 are required to accompany the equivalent of two full recitals (or other approved events such as auditions, juries, etc.) for each academic year in which they are enrolled. (After fulfilling the two-recital equivalent requirement, pianists may play additional recitals/events and will be compensated by the department).

2. Chamber Music Requirement: Four semesters from the following Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.

**D. Harpsichord**

1. Large Ensemble Requirement: Four semesters of Collaborative Keyboard (MUS 586 in Fall semesters and MUS 587 in Spring semesters). Participation in the accompaniment pool is required of all pianists and harpsichordists during each semester of full-time residence. The MUS 586/587 requirement for harpsichordists is considered to be fulfilled when they are concurrently signed up for MUS 584: Baroque Ensemble (Harpsichordists will be paid for additional accompaniment).

2. Chamber Music Requirement: Four semesters of MUS 584: Baroque Chamber Ensemble

3. Language Requirements: Harpsichord students must demonstrate knowledge equivalent to a year's college-level study of any of the following languages: French, German, or Italian. Working/reading knowledge is determined by exam given by the Stony Brook Language Learning Resource Center (LLRC) and/or proof of previous coursework. Students who do not pass the examination must take the courses recommended by the LLRC and achieve a grade of B or higher. Students who have not had any previous foreign language study must take a year of a college-level elementary foreign language course and achieve a grade of B or higher to satisfy the requirement.

**E. Guitar**

1. Large Ensemble Requirement: Four semesters of MUS 573: Chamber Music
2. Chamber Music Requirement: Four semesters from the following Guitar Chamber Music (small ensemble) electives: MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.

#### **F. Jazz**

1. Large Ensemble Requirement: Four semesters of MUS 568: Jazz Big Band
2. Chamber Music Requirement: Four semesters of MUS 597: Jazz Chamber Ensemble

### **Requirements for the Doctor of Philosophy Degree, Contract Toward Candidacy**

#### **Requirements for the Doctor of Philosophy Degree, Contract Toward Candidacy**

A plan of study in the form of a working "Contract Toward Candidacy" will be drawn up by the Directing Committee, with input from the student, early in the student's first semester. The Directing Committee will consist of the student's advisor and at least two other faculty members. The Graduate Program Director will appoint the Directing Committee and will designate its chairperson, who shall not be the student's advisor. The committee may include faculty members from outside the Department when appropriate. Final approval of the Contract, and of any revisions that may be necessary, rests with the Graduate Studies Committee.

The design of the program is to be developed around the requirements given below, and the contract should specify courses to be taken, the length of full-time residence, and the schedule and subject areas of various examinations including the preliminary examination. The terms of the Contract should normally be completed within two or three years (after MA-level work), depending upon the scope of the program. Successful completion of relevant master's requirements is assumed for the Ph.D. degree; see Admission to the Ph.D. Program.

#### **A. Work in the Student's Area(s) of Specialization**

Progress during residence in the program will be demonstrated to the directing committee in the following ways:

1. Evidence of advanced scholarly and creative work:
  - a) Students in the Critical Music Studies track: The presentation of a Doctoral Paper demonstrating proficiency in various aspects of the scholarly study of music and sound (including but not limited to theory and analysis, historical research, ethnographic research, and criticism). The Doctoral Paper is typically prepared as part of coursework.
  - b) Students in the Composition track: The presentation of a Composition Portfolio comprising a number of musical compositions demonstrating fluency in working with a variety of contemporary performance media.
2. Students in the Composition track: A field exam demonstrating knowledge of scholarship and repertoire in the broad field of study that will situate dissertation research.
3. A public lecture or colloquium. The topic will be determined by the student, in consultation with their Directing Committee. For composers, the lecture or colloquium must be on a topic of significant interest in 20th- or 21st-century music. See section B, paragraph 2 below.
4. Students who propose to do work in performance as an integral part of the program must, in addition, present at least two recitals showing mastery of a broad range of musical styles.

#### **B. Work in the Area of 20th and 21st Century Music**

Competence is to be demonstrated to the Directing Committee through the following:

1. An essay dealing with 20th- or 21st-century music from a historical, theoretical, critical, cultural, and/or analytical point of view.
2. A public lecture or colloquium on a topic of significant interest in 20th- or 21st-century music. See the description of MUS 696.

In order to satisfy the requirement, students in the Composition track must complete both the essay and the lecture or colloquium. Students in the Critical Music Studies track may satisfy the requirement either with the essay or with the lecture/colloquium.

#### **C. Foreign Language**

For students in the Critical Music Studies track, proficiency in one additional non-English language determined in consultation with the Critical Music Studies faculty. The contract toward candidacy should specify which language proficiency will be assessed depending on the area of the dissertation.

#### **D. Teaching**

For students in the Composition track, a minimum of two semester-long courses, at least one of which shall be an introductory college course in musicianship, theory, or literature, is required. For students in the Critical Music Studies track, a minimum of two semester-long courses related to musicianship, history, theory, or ethnomusicology is required.

#### **E. Advancement to Candidacy**

After completing the terms of the Contract, a student is eligible for Advancement to Candidacy. To be advanced, the student must:

1. Submit a prospectus outlining the nature and aims of the dissertation.
2. Pass a preliminary examination that will demonstrate preparation in their special competence. For Critical Music Studies-track students, the examination (i.e. the Prospectus Defense) will focus on the field of scholarship within which their dissertation is situated and on the detailed prospectus for the dissertation. For Composition-track students, the examination will cover the composer's musical craft and aesthetics, as revealed in the contract pieces, and the projected dissertation composition.

## F. Dissertation

The dissertation shall be a significant original work of scholarship or composition. Approval of the dissertation will rest upon a formal oral defense, which is also a public colloquium on the dissertation work, to be conducted by the Dissertation Examining Committee.

## Requirements for the Doctor of Musical Arts Degree in Music Performance

### General Requirements for the D.M.A. in Music Performance

#### A. Courses

1. GRD 500: Responsible Conduct of Research and Scholarship
2. MUS 520: Introduction to Research and Writing for MM and DMA Students
3. MUS 505: Foundations of Musicianship (qualified students may be exempted from these courses through a placement exam given at the beginning of the fall semester)
4. MUS 506: Graduate Musicianship (qualified students may be exempted from these courses through a placement exam given at the beginning of the fall semester)
5. One course from Elective Group 1: MUS 503: Music in the 20th and 21st Centuries; MUS 507: Studies in Music History; MUS 534: Opera Studies; MUS 535: Lecture-Workshop in the Performance of Baroque Music; MUS 536: Area Studies in Ethnomusicology; MUS 539: Proseminar in Ethnomusicology; MUS 540: Studies in Cultural Historiography; MUS 541: Topics in the Cross-Cultural Study of Music; MUS 542: Ethnomusicology & Social Theory; MUS 543: Topics in Medieval Music; MUS 547: Topics in Baroque Music; MUS 549: Topics in 18th-Century Music; MUS 553: Topics in 19th-Century Music; MUS 555: Topics in 20th-Century Music
6. One course from Elective Group 2: MUS 502: Proseminar in Tonal Analysis; MUS 504: Analysis of Music in the 20th and 21st Centuries; MUS 538: Phenomenological Approaches to Music Analysis; MUS 557: Topics in Theory; MUS 559: Topics in Analysis; MUS 569: Perspectives on the Performance of Music since 1945
7. One free 3- or 4-credit elective from the Music Department, or other department in the University, or taken via the Inter-University Doctoral Consortium (cannot be a foreign language course, except for singers in the Voice performance track)
8. Four semesters of MUS 671: Doctoral Instruction in Performance
9. Four semesters of MUS 690: Doctoral Practicum in Professional Skills (required every semester of degree work.
10. MUS 696: Doctoral Colloquium or Lecture-Recital: See the section entitled Public Lecture-Recital below.

#### B. Work in the Student's Area of Specialization (Contract Recitals and Public Lecture-Recital)

Progress during residence in the program will be demonstrated through the presentation of the following as outlined on a Performance Contract approved by the student's Advisor:

1. four Contract Recitals, for which the following requirements apply:
  - a. Performance of 60 minutes of music on each recital, with the exception of Brass, where 50 minutes is permitted
  - b. Two of the Contract Recitals must be solo recitals, unless otherwise specified by the student's Advisor
  - c. Inclusion of a substantial composition written before 1750 and at least 60 minutes of challenging new music from the 20th and 21st centuries, equivalent to at least one full recital's worth
2. a public Lecture-Recital: A lecture illustrated by live performance, the Lecture-Recital may deal with historical or analytical questions, questions related to cultural context, or with performance practice and interpretative issues. The following policies apply:
  - a. Students must enroll in MUS 696: Doctoral Colloquium or Lecture Recital in the semester in which they elect to do the Lecture-Recital.
  - b. Students enroll in MUS 696 with their studio teacher, who serves as the Lecture-Recital Advisor.
  - c. In order to receive a grade for MUS 696, students must submit the Lecture-Recital Proposal form, approved by the student's Advisor, to the Graduate Studies Committee (GSC) for review by semester deadlines.
  - d. The music performed in the lecture-recital may also appear on one of the doctoral recital programs, but not in the Final Recital.
  - e. The lecture-recital may also be devoted to music of the 20th and 21st centuries. Students who propose to work in a second area of specialization should see section entitled Work in the Area of 20th and 21st Century Music below.

In order to advance to Candidacy, students must present either (1) three of the Contract Recitals or (2) two Contract Recitals and the Lecture-Recital. If the student presents three Contract Recitals prior to advancement to Candidacy, the fourth Contract Recital and Lecture-Recital may be presented after advancement to Candidacy. If the student presents two contract recitals and the Lecture-Recital prior to advancement to Candidacy, the third and fourth Contract Recitals may be presented after advancement to Candidacy.

#### C. Work in the Area of 20th and 21st Century Music

The recitals, described above in the section entitled Work in the Student's Area of Specialization (Contract Recitals), should include a substantial amount of music from the 20th and 21st centuries (the equivalent of at least one full recital's worth) including recent and challenging works. The lecture-recital may also be devoted to music of the 20th and 21st centuries.

**D. Large Ensemble**

All D.M.A. students have a large ensemble requirement for at least four semesters. For details, see Track-Specific Requirements below.

**E. Chamber Music**

All D.M.A. students have a chamber music requirement for four semesters. For details, see Track-Specific Requirements below.

**F. Languages**

Some D.M.A. students have a language requirement. For details, see Track-Specific Requirements below.

**G. Genre Requirements**

Some D.M.A. students have specific genre requirements. Genre requirements can be fulfilled by a performance on a degree recital or on the end-of-semester chamber music recitals. The degree recital does not need to be the student's own recital. However, if the student's genre requirement is fulfilled by playing on a colleague's degree recital, documentation must be provided for his or her doctoral file in the form of a program. For details see Track-Specific Requirements below.

**H. Teaching**

A minimum of two semester-long courses, either or both of which may comprise individual lessons, ensemble coaching, or classroom teaching, is required. This requirement may be met by private teaching or teaching at another institution (see the Graduate Program Director for details).

**I. Doctoral Jury Examinations**

A preliminary doctoral jury will be played during the first full year of residency. A second, 20-minute jury examination will be played no later than the end of the second year. Both juries must be passed as a condition for advancement to candidacy.

**J. First-Year Academic Review**

In order to be in good standing, D.M.A. students must have taken the following: MUS 520 (unless waived) and one academic course required by the end of the first year of the program; MUS 505 and MUS 506 (unless exempted); and the foreign language exam or be in the appropriate language course (if applicable; see track-specific requirements), by the beginning of the second semester. The Graduate Program Director will monitor the academic progress of D.M.A. students by asking all academic advisors to submit progress checklists in February of each year.

**K. Secondary Area of Specialization**

D.M.A. students who wish to pursue an M.A. in Music degree in a secondary area (Composition or Critical Music Studies tracks) must apply for admission for that degree (for more information, see Admission to the DMA Program).

D.M.A. students may also carry out advanced work in a secondary area (in Composition and/or Critical Music Studies) as an integral part of the program, without the intent to complete a degree in that area. Student who wish to do this must do one or both of the following:

1. Present a number of musical compositions demonstrating fluency in working with a variety of contemporary performance media.
2. Present a number of essays demonstrating proficiency in various aspects of musicological research, theoretical studies, analysis, or criticism. The essays may have been prepared as part of coursework.

**Track-Specific Requirements for the D.M.A. in Music Performance**

In addition to the general requirements listed above, students are required to complete track-specific requirements as follows:

**A. Strings, Woodwinds, Brass and Percussion**

**1. Large Ensemble Requirement:** Four semesters of MUS 565: Stony Brook Symphony Orchestra, every semester of full-time residence. Students who are registered part-time are required to participate in the Stony Brook Symphony Orchestra on a part-time basis. Under extraordinary circumstances a student may petition to have this requirement waived on a per-concert basis; a memorandum outlining policies and procedures for such a waiver is available from the Music Department's Graduate Office.

**2. Chamber Music Requirement:** Four semesters from the following Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.

**3. Genre Requirements are as follows:**

- a. Violin, Viola, Cello: Every D.M.A. student must include a string quartet and a piece for mixed ensemble larger than two on a concert or concerts during the course of their D.M.A.
- b. Bass: A piece for two mixed groups larger than two
- c. Woodwinds: A piece for mixed ensemble larger than two
- d. Brass: A piece for mixed ensemble larger than two
- e. Percussion: Each full-time percussion student should perform at least once in a piece with percussionists and once in a mixed ensemble piece every academic year. Additionally, percussionists are required to participate in chamber music activities within the percussion studio, as well as with other studios. They must be available for participation in percussion pieces performed as part of the annual season of the Contemporary

Chamber Players, and they must participate on other chamber music activities, either as small ensembles (duos, trios, etc.) with other musicians in the department.

### B. Voice

1. **Large Ensemble Requirement:** Four semesters of MUS 579: Opera Workshop; This requirement may be waived at the request of either the conductor or the major teacher.
2. **Chamber Music Requirement:** Four courses from the following Vocal Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, or MUS 596: Contemporary Chamber Players. Courses may be repeated for credit.
3. **Piano Proficiency Requirement:** All D.M.A. students must enroll in MUS 509: Performance Studies for piano proficiency for one or two semesters contingent on assessment. Qualified students may be exempted from this course through a placement exam given at the beginning of the fall semester.
4. **Vocal Coaching Requirement:** Four semesters of MUS 575: Master Class in Solo Repertory for Instrument or Voice.
5. **Language Requirements (Working Knowledge):** Voice students must provide proof of equivalency of one year's college-level study of two of the following three languages: French, German, or Italian. Working/reading knowledge is determined by exam given by the Stony Brook Language Learning Resource Center (LLRC) and/or proof of coursework. Students who do not pass the examination must take the courses recommended by the LLRC and achieve a grade of B or higher. Students who have not had any previous foreign language study must take a year of college-level elementary foreign language courses and achieve a grade of B or higher to satisfy the requirement.
6. **Language Requirements (Reading Knowledge):** Voice students must also demonstrate a reading knowledge of any two of the following four languages: French, German, Italian and Russian. Working/reading knowledge is determined by exam and/or proof of coursework.

### C. Piano

1. **Large Ensemble Requirement:** Four semesters of Collaborative Keyboard (MUS 586 in Fall semesters and MUS 587 in Spring semesters). Participation in the accompaniment pool is required of all pianists and harpsichordists during each semester of full-time residence. After the fulfillment of four semesters of MUS 586/587, pianists must also enroll in MUS 586/587 in each semester in which they take lessons or in which they want to be paid for accompanying. Pianists enrolled in MUS 586/587 are required to accompany the equivalent of two full recitals (or other approved events such as auditions, juries, etc.) for each academic year in which they are enrolled. (After fulfilling the two-recital equivalent requirement, pianists may play additional recitals/events and will be compensated by the department).
2. **Chamber Music Requirement:** Four courses from the following Chamber Music (small ensemble) electives: MUS 573: Chamber Music, MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.
3. **Genre Requirements:** One chamber piece that is for trio or a larger ensemble.

### D. Harpsichord

1. **Large Ensemble Requirement:** Four semesters of Collaborative Keyboard (MUS 586 in Fall semesters and MUS 587 in Spring semesters). Participation in the accompaniment pool is required of all pianists and harpsichordists during each semester of full-time residence. The MUS 586/587 requirement for harpsichordists is considered to be fulfilled when they are concurrently signed up for MUS 584: Baroque Ensemble (Harpsichordists will be paid for additional accompaniment).
2. **Chamber Music Requirement:** Four semesters of MUS 584: Baroque Chamber Ensemble
3. **Language Requirements:** Harpsichord students must demonstrate knowledge equivalent to a year's college-level study of any two of the following languages: French, German, Italian or Latin. Working/reading knowledge is determined by exam given by the Stony Brook Language Learning Resource Center (LLRC) and/or a departmental exam, and/or proof of previous coursework, contingent on advising. Students who do not pass the examination must take the courses recommended by the LLRC and achieve a grade of B or higher. Students who have not had any previous foreign language study must take a year of a college-level elementary foreign language course and achieve a grade of B or higher to satisfy the requirement.
4. **Genre Requirements:**
  - a. Continuo: At least one work that is vocal, and one that is instrumental, with different national or period styles if possible.
  - b. Obbligato: At least one sonata with a written out obbligato part by Bach or one of his contemporaries.

### E. Guitar

1. **Large Ensemble Requirement:** Four semesters of MUS 573: Chamber Music
2. **Chamber Music Requirement:** Four courses from the following Guitar Chamber Music (small ensemble) electives: MUS 584: Baroque Chamber Ensemble, MUS 596: Contemporary Chamber Players, or MUS 597: Jazz Chamber Ensemble. Courses may be repeated for credit.
3. **Language Requirement:** Guitar students must demonstrate a working knowledge of Spanish. Working knowledge is determined by exam given by the Stony Brook Language Learning Resource Center (LLRC). Students who do not pass the examination must take the courses recommended by the LLRC and achieve a grade of B or higher.

### F. Jazz

1. **Large Ensemble Requirement:** Four semesters of MUS 568: Jazz Big Band
2. **Chamber Music Requirement:** Four semesters of MUS 597: Jazz Chamber Ensemble

**ADVANCEMENT TO CANDIDACY**

A. The student may advance to candidacy after completion of the following requirements:

1. Three of the four contract recitals and submission of the Performance Contract (see the section entitled Work in the Student's Area of Specialization (Contract Recitals) above).
2. Completion of General Requirements and Track-Specific Requirements (see those sections above).
3. In programs which require more than one language, all but one language.
4. Completion of both Juries.

B. Advancement to Candidacy is granted by the Graduate School upon recommendation from the departmental Graduate Program Director.

**COMPLETION OF THE DEGREE: DOCTORAL DEGREE EXAMINATION AND FINAL RECITAL**

For D.M.A., the equivalent of a dissertation is the Final Recital. D.M.A. students are examined on historical, analytical, performance practice, and critical aspects of their final recital repertory in the Doctoral Degree Examination.

**A. Doctoral Degree Examination**

After all requirements have been completed, and in consultation with their Advisor, D.M.A. students must:

1. Submit a program of the proposed doctoral degree recital, bearing the signature of the Advisor, to the Graduate Program Director and Graduate Studies Committee for approval. The program must not include works previously performed to satisfy other graduate degree requirements.
2. Submit a doctoral examination prospectus and polished program notes for a general public. The prospectus focuses on significant analytical, historical, and interpretative aspects of the works to be performed, and will serve as the basis of the doctoral examination. Students may view sample prospectuses on the department website and should review the Oral Exam Guidelines prior to the exam (this document is also available on the department website).
3. Appear before an Examining Committee to demonstrate mastery of the doctoral degree recital program and of areas pertinent to the works to be performed. The doctoral degree recital examination and final recital should take place within six semesters after advancement.

**B. Doctoral Degree Recital**

The doctoral degree recital should be performed after the degree recital examination has been passed. It must demonstrate a distinguished, professional level of performance and be presented on campus. A recording of this recital, along with the program, is deposited in the University Library.

**Faculty of the Department of Music****Professors**

Anderson, Ray, Director of Jazz Studies, B.A., 2010, Empire State College: Jazz studies and jazz improvisation. Carr, Colin, Certification of Performance, 1974, Yehudi Menuhin School: Cello.

Dahl, Christina, Chair of the Department; M.M. 1989, Peabody Conservatory of Music: Piano, accompaniment, chamber music. Dutton, Lawrence, M.M., 1978, The Juilliard School of Music; Mus.D., 1995, Middlebury College: Viola: chamber music.

Goldstein, Perry,<sup>3, 5</sup> Chair, Director of Musicianship, D.M.A., 1986, Columbia University: Analysis; Composition; musicianship; analysis; theory.

Haas, Arthur, Director of the Stony Brook Baroque Players, M.A., 1974, University of California, Los Angeles: Harpsichord; performance of early music.

Kalish, Gilbert, B.A., 1956, Columbia University: Piano; chamber music; 20th-century piano repertory.

Lochhead, Judith,<sup>4</sup> Ph.D., 1982, Stony Brook University: Theory and history of music of the present; phenomenology and music; performance and analysis.

Schedel, Margaret, Co-Director of the Creative Music Technologies; D.M.A., 2007, University of Cincinnati, College-Conservatory of Music: Composition; computer music; digital music and art.

Setzer, Philip,<sup>6</sup> M.M., 1974, The Juilliard School of Music; Mus.D., 1995, Middlebury College: Violin; chamber music.

Weymouth, Daniel, Co-Director of Creative Music Technologies; Ph.D., 1992, University of California, Berkeley: Composition; computer music; analysis; multimedia and performance technologies; theory.

**Associate Professors**

Adams, Margarethe, Ph.D., 2011, University of Illinois at Urbana-Champaign. Kazakhstan and Northwest China; political ideology; popular culture; Islam in Central Asia.

Barnson, Matthew, D.M.A., 2012, Yale University: Composition; theory; analysis.

Honisch, Erika Supria,<sup>8</sup> Ph.D., 2011, University of Chicago: 16<sup>th</sup>- and 17<sup>th</sup>-century sacred music; historical sound studies; historiography of Central Europe.

Leandro, Eduardo, Director of the Stony Brook Contemporary Chamber Players, M.M., 1999, Yale University: Percussion; chamber music.

Minor, Ryan, Ph.D., 2005, University of Chicago: Opera studies and dramaturgy; performance studies; 19<sup>th</sup>-century musical cultures; Wagner; nationalism.

Semegen, Daria, Director of the Electronic Music Studio; M.Mus., 1971, Yale University: Composition; electronic music; history and aesthetics of electronic music; theory.

Smith, Stephen Decatur, Ph.D., 2012, New York University: 19<sup>th</sup>- and 20<sup>th</sup>-century Germany; musical modernism; music and philosophy, especially the Frankfurt School and German Idealism.

Tausig, Benjamin,<sup>11</sup> Ph.D., 2013, New York University: Thai and Southeast Asian music; sound studies; protest movements; labor and migration

### **Assistant Professors**

Fenn, Nirmali, D.Phil., 2010, Oxford University: Composition; collaborative music with theater and dance; acoustics, aesthetics of sound.

Holt, Kevin C.,<sup>10</sup> Ph.D., 2018, Columbia University: 20th- and 21st-century popular music, Africana studies, ethnography, hip-hop studies, performance studies

Sheehy, August,<sup>9</sup> Ph.D., 2016, University of Chicago: History of music theory and analysis; musical subjectivity; improvisation studies; music and ethics.

### **Visiting Assistant Professor**

Kaczorowska, Joanna, Director of Undergraduate Performance; D.M.A., 2008, Stony Brook University: Violin; chamber music.

### **Lecturer**

Heckert, Deborah, Ph.D., 2003, Stony Brook University: Undergraduate Program Director; Music of Britain; 19th- and early 20th-century music; music and the visual arts.

### **Performing Artists in Residence**

Beckwith, Daniel, M.M., 1979, Westminster Choir College: Opera studies, vocal coaching, organ, conducting.

Bernat, Nina, M. M., 2023, The Juilliard School: Double Bass; chamber music.

Cobb, Kevin, M.M., 1995, The Juilliard School: Trumpet; chamber music.

Cuffari, Gina, D. M. A., 2016, Stony Brook University: Bassoon; chamber music.

Finckel, David, Mus.D., 1995, Middlebury College: Chamber music; career development.

Frautschi, Jennifer, Performance Certificate, 1998, The Juilliard School of Music: Violin; chamber music.

Harris, Brenda, Executive Director, Stony Brook Opera, B.M. and B.M.E., 1979, Illinois Wesleyan University, Graduate Study University of Illinois: Voice: opera studies.

Hinson, Blake, B.M., 2010, The Curtis Institute of Music: Bass; chamber music.

Jolley, David, M.S., 1971, The Juilliard School of Music: Horn; chamber music.

Kay, Alan, Executive Director, Stony Brook Symphony Orchestra, M.M., 1983, The Juilliard School of Music: Clarinet; chamber music; orchestra.

Lavendera, Pablo, D.M.A., 2009, Stony Brook University: Undergraduate piano; chamber music.

Little, Jeremy, D.M.A., 2017, Stony Brook University: Voice; opera studies

Lipman, Mathew, M.M., 2016, The Juilliard School of Music: Viola; chamber music.

Luiz, João Rezende Lopes, D.M.A., 2016, Manhattan School of Music: Guitar; chamber music, jazz, Brazilian music.

Manuel, Thomas, D.M.A., 2016, Stony Brook University: Jazz Studies.

Powell, Michael, B.M., 1973, Wichita State University: Trombone; chamber music.

Shaham, Hagai, M.A., 1984, Brandeis University: Violin; chamber music.

Smith, James Austin, M.M., 2008, Yale School of Music: Oboe; chamber music.



Sussmann, Arnaud, M.M., 2007, The Juilliard School of Music: Violin; chamber music.

Wincenc, Carol, M.M., 1972, The Juilliard School of Music: Flute; chamber music.

### **Emeritus Faculty**

Fuller, Sarah<sup>1</sup> Ph.D., 1969, University of California, Berkeley: Medieval and Renaissance music; history of music theory.

Kramer, Richard, Ph.D., 1974, Princeton University: 18th- and 19th-century music history and theory.

Lawton, David, Ph.D., 1973, University of California, Berkeley: Opera workshop; 19th-century studies.

Mount, Timothy, D.M.A., 1981, University of Southern California: Director of Choral Studies.

Silver, Sheila, Ph.D., 1976, Brandeis University: Composition; analysis; orchestration; theory.

Winkler, Peter,<sup>2</sup> M.F.A., 1967, Princeton University: Composition; theory and history of popular music.

### **Quartet-in-Residence**

The Emerson String Quartet: In Fall 2002, the celebrated Emerson String Quartet became the quartet-in-residence at Stony Brook. This prestigious ensemble presents a series of concerts, chamber music instruction, and workshops at the University every year.

Drucker, Eugene,<sup>7</sup> Mus.D., 1995, Middlebury College: Chamber music.

Dutton, Lawrence,<sup>6</sup> M.M., 1978, The Juilliard School of Music; Mus.D., 1995, Middlebury College: Viola; chamber music.

Setzer, Philip,<sup>6</sup> M.M., 1974, The Juilliard School of Music; Mus.D., 1995, Middlebury College: Violin; chamber music.

Watkins, Paul,<sup>7</sup> Certificate of Performance, 1988, The Menuhin School: Cello; chamber music.

### **Directors**

Deaver, Susan, D.M.A., 1994, Manhattan School of Music: Director of the University Orchestra.

Gnonlonfoun, Jean Eudes, A.A./A.S., 2018, Queensborough Community College: Director of VOLTA West African Music Ensemble.

Hershkowitz, Shoshana, M.M., 2001, Crane School of Music, SUNY Potsdam: Director of the Stony Brook Chorale and Camerata Singers.

Stolarik, Justin, D.M.A., 2008, The University of Texas-Austin: Director of the Stony Brook Wind Ensemble and Director of Athletic Bands.

Number of teaching, graduate, and research assistants, Fall 2020: 70 (full or partial support)

1. Recipient of the President's Award for Excellence in Teaching, 1984
2. Recipient of the State University Chancellor's Award for Excellence in Teaching, 1977
3. Recipient of the President's Award and the State University Chancellor's Award for Excellence in Teaching, 1997
4. Recipient of the Chancellor's Award for Excellence in Faculty Service, 2004
5. Recipient of SUNY Distinguished Service Professor, 2016
6. Recipient of SUNY Distinguished Professor, 2015
7. Recipient of SUNY Honorary Medallion of Distinction, 2016
8. Recipient of the College of Arts and Sciences Godfrey Award for Excellence in Teaching, 2022
9. Recipient of the Graduate School Dean's Award for Excellence in Graduate Teaching, 2022
10. Recipient of the Graduate School Dean's Award for Excellence in Graduate Teaching, 2024
11. Recipient of the Graduate School Dean's Award for Excellence in Graduate Mentorship, 2024

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

---

**The Department of Neurobiology and Behavior****Chairperson**

Alfredo Fontanini, Life Sciences Building 573, (631) 632-4100

**PhD Graduate Program Director**

Arianna Maffei, (631) 632-8644, Arianna.Maffei@stonybrook.edu

**MS Graduate Program Director**

Howard Sirotkin, Life Sciences Building 512, (631) 632-4818

**PhD Administrator**

Odalís Hernández, Life Sciences Building 573, 631-632-8078, FAX (631) 632-6661

**Degrees Awarded**

PhD in Neuroscience, MA in Biological Sciences and MS in Biomedical Science (Neuroscience track)

**PhD Program**

<https://www.stonybrook.edu/commcms/neurobiology/graduate-program/phd-program/>

**Master's Program**

<https://www.stonybrook.edu/commcms/neurobiology/graduate-program/ms-program/>

**Description of the Program in Neuroscience**

The Graduate Program in Neuroscience, in the College of Arts and Sciences and the Renaissance School of Medicine, offers doctoral training toward a Master's degree or a Doctoral degree in the rapidly expanding field of neuroscience. Through coursework and independent research, students are trained to approach research problems in neuroscience with a broad perspective. Program faculty have Expertise expertise in the areas of molecular and biochemical control of development, properties physiology and cellular/molecular properties of receptors and ion channels in relation to cellular physiology, analysis of local circuits and networks, behavioral neuroscience the cellular basis of integrative functions, theoretical and computational neuroscience and the structural basis for communication among neurons are available to all students in the program. Graduate students will receive in-depth research training in molecular, biochemical, physiological, behavioral, or anatomical and theoretical/computational neurosciences. In addition, the Program offers unique opportunities to draw from one or more of these disciplines through multidisciplinary, cosponsored/mentored research projects. A program of highly interactive faculty and students provides an exciting focus for research training. communicate Neuroscience research. Students will be exposed to advanced neuroscience research techniques, approaches and theory culminating with the MS degree. Core concepts and skills are taught through a series of required core courses, with the remaining coursework consisting of advanced electives and special topics courses. Expertise in the areas of molecular and biochemical control of development, properties of receptors and ion channels in relation to cellular physiology, the cellular basis of integrative functions, computational neuroscience and the structural basis for communication among neurons are available to all students in the program. Students will receive in-depth research training in molecular, biochemical, physiological, behavioral, computational or anatomical sciences. A program of highly interactive faculty and students provides an exciting focus for research training.

**Admission details for the Department of Neurobiology and Behavior**

Students are expected to fulfill basic requirements of the Graduate School: a bachelor's degree from a recognized university, a grade point average corresponding to B or higher, and the recommendations of three former instructors. In addition, all non-native speakers of English must score a minimum of 600 (paper), 250 (computer) or 100 (iBT) on the Test of English as a Foreign Language (TOEFL). The Program in Neuroscience has the following additional requirements: one year of calculus, physics, and chemistry, demonstrated proficiency in biological sciences, and laboratory research experience. Deficiencies in these requirements do not preclude admission, and special consideration will be made to promising applicants.

Application Deadline: March 15 for MS applications, January 15 for PhD applications

Applicants do not need to send their official transcripts until they are offered admission into the program.

In addition to the minimum requirements of the Graduate School, the following are suggested requirements:

A. BS or BA degree in a life science related field, with a minimum undergraduate grade point average of 3.00.

\* **Pre-requisites:** Successful MS and PhD candidates have often completed college level courses in physics, mathematics, organic and inorganic chemistry and advanced biology. It is recommended that students will have undergraduate neuroscience coursework. However, students are also accepted into the program without all necessary pre-requisites. These students may be asked to take the appropriate preparation course(s) prior to undertaking specific graduate level courses.

B. Three letters of recommendation.

C. Personal statement.

#### Facilities of the Department of **Neurobiology and Behavior**

Program faculty are located in the Life Sciences Building, the Psychology Building, Centers for Molecular Medicine, and Health Sciences Center on the SUNY Stony Brook campus, and at Brookhaven National Laboratory and the Cold Spring Harbor Laboratory. Molecular facilities provide for analysis of protein and DNA biochemistry, including microsequencing, peptide mapping, synthesis of oligonucleotides and peptides, cellular transfection, and production of transgenic animals. Wide-ranging facilities for cellular and integrative electrophysiology exist for studies on dissociated neurons, brain slice preparations, neurons in situ, and genetically engineered cells in culture. Imaging facilities permit anatomical reconstruction, fluorescence measurements, and the use of ion-sensitive indicators on both conventional, confocal, and multi-photon microscopes. An image analysis core is linked to a scanning and transmission electron microscopy facility. Separate behavioral testing core facilities for mice and rats are also available.

#### Requirements for Admission

The Graduate Program in Neuroscience does not accept a student whose goal is a M.A. degree. In exceptional instances, a student already in the Program may be awarded a M.A. degree upon completion of an approved course of study, including 30 graduate credit hours, a comprehensive examination, a research thesis, and the minimum requirements of the Graduate School.

#### Requirements for the PhD in Neuroscience

##### **A. Course Requirements**

1. Core courses in neuroscience (BNB 561, BNB 562, BNB 563, BNB 564). A four-semester series taught by members of the Program; the student is introduced to a broad variety of topics. These will be taken in the Fall and Spring semesters of the first and second years.
2. Neuroanatomy (BNB 560), Developmental Neuroscience (BNB 565), and Neurobiology of Disease (BNB 566). These are required short courses elaborating on fundamental topics in Neuroscience.
3. Laboratory Rotations in Neuroscience (BNB 555). A two-semester course in the Fall and Spring semesters of the first year. Students conduct research rotations in laboratories of three program members and present oral reports on their research.
4. Writing Neuroscience (BNB 551). This course is taught in the Fall semester of the first year. It provides training in the basics of scientific communication, with a strong emphasis on writing and revision. Practical exercises are designed to give experience and feedback in commonly needed aspects of scientific writing.
5. Advanced Neurobiology and Behavior Seminar (BNB 697). Seminar presentations delivered by faculty, students, associates, and visiting speakers.
6. Electives. At least two additional graduate-level courses in various biological, physical, or mathematical sciences must be selected by the student in consultation with the student's advisor. Students may take additional elective courses if they desire.

##### **B. Thesis Proposal**

At the end of the second year of study, each student must successfully propose and defend an outline of their thesis research.. The proposal consists of a written document and an oral presentation.

##### **C. Advancement to Candidacy**

The faculty will recommend a student to the Graduate School for advancement to candidacy upon satisfactory completion of all course requirements and passing their thesis proposal.

##### **D. Student Seminars**

All students who have advanced to candidacy are required to give a departmental seminar on their dissertation work annually.

##### **E. Ph.D. Dissertation**

A dissertation that constitutes an original and significant contribution to the field of neuroscience is required for the Ph.D. The work must be of a quality acceptable for publication in a recognized scientific journal. At the end of the first year, students initiate a dissertation research program in a Program faculty's laboratory. After advancement to candidacy, the student and advisor will assemble an advisory committee to guide the dissertation research. Upon completion of the dissertation research, the student will present a seminar based on the dissertation. Following this the student will be given an oral examination on the dissertation research and related areas by the dissertation committee.

##### **F. Teaching Requirements**

To gain experience in teaching, the Program requires that all students serve as teaching assistants for two semesters during the first two years of study. Students who enter the program from the medical school's MSTP program are required to serve as TA's for one semester. Usually, TA assignments are to courses taught by Program faculty. Assignments are made to minimize impact on research productivity in the second year of study.

### G. Residence Requirement

The University requires at least two consecutive semesters of full-time study. The demands of the course of study necessitate a longer period of residence.

### H. Academic Standing

All students must maintain a 3.0 grade point average at all times. Due to the importance of BNB 561, BNB 562, BNB 563, and BNB 564 as the basis for advanced study in Neuroscience, students who have a grade of less than a B in these courses must remediate or repeat them satisfactorily prior to defending the thesis proposal and advancing to candidacy. Any student who fails to receive a grade of B or better in more than one required course will be reviewed for possible termination from the Program. Research (BNB 599 and BNB 699) is graded on a satisfactory/unsatisfactory basis. Any student who receives a grade of U in a research course will be reviewed for possible termination from the Program.

### Requirements for the MA in Biological Sciences

Completion of this track will require 30 credits from the approved PhD curriculum in Neuroscience and a thesis.

### Requirements for the MS in Biomedical Science

A total of at least 30 graduate credits with a cumulative GPA of 3.0 or greater are required for the MS degree. Of these, at least 8 credits must be earned in core courses in cellular, molecular and systems, and computational neuroscience. Students must also complete 4 credits in seminar courses designed to enhance reading, writing and presentation skills.

Research skills are at the center of the program and all students are required to complete a minimum of 14 credits of research related courses comprised of Introduction to Neuroscience Research, Neuroscience research practicum and Neuroscience Thesis work. Additional electives round out the remaining credit requirements. A research thesis is required at the culmination of the program.

### Core Curriculum:

- NEU 501: Introduction to Neuroscience Research (Summer II, 3 credits)
- NEU 502: Reading, Writing and Speaking Neurobiology (Fall, 2 credits)
- NEU 521: Introduction to Cellular Neuroscience (Fall, 3 credits)
- NEU 522: Introduction to Molecular Neuroscience (Fall, 3 credits)
- NEU 531: Sensory and Motor Systems (Spring, 2 credits)
- NEU 532: Neural Plasticity, Learning and Memory (Spring, 2 credits)
- NEU 536: Introduction to Computational Neuroscience (Spring, 2 credits)
- NEU 547: Introduction to Neural Computation (Fall, 3 credits)
- BNB 560: Introduction to Mammalian Neuroanatomy (Spring, 1 credit)
- BNB 567: Statistics and Data Analysis in Neuroscience I: Foundations (Fall, 2 credits)
- BNB 568: Statistics and Data Analysis in Neuroscience II: Applications (Spring, 2 credits)
- BNB 697: Neuroscience Seminar Series (Fall, Spring, 1 credit)
- NEU 548: MS Research Practicum in Neuroscience (Fall, Spring, Summer, 0-9 credits)
- NEU 549: MS Thesis Research in Neuroscience (Fall, Spring, Summer, 0-6 credits)

*Students must complete at least 8 credits from NEU521, NEU522, NEU531, NEU532, NEU536 and BNB560.*

### Faculty in the Program in Neuroscience

#### Stony Brook Faculty

Abi-Dargham, Anissa, MD, Neuropsychiatric disorders and addiction. Dept. of Psychiatry.

Acosta-Martinez, Maricedes<sup>6</sup>, Ph.D., 2002, Albert Einstein College of Medicine: Neuroendocrine regulation of the hypothalamus-pituitary-gonad (HPG) axis. Dept. of Physiology and Biophysics

Anderson, Brenda J. 8, Ph.D., 1993, University of Illinois: Behavioral and neuroanatomical effects of exercise and stress. Dept. of Psychology

Brinkman, Braden, Ph.D., 2013, Physics, University of Illinois at Urbana-Champaign: Using Avalanche Statistics to Forecast Failure in Models of Earthquake Faults and Magnets

Canli, Turhan, Ph.D. Yale University, Interplay of environmental and genetic factors on individual differences in emotions, personality traits, social cognition, and mental health. Dept. of Psychology.

Collins, William F. III, Ph.D., 1980, University of Pennsylvania: Motoneuron physiology and plasticity.

- Colognato, Holly<sup>5</sup>, Ph.D., 1999, Rutgers University: Molecular mechanisms that control oligodendrocyte function during nervous system development and during disease. Dept. of Pharmacology.
- DeLorenzo, Christine<sup>7</sup>, Ph.D., 2007, Yale University: Biomarkers of Major Depressive Disorder, Antidepressant Treatment Response, Prediction, Multimodal Brain Imaging, PET Radioligands. Dept. of Psychiatry.
- Dill, Kenneth<sup>9</sup>, Ph.D., UCSD, La Jolla: Properties of Proteins. Dept. of Chemistry.
- Djuric, Petar<sup>11</sup>, Ph.D., Signal analysis, modeling, and processing. Dept. of Electrical and Computer Engineering.
- Dubnau, Josh<sup>10</sup>, Ph.D., 1995, Columbia University: Genetic dissection of memory in *Drosophila*. Dept. of Anesthesiology.
- Enikolopov, Grigori<sup>10</sup>, PhD, Institute of Molecular Biology, USSR Academy of Sciences: Neurogenesis, stem cells, signal transduction.
- Fontanini, Alfredo, M.D., 1998, Ph.D. 2002, University of Brescia, Italy: Behavioral electrophysiology of taste and olfaction. Dept. of Neurobiology and Behavior.
- Frohmman, Michael<sup>5</sup>, Ph.D., M.D., University of Pennsylvania: Regulation of exocytosis and cell shape by signaling proteins. Dept. of Pharmacology.
- Ge, Shaoyu, Ph.D., 2002, University of Science and Technology of China: Development of new neurons in the adult brain. Dept. of Neurobiology and Behavior.
- Halegoua, Simon, Ph.D., 1978, Stony Brook University: Neuronal Growth Factor Signaling and the Control of Phenotype and Survival. Dept. of Neurobiology and Behavior.
- Hu, Chi-Kuo, Ph.D., Harvard Medical School: Dormancy, diapause in African Killifish; Dept. of Biochemistry
- Kernan, Maurice, Ph.D., 1990, University of Wisconsin: Mechanosensory transduction in *Drosophila*; TRP channel function; ciliary mechanisms. Dept. of Neurobiology and Behavior.
- Kritzer, Mary, Ph.D., 1989, Yale University: Effects of gonadal hormones on the cerebral cortex. Dept. of Neurobiology and Behavior.
- La Camera, Giancarlo, Ph.D., 2003, University of Bern: Learning and decision making; Theoretical Neuroscience. Dept. of Neurobiology and Behavior.
- Laughlin, Scott<sup>9</sup>, Ph.D., 2008, University of California: Chemical strategies for deciphering neural circuitry. Dept. of Chemistry.
- Maffei, Arianna, Ph.D., 2002, University of Pavia (Italy): Experience-dependent plasticity of neocortical circuits. Dept. of Neurobiology and Behavior.
- McKinnon, David, Ph.D., 1987, Australian National University: Evolution and robustness of electrophysiological systems. Dept. of Neurobiology and Behavior.
- Mofakham, Sima, Ph.D., University of Michigan, Computational neuroscience of neurological disorders. Dept. of Neurosurgery.
- Mujica-Parodi, Lilianne R.<sup>2</sup>, Ph.D., 1998, Columbia University: Neuroimaging (fMRI, nearinfrared spectroscopy) of limbic regulation; diagnostics for mental illness and resilience to acute/chronic stress. Dept. of Biomedical Engineering.
- Parsey, Ramin<sup>7</sup>, Ph.D, University of Maryland at Baltimore: Depression, Dementia and brain imaging technologies such as Positron Emission Tomography. Dept. of Psychiatry.
- Plotkin, Joshua, Ph.D., UCLA: Functional microcircuitry of the basal ganglia in normal and disease states. Dept. of Neurobiology and Behavior.
- Puopolo, Michelino<sup>10</sup>, Ph.D., University of Ferrara, Italy: Cellular neurophysiology of nociceptor (pain-sensing) neurons. Dept. of Anesthesiology.
- Riessland, Markus, Ph.D., University of Cologne, Germany: Cellular senescence and its contribution to ageing and neurodegenerative disorders. Dept. of Neurobiology and Behavior.
- Shelly, Maya, Ph.D., 2004, The Weizmann Institute of Science, Israel: Molecular mechanisms of neuronal development, specification, and migration, during embryonic development and in neurological disorders. Establishment of axon/dendrite during neuronal development. Dept. of Neurobiology and Behavior.
- Sher, Roger, Ph.D., : Cellular and molecular mechanisms of Neurodegeneration neurodegeneration. Dept. of Neurobiology and Behavior.
- Shrestha, Prerana, Ph.D., The Rockefeller University, Cellular/molecular mechanisms of learning. Dept. of Neurobiology and Behavior.
- Sirotkin, Howard, Ph.D., Albert Einstein College of Medicine: Molecular genetics of vertebrate neural patterning, Dept. of Neurobiology and Behavior.

Smaers, Jeroen, Ph.D., University of Cambridge, UK: Macroevolutionary study of the brain. Dept. of Anthropology.

Smith, Steven<sup>1</sup>, Ph.D.: Structural Biology. Dept. of Biochemistry and Cell Biology

Solomon, Irene C.<sup>6</sup>, Ph.D., 1994, University of California, Davis: Neural control of respiratory motor output and fast oscillatory rhythms.

Tang, Shao-Jun, Ph.D., University of Toronto, Molecular, cellular, and circuitry mechanisms in pain pathogenesis. Dept. of Anesthesiology

Tsirka, Styliani-Anna (Stella) E.<sup>5</sup>, Ph.D., 1989, University of Thessaloniki: Neuronal-microglial interactions in the physiology and pathology of the central nervous system. Dept. of Pharmacology

Van Snellenberg, Jared, Ph.D. Columbia University, Neuropsychiatric disorders and addiction. Dept. of Psychiatry.

Wollmuth, Lonnie, Ph.D., 1992, University of Washington: Molecular mechanisms of synaptic transmission. Dept. of Neurobiology and Behavior.

Xiong, Qiaojie, Ph.D., Johns Hopkins University: Neural mechanisms of learning and memory. Dept. of Neurobiology and Behavior.

Zhu, Donghui 'Don', Ph.D., University of Missouri, Columbia. Aging and neurodegenerative diseases like Alzheimer's. Dept. of Biomedical Engineering.

**Cold Spring Harbor Laboratories Faculty affiliated with the Program in Neuroscience**

Albeanu, Dinu Florin, Ph.D. Harvard University.

Borniger, Jeremy, Ph.D., Ohio State University.

Cheadle, Lucas, Ph.D., Yale University.

Hou, Helen, Ph.D., Harvard University.

Koulakov, Alexei, Ph.D., University of Minnesota.

Li, Bo, Ph.D., The University of British Columbia.

Shea, Stephen, Ph.D., The University of Chicago.

Tollkuhn, Jessica, Ph.D., University of California San Diego.

Van Aelst, Linda, Ph.D. Catholic University of Leuven.

Zador, Anthony, MD Ph.D., Yale University.

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

## School of Nursing

### Chairperson

Dr. Ann-Margaret Navarra,, School of Nursing, Health Sciences, Room 2-246 (631) 638- 0859 -

### PhD Program Director

Dr. Sylvia K. Wood, School of Nursing, Health Sciences, Room 2-245 (631) 444-3299

### Program Assistant

Amy Prokop School of Nursing. Health Sciences, Room 2-235 (631) 444- 3549

### Degree Awarded

PhD in Nursing

### Web Site

<https://nursing.stonybrookmedicine.edu/>

### Application

<https://graduateadmissions.stonybrook.edu/apply/>

## School of Nursing

### Courses offered in hybrid format, ask for more details.

The Doctor of Philosophy (PhD) represents the highest level of formal education for a career in nursing research and the scholarship of discovery. It prepares scholars for expression and communication of the knowledge base in the profession of nursing. PhD graduates develop the scientific foundation, steward the profession, define its uniqueness, maintain its professional integrity and educate the next generation of nurses. The PhD in Nursing program at Stony Brook University (SBU) School of Nursing (SON) will have a strong scientific emphasis within the discipline of nursing and an understanding of the science of related disciplines and translation science. The program is designed in a broad, cross-functional perspective to prepare nurse scientists to collaborate across disciplines to solve complex problems and address multiple issues facing individuals, families, communities and populations. Translational and innovative research, promoting interdisciplinary collaboration at the highest level, will be foundational to the program. The PhD program in nursing will attract candidates oriented towards developing new nursing knowledge who will select an area of research congruent with interdisciplinary faculty expertise in basic and clinical sciences. To foster success and promote transformational, far-reaching opportunities, students will engage in a diversified curriculum.

The 54-credit curriculum is designed for Master's-prepared nurses who aspire to research and academic roles within health care and educational settings. It will build on the foundation of research and scholarship gained at the master's level. The part-time, cohort-based program, to be offered on-site (one day/week) with web-enhanced technologies, contains three phases: Coursework, Proposal Development and Dissertation. Coursework and proposal development will take two and one-half years to complete with an additional minimum of one year for dissertation completion. The PhD candidate will select an area of research congruent with interdisciplinary faculty expertise. The SBU intensive research environment provides opportunities for mentorship by faculty within and outside the SON. Our Office of Nursing Research assists faculty and doctoral students in meeting research goals by providing administrative support, grant preparation support and management, statistical consultation, and dissemination of research findings through poster/podium presentation and manuscript preparation.

## Admission Requirements and Application Procedures

Application procedures and requirements as set forth in this Bulletin must be followed. Applications will be reviewed by PhD in Nursing program faculty and the Committee on Admissions and Academic Standards. All admissions for the PhD in Nursing will begin annually in May. The number of openings for the PhD in Nursing program is small and acceptance is competitive. Additionally, congruency of the applicant's research interest with faculty expertise may impact admission decisions.

Requirements for admission include:

1. Applicants to the Ph.D. in Nursing Program must hold a Master's degree in nursing from a nationally accredited program or its international equivalent. Students with a master's degree in a related discipline (i.e, MPH) and a Bachelor's in Nursing may also be considered.
2. A current unencumbered license to practice as a registered professional nurse
3. One official copy of any transcript from any undergraduate college or university attended, **from which a degree was conferred**. Applicants must submit one official copy of any transcript relating to any graduate level work undertaken, **regardless of whether or not a degree was earned**. *Note: Educational systems that cannot be compared to the United States must be evaluated by a US credentials evaluation service before admission can be finalized.*
4. Minimum overall GPA of 3.0 on a 4.0 scale.
5. Three letters of recommendation attesting to your academic ability and
6. Curriculum Vitae including education and employment history; honors and awards; and publications and grantsmanship. Must demonstrate a progressive record of professional development in nursing
7. A personal interview with PhD program faculty
8. An exemplar of scholarly writing (e.g., publications)
9. A statement of professional goals and research interests including reference to Stony Brook University School of Nursing PhD faculty whose current research is aligned with your areas of interest and expertise.

10. Documented proficiency in English for international student (see the English Proficiency Requirements for Non-Native Speakers of English in the Graduate Bulletin (<http://www.stonybrook.edu/sb/graduatebulletin/current/degrees/phd/index.php>))
11. International Applicants: Each person planning to study in the United States is required to have the appropriate immigration status. The immigration documents for F-1 and J-1 student status are issued by **Visa and Immigration Services** at Stony Brook University based on receipt of required supporting documentation, including evidence of admission, English language proficiency, and proof of financial support for the program of study. (see the International Students section in the Graduate Bulletin (<http://www.stonybrook.edu/sb/graduatebulletin/current/degrees/phd/index.php>))

These admission requirements constitute the minimum expectations for applicants. Applicants should be aware that students selected for admission generally exceed these requirements.

## Requirements for the PhD in Nursing Program

### A. Curriculum Requirements

The part-time cohort-based program, to be offered on-site (one day/week) with web-enhanced technologies, contains three phases: Coursework, Proposal Development and Dissertation. Coursework and proposal development will take two and one-half years to complete with an additional one year for dissertation completion. All students will follow an approved program of courses, called the Academic Program Plan, determined to meet his or her needs and to satisfy program requirements. The Academic Program Plan, developed by the student in consultation with the faculty advisor, should provide sufficient depth and breadth for the chosen area of research, including specific content areas, methodological and analytic approaches. Any changes to the plan must be approved by the faculty advisor and submitted to the Director of the PhD in Nursing Program for final review. The following includes **minimum** curriculum requirements:

COURSE	CREDIT	PRE-REQUISITE
<b>Statistics/Research Design</b>		
NUR 635 Biostatistics	3	
NUR 636 Advanced Statistical Methods	3	NUR 635
NUR 647 Doctoral Research Seminar	3	
NUR 660 Quantitative Methods in Nursing Research	3	
NUR 661 Qualitative Methods in Nursing Research	3	

### Philosophy/Theory/Foundations

NUR 630 Philosophical Foundations of Nursing Science	3	
NUR 631 Concepts, Theories and Knowledge Development in Nursing Science	3	NUR 630
NUR 680 Integrating Big Data to Evaluate Population Health (2 credits) AND VIP 695 Multidisciplinary Project Leadership (1 credit)	3	
COM 565 Foundations of Science Communication	3	
NUR 662 Data Management and Informatics for Clinical Scientists	3	NUR 635 NUR 636

### Research Practicum

Cognates (2)	6	
NUR 690 Dissertation Seminar I	3	Successful completion of Qualifying Examination
NUR 691 Dissertation Seminar II	3	Successful completion of Comprehensive Qualifying Examination



<b>Doctoral Role Formation</b>		
NUR 697 Seminar Series: Investigator Role and Research Practicum	3	
NUR 698 Seminar Series: Academic Role and Teaching Practicum	3	

**By Advisement**

Qualifying Examination	N/C	To be taken prior to dissertation phase
NUR 699 PhD Dissertation Research – On campus; or, NUR 700 PhD Dissertation Research – Off campus (Domestic); or, NUR 701 PhD Dissertation Research – Off campus (International) (until <i>Dissertation Defense</i> )	(6)	Following completion of all core courses and Qualifying Exam students will register for a minimum of 2 semesters (spring and fall semesters) of 3 credits each. Additional enrollment of (1-6) credits per semester is required until dissertation is completed and successfully defended
<b>TOTAL CREDITS</b>	54	

**B. Cognates**

Students will select a minimum of two cognate courses (6 credits) to support the dissertation. They individually and collectively enhance the depth of understanding of the student's chosen area of research. Cognate courses are taken after the first year of coursework when a student's chosen research area has become more clearly defined. Cognates are typically in specific content areas (i.e., self-management, biomarkers, biomedical informatics) or in specific methodological or analytical approaches (i.e., research design methodologies or data analytical methods). These courses must be at the graduate level and taught by doctorally prepared faculty either from within the School of Nursing or the University community at large. Students should consult with their faculty advisor regarding possible content and methodological areas that will support the chosen area of research.

**C. Teaching Practicum Requirement**

All doctoral students in the PhD in Nursing Program at Stony Brook University must complete at least one semester of practicum in teaching under supervision. Students in the PhD in Nursing Program will register for NUR 698 Seminar Series: Academic Role and Teaching Practicum to enhance their expertise in the role of an academician. The practicum will be individualized according to the student's prior experiences in the academic role. The practicum will provide students with expertise in course development, teaching pedagogies and strategies for curriculum delivery, test construction and evaluation methodologies for didactic and clinical learning, approaches to teaching diverse learners and difficult student situations, and professional role development among others.

The practicum may include making seminar or class presentations, assisting in laboratories, or leading discussion sessions. Grading experience by itself will not be considered sufficient for satisfaction of this requirement. Faculty are responsible for providing informal feedback and formal evaluation. Following (or in some cases, concurrent with) proper training through a teaching practicum and after having fulfilled other requirements for teaching (e.g., demonstration of spoken English proficiency for non-native speakers of English), a graduate student may serve as a teaching assistant (TA) in courses at Stony Brook University, where the instructor of record is a faculty member. An advanced graduate student may act as the instructor of record for an undergraduate course offered at Stony Brook University only if he or she is appointed to an adjunct faculty position as a lecturer. No student shall be appointed to such a position until he or she has been advanced to candidacy (G5 only). It is not required that such students be enrolled in full-time status, although this is recommended. Appointment procedures follow the same process as regular faculty appointments. Graduate students at G4 level or below cannot be designated as the Instructor of Record for any course offered at Stony Brook University. They may be appointed as Teaching Assistants. In addition, there must be a designated faculty supervisor who serves as the Instructor of Record for the course.

Each student, with the help of their faculty advisor, will identify the semester during which they will complete the teaching practicum, develop individualized student learning outcomes based on prior experiences in the academic role and identify a faculty preceptor. The faculty advisor, faculty preceptor and student will develop the structure of the practicum and plan activities to accomplish the student learning outcomes.

**D. Research Practicum Requirement**

All doctoral students in the PhD in Nursing Program at Stony Brook University must complete at least one semester of practicum in research under supervision. Students in the PhD in Nursing Program will register for NUR 697 Seminar Series: Investigator Role and Research Practicum to enhance their expertise in the role of an investigator. The practicum will be individualized according to the student's prior experiences in the investigator role. The practicum will provide students with expertise in selected aspects of the research process, including development of the conceptual/theoretical foundation of the study, study implementation (e.g. start-up activities, consent, intervention, fidelity management), data collection, data management, data analysis, participate in preparation of grant proposal and dissemination of findings.

Each student, with the help of their faculty advisor, will identify the semester during which they will complete the research practicum, develop individualized student learning outcomes based on prior experiences in the investigator role and identify a faculty preceptor. The faculty advisor, faculty preceptor and student will develop the structure of the practicum and plan activities to accomplish the student learning outcomes.

**E. Qualifying Examination****Qualifying Examination**

The overarching goal of the SON PhD program is to prepare nurse scientists to conduct independent original research to advance nursing science.

Successful completion of the Qualifying Examination demonstrates the necessary competencies needed to progress toward independent work in dissertation development and achieve the program outcomes.

Students will be eligible to take the Qualifying Examination after completing the first year of the PhD program.

The scholarly product of the Qualifying Examination is the PhD student's independent preparation of a manuscript of publishable quality for submission to a peer-reviewed journal and a separate oral defense of the manuscript. Acceptable scholarly products include an integrative review or concept analysis.

The PhD student's faculty advisor must approve the topic for the qualifying examination. As in any academic evaluative examination, the Qualifying Examination must be an individual scholarly product reflecting the student's efforts.

#### **F. Dissertation Proposal Defense**

The purpose of the Dissertation Proposal Defense is to demonstrate an understanding of knowledge in the concentration area that supports the student's dissertation research. Students may not progress to the proposal defense until all required coursework is complete. Written permission from the program director will be required for students who previously obtained permission to progress on an alternate academic pathway.

The proposal defense contains a written and oral component, both requiring a passing grade to advance to dissertation phase. Preparation of the proposal defense occurs under the guidance of the Dissertation Committee, facilitated by the Dissertation Committee Chair.

#### **G. Dissertation**

The three requirements for the Ph.D. are assessed in the final defense of a dissertation.

1. The dissertation should demonstrate significant original work.
2. The final dissertation should be presented with clarity of thought and excellence of exposition that make it suitable for publication as a book or a series of papers in learned journals.
3. The dissertation should demonstrate a breadth and depth of the candidate's knowledge beyond the confines of his or her own research and is also critically assessed in the defense and at various examinations during the student's studies.

The Dissertation Defense Examining Committee must include, but is not limited to, the following: Two faculty members internal to the program (e.g. the dissertation advisor and defense chairperson); One member external to the program; One member who may be either internal or external to the program.

#### **H. Residence Requirement**

At least two consecutive semesters of full-time study at Stony Brook University in the program granting the degree (or three consecutive semesters of a minimum of six credits for part-time students) are required.

#### **I. Program Time Limit**

The time limit for a doctoral degree, including coursework, examinations, practicums, and dissertation is seven (7) years from date of matriculation in the PhD in Nursing Program. In exceptional cases where the program cannot be completed within these periods, students may petition for an extension of the time limit. The Request for Waiver of Graduate Time Limit form can be found by selecting the forms link from the Graduate School Web site. These petitions require the approval of the student's faculty advisor and Director of the PhD in Nursing Program. Requests for a time limit extension must be filed before the limit is exceeded and must contain a significant justification. The final decision rests with the Dean of the Graduate School, who may impose additional requirements.

### **PhD in Nursing Faculty**

#### **Professors**

Shurpin, Kathleen <sup>(1)</sup>, Ph.D., 1989, Adelphi University: symptom distress: family support; cancer prevention and screening.

Bruckenthal, Patricia <sup>(1)</sup>, Ph.D., 2004, University of Massachusetts, Amherst: health behavior change; pain management; health screening and health promotion; novel health promoting technologies.

#### **Clinical Professors**

Buhse, Marijean <sup>(1)</sup>, Ph.D., 1997, Adelphi University: multiple sclerosis; caregiver burden.

#### **Associate Professors**

Navarra, Ann-Margaret, CPNP-PC, FAAN, Ph.D., Columbia University, 2011: youth and families; HIV and chronic illness; health equity; technology-enabled behavioral interventions; academic-community-partnerships

Shoenfeld, Elinor <sup>(2)</sup> Ph.D., 1987, University at Buffalo: community-engaged research; health disparities; sensor data for health; cancer epidemiology; data management and informatics.

Saltz, Mary <sup>(3)</sup> MD., (1983). Duke University School of Medicine: interventional radiology, artificial intelligence and deep learning, population health analysis.

#### **Clinical Associate Professors**

Della Ratta, Carol <sup>(1)</sup>, Ph.D., 2015, Adelphi University: intra-inter-professional educational strategies; active learning strategies; qualitative methods; new graduate nurse role transition; nurse preceptors.

Kenneth Faulkner <sup>(1)</sup>, Ph.D., 2018, New York University: heart failure; cognitive impairment in older adults; biostatistics.

Wood, Sylvia, K <sup>(1)</sup>, Ph.D., 2021, Adelphi University: cancer survivorship; aging cancer survivors; theory development; knowledge translation; implementation science; qualitative methods.

#### **Assistant Professors**

Ginex, Pamela K. <sup>(1)</sup> EdD., 2008, Columbia University Teachers College, New York: cancer survivorship, implementation science, systematic review.

Giselle, Gerardi. <sup>(1)</sup> Ph.D., 2022, City University of New York: self-efficacy, health management in underserved populations, maternal-child health, health informatics.

Whitney, Clare <sup>(1)</sup> Ph.D., 2020, University of Pennsylvania: bioethics; clinician communication; substance use and pregnancy; qualitative inquiry.

1. School of Nursing
2. School of Medicine, Department of Psychiatry
3. School of Medicine, Department of Radiology, Department of Biomedical Informatics, Community Practice Initiatives

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

**Oral Biology and Pathology Department****Interim Chairperson**

Stephen G. Walker, Dutchess Hall (631) 632-8916  
Email: Stephen.Walker@stonybrookmedicine.edu

**Graduate Program Director**

Stephen G. Walker, Dutchess Hall (631) 632-8916  
Email: Stephen.Walker@stonybrookmedicine.edu

**Graduate Program Coordinator**

Maria Gundy, Westchester Hall (631) 632-3753

**Degrees Awarded**

M.S. in Biomedical Science (Oral Biology and Pathology track) (Thesis and Non-thesis/Capstone Option).

Ph.D. in Oral Biology and Pathology

**Web Site**

<https://dentistry.stonybrookmedicine.edu/dentalprograms/mastersphd#admissions>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Department of Oral Biology and Pathology Department

The Graduate Program in Oral Biology and Pathology, within the Health Sciences Center, offers a program of study and research leading to the M.S. and Ph.D. degrees. The M.S. curriculum is of approximately two years' duration and is particularly suited for those graduates interested in pursuing careers in the dental field as well as dental graduates who wish to obtain further basic science training before entering or while obtaining a clinical specialty. The Graduate Program in Oral Biology and Pathology is also of particular interest to industrial-based scientists seeking additional training and advanced degrees. While the Department is interested in all aspects of oral biology, active programs of research presently being conducted include the following: development, metabolism, control of the oral microflora on the teeth and various epithelial surfaces; pathogenesis of periodontitis and gingivitis; interrelationship between systemic and oral diseases; ultrastructure and metabolism of healthy and diseased periodontal tissues with an emphasis on remodeling and matrix metalloproteinases; biology of epithelial growth and differentiation; epithelial gene therapy; mechanisms of epidermal and oral carcinogenesis; wound repair; biology of skin and mucosal grafting; acquired and innate immunity; inflammation and fibrosis, salivary gland biology, mucosal immunology, stem cell biology, and cancer. Further details may be obtained from the graduate program director.

Admission requirements of Oral Biology and Pathology Department

In addition to the minimum Graduate School requirements, the following are required:

A. A bachelor's degree and grade point average of 3.3 in the sciences and 3.0 overall

B Original transcripts with three letters of recommendation preferably from professors within the science disciplines

All applicants are carefully screened by the credentials committee of the department. Interviews and discussions are arranged with faculty members and graduate students where possible. Formal approval for acceptance into the program is given by the Graduate School.

Facilities of Oral Biology and Pathology Department

The Department currently occupies 18,000 square feet of space in Dutchess and Westchester Halls comprised of offices, well-equipped research laboratories.

Stony Brook University Supports a number of Research Core Facilities, which are coordinated under the Office of Scientific Affairs. The goal of these facilities is to provide commonly used technologies to the campus, and thus facilitate the research processes.

Requirements for the Ph.D. Degree and M.S. in Oral Biology and Pathology

In addition to the minimum degree requirements of the Graduate School:

A. All students must complete all or part of the Oral Biology and Pathology Oral Systems course.

B. M.S. students in the thesis option are required to take 30 credits composed of a combination of coursework (at least two graduate courses selected from offerings within and outside the Department are required) and independent research leading to a thesis. M.S. students in the Non-thesis/Capstone option are required to take 30 credits composed of a combination of coursework (at least four graduate courses selected from offerings within and outside the Department are required), and a capstone project that may have a research component.

C. Ph.D. students are generally required to complete four to six course offerings at the graduate level and advance to candidacy by preparing a detailed written proposal in the format of a National Institutes of Health research grant application. A public seminar is presented by the student to members of his or her advisory committee, the department, and the University community at large, in which the student defends the proposal.

This is followed by a further defense by the student before his or her advisory committee. A determination for advancement to candidacy is then made based on the defense of both the oral presentation and written proposal and forwarded to the Graduate School for official approval.

D. An original research thesis/dissertation is required for completion of the M.S. (thesis option) and Ph.D. degrees, respectively. For the Ph.D., a public defense followed by an examination of the student's dissertation by the Dissertation Committee is required. For the M.S. degree, after a public presentation, the student defends the thesis to the student's thesis committee. If the thesis/dissertation is recommended for approval, the determination is submitted to the Graduate School for final decisions to award the degree.

#### Faculty of Oral Biology and Pathology Department

##### Distinguished Professors

Golub, Lorne, M., D.M.D., 1963, M.Sc., 1965, University of Manitoba, Canada; Cert. Periodontics, 1968, Harvard School of Dental Medicine: Synthesis maturation and degradation of collagen in oral tissues; effect of inflammation on diabetes and collagen metabolism, on the flow and cellular and chemical constituents of gingival fluid, and relevance to diagnosis and management of the periodontal patient; therapeutic potential of tetracyclines as inhibitors of matrix metalloproteinases.

##### Professors

Gu, Ying, Ph.D. 2002, D.D.S., 2002, Stony Brook University: Link between Oral and Systemic Diseases.

Ghazizadeh, Soosan, Ph.D. 1994, Stony Brook University: Epithelial stem cell biology, Salivary gland biology, Tissue regeneration, cell plasticity, cutaneous gene therapy.

London, Steven D., D.D.S., 1981, Ph.D., 1987 University of Pennsylvania: Mucosal immunity, viral immunology, mucosal vaccine development especially as related to salivary gland inoculation, viral pathogenesis.

Simon, Marcia, Ph.D. 1981, Brandeis University: Biology of oral and cutaneous epithelial and mesenchymal cells, retinoid metabolism and the control of differentiations, wound healing, development and assessment of products for treatment of chemical and thermal burn injury.

##### Associate Professors

Walker, Stephen G., M.Sc., 1987, University of Guelph, Canada; Ph.D. 1994, University of British Columbia, Canada. Oral Microbial ecology in health and disease; Microbial diagnostics; Antibiotic susceptibility testing.

##### Clinical Assistant Professors

Jagwani, Raveena Sharma, D.D.S. 2002, Stony Brook University: Diagnostic oral biology and clinical dentistry with a focus on special needs/ treatment of patients with xerostomia. Translational oral biology.

##### Adjunct Professors

Rafailovich, Miriam, Ph.D., 1981, Stony Brook University: Properties of polymers in confinement at surfaces and interfaces, organic/ inorganic nanocomposites, flame retardant polymers, electrospun scaffolds, cell/surface interactions, templated biomineralization, nanorheological measurements, neutron and x-ray scattering and reflectivity from organic thin films.

##### Research Faculty

Gao, Jay G., Ph.D. 1989, Institute of Genetics, Fudan University, China Shanghai. Cutaneous and hepatic retinoid metabolism, regulation of lipolysis and lipogenesis.,

Lee, His-Ming, Ph.D. 1996, SUNY at Stony Brook: #-Proteinase Inhibitors in Periodontal Disease: Serpinolytic Inhibition by Doxycycline.,

#### Oral Biology and Pathology Program Faculty

Richard Faber, Orthodontics and Pediatric Dentistry

Zachary Faber, Orthodontics and Pediatric Dentistry

Hechang Huang, Orthodontics and Pediatric Dentistry

Robert Lopatkin, Orthodontics and Pediatric Dentistry

Antonino Russo, Orthodontics and Pediatric Dentistry

Robert Schindel, Orthodontics and Pediatric Dentistry

Vincent Iacono, Periodontology

Srinivas Myneni, Periodontology

Georgios Romanos, Periodontology

Marcus Abboud, Prosthodontics and Digital Technology

Dan Colosi, Prosthodontics and Digital Technology

Rafael Delgado-Ruiz, Prosthodontics and Digital Technology

Mina Mahdian, Prosthodontics and Digital Technology

Jerome Cymerman, Endodontics

Thomas Manders, Endodontics

Clarissa Amarillas, General Dentistry

Ana C. Botta, General Dentistry

Ying Gu, General Dentistry

Miriam Rafailovich, Materials Science and Chemical Engineering

Chad Korach, Mechanical Engineering

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

**Philosophy****Philosophy****Chairperson**

Anthony Steinbock, Harriman Hall 213 (631) 632-7585

**Assistant to the Chair**

Alissa Betz, Harriman Hall 211-A (631) 632-7590

**Graduate Program Coordinator**

Lisa-Beth Platania, Harriman Hall 213 (631) 632-7580

**Graduate Program Director**

Anne O'Byrne, Harriman Hall 252 (631) 7590

**Director for MA in Philosophy**

Tom Brockelman, Harriman Hall 213 (631) 632-7570

**Degrees Awarded**

M.A. in Philosophy; Ph.D. in Philosophy and Art

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

The Department of Philosophy, in the College of Arts and Sciences, offers programs leading to the Doctor of Philosophy and the Master of Arts in Philosophy.

**PhD Degree in Philosophy**

The doctoral program offers a rare opportunity to integrate the study of the history of philosophy with an exploration of contemporary philosophical methods and to apply an interdisciplinary approach to the framing and treatment of philosophical problems. The Philosophy Department is a sponsor of the Transatlantic Philosophical Collegium that offers advanced students opportunity for extended study at select German universities.

There are three general aims of the doctoral program:

1. To cultivate and make explicit the values and principles of the principal contemporary styles of philosophical reasoning.
2. To investigate the areas between philosophy and other disciplines that involve methodological, conceptual, and historical exchanges between philosophy and these other disciplines.
3. To provide an understanding of the history, major figures, and diverse problems of philosophy.

**MA degree in Philosophy**

Completion of the master's degree entails 30 course credits, the equivalent of 10 courses. You will find specific course descriptions for each semester on our website under the "current courses" tab. Of the 30 credits, 6 may be taken as Independent Study. Additionally, with the permission of the M.A. program director, 6 credits (2 courses) may be taken in the Philosophy Department's PhD program or in other departments at Stony Brook. One M.A. course per year is delivered at the Stony Brook Campus. An M.A. thesis option is available but not required for graduation.

**Admission to the Ph.D. and M.A. Programs in Philosophy**

For admission to the doctoral and master's programs in philosophy, the following are normally required:

- A. A bachelor's degree with a major in philosophy.
- B. Some knowledge of the history of philosophy and of contemporary modes of thought is highly desirable. Deficiencies in these areas may require the student to undertake special work.
- C. Official transcripts from the institution(s) where undergraduate and any graduate degrees were conferred; unofficial transcripts from other institutions where classes were taken but no degree was conferred;
- D. Letters of recommendation from three previous or current instructors.
- E. Submission of a philosophical essay (which may be a paper written for a previous course).

F. Statement of Purpose (no more than 2 pages single-spaced).

G. Acceptance by both the Department of Philosophy and the Graduate School.

### **Requirements for the Ph.D. Degree in Philosophy**

The doctoral program is designed to be completed in five years of full-time work. In addition to the minimum degree requirements of the Graduate School, the following are required:

#### **A. Seminars**

Seminar coursework will be required from the following three areas: history of philosophy, interface studies, and contemporary philosophy. Each of the three areas has a minimum number of required courses. The student will also take at least two additional seminars in one of the three areas to fulfill the concentration of studies requirement.

1. Three seminars in the history of philosophy from four groups of courses concentrating on ancient philosophy, medieval/Renaissance philosophy, modern philosophy, and 19th-century philosophy. These courses will feature an intensive writing component. For those students wishing to pursue a concentration of studies in the history of philosophy, a minimum of two additional courses may be taken from these areas or from seminar studies directed to special topics in the history of philosophy (which draw upon specific authors, texts, themes, or problems from the history of philosophy).
2. Two interface seminars in interdisciplinary areas between philosophy and another discipline pertaining to the natural sciences, to the social sciences, or to the humanities. The requirement may be satisfied by taking two seminars within the department that focus on an interdisciplinary area or by taking one seminar in the department that focuses on an interdisciplinary area and one course in another discipline. Two additional departmental seminars from this category may be taken to fulfill concentration requirements.
3. Five seminars in contemporary philosophy are required. Of these five seminars, two seminars in the preeminent styles or modes of philosophy are required: one in continental philosophy (PHI 630) and one in analytic philosophy (PHI 631). These two seminars will explore the methods, presuppositions, and operational modes of the contemporary philosophy involved. For students wishing to pursue a concentration of studies in contemporary philosophy, two or more seminars may be taken to fulfill concentration requirements.
4. Two additional seminars, chosen from a list of subjects, must be taken to fulfill the basic seminar requirements.
5. A practicum in the teaching of philosophy. This involves a supervised teaching seminar, along with additional teaching experience in the undergraduate program.
6. A series of prospectus workshops taken in the spring semester of the third year. The primary goal will be to produce a dissertation proposal.
7. An overall average grade of B or better is required, with no more than six credits of B- grades counting toward the degree.

#### **B. General Requirements**

1. The student must pass an examination in the History of Philosophy. Although the student may take the exam any number of times prior to the deadline, the examination must be passed by the end of the second year. The history of philosophy examination is constructed and read by the faculty on the History of Philosophy Committee.
2. The student must submit an essay, judged acceptable by a committee, in one of the areas of contemporary philosophy.
3. The student must submit an essay, judged acceptable by a committee composed of at least one Philosophy faculty member and a faculty member from the relevant second discipline, in one area of interface studies.

General reviews of student progress based upon a portfolio (courses taken, courses completed, grades, faculty evaluations of seminar work sample papers, teaching evaluations and performance in the above general requirements) will be undertaken at the end of the first and third years and in the second year after the deadline for passing the history of philosophy examination. The second-year review is the milestone requirement of the program. These reviews will assess the progress of students and determine qualifications for continuance or non-continuance in the program.

The Graduate Program Director will guide students in planning their program of studies to assure that general requirements are completed prior to their advancement to candidacy.

#### **C. Ph.D. Candidacy**

Official Ph.D. candidacy is attained when, in addition to the requirements listed above, a student fulfills the following competency requirements:

1. Competence in symbolic logic. Sufficient knowledge of concepts and notations of first-order logic for understanding and applying them to problems in philosophy.
2. Competence in a foreign language. This is shown by translating a previously untranslated philosophical article (or the equivalent).
3. Competence to undertake a dissertation project. This is shown by (a) a prospectus (10-15 pages) outlining projected study, expected findings, and relevant arguments and evidence (e.g., bibliography), and (b) an oral defense of the projected study before a faculty examining committee.

Upon the recommendation of the Examining Committee and the Graduate Program Director that the dissertation project be initiated, the student becomes a candidate for the Ph.D.

#### **D. Dissertation**



After advancement to candidacy, the student will concentrate on a dissertation (the written results of specialized study and research) under the supervision of a dissertation committee. After the dissertation is completed, it is read by a committee of four members, consisting of the director, two other members of the philosophy faculty, and one faculty member from outside the department who has specialized in related areas. Before final approval can be granted, the student must present the results of the dissertation research at an oral examination convened for that purpose by the department and open to interested faculty members and graduate students. If the dissertation defense is successful, the candidate is recommended to the University for the Doctor of Philosophy degree.

Doctoral students may be awarded the M.A. degree upon completion of the minimum coursework of 30 graduate credits of graded coursework.

## Courses

Detailed course descriptions for the doctoral program are available from the Philosophy Department office each semester. Please refer to the current undergraduate and Graduate Class Schedules for specific semester offerings.

## Requirements for the MA Degree in Philosophy

Given its commitment to philosophical pluralism and its triple focus on the history of philosophy, interdisciplinary studies, aesthetic and the philosophy of art, Stony Brook's Master of Arts in philosophy has been recognized throughout the profession as distinctive and innovative. The curriculum of the program embodies this commitment and focus.

### A. Administration

The administration of the MA Program is carried out by the MA Director in consultation with the Chair of the Philosophy Department, the Graduate Program Committee, the Graduate Coordinator and the core faculty of the Philosophy and Arts program.

### B. Course of Study

The primary purpose of the Master of Arts Program in Philosophy is to prepare students for original and independent research and scholarship in the field, and to prepare them for further postgraduate work in either philosophy or other humanistic disciplines. As an MA Program with special emphasis on the fine arts, it is also designed to provide artists with access to philosophical and intellectual resources not generally available in the art field.

In order to graduate, the student must have earned a total of 30 credits. Of these 30 credits:

1. 6 credits may be transfer credits (so long as they were not used toward earning another degree).
2. 6 credits may be earned either by taking 2 independent study courses, or by taking 1 independent study course and PHI 599 (Master's Thesis Research).
3. In order to be able to register for the MA Thesis course, students must fill out the MA Thesis Approval form, and have it signed by the MA Program Director as well as the Advisor of the MA thesis. The MA Thesis Advisor must be a permanent faculty member of the Philosophy Department.
4. All MA students must take at least one 500 or 600 level seminar on the Stony Brook University Campus
5. First year MA students may not take either Ph.D. seminars or independent studies. A second year MA student wishing to enroll in a PhD seminar must first obtain approval from the program director to request permission from the teaching faculty member. Only the teaching faculty member can give permission to enroll in the seminar.
6. If students enroll in PHI 520, it must be done with a permanent faculty member of the Philosophy Department.

**Note** the difference between **PHI 520: Advanced Studies in Philosophy** (3 credits, ABCF grading, variable and repetitive credit) and **PHI**

**521: Independent Study** (may be repeated for credit, S/U grading). If the Independent Study is intended to reach the required 30 credits for graduation, enrollment in PHI 520 is recommended (as only ABCF graded courses count towards cumulative credits).

### C. The MA Thesis Option

Students are strongly encouraged to fulfill all of their MA degree requirements by taking the regularly scheduled graduate courses. Under certain conditions, however, a student may wish to pursue the MA thesis option by requesting the formation of a faculty committee for the thesis project. Such a Thesis Committee will consist of a thesis advisor, and at least one other member of the departmental faculty or a reader from the faculty of another discipline. The MA Thesis Advisor is selected by the student, while the Second Reader (and possibly third reader) is selected by the advisor and student together. The Thesis Committee must be approved by the MA Program Director upon submission of the appropriate form and a brief thesis proposal summary. This form must be submitted to the MA Program director at least four weeks before the beginning of the semester in which the student is registering for PHI 599: Masters Thesis Research. The student will not be able to register for the MA thesis course without this form having been fully filled out and signed.

An MA student who takes the thesis option (see above) must notify the MA Program Director when submitting the thesis document to her/his thesis director. Once a student has submitted the thesis, the faculty thesis director has 3 weeks in which either to approve it for graduation purposes or require further revisions. In either case, the thesis director will notify the MA Director of the decision to approve or to require revisions. In the event that a thesis director fails to act within the time frame just specified, the MA Director will notify the student of her/his right to be assigned a different thesis director. The MA Director will also inform the Department Chair in case further administrative action is required.

<https://www.stonybrook.edu/sb/graduatebulletin/current/academicprograms/phi/faculty.php>

**Professors**

Carravetta, Peter, Ph.D. 1983, NYU: Modern thought and hermeneutics; Italian philosophy

Crease, Robert, Ph.D., 1987, Columbia University: Philosophy of science; aesthetics.

Dilworth, David, Ph.D., 1963, Fordham University; Ph.D., 1970, Columbia University: History of philosophy, East Asian languages, and cultures.

Mar, Gary, Ph.D., 1985, University of California, Los Angeles: Logic; philosophy of mathematics; contemporary analytic philosophy; philosophy of religion.

Miller, Clyde Lee, Ph.D., 1974, Yale University: History of philosophy.

Simpson, Lorenzo, Ph.D., 1978, Yale University: Contemporary continental philosophy (hermeneutics and critical theory); philosophy of the social sciences; philosophy of science and technology; neopragmatism and post-analytic philosophy; philosophy and race.

Steinbock, Anthony, Ph.D., 1993, Stony Brook University: Phenomenology; Contemporary German and French Philosophy; Philosophy of Religion; Social Ontology, and Aesthetics.

**Associate Professors**

Cormier, Harvey J., Ph.D., 1992 Harvard University: American philosophy; William James and pragmatism; philosophy and culture; philosophy of biology; philosophy of race.

Craig, Megan, Ph.D., 2006, New School of Social Research: Ethics; aesthetics; pragmatism; phenomenology; Levinas.

Kim, Alan, Ph.D., Ph.D., 2001, McGill University: Ancient Greek philosophy; German philosophy.

O'Byrne, Anne., Ph.D. 1999, Vanderbilt University: 20<sup>th</sup>-century and contemporary European philosophy; political philosophy.

**Assistant Professors**

Ansari, Rosabel, Ph.D., 2020, Georgetown University: Classical and post-classical Islamic philosophy; Graeco-Arabic Studies

Lemelin, Joseph., Ph.D., 2018, The New School for Social Research: Philosophy of Technology, Critical Theory, Philosophy of Mind, and Ancient Philosophy

**Full Time Lecturer**

Carter, Jennifer, Ph.D., 2018, Stony Brook University

**Adjunct Professors**

Brockelman, Thomas, Ph.D., 1992, Stony Brook University: 19<sup>th</sup> & 20<sup>th</sup> -Century Continental Philosophy, Aesthetics and Philosophies of Art, Modern and Postmodern Studies, Freudian & Lacanian Psychoanalytic Theory, Digital Philosophy, Philosophy & Architecture.

Irwin, Brian, Ph.D., 2014, Stony Brook University: 20<sup>th</sup> Century Continental Philosophy, Phenomenology, Aesthetics, and Philosophy of Place.

**Emeritus Faculty**

Casey, Edward S., Distinguished Professor, Ph.D., 1967, Northwestern University: Aesthetics; phenomenology; philosophy of psychology.

de Laurentiis, Allegra, Emeritus and Toll Professor, effective January 22, 2024 PhD, 1982, University of Frankfurt. Nineteenth Century German Philosophy; Greek Philosophy

Edwards, Jeffrey B., Emeritus and Toll Professor, effective January 22, 2024 Ph.D., 1987, Universität Marburg, Germany: History of philosophy; Kant; modern philosophy.

Grim, Patrick, B. Phil., 1975, University of St. Andrews, Scotland; Ph.D., 1976, Boston University: Logic; ethics; computer modeling; contemporary analytic philosophy.

Harvey, Robert, Distinguished Professor, Ph.D. 1988, University of California, Berkeley; aesthetics, literature-philosophy interpenetrations, history of ideas, critical theory.

Kittay, Eva, Distinguished Professor, Ph.D., 1978, City University of New York: Philosophy of language; philosophy and literature; feminism.

Nolan, Rita, Ph.D., 1965, University of Pennsylvania: foundations of cognitive science; philosophy of art;

philosophy of language.

Rawlinson, Mary C., Ph.D., 1978, Northwestern University: 19th-century philosophy; Hegel; contemporary French philosophy; aesthetics and literary theory; bioethics.

Welton, Donn, Ph.D., 1973, Southern Illinois University: Phenomenology and epistemology; philosophical psychology; Contemporary German philosophy.

Number of teaching, graduate, and research assistants, Fall 2023: 26

[1] Joint Appointment in Cultural Studies and Comparative Literature. Recipient of the Chancellor's Award for Excellence in Teaching.

[2] Recipient of the Chancellor's Award for Excellence in Teaching, 1980

[3] Joint Appointments in Cultural Studies and Comparative Literature, Women's and Gender Studies, and The College of Business. Recipient of the Chancellor's Award for Excellence in Teaching, 1984.

[4] Recipient of the Commonwealth of Virginia's Outstanding Faculty Award, 1990; University of Richmond's Distinguished Educator Award, 1984

[5] Joint appointment with Linguistics, Chancellor's and President's Award for Excellence in Teaching, 1993; Pew Scholar's Award, 1995; Outstanding Professor Award from the Alumni Association, 1995; Chancellor's Award for Excellence in University Service, 2015.

[6] Recipient of the State University Chancellor's Award for Excellence in Teaching, 1988

[7] Recipient of President's and Chancellor's Award for Excellence in Scholarship and Creative Activity, 2005

[8] Recipient of the State University Chancellor's Award for Excellence in Teaching, 1978

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

## Physics

**Chairperson**

Chang Kee Jung, Physics Building P-101 (631) 632-8108

**Graduate Program Director**

Matt Dawber, Physics Building P-107 (631) 632-4978

**Assistant Graduate Program Director**

Donald J. Sheehan III, Physics Building P-110 (631) 632-8759

**Degrees Awarded**

Ph.D. in Physics; Ph.D. in Physics with Concentration in Astronomy; Ph.D. in Physics with Concentration in Physical Biology, M.A. in Physics; M.S. in Physics in Scientific Instrumentation, Advanced Graduate Certificate in Accelerator Science.

**Web Site**

<https://www.stonybrook.edu/commcms/grad-physics-astronomy/>  
<http://graduate.physics.sunysb.edu> <http://www.physics.sunysb.edu/Physics/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**General Description of the Graduate Program**

The Department of Physics and Astronomy in the College of Arts and Sciences offers courses of study and research that normally lead to the Ph.D. degree. The M.A. degree is awarded either as a terminal degree, or to students on the way to the Ph.D. degree. The Master of Science in Scientific Instrumentation (MSI) program is provided for those interested in instrumentation for physical research. The Master of Science in Quantum Information Science and Technology (MSQIST) prepares students to work in this rapidly growing area. A Master of Arts in Teaching program, from the School of Professional Development, is available for students seeking to teach physics in high schools. An Advanced Graduate Certificate in Accelerator Science is offered, which can be taken concurrently with a PhD or Masters degree.

Students may find opportunities in various areas of physics not found in the department or in related disciplines at Stony Brook in such programs as Medical Physics, Chemical Physics, Atmospheric and Climate Modeling, Materials Science and at Brookhaven National Laboratory or Cold Spring Harbor Laboratory.

The entire faculty participates in teaching a rich curriculum of undergraduate, graduate, and professional development courses, including many courses on special topics of current interest. PhD and MSI students must fulfill one year of teaching. PhD students are encouraged to participate in research as early as possible and to begin their thesis research no later than the beginning of their third year. The typical length of time to the Ph.D. is four to six years. The Master's in Scientific Instrumentation is a two-year program that involves a thesis project in instrumentation design or development. The minimum time to earn the M.A. or MSQIST degrees is two semesters and one Summer, but will more usually take two years.

The Stony Brook Physics graduate program has been highly ranked in national surveys for the quality of its graduate program, its faculty, and the impact of its published research. It strives to make a graduate education in physics intellectually stimulating and educationally rewarding.

**Degrees****Doctoral Program in Physics**

This is the generic Ph.D. degree which may specialize in any area of Physics research. This course of study is pursued by most students in the Ph.D. program. See below for a description of the degree requirements.

**Doctoral Program with Concentration in Astronomy**

The Department of Physics and Astronomy offers a Ph.D. degree with concentration in astronomy when the thesis work is carried out in the area of astronomy or astrophysics. Some of the requirement for the Ph.D. degree are substituted by astronomy courses.

**Doctoral Program with Concentration in Physical Biology**

This is an interdisciplinary concentration connected with the Laufer Center for Quantitative Biology. Students usually declare their interest in this concentration not later than the end of the first semester. Postponing this decision will result in a loss of time. There are several differences with the default physics concentration. The number of core courses is reduced by one course while several physical biology courses are required. Instead of the graduate lab students do rotations with faculty associated with the Laufer Center. Also the Graduate Seminar is substituted by the Laufer Center Journal Club.

**Doctoral Programs with Concentration in Chemical Physics**

The basic degree requirements for a student enrolled in this program are the same as those for other students in physics. Students will usually be advised to take one or more courses in chemical physics. The written part of the preliminary (comprehensive) examination is the same as for other physics students; the oral part will ordinarily be on topics in chemical physics. The student's research advisor may be chosen from faculty working in chemical physics.

**Master of Science Program with Concentration in Instrumentation**

This is a two year Master of Science Program in which students focus on the study of modern research instrumentation.

### **Master of Arts Degree in Physics**

This program which can be completed in three or four semesters prepares you either of admission to a Ph.D. program or for a physics related job in a national lab or in the private sector.

### **Master of Science in Quantum Information Science and Technology**

This degree prepares students to work in the rapidly growing area of Quantum Information Science and Technology. The degree features several customized courses in QIST and also allows students to take a number of relevant courses that are already offered in Physics and other departments across our campus. It also features a research component that may be satisfied through research on-campus or at Brookhaven National Laboratory, or through a internship with an industrial partner.

### **Advanced Graduate Certificate in Accelerator Science**

The goal of this program is to educate the next generation of accelerator scientists and engineers to maintain US's leadership in this important area of science and industry.

#### **Admission requirements of Physics and Astronomy Department**

For admission to graduate study in Physics and Astronomy the following, in addition to the minimum Graduate School requirements, are required:

- A. A bachelor's degree in physics or a closely related field from an accredited institution. In the case of the M.Sc. in Quantum Information Science and Technology the degree must be in science and engineering, but need not be in physics or a closely related field.
- B. A minimum grade average of B in all undergraduate coursework, and B or better in the sciences and mathematics.
- C. Acceptance by the Department of Physics and Astronomy and the Graduate School.

In special cases, a student not meeting requirement A (or, in unusual cases, requirement B) may be admitted on a provisional basis, without financial support. Upon admission, the student will be informed of the requirements that must be satisfied for termination of provisional status.

Retention of students in subsequent years will depend on satisfactory academic progress.

#### **Research in the Physics and Astronomy Department**

Research areas for the program include, Accelerator Physics and the Center for Accelerator Science and Education; Astronomy, Astrophysics and Cosmology; Atmospheric and Marine Sciences; Atomic, Molecular and Optical Physics; Experimental Condensed Matter and Devices; Experimental High Energy Physics; Experimental Nuclear Physics; Biological Physics at the Laufer Center; Theoretical Condensed Matter and Statistical Physics; Theoretical Nuclear Physics; Mathematical Physics; and Theoretical Particle Physics including String Theory. For information on this topic, please visit the program website at the link <https://www.stonybrook.edu/commcms/physics/research/>

A number of institutes dedicated to specific fields offer a diverse spectrum of research opportunities. The C. N. Yang Institute for Theoretical Physics focuses on research in fundamental theory such as particle theory, neutrino physics, string theory, supersymmetry, and statistical mechanics. The Nuclear Theory Institute works on non-perturbative quantum chromodynamics, many-body quantum physics and the properties of hadronic matter under extreme conditions such as those created in the Relativistic Heavy Ion Collider at BNL. The Simons Center for Geometry and Physics initiated by a significant private donation to the University offers research programs that are built on the historic close interaction between mathematicians and physicists at Stony Brook. The Laufer Center for Physical and Quantitative Biology aims to advance biology and medicine through discoveries in physics, mathematics and computational science. Data Science and computing in science and engineering including physics is performed at the Institute for Advanced Computational Science. Finally, the Center for Frontiers in Nuclear Science is devoted to physics related to the Electron-Ion Collider.

Stony Brook co-manages nearby Brookhaven National Laboratory which conducts research in the physical, biomedical, and environmental sciences, as well as in climate and energy technologies. Brookhaven Lab also builds and operates major scientific facilities that include the Relativistic Heavy Ion Collider (RHIC), the Center for Functional Nanomaterials, the National Synchrotron Light Source, NSLS II, the Brookhaven Computational Science Center with the IBM BlueGene supercomputer. Stony Brook is the largest academic user of Laboratory facilities with over 600 faculty, staff, and students involved in collaborative research (see <http://www.bnl.gov/science> for more information). Our nuclear physics faculty is one of the leading groups at RHIC. Experimental condensed matter and X-ray physicists in our department play a leading role in NSLS II and the Center for Functional Nanomaterials. Several of our colleagues are active in the interdisciplinary Stony Brook Center for Computational Science that uses the BlueGene supercomputer.

In addition to facilities at BNL, faculty and staff make use of many off-campus facilities including the Large Hadron Collider at CERN, Argonne National Laboratory and Lawrence Berkeley National Laboratory.

The Department had a Tandem Van de Graaff accelerator that after 40 years of nuclear research has been converted to educational, training, and accelerator R&D efforts.

Astronomical research is conducted on both theoretical and observational topics. The group uses DOE supercomputing facilities as well as on-site Beowulf clusters for extensive simulations of astronomical objects and nuclear astrophysical processes. Recently we established a strong effort in cosmology as well.

Observational research focuses on topics in galactic and extragalactic star formation, substellar and stellar astrophysics, extrasolar planets, neutron stars, molecular clouds, and galaxy formation and evolution. Faculty and students are also frequent users of the National Optical Astronomy Observatories, the National Radio Astronomy Observatories, the observatories at Mauna Kea and the millimeter wave facilities at CARMA and Nobeyama observatories. They have also received extensive time on space-based observatories, including the Hubble Space Telescope, the Spitzer Space Telescope, the Herschel Space Observatory, and XMM-Newton.

#### Requirements for the M.A. Degree in Physics

1. Satisfactory performance in a program of studies (30 graduate credits) approved by the department. Normally such a program would include graduate seminars, classical mechanics, electrodynamics, and quantum mechanics.
2. Minimum grade point average of 3.0 in all graduate courses taken at Stony Brook.
3. Either passing the graduate comprehensive examination at the master's level or completion of a master's

project. Requirements for the M.S. Degree with Specialization in Scientific Instrumentation (MSI)

A candidate for the master's degree with concentration in instrumentation will be required to demonstrate a certain level of knowledge of physics (by written and/or oral examination), to take required and elective courses, and to complete both a major and minor project. The curriculum is designed to meet the needs of students learning about the design, construction, and testing of sophisticated instrument systems. The degree holder will not be a super-technician, but a professional scientist trained in both physics and measurement techniques.

A. A student shall demonstrate proficiency in undergraduate physics at the level of the courses PHY 335 (Junior Laboratory I), 405 (Advanced Quantum Physics). Students need to have demonstrated knowledge in two of the three areas Nuclear and Particle Physics (covered in PHY 431), Condensed Matter Physics (PHY 472) and Laser and Atomic Physics (PHY 452). This can be done (1) by acceptance by the Master's in Scientific Instrumentation Committee of courses taken as an undergraduate, (2) by written examination, or (3) by passing the courses appropriate to a student's background;

B. A course about research instrumentation (PHY 514);

C. Two semesters each of graduate lab (PHY 515) and graduate seminar (PHY 598, PHY 599);

D. Students shall work as teaching assistant in an undergraduate laboratory for at least one semester (being a TA in PHY 445 may satisfy the requirement of taking the second semester of graduate lab (PHY 515));

E. Thirty credits (minimum) of graduate courses (500 level or above), including a minor project and a master's thesis. This thesis must describe a major piece of work in scientific instrumentation and must be in a form acceptable to the Graduate School. It need not be original research in the same sense as a Ph.D. thesis, but it should be the result of an effort consistent with a year of full-time work. The thesis should present an improvement of the state of the art in some area, the development of a sophisticated apparatus, or some other significant laboratory project, and be defended before a committee;

F. Students shall acquire those technical skills deemed necessary by their thesis supervisors. These must include, but are not limited to, machining capability and computer literacy.

Each student will be assigned an advisory committee of three faculty members and will be required to meet frequently with them. It is expected that close communication among all the faculty and students involved will foster spirit, expose problems, and generally contribute to success.

#### Requirements for the Professional MSI Track

In the Professional MSI Track the minor project is replaced by a minimum of 9 credits of "Plus Courses" in Stony Brook's College of Business, the School of Journalism or similar courses from a different program (subject to approval). The advisory committee will advise the student on which "Plus Courses" to take.

For further information on this program, contact Professor Harold Metcalf.

#### Requirements for the Masters in Science in Quantum Information Science and Technology

- A. Completion of the following core courses with a grade of B or better: PHY568, PHY569, PHY631.
- B. Completion of one 3 credit Focus Area Course from ESE 511, ESE 515, PHY 565, PHY 566, PHY 605, PHY 680. If more than one of these courses is taken, the additional courses count as elective courses. Courses may be substituted with approval of the graduate program director.
- C. Completion of 12 credits of elective courses. Elective courses that may be credited towards the degree include: CHE521, CSE540, CSE546, CSE548, CSE550, CSE613, ESE 511, ESE512, ESE 515, ESE519, ESE538, PHY511, PHY512, PHY514, PHY515, PHY555, PHY556, PHY562, PHY 565, PHY 566, PHY567, PHY 605, PHY 680. Other courses may be credited if approved by the graduate program director.
- D. Completion of a research project and 6 credits from either or both of PHY580/PHY595.

#### Requirements for the Ph.D. Degree in Physics

A. Completion of the following core courses with a grade of B or better: 501, 505, 511, 512, 540. A student can skip one or more of these courses by sufficiently good performance in the corresponding parts of the placement exam or by obtaining a waiver based on having taken similar courses elsewhere from the Graduate Program Director.

B. Completion of required courses: Each of the courses listed below must be passed with a minimum grade of B:

1. PHY 598 and PHY 599 Graduate Seminars. These courses are normally taken during the first year of graduate study, one per semester, in either order.

2. PHY 515 Methods of Experimental Research. This course must be taken not later than the fourth semester of residence. This requirement can also be satisfied by PHY 517, Laboratory Course in Astronomical Techniques.

3. Three advanced courses, in three different areas of physics.

C. Passing of the written comprehensive examination. This is offered at the beginning of each semester. It is in four parts with exams on Classical Mechanics, Electrodynamics, Quantum Mechanics, and Statistical Mechanics. It must be passed in the student's fourth semester of study at Stony Brook or earlier. If taken as a placement exam for the core courses, it has to be passed at a higher level.

D. Passing an oral examination on a broad range of topics relevant to the student's intended area of thesis research. The oral examination should be passed before the beginning of the fifth semester of residency.

E. Acceptance of graduate student by an advisor for thesis work;

F. Teaching experience at least equivalent to that obtained in a one-year appointment as a teaching assistant, usually carried out in the first year;

G. Advancement to candidacy for the Ph.D. The department's recommendation to the Graduate School for advancement to candidacy is based on the satisfactory completion of all requirements listed above;

H. Research, dissertation, and passing the dissertation examination.

I. At least one year of residence.

#### Requirements for the Ph.D. Degree in Physics with Concentration in Astronomy

The requirements are the same except for B3. Instead the student shall take three astronomy core courses (PHY 521, PHY 522, PHY 523, PHY 524) and present a thesis proposal as an oral exam. In addition, the thesis work should be in the area of Astronomy or Astrophysics. The thesis proposal will be prepared in a Special Studies Course (PHY 585) with the advisor.

#### Requirements for the Ph.D. Degree in Physics with Concentration in Physical Biology

A. Four Physics core course: Electrodynamics (PHY 505), Quantum Mechanics I (PHY 511), Statistical Mechanics (PHY 540) and either Classical Mechanics (PHY 501) or Quantum Mechanics II (PHY 512). A student can skip one or more of these courses by sufficiently good performance in the corresponding parts of the placement exam or by obtaining a waiver based on having taken similar courses elsewhere from the Graduate Program Director.

B. Two Core Courses in Physical Biology: Physical Biology (PHY 558) and Biological Dynamics and Network (PHY 559)

C. Biology For Physical Scientists (PHY 561)

D. Two semesters of Teaching (PHY 600)

E. Two semesters of Lab Rotations (PHY 584)

F. Two semester of the Laufer Center Journal Club (PHY 665)

G. Two Life Science courses form an approved list. Currently, the following courses have been approved: Biomolecular Structure and Analysis (CHE 541), Molecular Genetics (MCB 503), Structural Biology and Spectroscopy (MCB 512), Graduate Biochemistry I (MCB 520) and Cell Biology (MCB 656)

H. Passing of the Comprehensive Exam.

I. An oral exam on a topic in Physical Biology. The oral examination should be passed before the beginning of the fifth semester of residence.

J. Acceptance of the graduate student by an advisor working on the topic of Physical Biology.

K. Advancement to candidacy for the Ph.D. The department's recommendation to the Graduate School for advancement to candidacy is based on the satisfactory completion of all requirements listed above.

L. Research, dissertation, and passing the dissertation examination.

M. At least one year of residence.

#### Requirements for the Advanced Graduate Certificate in Accelerator Science

1. Students must take 4 courses, one obligatory course, PHY 554, and three elective courses from an approved list, for a total of 12 credits. Faculty of the Department of Physics and Astronomy

### **Distinguished Professors**

**Deshpande**, Abhay, Ph.D., 1995, Yale University: Nucleon spin, heavy ion physics and precision electroweak physics.

**Dill**, Ken, Ph.D., 1978, UCSD, La Jolla: Physical Biology.

**Drees**, Axel K., Chair of the Department, Ph.D., 1989, University of Heidelberg, Germany: Experimental nuclear physics; relativistic heavy ions.

**Hemmick**, Thomas, Ph.D., 1989, University of Rochester: Experimental nuclear physics; relativistic heavy ions.

**Jung**, Chang Kee, Ph.D., 1986, Indiana University: Experimental high-energy physics.

**Kharzeev**, Dmitri, Ph.D., 1990, Moscow State University: Heavy ion physics and particle theory

**Lattimer**, James M., Ph.D., 1976, University of Texas: Nuclear, neutrino and high- energy astrophysics; supernovae, neutron stars, dense matter; grain formation; isotopic anomalies in meteorites.

**Metcalf**, Harold J., Ph.D., 1967, Brown University: Atomic physics; laser cooling and trapping; atom optics; precision stark spectroscopy; lasers and optics.

**McCoy**, Barry M. , Ph.D., 1967, Harvard University. C.N. Yang Institute for Theoretical Physics. Theoretical physics; statistical mechanics.

**Shuryak**, Edward, Ph.D., 1974, Institute of Nuclear Physics, Novosibirsk, Russia: Theoretical nuclear physics.

**Sterman**, George , Director of C.N. Yang Institute for Theoretical Physics. Ph.D., 1974, University of Maryland: Theoretical physics.

**Van Nieuwenhuizen**, Peter , Ph.D., 1971, University of Utrecht, Netherlands. C.N. Yang Institute for Theoretical Physics. Theoretical physics; quantum field theory.

### **Professors**

**Abanov**, Alexander, Ph.D., 1997, University of Chicago: Theoretical Condensed Matter Physics.

**Alvarez-Gaume**, Luis, Director, Simons Center, Ph.D., 1980, Stony Brook University: Theoretical Physics and Cosmology.

**Armitage**, Philip J., Ph.D. 1996, Cambridge University: Theoretical astrophysics.

**Averin**, Dmitri V., Ph.D., 1987, Moscow State University, Russia: Theoretical condensed matter physics.

**Calder**, Alan, Ph.D., 1997, Vanderbilt University: Observational Astronomy

**Dawber**, Matthew, Ph.D., 2003, Cambridge University: Experimental condensed matter physics

**Essig**, Rouven, Ph.D., 2008, Rutgers University. C.N. Yang Institute for Theoretical Physics: Theoretical particle physics.

**Fernandez-Serra**, Maria Victoria, Ph.D., University of Cambridge, 2005: Computational condensed matter.

**Gonzalez-Garcia**, Concha , Ph.D., 1991, Universidad de Valencia, Spain. C.N. Yang Institute for Theoretical Physics. Theoretical Elementary Particle Physics

**Hobbs**, John, Ph.D., 1991, University of Chicago: Experimental high-energy physics.

**Komargodski**, Zohar, Ph.D., Weizmann Institute of Science, 2008: Theoretical Physics.

**Korepin**, Vladimir , Ph.D., 1977, Leningrad University, Russia: C.N. Yang Institute for Theoretical Physics: Theoretical physics.

**Lanzetta**, Kenneth M., Ph. D. 1988, University of Pittsburgh. Extragalactic Astronomy.

**Li**, Qiang, Ph. D. 1991, Iowa State University. Experimental Condensed Matter Physics

**Litvinenko**, Vladimir, Ph.D. 1989, Institute of Nuclear Physics, Novosibirsk, Russia: Accelerator physics and free electron lasers.

**McCarthy**, Robert L., Ph.D., 1971, University of California, Berkeley: Experimental high-energy physics.

**Meade**, Patrick, Ph.D. , 2006, Cornell University: phenomenological and theoretical explorations of the terascale. theoretical physics.

**Mendez**, Emilio E., BNL. Ph.D., 1979, Massachusetts Institute of Technology: Experimental condensed matter physics.

**Mihaly**, Laszlo, Ph.D., 1977, Eotvos Lorand University, Budapest, Hungary: Experimental condensed matter physics.



**Misewich**, James, Ph.D., 1984, Cornell University: Experimental Condensed Matter Physics.

**Nekrasov**, Nikita , Ph.D. 1996, Princeton University. Simons Center for Geometry and Physics: Mathematical physics.

**Perna**, Rosalba, Ph.D., Harvard University, 1999. High Energy Astrophysics.

**Rastelli**, Leonardo , Ph.D., 2000, Massachusetts Institute of Technology: String Theory.

**Rocek**, Martin , Ph.D., 1979, Harvard University. C.N. Yang Institute for Theoretical Physics: Theoretical physics: supersymmetry and supergravity.

**Rijssenbeek**, Michael, Ph.D., 1979, University of Amsterdam, Netherlands: Experimental high-energy physics.

**Schneble**, Dominik A., Ph.D., 2002, University of Konstanz: Experimental atomic physics, ultracold quantum gases.

**Shrock**, Robert , Ph.D., 1975, Princeton University. C.N. Yang Institute for Theoretical Physics: Theoretical physics; gauge theories; statistical mechanics.

**Siegel**, Warren , Ph.D., 1977, University of California, Berkeley. C.N. Yang Institute for Theoretical Physics: Theoretical physics; strings.

**Teaney**, Derek. Ph.D., 2001 Stony Brook University: Nuclear theory.

**Verbaarschot**, Jacobus J.M., Ph.D., University of Utrecht, 1982. Theoretical physics, strong interactions, random matrix theory, many body quantum physics.

**Walter**, Fredrick M., Ph.D., 1981, University of California, Berkeley: Stellar astrophysics, including X-ray optical and infrared photometry and spectroscopy; pre-main sequence objects.

**Wei**, Tzu-Chieh, Ph.D., 2005, University of Illinois, Urbana. C.N. Yang Institute for Theoretical Physics: Theoretical Particle physics.

**Weinacht**, Thomas, Ph.D., 2000, University of Michigan: Quantum Optics and Atomic Physics. Zahed, Ismail, Ph.D., 1983, Massachusetts Institute of Technology: Theoretical nuclear physics.

**Zamolodchikov**, Alexander, Ph.D., 1978, Institute for Theoretical and Mathematical Physics, Moscow 1978: Theoretical Physics.

### Associate Professors

**Allison**, Thomas, Ph.D., 2010, University of California at Berkeley: Atomic, Molecular and Optical Experiment.

**Du**, Xu, Ph.D, University of Florida, 2004. Experimental condensed matter physics.

**Farr**, William M., Ph.D., 2010, Massachusetts Institute of Technology: Astronomy.

**Figueroa**, Eden, Ph.D. , 2008, University of Calgary/University of Konstanz, 2008: Atomic, Molecular and Optical Experiment.

**Kiryłuk**, Joanna, Ph.D., 2000, University of Warsaw: Neutrino physics.

**Koda**, Jin, Ph.D., University of Tokyo, 2002. Astronomy.

**Liu**, Mengkun, Ph.D., 2012, Boston University: Condensed Matter – experimental and device physics.

**McGrew**, Clark, Ph.D., 1994, University of California Irvine: Experimental High Energy Physics.

**Piacquadio**, Giacinto, Ph.D., 2010, University of Freiburg: Experimental High Energy Physics.

**Sehgal**, Neelima, Ph.D., 2008, Rutgers University: Galaxies and cosmology.

**Tsybychev**, Dmitri, Ph.D., 2004 University of Florida: Experimental high energy physics.

**von der Linden**, Anja, Ph.D., 2007, Ludwig Maximilian Universitaet Muenchen: Astrophysics.

**Wilking**, Michael, Ph.D., 2009, University of Colorado, Boulder: Experimental High Energy physics.

**Zingale**, Michael, Ph.D. 2000, University of Chicago: Computational astrophysics.

### Assistant Professors

**Bernauer**, Jan Christopher, Ph.D. 2010, Universitaet Mainz, Germany: Nuclear Experiment.

**Birrer**, Simon, Ph. D. 2016, ETH Zurich, Switzerland: Astrophysics.

**Cano**, Jennifer, Ph.D., 2015, University of California, Santa Barbara: Condensed Matter Theory.

**Dreyer**, Cyrus E., Ph.D. 2014, University of California, Santa Barbara: Computational Condensed Matter.

**Miranda**, Vivian, Ph. D. 2015, The University of Chicago: C.N. Yang Institute for Theoretical Physics: Cosmology.

**Perez-Rios**, Jesus, Ph. D. 2012, Universidad Complutense de Madrid, Spain: Theoretical AMO Physics.

**Shao**, Shu-Hung, Ph. D. 2016, Harvard University: C.N. Yang Institute for Theoretical Physics: Theoretical Physics.

**Syritsyn**, Sergey, Ph.D., 2010, MIT: Theoretical Nuclear Physics.

**Vafaei-Najafabadi**, Navid, Ph.D., UCLA, 2016: Experimental Accelerator Physics.

#### Brookhaven Professor

**Ben-Zvi**, Ilan, Ph.D., 1967, Weizmann Institute, Israel: Accelerator and beam physics.

#### Research Faculty

**Allen**, Philip B., Ph.D., 1969, University of California, Berkeley: Theoretical condensed matter physics.

**David**, Gabor, Ph. D., 1991, Ph.D. Stony Brook University: Nuclear Physics

**Grannis**, Paul D., *Emeritus*, Ph.D., 1965, University of California, Berkeley: Experimental high-energy physics.

**Likharev**, Konstantin K. , Ph.D., 1969, Moscow State University, Russia: Mesoscopic physics.

**Nomerotski**, Andrei, Ph.D., 1996, University of Padua: Cosmology and Instrumentation.

**Semenov**, Vasili, Ph.D., 1975, Moscow State University: Experimental condensed matter physics.

**Stephens, Peter W.**, Ph.D., 1978, Massachusetts Institute of Technology: Experimental condensed matter physics.

**Swesty**, Douglas, Ph.D., 1993, Stony Brook University: Computational astrophysics.

**da Via**, Cinzia, Ph.D., University of Glasgow, 1997: Experimental high Energy Physics.

#### Adjunct Faculty

**Belomestnykh**, Sergey, Ph.D. 1998, Budker Institute of Nuclear Physics. Accelerator Physics.

**Cunsolo**, Alessandro, Ph.D. 1999, University Joseph Fourier – Grenoble. Inelastic X-Ray Scattering.

**Das**, Kunal K., Ph. D, 2001, Stony Brook University, Atomic, Molecular and Optical Theory.

**Denisov**, Dmitri., Ph.D. 1991, Institute for High Energy Physics, Protvino, Russia: Experimental High Energy Physics

**Dawson**, Sally, Ph.D. 1981, Harvard University. Theoretical physics, collider phenomenology.

**Eisaman**, Matthew, Ph.D. , 2006, Harvard University: Experimental Condensed Mater Physics.

**Fedorin**, Mikhael G., Ph.D., 2000, Budker Institute of Nuclear Physics: Accelerator Physics.

**Fluerasu**, Andrei, Ph.D. 2004, McGill University: Experimental Condensed Matter Physics.

**Gao**, Haiyan, Ph.D, 1994, California Institute of Technology: Experimental Nuclear Physics.

**Gu**, Genda, Ph.D., 1989, Harbin Inst. Of Technology: Experimental Condensed Matter Physics.

**Hao**, Yue, Ph.D., 2008, Indiana University: Accelerator physics.

**Kayran**, Dmitry, Ph.D., Novosibirsk State University, 2001: Accelerator Physics.

**Ku**, Wei, Ph.D., 2000, University of Tennessee: Theoretical condensed matter physics.

**Kumar**, Krishna S. Ph.D. 1990, Syracuse University. Experimental nuclear and heavy ion physics.

**Loverde**, Marilena, Ph.D., 2009, Columbia University. C.N. Yang Institute for Theoretical Physics: Cosmology.

**Meot**, Francois, Ph. D. 1982, Polytechnic Institute Grenoble. Accelerator Physics.

**Ocko**, Ben. Ph. D., 1984, MIT. Experimental Condensed Matter Physics.

**Petrovic**, Cedimir, Ph.D., 2000, Florida State University: Condensed matter physics.

**Schenke**, Bjoern Peter, Ph.D., 2008, Goethe University Frankfurt, Germany High energy nuclear theory.

**Shen**, Qun, Ph. D., 1987, Purdue University. Experimental Condensed Matter Physics.

**Venugopalan**, Raju, Ph.D., 1992, Stony Brook University: Theoretical nuclear physics.

**Worcester**, Elizabeth, Ph.D. 2007. University of Chicago. Experimental High Energy Physics.

**Zhu**, Yimei, Ph.D., 1987, Nagoya University: Condensed matter physics.

### **Emeritus**

**Goldhaber**, Alfred S. , Ph.D., 1964, Princeton University. C.N. Yang Institute for Theoretical Physics: Theoretical physics; nuclear theory; particle physics.

**Koch**, Peter M., Ph.D., 1974, Yale University: Experimental atomic physics; quantum chaos; nonlinear dynamics.

**Yang**, Chen Ning , Emeritus. Ph.D., 1948, University of Chicago. C.N. Yang Institute for Theoretical Physics. Theoretical physics; field theory; statistical mechanics; particle physics.

### **Affiliated Faculty**

**Arbab**, Hasaan, Ph.D., 2012, University of Washington: Terahertz spectroscopy, Ultrafast photonics and femtosecond optics, Wavelet methods, Biomedical optics.

**Balazsi**, Gabor, Ph.D., 2001, University of Missouri-Saint Louis: Synthetic gene circuits.

**Jia**, Jiangyong, Ph.D., 2003, Stony Brook University: Experimental Relativistic Nuclear Physics.

**Johnson**, Christopher J., Ph.D., 2011, University of California San Diego. Department of Chemistry: Atomic and Molecular Physics.

**Lacey**, Roy, Ph.D., 1987, Stony Brook University. Department of Chemistry: High Energy Nuclear Physics.

**Wang**, Jin, Ph.D. 1991, University of Illinois: Department of Chemistry: Biology of physics.

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

Physiology and Biophysics Department

**Chairperson**

Thomas W. White, BST Level 5, Room 147 (631) 444-9683

**Ph.D. Graduate Program Director**

Raafat El-Maghrabi, Basic Science Tower T6, Room 170 (631) 444-3049

**M.S. Graduate Program Director**

Inefta Reid, Inefta.Reid@stonybrook.edu, (631) 638-3696

**Graduate Program Coordinator**

Alice Kentrianakis, , Basic Science Tower Level 5, room 180 (631) 444-8818

**Graduate Program Administrator**

Odalis Hernandez, (631) 444-2299

**Degrees Awarded**

Ph.D. in Physiology and Biophysics; M.S. in Biomedical Sciences (Physiology and Biophysics Track)

**Web Site**

<https://medicine.stonybrookmedicine.edu/pnb>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Physiology and Biophysics Department

The Department of Physiology and Biophysics offers a program of study leading to the degree of Doctor of Philosophy. The broad interests of our faculty provide diverse research opportunities ranging from systems physiology, to translational cancer research and single molecule biophysics. Our goal is to instruct students in the use of quantitative methods to study complex physiological problems of relevance to human health and disease.

The Department's principal areas of research specialization are 1) Ion channel and gap junction Biophysics, with emphasis on cardiology and vision; 2) Intracellular and intercellular signaling mechanisms in cancer and neurobiology; 3). Physiology at the cellular, organ, and intact animal levels with emphasis on transgenic models of disease; 4) Fluorescence microscopy with the largest concentrations of microscopy equipment at Stony Brook University.

Our curriculum is based on a foundation in Human Physiology with additional advanced courses in Statistical Methods, Biochemistry and the physical chemistry of Biomembranes. Through elective coursework in Applied Mathematics, Genetics, Neurobiology or Journalism students can tailor their training to their career goals. Students from our program have gone on to careers in academic and industrial research, government service and law.

Master of Science Degree in Biomedical Sciences, Physiology and Biophysics Track

**Goals of the Program**

The overall goals of the Master of Science degree program in Biomedical Sciences (Physiology and Biophysics track) are to provide students with a biomedical foundation towards their higher professional education or career goals in medicine and research. We seek to ready our students for entry and success into medical and dental programs, as well as positions of research staff scientist in laboratories and industry, a teaching career at the undergraduate college level, or further graduate study leading to the Ph.D. degree. To accomplish these goals, the program of study provides training in cellular and systems-level physiology, membrane biophysics, experimental design, data analysis, and commonly used laboratory techniques in integrative physiology. We provide a heavy emphasis on pathophysiology and clinical case-based learning. Elective coursework in Physiology and Biophysics, Biomedical Engineering, Neuroscience, Molecular and Cellular Biology, and Pharmacological Sciences are then selected to complement and expand on the above core training, and meet the individual needs of each student.

**Time**

All requirements must be completed within three years.

Admission requirements of Physiology and Biophysics Department

The minimum requirements for admission to The Ph.D program in Physiology & Biophysics are a Bachelor's Degree with a Major in the Physical or Biological sciences. Successful applicants have a grade point average of 3.25/4.0 or higher for their undergraduate curriculum, with special emphasis on coursework within the major. The Graduate Record Exam (GRE) scores are no longer required for our program, but a strong performance on the GRE will reflect positively on your application. Students for whom English is not their native language, must establish English proficiency based on the results of your TOEFL or IELTS examinations. Applicants are required to provide three letters of recommendation that can speak to the student's academic and research performance. Preference is given to students with previous research experience. Students who do not meet these qualifications are encouraged to seek admission to our Master's program for additional preparation.

### Facilities of Physiology and Biophysics Department

In addition to the wide range of instrumentation and technical centers available on campus, the Department of Physiology and Biophysics is well equipped with major research instrumentation for physiological, metabolic, and biochemical studies. The department houses a Molecular Biology Core which has scintillation counters, ultracentrifuges, amino acid analyzers, protein sequencers, and a wide variety of chromatographic, electrophoretic, and spectrophotometric equipment. Also available are a peptide synthesizer, and a laboratory for chemical synthesis of low-molecular-weight compounds. NMR instrumentation is available through collaboration with other departments. Tissue culture services, including monoclonal antibody production, are also available. Specialized equipment used in studies of membrane physiology and biophysics (e.g., membrane electrophysiology and patch-clamp studies on ion channels) are in routine use in several faculty laboratories. The department also houses an imaging center containing two confocal microscopes with image acquisition and processing systems.

### Molecular Biology Core

The molecular biology core was established to provide students and faculty ready access to DNA/RNA recombinant technology. Departmental facilities include a 37-degree environmental room, a DNA synthesizer, and an automatic DNA sequencer, large orbital shakers, an array of incubators, DNA sequencing gel set ups (IBI), electrophoretic apparatus and power supplies, an IBI gel reader and a software package which permits the reading of DNA sequencing gels, a selection of restriction enzymes, and a number of cDNA expression libraries.

### Molecular Modeling

Computational molecular modeling and visualization are valuable tools for the study of signal transduction systems and protein structure/function. Some current applications of faculty affiliated with our Biophysics Program include examining the physical factors involved in protein/membrane, protein/protein, protein/DNA interactions, studying the specificity of ligand and substrate binding to enzymes, and building models of proteins using domain structures from homologous proteins. Several departmental members have access to the University's Supercomputing Center.

### Computing Facilities

Access to the campus-wide wireless network is available.. All computers are connected via Ethernet to a local area network.

### Requirements for the Ph.D. Degree in Physiology and Biophysics

In addition to the minimum Graduate School requirements, the following are required:

- A) Completion of HBY 531 or HBY 501, HBY 530, HBY 561 HBY 562, MCB 517, MCB 520, HBY 570, HBY 591, HBY 690, HBY 699, HBY 695, and 12 credits of elective courses.
- B) Satisfactory completion of the preliminary examination at the end of the second year of study.
- C) Submission of a thesis research proposal by the end of the third year.
- D) Participation in the teaching practicum.
- E) Submission of an approved dissertation and successful oral defense.
- F) Completion of all requirements within seven years.

### Requirements for the MS in Biomedical Science (Physiology and Biophysics track)

Two curriculum tracks exist for the M.S. Program in Biomedical Sciences (Physiology and Biophysics concentration). A total of at least 30 credits is required for the standard thesis M.S. degree, while 36 credits is required for the research track M.S. degree. Regardless of the track chosen, all students will be required to complete the same foundational core coursework that covers cellular and systems physiology, biophysics, experimental design, data analysis, and a laboratory techniques course. These items are integrated into the following coursework; therefore the program has adopted them as course requirements:

### Core Curriculum

- HBY 501 – Physiology (4 credits)
- HBY 530 – Cellular Physiology and Biophysics (3 credits)
- HBY 561 – Statistical Analysis of Physiological Data (1 credit)
- HBY 562 – Model Based Analysis of Physiological Data (1 credit)
- HBY 564 – Experimental Techniques in Systems Physiology (2 credits)
- HBY 570 – Student Journal Club (1 credit, repeated at least 2x)
- HBY 690 – Seminar in Physiology and Biophysics (1 credit, repeated at least 2x)
- GRD 500 – Scientific Integrity (1 credit)

Additional Requirement for 36 Credit Research Thesis

HBY 599 – Master's Thesis Research (6 credits)

Faculty of Physiology and Biophysics Department

### **Departmental Faculty**

Brink, Peter R., Professor Emeritus. Ph.D., 1976, University of Illinois: Physiology and biophysics of functional and excitable membranes.

Lin, Richard, Professor, M.D., 1988, University of California: Mechanism of hormone action; Inter- and intracellular regulation of membrane-bound hormone-sensitive enzymes. , PI3 kinase signaling.

Mathias, Richard T. Professor Emeritus, Ph.D., 1975, University of California, Los Angeles: Electrophysiology of cardiac muscle; volume regulation in the lens.

Miller, W. Todd, Professor, Ph.D., 1988, Rockefeller University: Protein structure and function; molecular mechanisms of signal transduction.

Solomon, Irene C., Professor., Ph.D., 1994, University of California, Davis: Neural control of respiratory motor output and fast oscillatory rhythms.

White, Thomas W., Professor, Interim Chairman, Ph.D., 1984, Harvard University: Biology of cell-to-cell communication and gap junction.

Bowen, Mark, Associate Professor, Ph.D., 1998 , , University of Illinois, Chicago; Molecular aspects of signal transduction.

Luberto, Chiara, Associate Professor, Ph.D., 1997, Catholic University of Rome: Cancer biology; Sphingolipid metabolism and signaling.

Acosta, Maricedes, Assistant Professor, Ph.D, 2002, Albert Einstein College of Medicine; Neuroendocrine regulation of the reproductive axis; signal transduction pathways and metabolic control.

Cheung, Leonard, Assistant Professor, Ph.D, 2013, University College London, UK; Physiology and Genetics of the Pituitary Gland in Development, Aging and Disease.

Serebryany, Eugene, Assistant Professor, Ph.D., 2016, Massachusetts Institute of Technology; Chemical biophysics of proteins in vitro and in vivo.

Reid-Martin, Inefta, Assistant Professor, Ph.D., 2014, Stony Brook University: characterizing the effects of postnatal maturation on basal respiratory activity and hypoxic ventilatory responses in neonatal rats in vivo.

Cameron, Roger H., Assistant Professor. Ph.D., 1990, Stony Brook University: Electron microscopy; pharmacology of plasma cells secretion.

El-Maghrabi, Raafat, Associate Professor. Ph.D. Graduate Program Director, Ph.D., 1978, Wake Forest University: Enzyme regulation; hormonal control of metabolism.

Rosati, Barbara, Assistant Professor. Ph.D., 2000, Milan, Italy: Transcriptional regulation of ion channel genes in the heart.

### **Jointly Appointed Faculty**

Dilger, James P.<sup>5</sup>, Professor, Ph.D., 1980, Stony Brook University: Neuromuscular junction; ion channels in nerve membranes.

Konopka, James B.<sup>17</sup>, Professor, Ph.D., 1985, UCLA: G protein-coupled receptor signal transduction and yeast morphogenesis.

Mendell, Lorne<sup>1</sup>, Distinguished Professor, Ph.D., 1965, Massachusetts Institute of Technology: Physiology and modify ability of synapses in the spinal cord.

McKinnon, David<sup>1</sup>, Professor, Ph.D., 1987, Australian National University: Control of ion channel expression.

Qin, Yi-Xian<sup>18</sup>, Professor, Ph.D., 1997, Stony Brook University: Mechanisms in the control of tissue growth, bone adaptation by mechanical environment.

Smith, Steven O.<sup>14</sup>, Professor, Ph.D., 1985, University of California, Berkeley: Molecular mechanisms of signal transduction.

Collins, William<sup>1</sup>, Associate Professor, Ph.D., 1980, Univ. of Pennsylvania: Relationship between intrinsic properties of individual neurons and nervous system function.

Frame, Mary<sup>18</sup>, Associate Professor, Ph.D., 1990, University of Missouri: Microcirculation; tissue engineering; nanofabrication.

Warren, Kelly, Assistant Professor. Ph.D., 2008, Stony Brook University

Yang, Vincent<sup>2</sup>, Professor MD, Ph.D, Rutgers University, Princeton University: Department of Medicine: cloning and characterization of Krüppel-like factors (KLFs)

**Affiliated Faculty**

Colognato, Holly, Ph.D., 1999, Rutgers Univ., Department of Pharmacological Sciences; Extracellular matrix in brain: roles during development and during neurodegeneration.

Frohman, Michael, MD, Ph.D., Univ. of Pennsylvania, School of Medicine, Department of Pharmacological Sciences; Lipid Signaling

Kritzer, Mary, Ph.D, Yale Univ., Dept. of Neurobiology; Complex functions of the association cortices and the neurobiological basis for their dysfunction in disease.

London, Erwin, Professor, Ph.D., 1979, Cornell University: Department of Biochemistry. Membrane lipid-protein interactions; protein toxin structure and function.

Rashba, Eric, Professor, MD, 1992, Yale School of Medicine: Department of Medicine: new mechanisms of QT prolongation and prediction and prevention of sudden cardiac death

Rubin, Clinton, T., Professor, Ph.D., 1983, Bristol University: Department of Orthopedics. Cellular mechanisms responsible for adaptation in bone.

Sampson, Nicole S., Professor, Ph.D., 1990, University of California Berkeley: Enzyme mechanisms and protein structure-function relationships.

Tonge, Peter J., Professor, Ph.D., 1986, University of Birmingham, England: Department of Chemistry. Enzyme mechanisms in antitubercular drugs and Alzheimer's disease.

Wong, Stanislaus, Assistant Professor, Ph.D., 1999, Harvard University: Department of Chemistry. Fundamental structure correlations in unique nanostructures.

- 1) Joint appointment, Department of Neurobiology
- 2) Joint appointment, Department of Medicine
- 3) Joint appointment, Department of Surgery
- 4) Joint appointment, Department of Pediatrics
- 5) Joint appointment, Department of Anesthesiology
- 6) Joint appointment, Cold Spring Harbor Laboratory
- 7) Joint appointment, Brookhaven National Laboratory
- 8) Joint appointment, Department of Applied Mathematics and Statistics
- 9) Joint appointment, Department of Orthopedics
- 10) Joint appointment, Veterans Administration Hospital
- 11) Joint appointment, North Shore University Hospital
- 12) Joint appointment, Department of Urology
- 13) Joint appointment, SUNY Old Westbury
- 14) Joint appointment, Department of Biochemistry and Cell Biology
- 15) Joint appointment, Department of Biology, University of Tulsa, Oklahoma
- 16) Joint appointment, Department of Pharmacology, College of Physicians and Surgeons, Columbia University
- 17) Joint appointment, Department of Molecular Genetics and Microbiology
- 18) Joint appointment, Department of Biomedical Engineering
- 19) Joint appointment, Department of Pharmacological Sciences

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

Department of Political Science

**Chairperson**

Dr. Leonie Huddy

**Director of Graduate Studies**

Dr. Oleg Smirnov

Email: oleg.smirnov@stonybrook.edu

Room: N-707A Social and Behavioral Sciences

Phone: (631) 632-7649

**Director, MA in Political Science Program**

Dr. Andy Delton

Email: Andrew.delton@stonybrook.edu

Room: N-725 Social and Behavioral Sciences

**Graduate Program Coordinator**

Ms. Carri Horner

Email: carri.horner@stonybrook.edu

Room: S-707 Social and Behavioral Sciences

Phone: (631) 632-7667

**Degrees Awarded**

M.A. in Political Science; Ph.D. in Political Science

**Department Administrative Office Suite****S-701 Social and Behavioral Sciences****Website**

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

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Ph.D. Program in Political Science**

The Ph.D. program in Political Science, in the College of Arts and Sciences, is characterized by several distinct features:

**A. Three areas of specialization**

1. Political Psychology/Behavior
2. Political Economy and Public Policy
3. American Politics

**B. Close student/faculty interaction**

C. An emphasis on professional training of research-oriented students and the production of professional-quality articles and conference papers by Ph.D. students.

**Political Psychology/Behavior**

The doctoral concentration in political psychology/behavior applies contemporary psychological theories, concepts, and research methods to the study of political behavior. Students are trained in topics and methods associated with psychology as well as political science. Methodological concerns focus on experimentation and survey research. In addition to formal training in methods appropriate to the psychological study of political behavior, students are apprenticed to ongoing research projects throughout their course of training. Students become familiar with the department's extensive and well-equipped laboratories and the regular subject pool. Opportunities are also available to take part in ongoing survey research projects.

The substantive interests of the faculty in this area include voter decision-making processes, political socialization, political values and beliefs, the mass media, political cognition, group influence, and public opinion.

**Political Economy and Public Policy**

The concentration in political economy and public policy emphasizes the interaction between politics and the institutions (both public and private) that shape economic policies. Students choosing this concentration analyze important issues by focusing on decision-making and organizational behavior as shaped by individual incentives and institutional structures. In addition to the foundation course in public policy



required of all students, elective seminars in this field include policy evaluation, organizational decision-making, bureaucracy, regulation, institutional analysis, and urban politics.

The faculty have published research on issues such as the economic development of metropolitan areas, the political economy of suburbs, political controls over regulatory bureaucracies, and citizen responses to tax policies. A sample of other ongoing research projects in which incoming students may become involved include the effect of market-like incentives in school choice, subsidy flows in the European Union, the role of social capital in environmental decision making, and regulation of business by state governments. The economic approach is also used to investigate other political processes such as voting, party competition, and agenda setting.

### **American Politics**

The American politics concentration provides a broad perspective on national political institutions and processes, with particular emphases on elections and courts. Courses focusing on political parties and elections, the legislative process, the American judiciary, electoral behavior, American political ideology, and public choice theory are offered. Students become familiar with the kinds of quantitative and formal analysis techniques most often applied to the study of American politics. Seminar papers allow students to go into detail on topics of special interest.

Members of the faculty are currently doing research on congressional and Supreme Court decision-making, the role of economic forces in American national elections, voting in congressional elections, issues of gender and the law, and the dynamics of American public opinion.

### **Methodology**

Since we believe that a strong background in research methods is essential for political scientists interested in empirical research, we provide a rigorous training in the application of statistical methods and formal models to political analysis. Coursework in methods includes introductory training in research design and elementary statistics, as well as more advanced work in statistical analysis, econometrics, time series analysis, and measurement. The department recognizes that many undergraduates in political science come to graduate school without much background in statistics and math. Therefore, our courses start at an introductory level and slowly develop the skills necessary to do publishable research in political science. In addition to the classroom work, these courses all involve analysis of actual data on personal computers. We believe, however, that it is the application of research methods, first as part of faculty and class research projects and then in a student's own dissertation research, that makes a qualified researcher with the skills required for success in research and academic careers.

### **Admission requirements of the Department of Political Science**

The Department of Political Science Doctoral Program admits only students who intend to complete the Ph.D., although students are eligible to receive the M.A. Applicants for admission to the Ph.D. program in political science must meet the following requirements:

A. Submission of Graduate Record Examination (GRE) Test scores (verbal, quantitative, and analytic).

B. Prior training that includes basic work in at least two of the following:

1. Political science
2. Psychology
3. Mathematics or statistics
4. Economics or sociology

C. A bachelor's degree with at least a B average in the major subject.

D. Three letters of recommendation from instructors or academic advisors.

E. In those cases where the departmental admissions committee deems it desirable, personal interviews with departmental representatives may be necessary.

Acceptance by both the Department of Political Science and the Graduate School is required.

### **Facilities of the Department of Political Science**

The department has extensive research facilities equal to any in the country, most located on the same floor with faculty and student offices. Students routinely use the conveniently located computer facilities for writing and analysis as part of their professional training. The Social and Behavioral Sciences Data Laboratory on our floor provides access to state-of-the-art personal computers tied to a local computer network and providing connections to all computers on campus. The Stony Brook Instructional Networked Computer site one floor below the department provides additional personal computers for classroom and research work. In addition, our data lab maintains a library of reference materials, holds classes on specific software packages, provides access to the extensive data archives available through the Inter-University Consortium for Political and Social Resources, and employs computer consultants to help with student research projects. All of the resources of the data lab are available to graduate students.

The laboratories for political psychology research are designed for the experimental study of political behavior. One set of labs contains computerized equipment to monitor, control, record, and analyze multiple responses from subjects. Much of the recent work focuses on information processing and decision-making—how citizens interpret, use, and recall political information. The other set of labs contains a large survey and experiment room equipped with computerized data collection stations. Students may also take advantage of our modern, fully equipped Survey Center for public opinion studies using computer-assisted, telephone interviewing.

### **Requirements for the M.A. Degree**

In addition to the minimum requirements of the Graduate School, the Department requires all candidates to complete 30 credits of approved graduate coursework in which a grade of B or higher has been received.

**Requirements for the Ph.D. Degree in Political Science**

In addition to the requirements of the Graduate School, the following are required:

**A. Required Courses**

1. POL 600 Research Project
2. POL 601 Public Policy and Political Economy
3. POL 602 Applied Data Analysis I
4. POL 603 Applied Data Analysis II
5. POL 604 Applied Data Analysis III
6. POL 605 American Government
7. POL 608 Political Psychology
8. POL 610 Experimental Design or POL 613 Game Theory for Political Scientists. If both courses are taken, one of them can count as an elective course.

**B. Electives**

Students are required to take a minimum of eight elective advanced seminars. The seminars are typically at the 600 level and can be within the department or can be in cognate fields such as psychology, economics, sociology, applied math, computer science, among others.

**C. Qualifying Examinations**

Students making satisfactory progress toward the Ph.D. are required to pass a qualifying examination following the second year of coursework.

**D. Dissertation**

The third year includes developing a dissertation proposal (prospectus) under the supervision of a dissertation advisor. The proposal must be defended at the end of the third year at which point the student is advanced to candidacy.

Upon successful conclusion of research (typically, at the end of the fifth year), the student defends the completed dissertation.

Faculty of the Department of Political Science

Faculty information for this program can be found at <https://www.stonybrook.edu/commcms/polisci/people/faculty.html>

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

Political Science, M.A. in Public Policy

**Chairperson**

Leonie Huddy, Ward Melville Social and Behavioral Sciences Building S-711

**Graduate Program Director**

Ryan Vander Wielen, Ward Melville Social and Behavioral Sciences Building S-727N-709 (631) 632-9021

**Graduate Program Coordinator**

Carri Horner, Ward Melville Social and Behavioral Sciences Building S-703 (631) 632-7667

**Degrees Awarded**

M.A. in Public Policy

**Website**

<https://www.stonybrook.edu/commcms/MApublicpolicy/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Public Policy**

Stony Brook University's Master of Arts in Public Policy prepares students to take a wide variety of rewarding careers in the growing field of public policy.

Graduates of the MAPP program will gain the skills and experience to achieve success working in government or in organizations affected by government – local, state, national and international. They may find employment as policy analysts and executives in government agencies, or in private, non-profit and advocacy organizations. They may enter the front lines of politics as elected officials or members of their staffs. They may influence public policy as journalists or leaders of civic organizations. Those with an international background or an interest in global affairs may enter careers abroad or in international affairs. For those looking to continue their professional or graduate studies, the MAPP provides a rigorous academic platform.

For students entering the public policy field for the first time, the program offers training and credentials to launch their careers; for those already working in the field, the program will enhance their skills and credentials. Graduates of the program will be joining a growing roster of alumni successfully working in public, private and non-profit organizations. With our flourishing alumni organization, MAPP alumni will be available to assist graduates with employment and career counseling.

**Course of Study**

The MPP program combines rigorous instruction in key components of public policy development with detailed analysis of specific public policy issues and fieldwork. After introducing students to the foundations of government action in philosophy, law and economics, the MAPP curriculum develops skills in political, economic, quantitative and organizational analysis, with a practical focus on solutions to complex public policy problems. With this foundation, students take one or more courses in a specialized concentration and a related internship or research assignment. The entire program of 31 credit hours can be completed in one calendar year by full-time students, and within two years by those attending part-time.

**Joint Degree Programs****Combined MAPP/MPH**

With additional coursework, students interested in pursuing a career in the increasingly important field of health policy may elect to earn a Master of Public Health degree along with their MAPP in a combined and accelerated MAPP/MPH sequence.

**Combined MAPP/MBA**

With additional coursework, students interested in applying public policy concepts to the world of business may elect to earn a Master of Business Administration degree along with their MAPP in a combined and accelerated MAPP/MBA sequence.

**Accelerated BA/MAPP Program**

Stony Brook University undergraduates currently majoring in Political Science with a GPA of 3.0 or better are eligible to enroll in the five-year Accelerated BA/MAPP program, by taking up to six graduate credits while they fulfill the upper-level undergraduate elective requirements and completing the remaining graduate requirements in the fifth year of full-time study.

**The Students**

Students in the MPP program come from numerous academic backgrounds including undergraduate majors in the arts and sciences, health professions, engineering and architecture. Many students come to the program with extensive prior experience in government or the professions.

The curriculum structure and scheduling of courses is designed to accommodate candidates with a broad range of interests and experiences, and to permit those that are working to earn their degree while continuing to pursue their current career.

### **The Faculty**

The MPP program is housed in one of the country's leading departments of political science, ranked among the top five in research and publications, with a faculty comprised of nationally recognized scholars and highly experienced public policy professionals. In addition, the program draws on faculty resources from other prestigious Stony Brook programs in health policy, business administration, economics, engineering, education and journalism.

Admission requirements of the Department of Political Science

### **Admission Requirements**

Applicants must have an earned baccalaureate degree with a grade point average of 3.0 or better (on a 4.0 scale), have taken the Graduate Record Examination or equivalent, and submit three letters of recommendation from instructors, academic advisors or employers. Consideration will also be given to relevant work experience.

### **Tuition and Fees**

Tuition and fees, set by the State University of New York, are considerably below those of comparable programs in Long Island and the greater New York metropolitan region. For current tuition and fee schedules, please consult the Stony Brook University website.

Facilities of the Department of Political Science

The department has extensive research facilities equal to any in the country, most located on the same floor with faculty and student offices. Students routinely use the conveniently located computer facilities for writing and analysis as part of their professional training. The Social and Behavioral Sciences Data Laboratory on our floor provides access to state-of-the-art personal computers tied to a local computer network and providing connections to all computers on campus. The Stony Brook Instructional Networked Computer site one floor below the department provides additional personal computers for classroom and research work. In addition, our data lab maintains a library of reference materials, holds classes on specific software packages, provides access to the extensive data archives available through the Inter-University Consortium for Political and Social Resources, and employs computer consultants to help with student research projects. All of the resources of the data lab are available to graduate students.

The laboratories for political psychology research are designed for the experimental study of political behavior. One set of labs contains computerized equipment to monitor, control, record, and analyze multiple responses from subjects. Much of the recent work focuses on information processing and decision-making—how citizens interpret, use, and recall political information. The other set of labs contains a large survey and experiment room equipped with computerized data collection stations. Students may also take advantage of our modern, fully equipped Survey Center for public opinion studies using computer-assisted, telephone interviewing.

Degree Requirements M.A. in Public Policy

This track requires the successful completion of 31 graduate course credits and the completion of POL 596. In addition, the Graduate School policy regarding grade point averages (GPA) states that, "A student must achieve a 3.0 overall GPA in all graduate courses taken at Stony Brook to receive a degree."

Students should work with the department Graduate Program Coordinator and the Graduate Program Director to develop a course plan. There are two courses comprising 6 credits (3 credits each) that most students will take, subject to availability and scheduling:

- POL 501 Introductory Statistics (3 credits)
- POL 535 Public Policy Analysis & Evaluation (3 credits)

Beyond the courses noted above, and contingent upon course availability, students will take additional courses (18 credits) offered by the Department of Political Science. Examples of courses offered toward the M.A. degree in Public Policy include the following:

- POL 502 Intermediate Statistics (3 credits)
- Survey Research Methods (3 credits)
- POL 504 Research Design (3 credits)
- POL 508 State and Local Public Budgeting and Finance (3 credits)
- POL 509 National and International Public Budgeting and Finance (3 credits)
- POL 514 Personnel Systems & Bureaucracies (3 credits)
- POL 515 Health Economics (3 credits)
- POL 516 Storms & Seas: Coastal Land Management (3 credits)
- POL 519 State & Local Politics (3 credits)
- POL 520 Applied Economics & Public Policy (3 credits)
- POL 521 Behavioral Economics & Public Policy (3 credits)
- POL 522 Economic Issues & Public Policy (3 credits)
- POL 524 Housing Policy (3 credits)

- POL 530 Topics in Public Affairs (3 Credits)
- POL 531 Planning and Public Affairs (3 Credits)
- POL 532 Moral Politics & Public Policy (3 credits)
- POL 534 Intergovernmental Relations and Policy Delivery (3 credits)
- POL 536 Public Management and Organizational Behavior (3 credits)
- POL 537 Administrative Law for Policy Analysts (3 credits)
- POL 538 The Politics of Local Economic Development (3 credits)
- POL 540 Data Applications in Public Policy (3 Credits)
- POL 542 Regional Planning (3 credits)
- POL 543 Environmental Politics and Policy (3 credits)

POL 530: Topics in Public Affairs may be repeated for credit as the topic changes, but students attempting to re-take a course with the same number (or topic) should confirm their choices with the department Graduate Program Coordinator and the course catalog prior to enrolling. In addition, students may take other level graduate courses in POL (typically 500-level) with the approval of the MAPP Graduate Program Director. Students may take one course outside of the Department of Political Science in place of a POL course.

Finally, most students will take a capstone course to complete the M.A. in Public Policy. The capstone courses are:

POL 597 Capstone Internship in Public Policy ( 6 credits)

or

POL 598 Capstone Thesis Project in Public Policy (6 credits)

Prior to taking either of the capstone courses , students must enroll in POL 596 Capstone Preparation Seminar, a course designed to prepare students for their capstone project or internship. POL 596 is a prerequisite for taking POL 597 or POL 598. Students must complete 24 POL graduate credits before they can take either POL 597 or POL 598.

Full-time students without past significant full-time public policy work experience are encouraged to take the Internship in Public Policy. Part-time students can fulfill their capstone requirement by the Capstone Internship (POL 597), the Capstone Thesis Project (POL 598), or two additional courses approved by the Graduate Program Director.

### **B.A./M.A. Track**

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 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 graduate courses during the fifth year.

Faculty of the Department of Political Science, Public Policy Program

### **Professors**

Huddy, Leonie: Professor. Ph.D., University of California, Los Angeles, 1988. Research & Teaching Interests: Political Attitudes; Groups and Politics; Socio-political Gerontology; Women and Politics; Survey Methodology.

Stephanie Kelton: Professor. Ph.D. New School for Social Research, New York, 2001. Research & Teaching Interests: Macroeconomic Policy; International Economics; Government Finance, Student Debt, Social Security, and Employment Policy.

Salins, Peter: University Professor. Ph.D., Syracuse University, 1969. Research & Teaching Interests: Higher Education Policy; Housing, Economic Development; Immigration; Urban and Regional Planning.

### **Leading Professors**

Koppelman, Lee E., Emeritus, D.P.A., 1970, New York University: Comprehensive regional and urban planning; environmental policy; American federalism and intergovernmental relations; regional policy analysis; coastal zone planning.

**Lecturers**

Kovesdy, Allen, MBA, Long Island University, 1972. Long Island Regional Planning Council; Former Director of Management and Research, Suffolk County Executive's Office. Teaching Interests: Budgeting; Public Finance.

Aginian, Anita, J.D., St. John's University School of Law, 1987. Supervising Attorney, Feldman, Kramer and Monaco. Teaching Interests: Administrative Law.

Murdocco, Richard J., MA, Stony Brook University, 2010. Public policy, real estate development, marketing, communications.

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

Program in Public Health: PhD in Population Health and Clinical Outcomes Research

### Program in Public Health Director

Lisa Benz Scott, Health Sciences Center Level 3, Room 071

### Graduate Program Director

Lauren Hale, Health Sciences Center, Level 3, Room 071, [lauren.hale@stonybrookmedicine.edu](mailto:lauren.hale@stonybrookmedicine.edu)

### Graduate Program Coordinator

Lakshmi Ramsoodar-Ahmad, Health Sciences Center, Level 3, Room 071, [lakshmi.ramssoondar@stonybrookmedicine.edu](mailto:lakshmi.ramssoondar@stonybrookmedicine.edu)

### Degree Awarded

PhD in Population Health and Clinical Outcomes Research For information about the Program in Public Health, please visit <https://publichealth.stonybrookmedicine.edu/>

### Application

[www.sophas.org](http://www.sophas.org)

#### About the Program

As part of the SUNY Stony Brook Graduate School, the graduate program in Population Health and Clinical Outcomes Research [PHCOR] provides a multidisciplinary, integrated, applied problem-solving approach to support students in addressing the important issues within the field. The purpose of this small and highly specialized graduate degree program is to train population health and clinical outcomes researchers, academicians, and practitioners – who will advance the field on a local, regional and national level.

It has been recognized that there is a critical need for well trained people with the skills of population health and clinical outcome research. For example the new health care legislation places great emphasis on population based approaches to the obesity epidemic and clinical outcomes approaches to establishing comparative efficacy of treatments. We believe that these skills will be in great demand in the public, private and academic sectors. By uniquely placing a focus on human subject studies and trials, in combination with best practices in clinical care and community interventions, the PHCOR program will extend knowledge in the areas of safety, quality, efficiency, accessibility, accountability, and equity of care by supporting opportunities for development of new knowledge about health and disease prevention, diagnosis, treatment, and prognosis.

Students will gain knowledge, skills, and experience by means of a series of a rigorous quantitative and analytical courses designed to develop advanced problem-solving skills. Working under faculty mentor guidance, student projects will focus on substantive current health care problems affecting population health, health policy, clinical practice, and patient-based health care decisions. Graduates will be competent in the design, conduct, and evaluation of research studies that will improve the future public health and medical care provided.

Preparation for a research career will include publishing in peer reviewed journals and writing proposals to obtain research project funding. The Ph.D. program consists of two years of course work, followed by the Preliminary Examination and independent research leading to the dissertation. Students are expected to work with faculty to develop their own independent research projects, which will go beyond the boundaries of existing faculty research.

The goals of the program are to provide graduate students with a rigorous, innovative, mentored, learning experience with the following competency goals:

- Identification of the determinants of health and factors associated with disease prevention.
- Assessment of the health care needs of populations as related to their environment.
- Understanding of the context for population health and clinical science research questions, as well as the organization, politics, and financing of the health care system
- Appraisal of the performance of the health system in terms of access to care, safety, quality of care, resource consumption, cost-effectiveness, and accountability.
- Conduct of independent studies of the health care system (evaluating determinants of access, quality, health outcomes, resource consumption, and cost-effectiveness) using state of the art research methods.
- Commitment to conduct population health and clinical research for human subjects both ethically and responsibly.
- Design and implementation for a mentored student research project experience including an in-depth focus on scientific writing and professional presentations (e.g., requiring manuscripts, presentations, and grant submissions).
- Career development by providing experiential opportunities to teach and present research findings.

### Degree Offered

#### Degree Option

**Ph.D.**

#### Specialization

- Population Health or
- Clinical Outcomes Research

Primary Application:

Primary applications are accepted through SOPHAS, the centralized application service for schools and programs of public health.

- For Admissions Deadlines, visit <https://publichealth.stonybrookmedicine.edu/admissions>.
- Bachelor's degree from an accredited college or university with a 3.0 GPA or better. Admitted students usually have GPAs that are higher than 3.0.
- Official transcripts from all post-secondary schools. Transcripts for all degrees earned in schools outside the U.S. or Canada must be evaluated by an agency accredited by the National Association of Credential Evaluation Services. See section on International applicants for more information about this process. The requirement for evaluation of transcripts is waived for graduates of foreign medical schools with a current license to practice in the U.S.
- Three references from persons who can address the applicant's capacity to complete a course of graduate study.
- A Cover Letter is required for the primary application. It should be no more than 500 words and should be submitted with your application in SOPHAS (under Research Statement).
- Applicants are strongly encouraged to review the available funding opportunities.
- Completion of the on-line application.

**Interview:**

A personal interview, if requested by the Research Mentor Matching committee, will be scheduled.

**Additional information for international applicants:**

International applicants who trained in non-English speaking schools and do not reside in an English speaking country are required to take either the TOEFL or IELTS exam. Students who fail to meet this requirement must enroll in a course at the Intensive English Center and achieve satisfactory grades before admission to graduate study. Students whose scores on either of these exams are more than two years old must retake the test. The expected minimum score is for the IELTS exam is 7, with no subsection below 6. The expected minimum score on the TOEFL Internet Based Test is 90.

International students are required to have a course-by-course educational credential evaluation completed by an agency accredited by the National Association of Credential Evaluation Services (<http://www.naces.org>). We require using World Education Services (<http://www.wes.org>). This evaluation provides a U.S. course equivalent including semester hours earned, course content, and corresponding letter grade for all courses listed on the international applicant's transcript. This evaluation must be completed before the application can be considered.

For more information about international students services, see: <http://www.stonybrook.edu/commcms/visa/>

**Financial Support:**

Research stipends are available on a competitive basis, contingent upon an available research mentor. Visit our website for current information regarding available funding.

**Transfer Information:****Transfer of Credit**

A candidate for the doctoral degree may transfer those graduate credits that are approved by the appropriate PHCOR course director(s), the concentration director, and the Graduate Program Director. All courses transferred must be documented to be directly substitutable with a B or better grade attained. Moreover, transferred courses should have been completed within the past 5 years. If transferred courses are older than 5 years, additional documentation of the current relevancy of the course content must be documented by the appropriate PHCOR course director(s). Thus, courses older than five years will be accepted only in rare circumstances.

**Transfer from Non-Matriculated Status**

There is not a limit to the doctoral student course credits for students transferring from non-matriculated status. However, a limit on credits transferred may be set by the academic advisor, concentration director, and/or Graduate Program Director to assure that the student meets all of the core and concentration requirements but retains elective course flexibility to coordinate advance course work to support the student's research project experience optimally. Transfer of course credits will be proactively coordinated as part of the academic advising and course planning PHCOR Program processes.

Before the petition to transfer course credits will be submitted, students must be formally matriculated into a degree program at least one full semester and their PHCOR academic course plan approved. All graduate courses completed in non-matriculated status will be counted as part of the total graduate grade point average (GPA).

**Transfer from Other Institutions**

A candidate for a degree may petition to transfer graduate credits from another institution toward their degree requirements. These credits must be from an institution authorized to grant graduate degrees by recognized accredited commissions and meet the following guidelines:

- Credits must not have been used to fulfill the requirements for either a baccalaureate or another advanced degree or certificate.
- Credits must not be more than five years old at the time the student is admitted to graduate study at Stony Brook. Courses older than five years will be accepted only in rare circumstances.



- A course listed as both graduate and/or undergraduate level will not be considered for transfer.
- Credits must carry the grades of A or B. “Pass” or “Satisfactory” grades are not transferable unless these grades can be substantiated by the former institution as B (3.0) or better.
- Grades earned in transferred courses are not counted as part of the overall GPA at Stony Brook.

### **Transfer Between Primary and Secondary Programs**

A maximum of 12 graduate credits from Stony Brook, which were earned in a primary program prior to a student being accepted into a secondary program, can be applied to the secondary program. Credits applied to the degree requirements of a primary program cannot be applied toward the degree requirements of a secondary program.

Note: Please see any additional distributed PHCOR Program policies regarding Transfer Credits. Questions should be directed to the PHCOR Program Director.

#### **Special Circumstances**

### **Readmission**

Graduate students who have interrupted their attendance at Stony Brook by withdrawing from the University or by taking a leave of absence must be readmitted to reactivate their graduate career. The student initiates the process by submitting a completed “Readmission” form to their program. The form is available at the Graduate School or may be downloaded at [www.gradsunysb.edu](http://www.gradsunysb.edu).

- Students returning from a currently approved Leave of Absence are generally guaranteed readmission.
- Students not on an official leave of absence must pay a \$500 readmission fee.
- International students must also submit a new financial affidavit and be cleared by an international student advisor before the readmission process can be concluded.

If the program approves the request, the readmission form is submitted to the Graduate School for final approval. The program or the Graduate School may set specific requirements to be fulfilled by the readmitted student during the first year of their readmission.

### **Conditional Admission**

In exceptional cases where certain admission requirements are not met or the prior education preparation is inadequate, an applicant may be admitted conditionally. Such applicants will be considered on probation during the first semester. PHCOR Program recommendation and Graduate School approval are required for conditional admission.

- Students admitted conditionally for a low cumulative GPA must earn an overall graduate average of at least a B (3.0) during the first semester of enrollment to be permitted to continue. In this case, the student is considered to have achieved regular status.
- A student admitted conditionally because of a low cumulative GPA who fails to earn a B (3.0) average in the first semester will not be permitted to reenroll. Both the student’s program and the Graduate School may set conditions that the student must satisfy during the early period of graduate work.

### **Secondary Program**

Should a PHCOR student wish to add a secondary program to his or her primary program of study, a Permission to Enroll in a Secondary Degree or Certificate Program form must be submitted to the Graduate School with original signatures by both prior and new department or program chairs. Final approval rests with the Graduate School. International students are also required to obtain approval of an international student advisor.

#### **Degree Requirements**

The Population Health and Clinical Outcomes Research program offers one doctoral degree with two possible concentrations: Population Health or Clinical Outcomes Research. Core requirements are the same for both concentrations. Students specialize through the different concentration requirements. With advisor approval, students may tailor their degree to their specific interests via the selection of elective course offerings in departments such as Molecular Genetics, Molecular and Cellular Biology, the Graduate Program in Public Health, Technology and Society, Pharmacologic Sciences, Sociology or Psychology.

#### **Population Health**

The population health specialization will focus on understanding the community and the quality, effectiveness, and efficiency of public health and community-based interventions. It will emphasize methodology in observational study design, determinants of population health, and development of evidence-based public health practice including efficiency, effectiveness, and access studies. Students will identify a cognate area that provides theoretical and/or methodological depth related to a population health problem and its determinants. A cognate area may be multi-disciplinary or discipline-specific. As an example of a multi-disciplinary approach, a student might develop a family violence cognate through the selection of courses in psychology, sociology, public policy, and social welfare. Another example of a potential cognate area might be health communications, with courses found primarily in journalism or psychology.

#### **Clinical Outcomes Research**

The clinical outcomes specialization will provide students with the tools to enhance preventive or chronic care strategies, and analyze the patient care outcomes for clinical disciplines. Moreover, the students within the clinical outcomes specialization will be able to formulate policies,

advance clinical practice, or identify patient-based opportunities to improve medical care. As an example of a multi-disciplinary approach, biomarkers for cancer may become a cognate emphasis with advanced courses selected from the graduate programs in Experimental Molecular and Cellular Biology or Molecular Genetics. Another cognate area might relate to evaluating the impact of e-health initiatives upon ischemic heart disease medication management, with advanced courses selected from the departments of Technology and Society or Pharmacologic Sciences.

#### Additional Requirements

In addition to the core and concentration requirements, doctoral students will be required to pass a preliminary written examination, submit and have approved a dissertation proposal, complete a dissertation, and submit two publishable manuscripts. Preliminary Examination Doctoral students will be required to pass a preliminary examination. The Preliminary Examination will emphasize the integration of the student's knowledge in the core areas. The successful completion of this examination will allow the student to proceed towards the formal identification of their research supervisor and supervisory committee for the preparation and defense of the doctoral dissertation requirement. The purpose of the Preliminary Examination is to test the preparedness of the student for the doctoral research phase of the program. Students will be expected to exhibit a mastery of the material covered in the three areas – quantitative analysis, research methods, and the determinants of health and disease – as well as an ability to integrate and synthesize concepts and approaches relevant to population health and clinical science research.

#### Dissertation

The most important requirement for the Ph.D. degree is the dissertation, which must be an original scholarly investigation that meets the standards in the field for scholarly publications. Following the successful completion of the Preliminary Examination, students may be advanced to candidacy upon successful completion of all degree requirements of the Graduate School and program, other than the graduate seminars and the dissertation requirements. The Dean of the Graduate School confers this status upon recommendation from the Doctoral Program Director. Students must advance at least one year prior to the dissertation defense.

A proposal for the dissertation must be prepared, orally defended, and approved by the student's research supervisor or supervisory committee – appointed by the Doctoral Program Director in consultation with the student. The proposal will synthesize the literature on an important topic in population health or clinical outcomes research, and identify gaps in the literature that clearly demonstrate the importance for the student's planned dissertation research. The topic should be broad enough to allow for the preparation of at least two publishable papers in peer-reviewed journals.

The makeup of the dissertation committee includes the dissertation supervisor (faculty mentor), defense chairperson, a third member from the program, and at least one person outside of the program or University. To avoid any potential perception of a conflict of interest, the student's dissertation supervisor (faculty mentor) will not be able to chair their dissertation committee.

Preliminary research to develop a dissertation topic will normally begin in the second year of study and the third year will be mainly devoted to developing and refining the doctoral research.

Seminars organized by the program related to research in progress (i.e., a formal research in progress presentation) will provide an opportunity for students to present their thesis material to other students and interested faculty. Upon approval of the research supervisor or chair of the supervisory committee (and approval of the Graduate Program Director), a public presentation with a defense of the dissertation will be scheduled. Additional requirements for the dissertation may be found in the Graduate School Bulletin under "Degree Requirements".

#### Practicum in Teaching

Doctoral students will be provided with teaching opportunities and are expected to develop their teaching skills through the "Practicum in Teaching", an advanced two semester sequence completed after the Preliminary Examination has been passed. Teaching opportunities for doctoral students will include undergraduate and graduate teaching.

#### Course Requirements

##### Core Curriculum:

HPH 501	Introduction to the Research Process
HPH 506	Biostatistics I
HPH 507	Biostatistics II
HPH 508	Health Systems Performance
HPH 514	Epidemiology for Public Health
HPH 523	Social & Behavioral Determinants of Health
HPH 527	Health Economics and Policy
HPH 559	Advanced Research Methods
HPH 560	Applied Biostatistics
HPH 562	Data Management & Informatics
HPD 605	Intro Doctoral Studies
HPD 685	Research in Population Health & Clinical Science

HPD 686

Mentored Research

HPD 687

Advanced Research Seminar

**Students are required to complete one concentration:**

Concentration: Population Health

HPD 673

Longitudinal Data Analysis

HPD 674

Causal Inference

HPH 534

Spatial Analysis

HPD 661

Psychometric Theory

Concentration: Clinical Outcomes Research

HPD 664

Clinical Trials

HPD 665

Clinical Outcomes Research

HPD 673

Longitudinal Data Analysis

HPD 674

Causal Inference

**Post-Preliminary Exam Courses:**

HPD 692

Practicum in Teaching I

HPD 693

Practicum in Teaching II

HPD 694

Grant Writing

HPD 699

Dissertation Research

Faculty of the Program in Public Health

Please see the Program in Public Health website for more information:

<https://publichealth.stonybrookmedicine.edu/faculty>*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*

Department of Psychology

**Chair**

Joanne Davila, Psychology B-313, (631) 632-7826

**Graduate Program Director**

PhD Programs: Dr. Susan Brennan, Psychology B 201 (631) 632-7847

MA Program: Dr. Kristin Bernard, Psychology B-226, (631) 632-7576

**Assistant to the Chair**

Cynthia Forman, Psychology B-173, (631) 632-7027

**Graduate Program Coordinator**

Risa Stein, Psychology B-150, (631) 632-7855

**Web Site**

<https://www.stonybrook.edu/psychology/>

**Degrees Awarded**

MA in Psychology, Ph.D. in Clinical Psychology, Ph.D. in Cognitive Science, Ph.D. in Integrative Neuroscience, Ph.D. in Social/Health Psychology

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Psychology Department**

The Department of Psychology, in the College of Arts and Sciences, is one of Stony Brook's largest graduate departments. Our graduate programs have as their foundation rigorous training in science and research. Students are admitted to work with a faculty mentor and are trained to conduct independent research. Collaboration with other labs is welcomed to foster development of expertise in areas relevant to each student's interests. Graduates from the program are prepared for careers in academic and applied settings, including universities, colleges, medical centers, hospitals, clinics, research and governmental organizations, and business and industry.

**Description of the PhD Program in Psychology**

The department is administratively organized into four program areas: Clinical Psychology, Cognitive Science, Integrative Neuroscience, and Social and Health Psychology.

Stony Brook's doctoral program in Clinical Psychology is fully accredited by the Psychological Clinical Science Accreditation System (PCSAS) and also currently holds "Accredited (on probation)" status from the American Psychological Association (Commission on Accreditation, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242, Phone: 202-336-5979). Beginning with the entering class of Fall 2022, all incoming Stony Brook Clinical Psychology graduate students will be trained in our PCSAS-only accredited program.

In all four program areas, the primary emphasis is on research training through apprenticeship, advisement and independent research. New students are encouraged to become involved immediately in ongoing research and to engage in independent research when sufficient skills and knowledge permit, with the goal of becoming active and original contributors.

**Description of the Masters Program in Psychology**

The full-time program begins with enrollment in required graduate courses in the first and second summer school sessions and continues into the subsequent fall and spring academic semesters. The program is generalist in its orientation and provides advanced education that will transfer well either to a career right after graduation or to further graduate education in a variety of fields such as law, business, medical school, social work, and psychology. Specific applied training leading directly to professional licensure is not provided. Instead, the students in the MA program receive traditional and general grounding in psychology via courses chosen from our regularly offered graduate courses.

A faculty director specifically for the MA program is available for consultation on course selection, career opportunities, and professional development. In addition to courses in clinical, social/health, cognitive/experimental, and integrative neuroscience, professional development workshops that address concerns about graduate school, career and personal choices, and professional presentation, are a regular part of the curriculum. Students complete relevant coursework, and engage in supervised research mentorship and training under the direction of Psychology or University affiliated faculty at the University. "Brown bag" seminars in Clinical, Social and Health Psychology, Cognitive Science, or Integrative Neuroscience provide awareness of ongoing research at Stony Brook and that of guest speakers at other research institutions, and the opportunity to gain applied skills through Internship placements is available.

**Admissions Requirements for the Psychology department**

The requirements for admission to masters study, in addition to the minimum Graduate School requirements, ordinarily include:

A. A bachelor's degree with a major in psychology, or in a program providing adequate preparation for the intended area of study (ordinarily including statistics, research methodology, and/or psychology laboratory).

B. An average of 3.25 or better in all graded academic undergraduate coursework (however, students who do not meet this requirement due to special circumstances may also apply if they can address this in their statement).

- C. One official copy of all previous college transcripts, with certified English translations of any transcripts in a foreign language.
- D. Letters of recommendation from three instructors or academic advisors.
- E. For international students, TOEFL or IELTS, and Duolingo scores (unless their native language is English).
- F. Acceptance by the department and Graduate School.

The Master's Program begins Summer Session I. Applications are accepted January 15 through February 28th. All applications must be submitted online through the Graduate School. Admission questions and application instructions are available at the Graduate School website at: <http://https://www.stonybrook.edu/graduate-admissions/>

The requirements for admission to **doctoral** study, in addition to the minimum Graduate School requirements, ordinarily include:

- A. A bachelor's degree with a major in psychology, or in a program providing adequate preparation for the intended area of study (ordinarily including statistics, research methodology, and/or psychology laboratory).
- B. An average of 3.5 or better in all graded academic undergraduate coursework.
- C. One official copy of all previous college transcripts, with certified English translations of any transcripts in a foreign language.
- D. Letters of recommendation from three instructors or academic advisors.
- E. The Graduate Record Examination (GRE) General Test is required by the Clinical, Cognitive Science, and Social and Health programs. The Integrative Neuroscience program does not consider GRE scores in making its admissions decisions. However, students who wish to be nominated for university fellowships should submit GRE scores. The subject GRE is not required by any program.
- F. For international students, TOEFL or IELTS scores (unless their native language is English; "native" languages are mastered in early childhood). The test score is still required even if the student attended college where English was the language of instruction.
- G. Students who do not meet the above requirements may also apply if they feel that special circumstances should be considered.
- H. Acceptance by the department and Graduate School. Psychology's deadline for receipt of applications and all supporting materials for fall admission is December 1. We will continue to accept applications through January 1, but late applications will not receive full consideration for Turner and Graduate Council Fellowships.

All applications must be submitted online through the Graduate School. Admission questions and application instructions are available at the Graduate School website at: <https://www.stonybrook.edu/graduate-admissions/>

### Facilities of the Department of Psychology

Faculty in each area maintain active laboratories with state-of-the-art equipment for research and graduate training. Faculty, students, and postdoctoral associates have access to the Psychology Department's large volunteer pool of human subjects. In addition, the program supports the development of teaching and professional skills.

The **Clinical** Program's research interests of the core faculty center on depressive disorders (child, adolescent, adult), anxiety disorders (child, adolescent, adult), autism spectrum disorders, personality, child maltreatment, close relationship functioning (e.g., discord and aggression among couples, romantic competence among adolescents and adults, relationship education), lesbian, gay, and bisexual issues (among youth and adults), emotion regulation processes (e.g., cognitive, interpersonal, neurobiological), and emotion and attention processes in normal and pathological conditions. Faculty labs are equipped with state-of-the-art facilities including equipment for observational research (e.g., digital cameras and DVDs), psychophysiological equipment (e.g., heart rate, blood pressure, respiratory rate,) as well as electrophysiology (EEG, ERP). The clinical area also utilizes a number of other on- and off-campus facilities for clinical research and training, including the Social, Cognitive, and Affective Neuroscience Center for neuroimaging, and the Krasner Psychological Center, a training, research, and service unit that provides psychological services and consultation to the community and as well as a site for graduate practicum. Within the Krasner Psychological Center, an Anxiety Disorders Clinic provides assessment and treatment of various anxiety disorders such as obsessive-compulsive disorder and social anxiety disorder. The University Marital Therapy Clinic provides therapy for couples and individuals in the community who are experiencing relationship difficulties. Personnel at the Marital Clinic also provide forensic assessments for child custody and therapeutic visitation for the Supreme and Family Courts of Suffolk County, NY. Affiliations have been established with the University's Health Sciences Center, numerous other local hospitals, and local public schools.

The **Cognitive Science** Program offers broad training in cognitive science through its affiliations with the Departments of Linguistics and Computer Science, and in cognitive neuroscience, in cooperation with the Integrative Neuroscience Program, the Department of Neurobiology and Behavior, and Brookhaven National Laboratory's Medical Department. Laboratory facilities include a state-of-the-art research dedicated 3T fMRI scanner housed in our new NSF-funded SCAN (Social, Cognitive, and Affective Neuroscience) center, electrophysiology (EEG, ERP) labs, multiple eyetrackers for psycholinguistics and visual cognition studies, rooms equipped to study electronic communication and human-computer interaction, sound-isolated chambers for perception and psycholinguistics experiments, multimedia workstations for presenting stimuli and collecting data, and computer-controlled choice stations for testing human and non-human subjects. Faculty research is particularly strong in language, memory, attention, visual cognition, perception, and decision making. Most research programs are funded by agencies such as the National Science Foundation, the National Institutes of Health, and the Department of Defense.

The **Integrative Neuroscience** Program provides opportunities to learn the neurobiology, genetics, anatomy, physiology and neurochemistry underlying a comprehensive array of behaviors and human disorders, including Alzheimer's Disease, Parkinson's Disease, autism and depression.

The broad range of faculty expertise within the program introduces students to social, affective, cognitive and clinical neuroscience at all levels of analysis, from molecular/genetic to human brain imaging and behavioral and cognitive testing and at all ages across the lifespan. In addition to gaining core knowledge, students also develop the cutting edge research expertise which is essential to successful careers in neuroscience. Students have access to facilities for histological and neuroanatomical analysis, behavioral analysis, and animal models of human diseases, molecular and genetic analysis, human electrophysiology and fMRI imaging. Students have the opportunity for research training with core faculty or with affiliated faculty in the Departments of Neurobiology, Psychiatry and Neurology as well as at Cold Spring Harbor Labs. The curriculum supports the development of broad content knowledge, while research training provides development of skill expertise. In addition, the program supports the development of teaching and professional skills.

The **Social and Health** Program offers predoctoral training for students who are interested in a research career in social psychology, health psychology, or the interface between these two disciplines (e.g., application of social psychological theory to health problems). Areas of particular strength in the faculty's research in social psychology include the study of attachment, close relationships, and social rejection in adults and children; social cognition; social-cognitive development; social identity, prejudice, and stereotyping; academic achievement; and the representation and processing of social experience, motivation, and self-regulation. Health psychology focuses on identifying, evaluating, and enhancing the psychosocial and behavioral factors that promote health, prevent disease, or affect adjustment to illness. Faculty research topics in health psychology include the impact of stress on health; the role of social support in dealing with health problems; coping with breast cancer; reproductive health; and behaviors that promote or impair health; and aging and health. Social and Health Area faculty have affiliations with the College of Business, Department of Psychiatry and other departments in the University, and they collaborate with researchers and clinicians in the Stony Brook School of Medicine, Dental School, and University Hospital. Students in our graduate program work collaboratively with faculty members on research projects of mutual interest. A variety of courses are offered so that students can fulfill requirements by selecting the courses that best fit their interests and needs. Students may also take courses in other departments of the university, such as Political Science, Public Health, or Women's, Gender, and Sexual Studies. In addition, students have the opportunity to receive training in methodological and quantitative techniques such as structural equation modeling and meta-analysis and they may elect to complete a quantitative minor. Seminars are offered on topics such as career issues, teaching methods, and grant writing. Another important feature of our program is its cultural and ethnic diversity. We strive to integrate cultural and ethnic concerns into all aspects of graduate training.

#### Requirements of the Masters Program in Psychology

The 1-Year MA Program in General Psychology provides an advanced education preparing students for a career in psychology or related fields directly after graduation or to further graduate education in psychology or related fields such as business, law, medicine, and social work.

The full-time program begins with enrollment required graduate courses in the first and second summer school sessions and continues into the subsequent fall and spring academic semesters.

- MA students are required to enroll in the Academic and Professional Development seminar (PSY610) during Summer Session 1 of the year they enter the program, and a statistics course (PSY501) during Summer Session 2.
- Students are required to enroll in a weekly seminar in the Fall semester with all first year graduate students (PSY504), which include discussions of current research and research practices by faculty and visiting speakers.
- MA students can select among a wide range of courses in the Psychology Department from clinical psychology, cognitive science, developmental psychology, integrative neuroscience, and social and health psychology. For information on the courses offered, see the link below. (Note: not all courses are offered every year.)

<http://www.stonybrook.edu/sb/graduatebulletin/current/courses/psy/>

- In the Fall and Spring semesters, MA students enroll in weekly seminars in either Cognitive Science, Integrative Neuroscience, or Social and Health Psychology (PSY581, 582, 583, 584, 585, or 586). These seminars include presentations on current methods and topic areas.
- MA students have a faculty advisor specifically for the MA program who is available for consultation on course selection, career opportunities, and other matters.
- The MA program includes professional development opportunities that address students' concerns about graduate school, career and personal goals, professional presentation, etc.
- Students engage in supervised research mentorship and training under the direction of Psychology or University affiliated faculty at the University.
- A wide variety of internships are available to MA students, which provide them with experiential learning relevant to their future careers.
- Applicants to the MA program will be evaluated on the basis of their undergraduate GPAs (minimum 3.25), three letters of recommendation, and their personal statement. GREs are optional.

#### TIMELINE:

- End of February: Application period ends.
- March and April: Offers of admission are made.
- End of May (Summer Session 1): Program begins.
- Mid-May of the following year: Graduation.

In light of the extraordinarily short period between admissions offers and the start of the MA program, applicants should carefully consider whether they will be able to satisfy all administrative and practical tasks to join the MA program on time.

- Completion of the MA program will be contingent on completion of 30 credits with at least a 3.0 GPA, as per the regulations of the Graduate School. Additionally, students are expected to earn grades of C or better in all courses.

#### **Sample Curriculum:**

Semester	Title	Credits
Summer session 1	Professional Skills Seminar (PSY610)	3
Summer session 2	Graduate Statistics (PSY501)	3
Fall	Weekly seminar (PSY581, 583, or 585)	0
	First year seminar (PSY504)	0
	Survey course in Clinical Psychology	3
	Course in Social Psychology	3
	Research Supervision	3
	Internship Supervision	3
Spring	Weekly seminar (PSY582, 584, or 586)	0
	Course in Cognitive Science	3
	Course in Integrative Neuroscience	3
	Research Supervision	3
	Internship Supervision	3
Total		30

#### **Requirements for the Ph.D. Degree in Psychology**

The receipt of the Ph.D. signifies both a scholarly mastery of the field of psychology and the ability to conduct independent research. In addition to the Graduate School's degree requirements, students must satisfy the following requirements (as well as requirements of their area of studies):

#### **A. Course Requirements**

A student must maintain a graduate G.P.A. of at least 3.0 and successfully complete an approved program of study with a grade of at least B in each required course. Two semesters of quantitative methods and three breadth courses selected from outside the student's area of graduate studies are required. In addition, one semester of First-Year Lectures (no credit) and two semesters of a practicum in statistical computer applications are required. Students must also complete the seminar on Human Diversity (no credit). The four training areas of the department have additional course requirements. Following admission, students with graduate training elsewhere can petition to satisfy course requirements on the basis of their previous graduate work. No more than three departmental course requirements will be waived. Petition to waive requirements or to satisfy them on the basis of previous graduate work should be directed to the Psychology Graduate Office. Petitions concerning area requirements should be addressed to the student's area head.

#### **B. Yearly Evaluation**

The progress of each graduate student is reviewed at the end of each academic year by the student's area's faculty. This provides opportunities for both positive feedback about the student's achievements and constructive feedback for improving or accelerating the student's progress. We expect that all students admitted to the Ph.D. program have the potential to succeed; however, any student whose performance is below the standards established by the department and the area may be dismissed or asked to withdraw. Under certain circumstances a student may be permitted to obtain a terminal Master of Arts degree satisfactorily completing the required courses and 30 graduate credit hours of study, and writing a second-year research paper.

#### **C. Second-Year Paper**

At the end of the second year of study, each student must submit an original research paper to the advisor and the area head. Although the form of this paper and the date it is due varies by area, all second-year papers must include data collection and analysis. The second-year paper must be approved prior to the specialties paper (see item E). A copy of the approved paper must be provided to the Psychology Graduate Office.

#### **D. M.A. Degree in the Course of Doctoral Studies**

The department will recommend granting an M.A. degree to students who have successfully completed the second-year requirements, including the second-year research paper, upon the recommendation of the faculty in the student's area of graduate studies. This process is not automatic; students wishing to obtain an M.A. degree must file for one.

#### **E. Specialties Paper and Examination**

This requirement should be completed by the end of the sixth semester of study. The specialties paper is a review/research paper suitable for submission to a refereed journal. The paper must be presented to and defended before a committee. The form of the specialties paper depends upon the student's area of graduate studies, but all areas require its completion by the end of the third year in order for a student to be considered to be on track.

**F. Advancement to Candidacy**

After successful completion of the specialties paper and examination, all required coursework, two SDI courses (see G), and the requirements of the student's area of studies, a majority vote of the faculty of the student's area is required to recommend advancement to candidacy for the Ph.D. The Graduate School requires that students must advance to candidacy at least one year before defending their dissertations.

**G. Research and Teaching**

All four graduate training areas focus heavily on research; research activity from the time of admission through the length of the program is required. Students who are funded on state lines serve as teaching assistants (TAs) for classes taught by departmental faculty and instructors. For all students, regardless of source of funding, two semesters or summer sessions of substantial direct instruction (SDI) in the classroom or laboratory is required (one of which must be PSY 310). Students may satisfy this requirement by providing significant hours of lecturing and student contact in a class for which they are serving as a TA, or by serving as the instructor of record for a class of their own (and obtaining faculty observation). During these semesters, graduate students must receive teaching evaluations from their students.

**H. Residence**

Minimum residence of two years and the equivalent of three years of full-time graduate study are ordinarily required. Unless admitted as part-time students (which happens very rarely), residents must register for full-time study until they are advanced to candidacy. Full-time study is 12 credits during the first year and nine thereafter.

**I. Dissertation**

The approval of the dissertation proposal and successful oral defense of the completed dissertation are required.

**Within Area Course Requirements:** In addition to satisfying Graduate School and departmental degree requirements, students must satisfy all of the course requirements of their training programs.

**Clinical Psychology**

Complete the following courses in the first year (required of all Clinical Area students):

PSY 534 Assessment: General Principles, Clinical Interviews, and Adult Psychopathology

PSY 602 Assessment: Personality Testing, Intellectual/Cognitive Testing, and Child/Parent Assessment

PSY 537 Methods of Intervention: Treatment of Internalizing Disorders

PSY 538 Methods of Intervention: Treatment of Externalizing Disorders and Relationship Problems

PSY 545 Psychopathology: Conceptual Models and Internalizing Disorders

PSY 596 Psychopathology: Externalizing and Psychotic Disorders

PSY 603 Ethics and Professional Issues

PSY 620 Human Diversity

Complete the following courses in the second year (required of all Clinical Area students):

PSY 505 Structural Equation Modeling and Advanced Multivariate Methods, or an alternative advanced statistics course approved by the Area Head

PSY 604 Intervention Practicum

PSY 605 Advanced Clinical Practicum

PSY 606 Supervised Practice

PSY Breadth Course 1

Complete the following courses in the third year:

PSY 606 Supervised Practice (Fall and Spring)

PSY Breadth Course 2

PSY Breadth Course 3

PSY 698 Research (Fall and Spring)

Complete PSY 510 History of Psychology at some point during the program.

Complete dissertation (PSY 699) during the fifth year and complete internship (PSY 608) in the sixth year.



**Cognitive Science**

Complete three of the following:

PSY 513 Theories of Attention

PSY 516 Judgment and Decision Making

PSY 518 Memory

PSY 520 Psycholinguistics

PSY 610/620 Seminars in Selected Topics: Cognition (must be approved *in advance* by the Area Head)

Sign up for the following sequence each year (required of all students):

PSY 583 Experimental Colloquium I

PSY 584 Experimental Colloquium II

The Cognitive Science Area also requires submission of a First-Year Research Paper requiring data collection and analysis. This paper must be submitted to the advisor and second reader at the end of the second semester of graduate study.

**Integrative Neuroscience**

Complete the **three** following courses (required of all Integrative Neuroscience Area students):

PSY 561 Cognitive and Behavioral Neuroscience I

PSY 562 Cognitive and Behavioral Neuroscience II

PSY 565 Functional Neuroanatomy

Complete at least one of the following courses:

PSY 560 Cognitive Neuroscience

PSY 564 Neuropsychopharmacology

PSY 610/620 Seminars in Selected Topics: Affective Neuroscience

PSY 610/620 Seminars in Selected Topics: Hormones and Behavior

PSY 610/620 Seminars in Selected Topics: Neurology of Learning & Memory

Sign up for the following sequence each year (required of all Integrative Neuroscience Area students):

PSY 581 Cognitive and Behavioral Neuroscience Colloquium I

PSY 582 Cognitive and Behavioral Neuroscience Colloquium II

**Social and Health Psychology**

Complete two of the following courses:

PSY 541 Social Psychology of Close Relationships

PSY 543 Attachment

PSY 549 Prejudice & Discrimination

PSY 555 Social Psychology

PSY 556 Stress and Coping

PSY 558 Theories of Social Psychology: Health Applications

PSY 559 Psychology of Women's Health

PSY 594 Psychology of Gender

Complete an additional special topics course in the Social and Health Area (PSY 610 or PSY 620). Alternatively, students can complete an additional course from the preceding category.

Students must complete one of the quantitative courses listed below or an additional methods or statistics course as approved by the student's advisor and Area Head.

PSY 505 Structural Equation Modeling and Advance Multivariate Methods

PSY 506 Psychometrics

PSY 507 Meta-Analysis

### **Cognitive Neuroscience Certificate:**

**Integrative Neuroscience students must take 3 of the following courses from the Cognitive Science Area:**

PSY 513 Theories of Attention

PSY 516 Judgment and Decision Making

PSY 518 Memory

PSY 520 Psycholinguistics

**Cognitive Science students must take 3 of the following courses from the Integrative Neuroscience Area:**

PSY 610/620 Current Issues in Brain Imaging

PSY 561 Cognitive & Behavioral Neuroscience I

PSY 562 Cognitive & Behavioral Neuroscience II

PSY 565 Functional Neuroanatomy

PSY 560 Cognitive Neuroscience

PSY 610/620 Seminars in Selected Topics: Hormones & Behavior

PSY 610/620 Seminars in Selected Topics: Molecular Psychology

PSY 610/620 Seminars in Selected Topics: Neurology of Learning & Memory

PSY 610/620 Neuroscience: Applications in Psychology

### **Quantitative Methods Certificate**

Students must complete both of the following courses:

PSY 501 Analysis & Design

PSY 502 Correlation/Regression

Students must complete three (3) additional quantitative courses from the following list (instructors may change; courses outside Psychology require the permission of those instructors). Any substitutions must be approved by the Graduate Director in advance by providing a syllabus of the course to be substituted.

PSY 505 Multivariate Methods/Structural Equation Modeling

PSY 506 Psychometric Methods

PSY 507 Meta-Analysis

PSY 508 Introduction to Computer Applications in Statistics

PSY 535 Advanced Research Methods

PSY 610/620 Computational Modeling

POL 602 Applied Data Analysis I: Probability Theory

POL 603 Applied Data Analysis II: Regression

POL 604 Applied Data Analysis III: Maximum Likelihood Estimation

POL 606 Duration & Panel Models

POL 610 Experimental Design

POL 676 Advanced Topics: Methods

CSE 507 Introduction to Computational Linguistics

CSE 529 Modeling and Simulation

AMS 571 Mathematical Statistics II

### **Teaching Requirement for the Quantitative Certificate:**

Students must serve as the instructor of one of the following courses:

PSY 201 or PSY 301

OR Serve as a Teaching Assistant in one of the following courses:

PSY 501 or PSY 502.

### **Faculty of Psychology Department**

#### **Distinguished Professors**

Brennan, Susan E., Ph.D., 1990, Stanford University: Language production and comprehension in spoken dialogue; multimodal communication; speech disfluencies; human/computer interaction; computational linguistics; eye gaze as a measure of language processing and as a cue in conversation. Cognitive Science Program

Davila, Joanne, Chair, Ph.D., 1993, University of California, Los Angeles: Development and course of interpersonal functioning and psychopathology (especially depression) among adolescents and adults; Romantic competence among adolescents and adults; Romantic relationship education for adolescents and young adults; Well-being among LGBT individuals. Clinical Program

Klein, Daniel N., Ph.D., 1983, University at Buffalo: Mood disorders in youth and adults; temperament and personality development. Clinical Program

Lobel, Marci, Ph.D., 1989, University of California, Los Angeles: Stress, coping, and physical health; psychosocial factors in pregnancy, birth, and reproduction; social comparison processes. Social and Health Program

Rajaram, Suparna, Ph.D., 1991, Rice University: Social Memory and Cognition; social transmission of memory; collaborative remembering and collective memory; social memory and aging; learning and education; social and nonsocial scaffolding of knowledge representation; emotion and memory; human memory and amnesia; implicit and explicit memory distinctions. Cognitive Science Program

#### **Professors**

Anderson, Brenda J., Ph.D., 1993, University of Illinois: Rodent models of the effects of exercise and stress on brain structure, metabolism, and function. Integrative Neuroscience Program

Canli, Turhan, Ph.D., 1993, Yale University: The genetic and neural basis of personality and emotion. Integrative Neuroscience Program, Director of the SCAN Center. Integrative Neuroscience Program

Eaton, Nicholas, Ph.D., 2012, University of Minnesota: Classification and structure of psychopathology, personality, and other constructs; sexual orientation, gender diversity, and LGBT issues; quantitative methods and psychometrics; human sexuality; individual/group differences and mental health. Clinical Program

Gerrig, Richard, Ph.D., 1984, Stanford University: Psycholinguistics; text understanding and representation; nonconventional language; cognitive experiences of narrative worlds. Cognitive Science Program

Lejuez, Carl W., PhD. 2001, West Virginia University: Intersection of psychological science and treatment development/implementation; addiction, personality pathology and mood disorders.

Leung, Hoi-Chung, Ph.D., 1997, Northwestern University: Prefrontal and parietal function in human cognition; neural mechanisms underlying information processing and response control; fMRI applications in cognitive neuroscience. Integrative Neuroscience Program

Levy, Sheri, Ph.D., 1998, Columbia University: Ageism and aging; Prejudice and stigma; beliefs systems and intergroup relations; role models; social identity and transitions; student engagement in STEM fields. Social and Health Program

London, Bonita, Ph.D., 2006, Columbia University: Social identity and intergroup processes; stereotyping and prejudice; academic achievement. Social and Health Program

Mohanty, Aprajita, Ph.D., 2011, University of Illinois-Urbana Champaign: Neural mechanisms of emotion-cognition interactions; effect of emotion on perception and working-memory in anxiety and schizophrenia; using pattern information in fMRI and computational modeling to study perception and emotion. Clinical Program

Moyer, Anne, Ph.D. 1995, Yale University: Psychosocial issues surrounding cancer risk: research synthesis and research methodology. Social and Health Program

Raz, Naftali, Ph.D., 1985, University of Texas at Austin: Human brain aging; age-related changes in cognition; metabolic, vascular and inflammatory risk factors in aging; life-span development of the brain and cognition. Integrative Neuroscience Program

Zelinsky, Gregory, Ph.D., 1994, Brown University: Visual attention, eye movements, and visual working memory; Object category representation and detection; Object and proto-object image segmentation; Neurocomputational and deep neural network models of attention and fixation prediction. Cognitive Science Program

### **Associate Professors**

Bernard, Kristin, Ph.D., 2013, University of Delaware: Child maltreatment; neurobiological consequences of early life adversity; parent-child relationships; early parenting interventions; psychobiology of parenting and attachment. Clinical Program

Freitas, Antonio L, Ph.D., 2002, Yale University: Social cognition, motivation, self-regulation. Social and Health Program

Nelson, Brady, Ph.D., 2013, University of Illinois-Chicago., Emotional and motivational mechanisms of anxiety disorders and depression; developmental psychopathology; EEG; fMRI; reward sensitivity; startle reflex; uncertainty and unpredictability. Clinical Program

Parsons, Ryan, Ph.D., 2008, University of Wisconsin-Milwaukee: Neurobiology of learning and memory; memory consolidation; fear extinction; anxiety; neural plasticity. Integrative Neuroscience Program

Richmond, Lauren, Ph.D., 2013, Temple University: Cognitive aging; everyday cognition; individual differences in executive functioning; intervention. Cognitive Science Program

Scott, Stacey B., Ph.D., 2009, University of Notre Dame: Stress, emotions, health, lifespan development, longitudinal and intensive measurement designs and analysis. Social and Health Program

### **Assistant Professors**

Chen, Xi, Ph.D., 2019, University of Texas at Dallas: Individual differences in cognitive aging; Alzheimer's disease (AD) biomarkers; successful aging; memory; socioeconomic status and cognitive health disparities; multi-modal neuroimaging. Integrative Neuroscience Program

Guardino, Christine, Ph.D., 2014, University of California, Los Angeles: biopsychosocial processes underlying racial disparities in maternal and child health. Effects of chronic stress on health in women of reproductive age. Various stressors influence on maternal and child well-being. Social and Health Program

Last, Briana, Ph.D., 2022, University of Pennsylvania: The social determinants of mental health; mental health services and policy research; implementation science; clinical decision-making; mental health workforce development; health equity; mixed methods; and community-based participatory research. Clinical Program

### **Clinical Professors**

Vivian, Dina, Clinical Professor and Director, Psychology Center, Ph.D., 1986, Stony Brook University: Marital therapy; communication skills in maritally discordant couples; communication and problem solving in physically abusive couples; cognitive and affective processes in physically abusive and maritally discordant couples. Clinical Program

### **Lecturers**

Bolger, Joy, Ed.D., 2022, Johns Hopkins University: Substance use disorders and addiction; neuroscience-based prevention education, stigma, and recovery.

DeRosse, Pamela, Ph.D., 2007, The Graduate Center, CUNY: Risk and resilience factors for schizophrenia spectrum disorders; schizotypy; subclinical psychosis.

Pepe, Nicholas, Ph.D., 2021, Stony Brook University, SUNY: Retrieval disruption; Part-list cuing; Collaborative memory; Collective memory; Cross-cultural deviations in cognition.

Pittarello, Andrea, Ph.D., 2014, University of Padova, Italy: Judgment and Decision-Making; Behavioral Economics; Ethics; Eye Movements

### **Emeritus/Emerita Faculty**

Franklin, Nancy, Emerita, Ph.D., 1989, Stanford University: Memory, particularly false memory, eyewitness memory, and the relationship between emotion and cognition. In addition to collaborating on research projects in the lab, interested students have the opportunity to train as expert witnesses within the criminal justice system. Cognitive Science Program

O'Leary, K. Daniel, Emeritus, Ph.D., 1967, University of Illinois: Etiology, prevention, and treatment of psychological and physical aggression in intimate relationships; multivariate models (biological, psychological, and social) of intimate partner aggression; the bidirectional role of marital problems and depression; marital and dyad based treatments for clinical depression; prevalence and correlates of intense love. Clinical Program

O'Leary, Susan G., Emerita, Ph.D., 1972, Stony Brook University: Theoretical and applied research on discipline practices in the home; prevention and early intervention vis-a-vis oppositional and conduct-disordered children. Clinical Program

Squires, Nancy K., Emerita, Ph.D., 1972, University of California, San Diego: Neuropsychology; neurophysiological measures of sensory and cognitive functions of the human brain, both in normal and clinical populations. Integrative Neuroscience Program

Waters, Everett, Emeritus, Ph.D., 1977, University of Minnesota: Social and personality development; parent-child and adult-adult attachment relationships. Social and Health Program

Waters, Harriet Salatas, Emerita, Ph.D., 1976, University of Minnesota: Cognitive development (comprehension and production of prose; memory and problem solving) and social cognition (mental representations of early social experiences, construction and socialization processes). Social and Health Program

Whitaker-Azmitia, Patricia, Emerita, Ph.D., 1979, University of Toronto: Animal models of autism and Down syndrome; serotonin and its role in brain development. Integrative Neuroscience Program

Wortman, Camille, Emerita, Ph.D., 1972, Duke University: Reactions to stressful life experiences; the role of social support and coping strategies in ameliorating the impact of life stress; predictors of good psychological adjustment among those who experience major losses, including bereavement and serious injury; others' reactions to those who experience life crisis. Social and Health Program

### **Research Faculty**

Samuel, Arthur G., Research Professor, Ph.D., 1979, University of California, San Diego: Perception, psycholinguistics, and attention; perception of speech as a domain of study in cognitive psychology; spatial and temporal properties of visual attention. Cognitive Science Program

Aron, Arthur, Research Professor, Ph.D., 1970, University of Toronto, Canada: Motivation and cognition in close relationships; intergroup relations; social neuroscience. Social and Health Program

Hymowitz, Genna, Assistant Professor, Department of Psychiatry, Ph.D., 2011, Stony Brook University: Cognitive biases and chronic medical conditions; biopsychosocial processes in obesity and obesity treatment; stress and gastrointestinal illness; interdisciplinary interventions for chronic illness. Clinical Program

Lerner, Matthew, Research Associate Professor, Ph.D., 2013, University of Virginia: Models of social competence & deficits in youth; social competency interventions for developmental disorders (e.g. Autism Spectrum Disorders & Attention-Deficit/Hyperactivity Disorder); therapeutic process variables (mediators and moderators of outcomes); peer relations and their impact on developmental psychopathology. Clinical Program

Powers, Alice, Research Professor, Ph.D., 1969, Bryn Mawr College: Comparative and physiological psychology; brain and behavior of turtles, with the aim of understanding the evolutionary history of the mammalian brain; habituation and affective modification of the blink reflex in humans. Integrative Neuroscience Program

Schleider, Jessica L., Research Associate Professor, Ph.D., 2018, Harvard University: Intervention science, developmental psychopathology, treatment and prevention of adolescent depression and anxiety, family processes, mechanisms of treatment change, brief interventions. Clinical Program

### **Affiliated Faculty**

Echelberger, Margaret, Assistant Professor, College of Business, PhD. 2018, Psychology University of Michigan: Child Consumer Behavior, prosociality in children and adults

Huffman, Marie K., Associate Professor, Linguistics, Ph.D., 1989, University of California, Los Angeles: Phonetics; phonology. Cognitive Science Program

Levinson, Amanda, Clinical Assistant Professor, Psychiatry and Behavioral Health, PhD 2020, Stony Brook University: Predictors of mental health and functioning, brain basis of anxiety, depression, and parenting behavior

Mahaffey, Brittain L., Assistant Professor, Psychiatry and Behavioral Health. Ph.D., 2013 University of North Carolina, Chapel Hill: Psychotherapy outcome research, anxiety and stress disorders and perinatal mental health. Social and Health Program

Palekar, Nikhil, Associate Professor, Clinical Psychiatry and Behavioral Health, Neurology and Medicine. MD, University of Pune, India: Using imaging modalities to study cognitive impairment and mood disorders in the elderly

Pittinsky, Todd, Professor, Department of Technology and Society, Ph.D. 2001, Organizational Behavior, Harvard University: Positive intergroup relations in their ecosystem of society, technology, and policy; positive stereotypes; allophilia; intergroup leadership.

Schwartz, H. Andrew, Associate Professor, Dept. of Computer Science, PhD 2011 Computer Science, University of Central Florida: Large scale language analysis for health and social sciences

Smith, Dylan, Professor, Program in Public Health, PhD Social Psychology, Arizona State University: Racial disparities in quality of life and osteoarthritis; Survey methods in ecological momentary assessment; Biomarkers for stress and resilience in chronic pain;

Van Snellenberg, Jared, Assistant Professor, Psychiatry, Ph.D., 2012, Columbia University, neural underpinnings of psychotic and cognitive symptoms of schizophrenia and related disorders, using multimodal neuroimaging methods to measure brain activity and neurochemistry. Cognitive Science Program

Swain, James, Clinical Associate Professor, Psychiatry, PhD 1994, MD 1997, University of Toronto: Opioids and maternal brain-behavior adaptation during the early postpartum

#### **Associated Faculty**

Biegon, Anat, Professor, Neurology, Neurosciences Institute, Ph.D., 1980, Weizmann Institute of Science, Israel: Brain response to traumatic, ischemic or inflammatory insults. Integrative Neuroscience Program

Caprariello, Peter, Associate Professor, Marketing, College of Business, Ph.D., 2012, University of Rochester. Consumer relationship processes; how consumers spend money pursuing happiness. Social and Health Program

Crowell, Judith A., Distinguished Professor, Psychiatry: Child and Adolescent Psychiatry, M.D., 1978, University of Vermont: The attachment system across the life span; parent-child and adult-adult interactions. Social and Health Program

Fontanini, Alfredo, Professor and Chair, Neurobiology and Behavior, M.D., Ph.D., Brescia University: Neural basis for rich perceptual experiences; how populations of cortical neurons process the multiple physical and psychological dimensions of taste. Integrative Neuroscience Program

Kritzer, Mary, Distinguished Professor, Neurobiology and Behavior, Ph.D., Yale University, 1989: Gonadal hormone influence over function and dysfunction in the cerebral cortex. Integrative Neuroscience Program

Moeller, Scott J., Assistant Professor, Psychiatry, Ph.D., 2010, University of Michigan: Substance use disorders; neural mechanisms of impaired self-referential processing, decision-making, and self-monitoring of behavior; PET and fMRI multimodal imaging. Social and Health Program

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

**STEM Education****Graduate Program Director:**

Keith Sheppard, Life Sciences Building 092 (631) 632-2989 (keith.sheppard@stonybrook.edu)

**Graduate Program Coordinator:**

Debra Szostak, Life Sciences Building 092 (631) 632-9750

**Associate Program Director:**

Angela Kelly, Life Sciences Building 092, (angela.kelly@stonybrook.edu)

**Degree awarded:**

Ph.D. in STEM Education

**Program web site:**

<https://www.stonybrook.edu/sciedphd/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**STEM Education**

The Institute for STEM Education (I-STEM) provides graduate education leading to a PhD in STEM Education for those who wish to work as

1. university or college STEM educators, directing STEM teacher education programs, working closely with schools and school systems on local, state, and national STEM projects.
2. university research or policy specialists, with the bulk of their time spent on guiding research on various aspects of STEM instruction.
3. directors and supervisors in K-12 school systems, covering the design and implementation of STEM programs at local, county and state levels; and,
4. classroom teachers with improved knowledge of STEM education theory and practice.

A carefully sequenced series of STEM education core courses and research experiences, coupled with exposure to STEM education events at state and national levels, provide the backbone of the program. Students are introduced to current STEM education research areas. As part of the coursework students are required to complete research projects, write, and submit articles for publication, make presentations at STEM education conferences and learn to use computer and library research resources.

Beyond the STEM education core coursework, students take courses in statistics and research methodologies, complete breadth and depth requirements in STEM content areas and undertake independent research under the guidance of advisors in STEM education and in their STEM cognate discipline. The program is open to part-time students from the region, who should complete the program in approximately five to six years.

**STEM Education Admission Requirements:**

The following will be required.

1. A bachelor's degree in a STEM subject
2. A master's degree in either a scientific field or in education
3. Official transcripts of all colleges and universities attended
4. Graduate GPA of at least 3.0
5. 3 letters of recommendation
6. Interview and writing sample
7. Statement of intent
8. Completed application form
9. Acceptance by the Graduate School

For more information visit the I-STEM website at <https://www.stonybrook.edu/sciedphd/>

Program faculty and students will be able to draw upon a wide range of academic, professional, and cultural resources. These include academic programs in Asian & Asian American Studies, China Studies, Japanese Studies, Korean Studies, and South Asian Studies, as well as Cultural Analysis and Theory, Business, Journalism, Media Studies, Linguistics, Religious Studies, Philosophy, History, and various social sciences. In terms of professional development, PEP (Professional Education Program) coordinates with the Department of Asian and Asian American Studies and Foreign Language Teacher Preparation Program to offer teacher certification programs for Chinese, Japanese and Korean. Moreover, the Language Learning and Research Center (LLRC) offers a state-of-the-art multimedia language center at Stony Brook University, with a wide variety of materials and technologies to assist scholars and students of Asian languages. The Center for Multilingual and Intercultural Communication (MIC) provides opportunities for research across languages and cultures. Master's students seeking to pursue a study abroad opportunities during their graduate training will work with the Office of the International Academic Programs and Services. In addition, there are a variety of social and cultural activities and services offered through the Mattoo Center for India Studies, the Japan Center at Stony Brook, the Center for Korean Studies, the Charles B. Wang Center, as well as the diverse student organizations represented on campus.

Degree Requirements for the Ph.D. in STEM Education

**A. Course Requirements (5 of the following courses - 15 credits)**

CSM 600 History and Philosophy of STEM Education

CSM 610 Nature and Practice of Science

CSM 620 STEM Teacher Education

CSM 630 STEM Education Research Seminar CSM 640 Directed Study in STEM Education (may be taken more than once)

CSM 650 Introduction to Measurement and Assessment in STEM Education

**B. Statistics and Research Methodology Courses (3 courses – 9 credits, which may include the following)**

CSM 635 Qualitative Research Methods in STEM Education CSM 645 Introduction to Quantitative Research Methods

**C. STEM Content Breadth and Depth Courses (up to 4 courses -12 credits)**

The courses to be taken depend upon the type of master's degree that the entering student holds. Students holding a master's degree in a specific scientific discipline will be required to complete graduate courses in other STEM disciplines. Students holding master's degrees in education will be required to complete graduate coursework in their scientific field. The required breadth and depth courses are determined by transcript review by the Graduate Program Director upon acceptance into the program.

**D. Independent Research (Minimally - 18 credits to include 12 credits of CSM 699 or CSM 700)**

CSM 699 Dissertation Research on Campus or CSM 700 Dissertation Research Off Campus

**E. Qualifying examination**

Students will complete a qualifying examination upon the completion of all the STEM education core courses. The qualifying examination will have three components:

1. Paper 1 – a common examination question for all students based on a topic from the STEM education core courses.
2. Paper 2 - an individualized examination question, written by the student's advisor, based upon a student's dissertation research area.
3. An oral presentation and defense of the two papers

**F. Research Proposal**

Students are required to prepare and defend a dissertation proposal based on their proposed research. The students will present a formal written dissertation proposal that includes details of the research questions, a complete literature review, the methods chosen to answer the research questions and details of how the collected data will be analyzed. The proposal will be presented and defended in an oral hearing before the dissertation committee. If appropriate, Institutional Review Board (IRB) approval to conduct the research will be secured. On satisfactory completion of the dissertation proposal, a recommendation for advancement towards candidacy will be forwarded to the Graduate School.

**G. Advancement to Candidacy**

When the above requirements have been satisfactorily completed, a recommendation for advancement to candidacy for the Ph.D. will be forwarded to the Graduate School.

**H. Dissertation**

The dissertation research outlined in the thesis proposal will be supervised by the committee, which will normally include both STEM education and STEM faculty.

**I. Dissertation Defense**

The dissertation defense, which completes the requirement for the Ph.D. consists of a public seminar presentation of the dissertation work followed by an oral examination before the dissertation examining committee.

**J. Teaching Experience**

A semester of a practicum in teaching will be required in addition to the completion of the STEM Teacher Education core course. This may include making seminar presentations, assisting in laboratories, STEM teacher professional development, and leading discussion sessions. Formal and informal feedback on a candidate's teaching will be provided by program faculty.

**K. Residence Requirement**

For full-time students, the University requires at least two consecutive semesters of full-time graduate study.

**PhD in STEM Education Faculty**

Kelly, Angela, Associate Professor of Physics. Ph.D., 2006, Teachers College, Columbia University: Science education; physics education; engineering education; physical science access for traditionally underserved groups; socio-cognitive perspectives of STEM participation and persistence.



Sheppard, Keith, Associate Professor of Biology and Cell Biology and Director of Institute for STEM Education. Ed.D., 1997, Teachers College, Columbia University: Science education, chemistry education, physics education, history of science education, science learning, science teacher education.

### **Affiliated Faculty**

Aubrecht, Katherine, Associate Professor of Chemistry. Ph.D., 1999, Cornell University: Development of learning materials about sustainability for the chemistry curriculum; context-based approaches in chemical education; biodegradable and bio-renewable polymers; environmentally benign synthetic methodology.

Berger, Lisa, Associate Professor of Mathematics. Ph.D., 2007, University of Arizona: Number theory; mathematics education of teachers.

Bugallo, Mónica, Professor of Electrical and Computer Engineering and Faculty Director of the Women in Science and Engineering Program (WISE). Ph.D., 2001, University of A Coruña, Spain: Statistical signal processing; engineering education; women in science and engineering.

Lopez, Glenn R., Professor of Marine Sciences. Ph.D., 1976, Stony Brook University: Marine biology; benthic ecology; animal-sediment interactions.

Moloney, Daniel, Research Associate Professor of Biochemistry and Cell Biology, Director of NIH Bridges to Baccalaureate Program, and Director of Biotechnology Teaching Laboratories. Ph.D., Stony Brook University: cell signaling regulation; cancer chemoprevention; DNA barcoding; biotechnology; STEM education.

Scarlato, Lori L., Associate Professor of Computer Science. Ph.D., 1993, Stony Brook University: Educational technology; tangible, physical, multi-modal, and collaborative human-computer interfaces; serious games; computer graphics; multimedia.

Zachar, Zuzana, Research Assistant Professor of Biochemistry and Cell Biology and Director of Masters of Arts in Teaching Biology Program. Ph.D., Stony Brook University: Cancer chemotherapy; transposon biology; regulation of alternative splicing of mRNA and nuclear architecture; biology education of teachers.

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

**Stony Brook University Scholars in BioMedical Sciences (SBU SBMS)****Program Director(s):**

Styliani-Anna (Stella) Tsirka, PhD, Director  
 Vincent Yang, MD, Ph.D., Clinical co-Director

**Program Administrator:**

Odalís Hernández

**Degree:**

Graduate Certificate Scholars in Biomedical Sciences

**Website:**

<https://medicine.stonybrookmedicine.edu/sbms>

**Scholars in BioMedical Sciences**

The purpose of this NIH-T32-supported track is to engage graduate students in translational medicine. Trainees enter this one one-year program during their second or third year of graduate studies (after their thesis project has been proposed) in one of Stony Brook University's PhD granting programs and remain in the track beyond the program's structured year and until graduation. Trainees will receive a certificate naming them Scholars in Biomedical Sciences (SBS) upon completion of the program.

The SBMS Program considers all candidates equally, regardless of state of residence, and particularly encourages applications from women, individuals with disabilities, and members of racial and/or ethnic groups currently under-represented in biomedical science.

**Admission Requirements**

**Application Requirements:** The application is completed once the application form (submitted online) and the letters of support (submitted via email) are received.

Application Form: <https://forms.gle/YKcstKuZ3RJ5FMzu9>

- Student: CV and a 2-page description of their intended translational research project and career goals. Typically, this project will amount to at least one specific aim of the student's Ph.D. research.
- Ph.D. Mentor: NIH Biosketch and support letter (up to 1-page) describing how the proposed project will prepare the student to interface with clinicians in their research and the mentor's commitment to the requirements of the track.
- Clinical co-Mentor: NIH Biosketch and letter describing relationship to the Ph.D. mentor and the research project and commitment to provide the student with appropriate clinical exposure. A short (up to 1-page) description of the clinical experiences intended for the student must be described. The clinical co-Mentor is encouraged to remain as a member of the student's research advisory committee for the duration of the student's Ph.D. research.
- Letter of recommendation from the Graduate Program Director. Letter must assess student's progress in their respective program.

**Application Deadline:** Mid June 10th- Applications will be evaluated by the end of June within the month, and the selected students/teams finalized by June 30th/July.

**Please submit applications electronically to Ms Odalis Hernandez** at [odalis.hernandez@stonybrook.edu](mailto:odalis.hernandez@stonybrook.edu) (link sends e-mail) (link sends e-mail).

**Funding of the awarded proposals:** For the 2021-2022 year, 5-7 students are expected to be selected for the program. They will be partially supported for one calendar year. The funds typically provide a 10% increase to the stipend of the graduate student, cover tuition and fees, and facilitate some training-related expenses.

**Degree Requirements**

Students must be in academic good standing, preferably entering their second or third year in one of our PhD-granting programs and pursuing a dissertation project in translational research. A clinical co-mentor is **required**.

**Course work:**

- HBP 511: Pathobiology
- HBH 550: Statistics in the Life Sciences
- HBH/MCR 549: Module: Legal, Ethical and Regulatory Issues in Medical Research
- HPH 566: Clinical Trials
- MCR 684: Writing a Research Proposal (or equivalent qualifier/scientific writing course)
- MCR 692: Research in Progress (or equivalent research course in their PhD program)
- MST 501: Selected Topics in Translational Research
- MST 502: Monthly Clinical Seminar Series
- SBMS Lunch Presentations (Once a month)
- Clinical Exposure (in consultation with clinical mentor)
- Grand Rounds (in consultation with clinical mentor)

- Annual Translational Medicine Symposium

\*\* The students are encouraged to undertake a multi-year clinical exposure with their co-mentor that is relevant to their research project.

#### Faculty

Faculty Mentors: Two faculty mentors are required: a clinical and a basic science mentor, traditionally the student's PhD advisor and an appropriate clinical co-mentor.

This The partial list below is comprised of clinical faculty that have expressed interest in participating as clinical mentors for the program, however, mentors may be added in the future.

#### Clinical Mentors

- Adler, Howard L (Urology)
- Aroniadis, Olga (Medicine)
- Awadallah, Morad (Surgery)
- Badalamente, Marie (\* Orthopedics)
- Bao, Philip (Surgery)
- Beneri, Christy (Pediatrics)
- Bilfinger, Tom (Surgery)
- Bindra, TJ (Neurology)
- Bloom, Michelle (Medicine)
- Bucobo, Juan Carlos (Medicine)
- Bui, Duc (Surgery)
- Buscaglia, Jonathan (Medicine)
- Carlson, Hal (Medicine)
- Caso, Giuseppe (Surgery)
- Chan, Ed (Pediatrics)
- Charitou, Marina (Medicine)
- Chawla, Anupama (Pediatrics)
- Cohen, Jules (Medicine)
- Coyle, PK (Neurology)
- Denoya, Paula (Surgery)
- Donarummo, Laura (Neurology)
- Ferreti, John (Radiology\*)
- Fiorello, David (Neurosurgery)
- Fries, Bettina (Medicine)
- Galvin-Parton, Patricia (Pediatrics)
- Gelato, Marie (Medicine)
- Gerber, Oded (Neurology)
- Guido, Michael (Neurology)
- Gupta, Sandeep (Surgery)
- Gursoy, Nurcan (Neurology)
- Gutman, Frederick (Neurosurgery)
- Harrington, Donald P. (Radiology)
- Hogan, Laura (Pediatrics)
- Huston, Tara (Surgery)
- Keresztes, Roger (Medicine)
- Khan, Fazel (Orthopedics)
- Kowalska, Agnes (Neurology)
- Kravets, Igor (Medicine)
- Ksovreli, Olena (Medicine)
- Kudelka, Andrzej (Medicine)
- Labropoulos, Nicos (Surgery)
- Lascarides, Chris (Medicine)
- Lawson, William (Medicine)
- Lebowitz, Brian (Neurology)
- Li, Ellen (Medicine)
- Loh, Shang (Surgery)
- Luft, Benjamin (Medicine)
- Manganas, Lou (Neurology)
- McLarty, Allison (Surgery)
- Miller-Horn, Jill (Neurology)
- Moore, William (Radiology)
- Nachman, Sharon (Pediatrics)
- Nagula, Satish (Medicine)
- Nicholson, James (Orthopedics)
- Nielsen, James (Pediatrics)

- Orfanelli, Theofano (ObGyn)
- Paci, James (Orthopedics)
- Pameijer, Colette (Cancer)
- Penna, James (Orthopedics)
- Perkins, Candice (Neurology)
- Poon, Michael (Radiology)
- Prakash, Devina (Pediatrics)
- Preston, Thomas (Neurology/Neurosurgery/Psychiatry)
- Pryor, Aurora (Surgery)
- Rajapakse, Ramona (Medicine)
- Rashba, Eric (Medicine)
- Rizk, Christine (Surgery)
- Samara, Ghassan Joseph (Surgery)
- Schuster, Michael (Medicine)
- Seifert, Frank (Surgery)
- Shroyer, Laurie (Surgery\*)
- Skopicki, Hal (Medicine)
- Spiegel, Rebecca (Neurology)
- Spinner, Warren (Neurology)
- Tassiopoulos, Apostolos (Surgery)
- Vosswinkel, James (Surgery)
- Wu, Shenhong (Medicine)
- Yang, Vincent (Medicine\*)

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

School of Communication and Journalism (SoCJ)

**Dean**

Laura Lindenfeld, PhD

**Graduate Program Director**

Brenda Hoffman, PhD

**Graduate Program Coordinator**

Stefanie Ambrosio-Mullady, MA

**Degrees Awarded**

MS in Science Communication; Advanced Graduate Certificate in Science Communication

*Prospective and current students, please email us for additional information and/or questions at:*  
socj\_grad@stonybrook.edu

**Website**

<https://www.stonybrook.edu/commcms/journalism/graduate-students/science-communication-masters.php>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Program Description**

The Master of Science in Science Communication prepares students to engage in and advocate for valid, reliable public discourse about science, through communication that helps others engage with science in new and meaningful ways. This program takes a modern approach to communication, combining a traditional social science theory and research foundation, with practical, hands-on training to help students become effective boundary spanners between science and society. As part of their coursework, students will experience unique training in improvisation to help them embrace flexibility while maintaining an appropriate level of preparation, offering students lifelong skills that will prepare them to remain nimble in an everchanging world around them. Students will learn to:

- Share scientific discoveries in ways that resonate with diverse audiences
- Conduct and evaluate empirical, social science research
- Design targeted communication campaigns that respond to the needs, values, and cultures of an audience
- Recognize their own biases and understand how their experiences shape how they see and interact with individuals and societies
- Support diversity and inclusion in written and verbal communication
- Apply contemporary legal and ethical practices in face-to-face and digital communication
- Contribute to high-quality, professional projects that build bridges between science and society

Designed to meet the needs of a diverse student population, this program welcomes students from a variety of educational and professional backgrounds including but not limited to, STEM, health sciences, and/or the social sciences and humanities. This program is best suited for students interested in pursuing careers in professional science communication, that seek to bring science out of labs and libraries and into the world. Students with a background in science will be prepared to share their own scientific discoveries, while those with little or no scientific experience will learn to collaborate with experts to help them share scientific information with accuracy and relevancy. This is a fully-online degree program, which allows students to study from any location on a full-time or part-time basis.

The Master of Science in Science Communication is designed to meet programmatic outcomes that are outlined in the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)'s professional values and competencies. For more information about ACEJMC competencies, please visit their website at <http://www.acejmc.org/policies-process/nine-standards/>

**Advanced Graduate Certificate in Science Communication**

Designed for graduate students enrolled in STEM and health-sciences programs at Stony Brook University, the 12-credit Advanced Graduate Certificate in Science Communication complements ongoing graduate degree work. Students receive hands-on skills training to combine their deep subject-matter knowledge with evidence-based communication practices, preparing them to engage in audience-centered science communication that is meaningful, relatable, and upholds scientific integrity. Graduates of this certificate will be prepared to share scientific discoveries in ways that resonate with diverse audiences, design targeted messaging that responds to the needs, values, and cultures of an audience, and support diversity and inclusion in their written and verbal communication.

The certificate is offered in collaboration with the [Alan Alda Center for Communicating Science](#), one of the nation's leading science communication training and research organizations in the country. Students will work with an interdisciplinary team of faculty scholars and practitioners to explore the science behind effective communication, and hone their communication skills with a variety of hands-on experiences.

Admission Requirements for the MS in Science Communication

**Application Deadlines**

*Note: Applications accepted for fall admission only.*

March 15

**Applicants must submit the following:**

1. CV or Resume
2. Personal statement (500 words): In a short essay, applicants should describe why science communication is important to them, their reason(s) for applying to program, and how they feel as though a degree in science communication will advance their future career goals.
3. Three letters of recommendation: We are interested in hearing from three different recommenders who can comment on the applicant's academic strengths, communication or professional skills (including oral, written, and/or multimedia), and/or their potential for success in this graduate program.
4. Official transcripts: Applicants must demonstrate a 3.0 cumulative grade point average and a completed Bachelor's degree.
5. Two writing samples: Students may elect to submit two academic/professional writing samples OR one academic/professional writing sample and one creative work. Academic writing samples may include but are not limited to course papers, academic publications, or published news pieces. Creative works may include but are not limited to video recorded live broadcasts, professional social media campaigns, or recorded podcast content.
6. Language proficiency scores (international applicants). Please refer to the most up to date requirements found in the Graduate Bulletin.
7. GRE scores are optional.

**Admission Requirements for the Advanced Graduate Certificate in Science Communication****Application Deadlines**

Note: To apply, students must be enrolled in a graduate program at Stony Brook University. Students must enroll in the certificate program no later than the second to last semester in their primary program. Students may not enroll in their final semester.

February 1: Fall Admission

September 1: Spring Admission

**Applicant Information:**

1. To apply, students must be enrolled in a graduate program at Stony Brook University. Students must enroll in the certificate program no later than the second to last semester in their primary program. Students may not enroll in their final semester.
2. Before completing the application, students should have completed letters of approval from both their primary program's director and the certificate program's director. The application requires that both documents be uploaded with the application. To obtain the approval letter from the Science Communication certificate program's director, please email [socj\\_grad@stonybrook.edu](mailto:socj_grad@stonybrook.edu) with your name, ID number, and semester you plan to start the certificate program.
3. Students ready to apply can submit their applications on the graduate school's website.  
[https://docs.google.com/forms/d/1Bg-VhAiUXH2TEBK9pmFIT3T0kmEJlx9ZmNr7iCxVReQ/viewform?edit\\_requested=true](https://docs.google.com/forms/d/1Bg-VhAiUXH2TEBK9pmFIT3T0kmEJlx9ZmNr7iCxVReQ/viewform?edit_requested=true)

**Facilities**

The School of Communication and Journalism maintains a technologically advanced, \$1.3 million, bi-level Newsroom. It is located in Melville Library, and is equipped with 38 workstations, a collaborative learning system that allows any piece of work to be displayed simultaneously on any or all desktops, and a large projection screen. Each workstation has two displays and industry standard software.

The School of Communication and Journalism also has a fully equipped HD broadcast studio, with multiple studio cameras, teleprompters, an anchor desk, an interview set, chroma key green-screen set and a control room.

Mobile equipment available for use by journalism students in the field includes Padcasters to broadcast live remotely, JVC 4K video cameras, Nikon D610 and D7500 DSLR video/still cameras SB700 Speedlights and digital audio recorders. Students can collaborate on projects between the Newsroom and studio spaces using state-of-the-art production software. The broadcast studio includes a podcasting studio, equipped with a mixing board and four professional-level microphones.

**Requirements for the MS in Science Communication**

The 33-credit Master of Science in Science Communication consists of six required courses (18 credits) and five elective courses (15 credits). Students will work closely with the graduate program director and faculty advisors each semester to develop an individualized plan of study that best fits their interests and career goals. Students may elect to enroll part-time or full-time. Full-time graduate work is defined as a minimum of 9 credits per semester. All courses are offered in an online format.

**REQUIRED COURSES (18 CREDITS)**

*Stony Brook University Graduate Bulletin: [www.stonybrook.edu/gradbulletin](http://www.stonybrook.edu/gradbulletin)*

COM 500: Theories of Science Communication

COM 516: Communication Research Methods

COM 526: Building and Assessing Communication Strategies

COM 577: Communication Law and Ethics

COM 583: Principles of Inclusive Engagement

COM 699: Master's Project in Science Communication

**ELECTIVE COURSES (15 CREDITS)**

COM 517: Advanced Communication Research Methods

COM 522: Communicating Science to Policy Makers

COM 534: Communicating Science Using Digital Media

JRN 545: Mobile Podcasting

COM 550: Climate Communication

COM 575: Special Topics in Science Communication

COM 585: Communicating Science and Health Risks to the Public

COM 587: Independent Study

COM 588: Graduate Internship

COM 605: Environmental Communication

COM 635: AI, Communication, and Care

Note: Science Communication students may complete select JRN courses for elective credit, with departmental approval.

**Requirements for the Concentration in Climate Communication**

The concentration in Climate Communication offers students interested in studying climate change a designated set of courses that focus specifically on climate change research and practice. Students have the option to take up to two courses in the School of Marine and Atmospheric Sciences (SoMAS). Students that elect to declare a concentration in Climate communication will complete the following requirements for the Master of Science in Science Communication.

**REQUIRED COURSES (27 CREDITS)**

COM 516: Communication Research Methods

COM 526: Building and Assessing Communication Strategies

COM 550: Climate Communication

COM 565: Foundations of Science Communication

COM 577: Communication Law and Ethics

COM 583: Principles of Inclusive Engagement

COM 585: Communicating Science and Health Risks to the Public

COM 605: Environmental Communication

COM 699: Master's Project in Science Communication

**Elective Courses (6 credits)**

*Select two courses from the following list:*

COM 522: Communicating Science to Policy Makers

MAR 514: Environmental Management

MAR 525: Environment and Public Health

MAR 534: Seminar in Decision Support for Climate Change Solutions

MAR 568: Practical Skills for Scientists

**Requirements for the Advanced Graduate Certificate in Science Communication**

The 12-credit Advanced Graduate Certificate in Science Communication consists of two required courses (6 credits) and two elective courses (6 credits). Students will work closely with the graduate program director and faculty advisors each semester to develop an individualized plan of study that best fits their interests and career goals.

**REQUIRED COURSES (6 CREDITS)**

COM 565: Foundations of Science Communication

COM 599: Project Work in Science Communication

**ELECTIVE COURSES (6 CREDITS)**

COM 522: Communicating Science to Policy Makers

COM 534: Communicating Science Using Digital Media

JRN 545: Mobile Podcasting

COM 550: Climate Communication

COM 575: Special Topics in Science Communication

COM 583: Principles of Inclusive Engagement

COM 585: Communicating Science and Health Risks to the Public

COM 605: Environmental Communication

Note: Certificate students may complete select COM and JRN courses not listed here for elective credit, with departmental approval.

**Faculty**

Please see the School of Communication and Journalism faculty directory: <https://www.stonybrook.edu/commcms/journalism/about/fac-staff.php#/faculty>

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



Science Education

**Graduate Program Director:**

Keith Sheppard, Life Sciences Building 092 (631) 632-2989 (keith.sheppard@stonybrook.edu)

**Graduate Program Coordinator:**

Debra Szostak, Life Sciences Building 092 (631) 632-9750

**Associate Program Director:**

Angela Kelly, Life Sciences Building 092, (angela.kelly@stonybrook.edu)

**Degree awarded:**

Ph.D. in Science Education

**Program web site:**

<https://www.stonybrook.edu/sciedphd/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

Science Education

The Institute for STEM Education (I-STEM) provides graduate education leading to a PhD in Science Education for those who wish to work as

1. university or college science educators, directing science teacher education programs, working closely with schools and school systems on local, state and national science projects;
2. university research or policy specialists, with the bulk of their time spent on guiding research on various aspects of science instruction;
3. directors and supervisors in K-12 school systems, covering the design and implementation of science programs at local, county and state levels; and,
4. classroom teachers with improved knowledge of science education theory and practice.

A carefully sequenced series of science education core courses and research experiences, coupled with exposure to science education events at state and national levels, provide the backbone of the program. Students are introduced to current science education research areas. As part of the coursework students are required to complete research projects, write and submit articles for publication, make presentations at science education conferences and learn to use computer and library research resources.

Beyond the science education core coursework, students take courses in statistics and research methodologies, complete breadth and depth requirements in science content areas and undertake independent research under the guidance of advisors in science education and in their science cognate discipline. The program targets part-time students from the region, but will expand after the first cohort groups by attracting full-time students. Part-time students should complete the program in approximately five to six years.

**Science Education Admission Requirements:**

The following will be required

1. A bachelor's degree in a science subject
2. A master's degree in either a scientific field or in education
3. Official transcripts of all colleges and universities attended
4. Graduate GPA of at least 3.0
5. 3 letters of recommendation
6. Interview and writing sample
7. Statement of intent
8. Completed application form
9. Acceptance by the Graduate School

For more information visit the I-STEM website at <https://www.stonybrook.edu/sciedphd/>

Degree Requirements for the Ph.D. in Science Education

**A. Course Requirements (5 courses from the following)**

CSM 599 Graduate Research in Science Education CSM 600 History and Philosophy of Science Education  
CSM 610 Nature and Practice of Science  
CSM 620 Science Teacher Education

CSM 630 Science Education Research Seminar

CSM 640 Directed Study in Science Education

CSM 650 Introduction to Measurement and Assessment in Science Education

**B. Statistics and Research Methodology Courses (3 courses, which may include the following)**

CSM 635 Qualitative Research Methods in Science Education

CSM 645 Introduction to Quantitative Research Methods

**C. Science Content Breadth and Depth Courses (up to 6 courses)**

The courses to be taken depend upon the type of master's degree that the entering student holds. Students holding a master's degree in a specific scientific discipline will be required to complete graduate courses in other science disciplines. Students holding master's degrees in education will be required to complete graduate coursework in their scientific field. The required breadth and depth courses are determined by transcript review by the Graduate Program Director upon acceptance into the program.

**D. Independent Research**

CSM 699 Dissertation Research on Campus or CSM 700 Dissertation Research Off Campus

CSM 701 Dissertation Research Off Campus-International

The courses to be taken depend upon the type of master's degree that the entering student holds. Students holding a master's degree in a specific scientific discipline will be required to complete graduate courses in other science disciplines. Students holding master's degrees in education will be required to complete graduate coursework in their scientific field. The required breadth and depth courses are determined by transcript review by the Graduate Program Director upon acceptance into the program.

**E. Qualifying examination**

Students will complete a qualifying examination upon the completion of all the science education core courses. The qualifying examination will have three components:

1. Paper 1 – a common examination question for all students based on a topic from the science education core courses.
2. Paper 2 - an individualized examination question, written by the student's advisor, based upon a student's dissertation research area.
3. An oral presentation and defense of the two papers

**F. Research Proposal**

Students are required to prepare and defend a dissertation proposal based on their proposed research. The students will present a formal written dissertation proposal that includes details of the research questions, a complete literature review, the methods chosen to answer the research questions and details of how the collected data will be analyzed. The proposal will be presented and defended in an oral hearing before the dissertation committee. If appropriate, Institutional Review Board (IRB) approval to conduct the research will be secured. On satisfactory completion of the dissertation proposal, a recommendation for advancement towards candidacy will be forwarded to the Graduate School.

**G. Advancement to Candidacy**

When the above requirements have been satisfactorily completed, a recommendation for advancement to candidacy for the Ph.D. will be forwarded to the Graduate School.

**H. Dissertation**

The dissertation research outlined in the thesis proposal will be supervised by the committee, which will normally include both science education and science faculty.

**I. Dissertation Defense**

The dissertation defense, which completes the requirement for the Ph.D. consists of a public seminar presentation of the dissertation work followed by an oral examination before the dissertation examining committee.

**J. Teaching Experience**

A semester of a practicum in teaching will be required in addition to the completion of the Science Teacher Education core course. This may include making seminar presentations, assisting in laboratories, science teacher professional development, and leading discussion sessions. Formal and informal feedback on a candidate's teaching will be provided by program faculty.

**K. Residence Requirement**

For full-time students, the University requires at least two consecutive semesters of full-time graduate study.

**PhD in Science Education Faculty**

Kelly, Angela, Professor of Physics. Ph.D., 2006, Teachers College, Columbia University: Science education; physics education; engineering education; physical science access for traditionally underserved groups; sociocognitive perspectives of STEM participation and persistence.

Sheppard, Keith, Associate Professor of Biology and Cell Biology and Director of Institute for STEM Education. Ed.D., 1997, Teachers College, Columbia University: Science education, chemistry education, physics education, history of science education, science learning, science teacher education.

**Affiliated Faculty**

Aubrecht, Katherine, Associate Professor of Chemistry. Ph.D., 1999, Cornell University: Development of learning materials about sustainability for the chemistry curriculum; context-based approaches in chemical education; biodegradable and bio-renewable polymers; environmentally benign synthetic methodology.

Berger, Lisa, Associate Professor of Mathematics. Ph.D., 2007, University of Arizona: Number theory; mathematics education of teachers.

Bugallo, Mónica, Professor of Electrical and Computer Engineering and Faculty Director of the Women in Science and Engineering Program (WISE). Ph.D., 2001, University of A Coruña, Spain: Statistical signal processing; engineering education; women in science and engineering.

Lopez, Glenn R., Professor of Marine Sciences. Ph.D., 1976, Stony Brook University: Marine biology; benthic ecology; animal-sediment interactions.

Moloney, Daniel, Research Associate Professor of Biochemistry and Cell Biology, Director of NIH Bridges to Baccalaureate Program, and Director of Biotechnology Teaching Laboratories. Ph.D., Stony Brook University: cell signaling regulation; cancer chemoprevention; DNA barcoding; biotechnology; STEM education.

Scarlato, Lori L., Associate Professor of Computer Science. Ph.D., 1993, Stony Brook University: Educational technology; tangible, physical, multi-modal, and collaborative human-computer interfaces; serious games; computer graphics; multimedia.

Zachar, Zuzana, Research Assistant Professor of Biochemistry and Cell Biology and Director of Masters of Arts in Teaching Biology Program. Ph.D., Stony Brook University: Cancer chemotherapy; transposon biology; regulation of alternative splicing of mRNA and nuclear architecture; biology education of teachers.

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

C-STRIDE, Graduate Certificate

**Director**

Robert Harrison, IACS L165, 631-632-2347

**Graduate Program Director**

Robert Harrison, IACS L165, 631-632-2347

**Graduate Certificate Coordinator**

Jennifer McCauley, IACS L135, 631-632-2341

**Degree Awarded**

Advanced Graduate Certificate, C-STRIDE (Certificate-Science Training & Research to Inform Decisions)

**Website**

<https://www.stonybrook.edu/commcms/stride/opportunities/advanced-certificate.php>

STRIDE is an innovative training program that provides STEM graduate students with unique interdisciplinary skills to assist, create, and eventually lead in the translation of complex data-enabled research into informed decisions and sound policies.

In addition to training in cutting-edge data analytics and visualization, STRIDE includes the trans-disciplinary skills of decision support including science communication, understanding the perspectives of various stakeholders, and translating scientific uncertainty, that are too often not explicitly taught.

This end-to-end training program aims to transcend traditional graduate education by integrating multiple disciplines and novel training elements that span spatial data, advanced visual data analytics, high-performance and data-centric computing, a science discipline, communication including interpersonal skills and modern media, decision making, and relevant internships.

The departments involved are: Applied Math, Biomedical Informatics, Computer Science, Electrical & Computer Engineering (ECE), Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Public Health, and Technology & Society.

The centers/institutes involved are: IACS, Advanced Energy Research and Technology Center (AERTC), Alda Center for Communicating Science, Center of Excellence in Wireless and Information Technology (CEWIT), Center for Smart Energy Technologies (SET), [Center for Visual Computing \(CVC\)](#), and Center for Inclusive Education (CIE).

**Admission Requirements**

PhD and MS/MA matriculated students in the following departments are eligible to participate in the certificate program: Applied Math and Statistics, Biomedical Informatics, Computer Science, Electrical & Computer Engineering, Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Materials Science, Public Health, Technology & Society. Students must have the permission of their advisors and their Graduate Program Directors before enrolling in the certificate program. Students must complete, with the requisite signatures, and submit to the Graduate School the form entitled Permission to Enroll in a Secondary Certificate Program.

**Facilities**

The STRIDE program utilizes facilities within the participating departments: Applied Math and Statistics, Biomedical Informatics, Computer Science, Electrical & Computer Engineering, Ecology & Evolution, Journalism, Marine and Atmospheric Sciences, Materials Science, Public Health, Technology & Society

**Degree Requirements**

- 15 credits, courses can be double counted toward the certificate and the student's major
- COM 565: Foundations of Science Communication (3 credits), School of Communication and Journalism
- Statistics course – Student can take a statistics course from their home department (3-credits)
- MAR 534: Scientific Decision Support (1-credit)
- Elective in policy or applied science (3-credits)
- CSE 564: Visualization (3-credits)
- Seminar electives (2): Two 1-credit seminar electives in environment or energy (2-credits)

To matriculate into the STRIDE certificate program, please complete the following form: Permission to Enroll in Secondary Certificate. Please complete and submit to the Graduate School via email to [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu), copying Jennifer McCauley on the email [jennifer.mccauley@stonybrook.edu](mailto:jennifer.mccauley@stonybrook.edu). Students are encouraged to enroll into the certificate program as early as possible in their graduate studies in order to maximize the amount of courses that can fulfill dual requirements.

**STRIDE Course Catalog****Faculty**

Jonas Almeida, PhD, University Nova – Lisbon, Portugal, Biomedical Informatics  
Mónica Bugallo, PhD, University of A Coruña, Electrical and Computer Engineering  
Liliana Dávalos, PhD, Columbia University, Ecology and Evolution

Robert J. Harrison, PhD, University of Cambridge, Applied Mathematics and Statistics  
Zhenhua Liu, PhD, California Institute of Technology, Applied Mathematics and Statistics  
Heather Lynch, PhD, Harvard University, Ecology and Evolution  
Klaus Mueller, PhD, Ohio State University, Computer Science  
Jaymie Meliker, PhD, University of Michigan School of Public Health, Public Health  
Janet Nye, PhD, University of Maryland, Marine and Atmospheric Science  
Christine O'Connell, PhD, Stony Brook University, Journalism  
Jason Trelewicz, PhD, Massachusetts Institute of Technology, Materials Science and Chemical Engineering  
Laura Wehrmann, PhD, Max Planck Institute for Marine Microbiology, Marine and Atmospheric Science  
Thomas Woodson, PhD, Georgia Institute of Technology, Technology and Society  
Erez Zadok, PhD, Columbia University, Computer Science  
Minghua Zhang, PhD, Institute of Atmospheric Physics, Academia Sinica, Marine and Atmospheric Science

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

Social Welfare Department

**Dean**

Shari E. Miller, Health Sciences Center, Level 2, Room 093 (631) 444-2139

**Doctoral Program Director (Interim)**

Shari E. Miller, Health Sciences Center, Level 2, Room 093 (631) 444-2139

**Degree Awarded**

Ph.D. in Social Welfare

Health Sciences Center Bulletin

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**The Ph.D. Program in Social Welfare**

The PhD program in the School of Social Welfare prepares the next generation of scholars and educators grounded in advanced data collection methods, with an emphasis on the social determinants of health, research on ameliorating racial, ethnic, and identity-based disparities in access to quality treatment, and policy-based solutions.

**Admission requirements of the Social Welfare Department**

The application can be found at [graduateadmissions.stonybrook.edu/apply](https://graduateadmissions.stonybrook.edu/apply). If you have any questions, you may contact [ssw\\_phdadmissions@stonybrook.edu](mailto:ssw_phdadmissions@stonybrook.edu).

**Degree Requirements****Requirements for the Ph.D. Degree in Social Welfare**

- A) One year in residence
- B) Satisfactory completion of all required and elective courses (54 credits)
- C) Satisfactory completion of research and teaching practicum
- D) Satisfactory performance on the comprehensive qualifying exams
- E) Advancement to candidacy by vote of the doctoral committee upon successful completion of all course work and the comprehensive exam
- F) Completion of a dissertation
- G) Successful defense of the dissertation

A program summary booklet is available describing the Ph.D. program in detail, its curriculum and requirements for admission. To receive a copy of this booklet, contact the School of Social Welfare's Ph.D. program office at (631) 444-3142.

**Program Structure and Content**

The structure of this program consists of 14 required courses (42 credits) as follows:

Statistics I and II (HWC 600 & HWC 601)

Research Methods I and II (HWC 602 & HWC 603)

Research Practicum I and II (HWC 606 & HWC 607)

Social Welfare Policy Analysis I and II (HWC 608 & 609)

Organizational Theory and Social Welfare Administration (HWC 610)

Theories of Social Work Intervention (HWC 612)

Seminar in Social Work Education (HWC 613)

Teaching Practicum (HWC 614)

Dissertation Seminar I and II (HWC 615 & HWC 616)

Also required are four electives (12 credits), a comprehensive exam and the production and defense of a scholarly dissertation. Fifty-four credits are required for graduation. In the first three years, students take three courses each semester. The full-time program is designed to be completed in a minimum of four years.

Once all coursework and the comprehensive exam have been completed successfully, students select a preliminary dissertation chair and committee and develop an approved dissertation proposal. The student is then advanced to candidacy and begins dissertation research. The fourth year is spent on completion of the dissertation and defense.

Faculty of the Social Welfare Department

### Professors

Ballan, Michelle, Ph.D., University of Texas at Austin: Prevention and treatment interventions for individuals with intellectual and developmental disabilities and their families; research focused on sexuality, intimate partner violence and direct practice for individuals with disabilities; bioethics; disability studies; human rights and social justice for underserved populations.

Miller, Shari, Ph.D., University of Maryland: Dr. Miller's research and scholarship focuses on educational innovation with implications for reflective practice; her work is enhanced by a collaborative focus on inter- and trans-disciplinary and interprofessional approaches to education, with implications for expanding the scope of how we conceptualize practice and interprofessional workforce development, as well as how we work toward sustainable pathways for socially just change. Some specific areas include innovation in social work education, professional socialization, theory development, self care, empathy as a skill, orientation, and way of being, and environmental social work.

Miguel Muñoz-Laboy, DrPH, Columbia University: Social determinants of Latinx health, HIV continuity of care, Globalization and migrant health, Co-occurring mental health and substance use disorders, bisexual health research, masculinity and structural determinants of substance misuse, social isolation/loneliness and economic exclusion, medical-legal partnerships, social epidemiology.

### Associate Professors

**Bessaha, Melissa, Ph.D., University of Maryland: Mental health and educational disparities among youth and young adults, Immigration and social determinants of mental health during the transition to adulthood, Influence of social relationships, Higher education equity, Social Work in higher education, Evaluating programs serving transition age youth.**

Fineberg, Iris, Ph.D., Boston University: Palliative and end of life care, oncology, family-oriented health care, interdisciplinary education and teamwork, advance care planning, clinical and research ethics, qualitative research methods, mixed methods, evaluation.

Hammock, Amy, Ph.D., University of Michigan: Intimate partner violence intervention and prevention; Community-based participatory research; Community practice with immigrant populations; Qualitative methods; Feminist theory and practice.

Hayward-Everson, R. Anna, Ph.D., University of Maryland, Baltimore: Child welfare, undocumented immigrant children, family-centered practice, research, program evaluation, environmental social work.

Monahan, Kathleen, DSW, Director of the Family Violence Education and Research Center and Director of the Trauma Specialization, D.S.W., Adelphi University: Sexual abuse; sexual abuse and adult health issues; Intimate Partner Violence (IPV), battered women and Traumatic Brain Injury; domestic violence shelters; disability; aging and trauma; children exposed to domestic violence and siblings.

Morris, Zachary A., Ph.D., University of California, Berkeley: Disability policy; comparative social policy; social isolation; poverty; program evaluation; management and leadership in the nonprofit and public sectors.

### Assistant Professors

**Brock-Petroshius, Kristen, Ph.D., University of California, Los Angeles: Community Organizing & Policy Practice, Racial Justice Policies, Anti-Carceral Social Work, Attitude Change Interventions, Race, Ethnicity, and Politics, Field Experiments.**

Malik, Sana, Ph.D., The John Hopkins University, Bloomberg School of Public Health, Social determinants of health, international public health, health systems strengthening, health disparities among minority, immigrant, and refugee populations, health education & behavior, culturally and religiously tailored programming, maternal & child health and welfare, program design & evaluation.

Torres, Maria, PhD, Brandeis University, Health Services research focused on the behavioral health care treatment system, the impacts of federal and state policies on those seeking behavioral health treatment, the behavioral health care workforce, racial/ethnic disparities in behavioral health treatment, mechanisms to improve quality of behavioral health care treatment, increasing access to quality care for racial/ethnic minorities.

Zhang, Yalu, Ph.D., Columbia University: Aging, Disability, Health Inequity, Social Welfare Policy, Cross-Cultural Comparison.

### Clinical Professors

DeLuca-Acconi, Ph.D., Stony Brook University: School Social Work; School Based Mental Health; Educational Access and Equity; Anxiety in Children and Adolescents; Social Emotional Learning; Human Rights Education and Advocacy; Trauma-Sensitive School Interventions.

Earle, Melissa, Ph.D., City University of New York: Tele-mental health; technology in social work education and practice; online education; trauma; veterans; addiction: gender sensitive responses to co-occurring disorders.

Kardaras, Nicholas, Ph.D., Sofia University: The global mental health crisis: trends, etiology, and treatment; Substance and Behavioral Addiction: causes and treatment; Digital technology and the impacts on mental health; socio-cultural aspects of addiction and mental health; Philosophy/ethics; Meaning, purpose and the modern existential crisis; neuropsychology; young adult mental health; consciousness research.

Morgan, Richard, Ph.D., Fordham University: Child welfare policy and programs; research; social work ethics; organizational theory.

Rabeno, Stephen, Ph.D., Adelphi University: Poverty, homelessness, and the political economy of social welfare. Substance Abuse. Intimate Relationships. Gender Studies.

Velázquez, Suzanne, Ph.D., Stony Brook University: Community Development, service-learning, cultural competency, leadership, transformative learning, higher education policy, organizational culture management, women's life work issues.

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



Sociology Department

**Chairperson**

Tim Liao (631) 632-7755

**Graduate Program Director**

Rebekah Burroway, Ward Melville Social and Behavioral Sciences Building N-419 (631) 632-7700

**Graduate Program Coordinator**

Kelly Haller, Ward Melville Social and Behavioral Sciences Building S-401 (631) 632-7730

**Degrees Awarded**

M.A. in Sociology; Ph.D. in Sociology

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Description of Sociology Department**

The Department of Sociology, in the College of Arts and Sciences, has a nationally ranked graduate program offering both the M.A. and Ph.D. degree.

The Department provides graduate training in sociology that is informed by a global perspective. Whether a sociological question addresses individual-level processes, ideas, or organizations, there are often global influences and implications connected to that phenomenon. Students pursuing an advanced degree in sociology will have opportunities to focus on global sociology and to learn how sociological methods and theories can be applied to the study of global social, cultural, political, and economic processes.

The sociology program grants the doctorate to three to six students per year. Most of these go on to university or college teaching positions or postdoctoral programs at other universities. A few enter government service, business, or applied research.

**Admission to the Ph.D. and M.A. Program in Sociology**

Applicants should specify on the application which degree program they wish to enter. Applicants seeking a Ph.D. degree should apply directly for acceptance to the Ph.D. program. (Applicants need not have an M.A. degree to apply to the Ph.D. program.) For admission to graduate study in sociology, the following, in addition to the minimum Graduate School requirements, are normally required:

A. A bachelor's degree or its equivalent, as attested to by transcripts of previous academic work. Official transcripts are required and must be sent electronically to [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu) or mailed to Stony Brook University, Office of Graduate and Health Sciences Admissions, Health Sciences Tower, Level 2 – Rm. 271, Stony Brook, NY 11794-8276. Unofficial transcripts may be uploaded to the online application by the Official transcripts from international colleges or universities are preferred to be evaluated by World Education Services.

B. Undergraduate statistics course.

C. Undergraduate grade point average of 3.0 or above.

D. If your native or primary language is not English, English proficiency must be established based on the results of the TOEFL exam. A score of 90 is required for admission to the doctoral program and to be eligible for consideration for TA support. The TOEFL is not required for international students who have a degree from an English-speaking school.

E. Three strong recommendations from former

F. Acceptance by both the Department and the Graduate School.

**Facilities of Sociology Department**

The Ward Melville Social and Behavioral Sciences Building is networked by computers to a divisional network, University mainframes, and the Internet. The Department as well as the University provides access to computers and printers as needed. The department also has a Sociology Reading Room.

**Requirements for the M.A. Degree in Sociology**

In addition to the minimum Graduate School requirements, the following are required:

**A. Courses**

Course requirements for an M.A. in sociology include four designated courses, two in sociological theory and two in statistics, and an additional six elective courses totaling thirty credits. Students must achieve a minimum 3.0 grade point average for 30 credits of graduate level courses.

**B. Writing Requirement**

Students are required to write a theoretical/empirical research paper as described in the writing option (Section D, Option 1, Mandatory Theoretical/Empirical Paper) for the Ph.D. program. This paper will constitute an original piece of social science research evaluated formally by two faculty members.

## Requirements for the Ph.D. Degree in Sociology

In addition to the minimum Graduate School requirements, the following are required:

**A. Residence**

Minimum residence is one year of full-time study. Students may be admitted to the Ph.D. program on a part-time basis, but these arrangements usually require that the students appear on campus during certain periods of the normal working day. Full-time study entails 9 graduate credit hours per semester. Since a graduate traineeship is considered part of the academic program, credit hours will be given for teaching or research assistantships as well as supervised teaching. Under specific conditions credit may be given for individual research work outside formal courses but under the supervision of faculty members.

**B. Courses**

Course requirements for a Ph.D. in sociology include five designated courses, two in sociological theory and three in statistics and methods. Of an additional 10 required courses, one must be taken in introduction to global sociology and another, which must provide additional methodological training, can be chosen by the student from a variety of suitable offerings specified by the department. Three of the remaining eight required courses may be taken outside the department, upon written approval from the department's graduate committee. These three courses must be completed with at least a B average.

**C. M.A. Degree**

A student is awarded the M.A. degree as a sign of progress toward the Ph.D. To receive the M.A. a student must complete:

1. Two consecutive semesters of full-time study, achieving a 3.0 grade point average for 30 hours of graduate work.
2. One of the two papers required by the writing option (Section D, Option 1) for the Ph.D. program.

**D. Professional Competence Requirement**

*The Two Papers:* In this option, a student can meet M.A. requirements and proceed to the second half of doctoral work through the submission of two papers written under faculty supervision. These should normally be completed by the end of the third academic year, and each of the two papers is designed to allow students to demonstrate a different competence. Each paper should be more substantial than a seminar paper and less substantial than an M.A. thesis; two different substantive areas must be represented in the papers. The two papers are designed to demonstrate competence in the kinds of skills that students will need in the profession of sociology. One of these papers must be a theoretical/ empirical paper and the second can be either a second theoretical/empirical paper, an analytical review of the literature, or an analytical review of the literature embedded in a grant proposal. In other words, one paper must be theoretical/empirical and the second may be chosen from among the three possible kinds of papers described below.

1. **Mandatory Theoretical/Empirical Paper:** The majority of sociological articles use empirical data to answer theoretical questions. Such questions often arise from previous research. They can also be the result of juxtaposing two or more theories, or finding that a theory could use further development or clarification on a point, and then showing how the proposed development or clarification better explains some specific aspect or aspects of social reality. The empirical data explained or clarified by the theory or theories can take a number of forms. It can be the product of ethnographies, comparative and/or historical research, social surveys, small group or experimental laboratory research, content analyses, etc. The important point is to combine theory and empirical research.
2. **Analytical review of the literature:** This paper is to be an assessment of the state of the art in some substantive area of sociology. This paper can take various forms. One possibility is a review essay and examples of this form can be found in the *Annual Review of Sociology*, the *Psychological Bulletin*, or the *Journal of Economic Literature*. A second approach could be a review of a field that could serve as the substantive underpinning for a graduate seminar.
3. **Analytical review of the literature embedded in a grant proposal:** This is to be a major grant proposal. It should normally include a review of the relevant literature, statements of the theoretical framework being used, the hypotheses to be tested, and the methodology to be employed in the project. The proposal does not have to be submitted to a funding agency, but all the materials required by a particular agency or foundation must be completed and, in addition, the project must receive CORIHS (Committee on Research Involving Human Subjects) approval, if human subjects are involved. This proposal must also be of substantial size. A very short proposal of just a few pages is not adequate even if that is acceptable to some particular agency.

Upon successful completion of all of the above requirements, along with completion of 30 hours of graduate credit, the student may proceed to the advanced stage of his or her doctoral work.

**E. Teaching Requirement**

Graduate training includes supervised teaching experience. In the fall semester of their second year, students enroll in a teaching practicum to prepare them to teach their own course, under supervision, the following summer or in the Fall semester of their third year.

**F. Preliminary Examination**

This takes the form of an oral examination in the student's specialty area to be given only after all the above requirements have been met. It is designed to appraise the depth of knowledge in the broad area from which the student has selected a dissertation topic. The content of this area is to be defined individually for each student. It consists of a generally recognized, broad subfield and must deal with related materials from other subfields.

**G. Advancement to Candidacy**

The department's recommendation that a student be advanced to candidacy for the Ph.D. is based on passing the preliminary examination and approval of a dissertation proposal.

**H. Doctoral Dissertation**

This must be an independent piece of research and scholarship representing an original contribution, the results of which are worthy of publication. Upon oral defense and acceptance of the dissertation, the department will recommend to the dean of the Graduate School that the student be awarded the Ph.D. degree.

The progress of every student will be evaluated by the department at the end of the first full year of graduate study. Those whose performance and ability are clearly below the standard established by the department for the Ph.D. will be asked to withdraw before they have made a costly investment of time. If more than seven years have elapsed since the student completed 24 hours of graduate courses in the department, the student's Ph.D. candidacy will lapse. After the first year, a progressively larger proportion of a student's time will be spent as a participant in research activities, under the supervision of faculty members. Ordinarily, a student with adequate preparation and involved in full-time study should be able to earn a Ph.D. within five to six years from the start of graduate work.

Students who arrive with an M.A. degree in sociology or with three semesters of work in the discipline will be expected to complete some of the requirements above more quickly than indicated.

**Faculty of Sociology Department****Distinguished Professors**

Kimmel, Michael, retired, Ph.D., 1981, University of California, Berkeley: Gender and Sex; Masculinity Studies; Comparative and historical development; social movements.

**Distinguished Service Professors**

Arjomand, Said, Emeritus, Ph.D., 1980, University of Chicago: Comparative; historical; political; religion.

**Distinguished Teaching Professor**

Schwartz, Michael, Emeritus, Ph.D., 1971, Harvard University: Methodology; historical; political economy; business structure; social movements.

Tanur, Judith, Emerita, Ph.D., 1972, Stony Brook University: Statistics; methodology; survey research; social psychology.

**Professors**

Barthel-Bouchier, Diane, Emerita, Ph.D., 1977, Harvard University: Culture; community; historical; gender.

Chase, Ivan, Emeritus, Ph.D., 1972, Harvard University: Social organization; behavioral processes in small groups; resource allocation; collective action; cross-species comparisons.

Fallon, Kathleen, Ph.D., 2002, Indiana University: Global sociology; gender and development; political sociology; social movements; health.

Feldman, Kenneth, Ph.D., 1965, University of Michigan: Social psychology; higher education; socialization. Fleming, Crystal, Ph.D., 2011, Harvard University: Cultural sociology; race; racial and ethnic relations.

Levy, Daniel, Co-Chair, Ph.D., 1999, Columbia University: Political sociology; comparative/historical sociology; global sociology; memory studies.

Oyewumi, Oyeronke, Ph.D., 1993, University of California, Berkeley: Gender; race; family; culture; knowledge; social inequalities; globalization.

Roxborough, Ian, Emeritus, Ph.D., 1977, University of Wisconsin-Madison: War and military; historical; revolutions; economic.

Rule, James B., Emeritus, Ph.D., 1969, Harvard University: Theory; political; technology.

Shandra, John, Co-Chair, Ph.D., 2005, Boston College: Quantitative methods; environmental sociology; political economy.

Tyree, Andrea, Emerita, Ph.D., 1968, University of Chicago: Demography; social stratification; ethnicity; marital violence.

**Associate Professors**

Burroway, Rebekah, Graduate Program Director, Ph.D., 2011, Duke University: Global health; women's rights and empowerment; inequality; international development.

Collver, O. Andrew, Emeritus, Ph.D., 1964, University of California, Berkeley: Human ecology; urban community; demography.

Heerwig, Jennifer, Ph.D., 2013, New York University: Political sociology; elites; public opinion; quantitative methods; computational sociology. Jones, Jason, Ph.D., 2011, University of California, San Diego: Computational social science; social networks; political behavior.

Moran, Timothy, Ph.D., 2000, University of Maryland: Social inequality; global political economy; contentious collective action; quantitative methods.

Shandra, Carrie Ph.D., 2009, Brown University: Disabilities; gender; work and occupations; families and households; quantitative methodology

Shorette, Kristen, Ph.D., 2013, University of California - Irvine: Global and transnational sociology; environmental sociology; economic sociology; health; human rights; culture; political economy.

Wilson, Nicholas Hoover, Ph.D., 2012, University of California - Berkeley: Theory; comparative and historical methods; culture; empire and imperialism; sociology of morality; sociology of knowledge.

### **Assistant Professors**

Nicholas Bascañan-Wiley, Ph.D., 2024, Northwestern University: Global migration; Middle East and North Africa; critical qualitative inquiry.

Zhang, Yongjun, Ph.D., 2020, University of Arizona: Political Sociology, organizational behavior, social networks, computational social science.

### **Advanced Senior Lecturer**

Marrone, Catherine, Ph.D., 1995, Stony Brook University: Medical sociology; gender; work and professions; sociology of human reproduction; sociology of aging.

### **Affiliated Appointment**

Gootenberg, Paul, E, Professor Ph.D., 1985, University of Chicago: Religion; colonial and modern, Andes, comparative economic.

Nancy Hiemstra, Associate Professor, Ph.D., 2011, Maxwell School, Syracuse University: Global migration, immigration enforcement practices, detention and deportation, homeland security, borders, gender, race, Latin America, feminist epistemology and methodologies.

Rosenthal, Naomi, Visiting Professor, Ph.D., 1978, Stony Brook University: Social movements, gender, historical sociology, culture.

### **Research Faculty**

Schwartz, Joseph, Professor, Ph.D., 1978, Harvard University: Quantitative methods; social stratification; sociology of work and occupations; social networks.

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

**Please refer to the Linguistics Department Bulletin for more information.**

**Please refer to the Linguistics Department Bulletin for more information.**

**Please refer to the Linguistics Department Bulletin for more information.**

**Please refer to the Linguistics Department Bulletin for more information.**

**Please refer to the Linguistics Department Bulletin for more information.**

**Please refer to the Linguistics Department Bulletin for more information.**

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

Technology and Society

[www.stonybrook.edu/est](http://www.stonybrook.edu/est)

### Interim Chairperson

Klaus Mueller, 1209 Computer Science Building, (631) 632-7924, [Klaus.Mueller@stonybrook.edu](mailto:Klaus.Mueller@stonybrook.edu)

### Graduate Program Director

Lori Scarlatos, 1431 Computer Science Building, (631) 632-8761, [lori.scarlatos@stonybrook.edu](mailto:lori.scarlatos@stonybrook.edu)

### Graduate Program Coordinator

Marypat Taveras, 1426 Computer Science (631) 632-8762, [Marypat.Taveras@stonybrook.edu](mailto:Marypat.Taveras@stonybrook.edu)

### Advanced Graduate Certificates Awarded

Advanced Graduate Certificate in Data and Computational Science; Advanced Graduate Certificate in Industrial Management

### Degrees Awarded

M.S. in Technological Systems Management; Ph.D. in Technology, Policy, and Innovation

Technology and Society

Technology defines 21<sup>st</sup> century life and work. Understanding general and specific characteristics, capabilities, and limitations of modern technologies is essential for those who need to use, manage and create them. Leading teams and otherwise interacting in modern scientific, engineering, and educational settings requires skills specific to certain needs. The Department of Technology and Society, located within the College of Engineering and Applied Sciences, was created to help address these diverse needs.

The **Master's Degree in Technological Systems Management** offers three degree concentrations: Technology Management, Resilience and Sustainability, and Educational Technology. This degree is well-suited for recent baccalaureate graduates; however, those with some practical experience in the workplace who are seeking to gain pertinent management and necessary leadership skills to advance their careers will find our courses especially appropriate, and will appreciate that our face-to-face classes are offered in the evenings to accommodate work schedules. It is also possible to complete our degree programs entirely on-line, through a combination of evening synchronous classes and asynchronous classes for those who wish to set their own schedule. Course offerings are scheduled so that it is possible to complete the degree in three full-time (9 credit) semesters if an additional course is taken over the summer. It is also feasible to complete the degree on a part-time basis.

Each specialization requires 30 credits (10 courses) of classwork plus a Master's project. The coursework includes four required courses shared across the concentrations. The Master's project is completed under the supervision of a faculty member. It is typically addressed in three ways: 1) a literature search on a technical issue in the concentration area; 2) a project that combines some form of technical training from two or more classes in the program; or 3) by addressing a professional problem where there is not sufficient time or available effort to address in the working environment and which requires additional technical information.

Students completing the master's degree program will find that they can:

- use multiple quantitative decision-making techniques and to analyze the role of bias in judgements.
- manage technical and social aspects to explain complicated phenomena and demonstrate mastery of socio-technological systems.
- evaluate and criticize the ethical decisions encountered in the engineering design process.
- identify, explain, and apply basic concepts of Science, Technology, Society research.
- demonstrate concepts, analytical tools and practical skills for the purpose of managing technologies.

**The Technology, Policy, and Innovation (TPI) Ph.D. program** has a four-part mission:

- To develop a cadre of scholars who will be engines of national leadership in charting and gauging the future course of technologies;
- To carry out policy and design/planning research in intersecting socio-technological areas: energy and environmental systems; and engineering and technology workforce policy;
- To establish a new model for doctoral education that promotes highly intensive collaborations and uses advanced educational technologies in a fertile, diverse, globally networked laboratory environment that transcends disciplinary boundaries; and,
- To serve as an exemplary resource for regional and national industry and government, as well as for schools, colleges/universities, and other educational institutions in both implementing technological innovation and carrying out policy studies.

Students in the **Technology, Policy, and Innovation (TPI) Ph.D. program** will work in one or more areas of faculty research strength. In addition to drawing on the expertise of faculty in the Department of Technology and Society, the Ph.D. program is supported by more than 10 affiliated faculty members from throughout the Stony Brook campus.

The **Advanced Graduate Certificate in Computational Science** teaches students how to evaluate data trends, make predictions and solve problems using mathematics, computer science and machine learning. Students must be enrolled in the master's program before applying to the Advanced Graduate Certificate in Computational Science. Credits earned in the certificate can be counted both for the certificate and the master's



their companies, understand their business processes, reduce waste and inefficiencies, and improve the bottom line of their companies. Students can earn an Advanced Graduate Certificate in Industrial Management without enrolling in the master's program. However, up to 12 credits earned in the AGC can be applied towards the master's degree.

#### Admission Requirements for the Department of Technology and Society

Admission to the M.S. and Ph.D. programs is handled separately by the Departmental admissions committee. The requirements for admission to graduate study in this department include:

1. A bachelor's degree in engineering, natural sciences, social sciences, mathematics, or a closely related area from an accredited college or university. For admission to the M.S., students will need to have completed prerequisite courses of one year of calculus (MAT 131 and 132 or equivalent).
2. A minimum undergraduate grade point average of 3.00.
3. Three letters of recommendation.
4. Acceptance by the Department of Technology and Society and the Graduate School.
5. If your native or primary language is not English, a test to measure your English proficiency is required. The department and Graduate School accept TOEFL and IELTS examination scores. English proficiency requirements for the master's and the Ph.D. programs are different. For the master's program, the minimum score for TOEFL is 85 and an overall score of 6.5 with no subsection below 6 for IELTS. For the Ph.D. program, the minimum score for TOEFL is 90 and the overall score of 7.5 with no subsection below 6.5 for IELTS.
6. A Statement of Purpose describing the applicant's relevant past experience and immediate and long-term goals. For the **master's** program, your statement of purpose must include your concentration: Technology Management, Resilience and Sustainability, or Educational Technology. For the Ph.D. program, the statement of purpose should describe how the type of research that students expect to conduct while in the program relates to one of the department's research areas. All admission material should be entered into the graduate school on-line application system. In unusual cases, official transcripts, recommendation letters can be mailed to Office of Graduate and Health Sciences Admissions, Stony Brook University, Health Sciences Tower, Level 2, Room 271, Stony Brook, NY 11794-8276, Email: [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu), [stonybrook.edu/graduate-admissions](http://stonybrook.edu/graduate-admissions), **Official E-Transcripts: email to [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu)**
7. In special cases, applicants who do not satisfy requirement A or B may be admitted on a conditional basis and may be subject to additional course requirements. Appropriate courses taken in non-matriculated status may be applied towards the M.S. degree in Technological Systems Management and the Ph.D. degree in Technology, Policy and Innovation; however, no more than 12 credits taken in non-matriculated status can be applied to the credit requirements for the M.S. and Ph.D. degrees.

For admission to the Advanced Graduate Certificate program, students must have a bachelor's degree and an undergraduate GPA of at least 3.0. Students with lower averages may be admitted in non-matriculated status that may be changed upon earning six or more graduate credits applicable to the certificate with a GPA of 3.0 or higher.

Credits for certificate program courses may be applied to requirements for the M.S. degree in Technological Systems Management, subject to Graduate School rules and limitations; however, no more than 12 credits may be transferred.

#### Facilities of the Department of Technology and Society

DTS has an expanse of contiguous office space on the first floor of the Computer Science Building, where professors and staff maintain offices, PhD student offices are housed, and department conference spaces are found. There, the department has a computer lab with approximately 15 up-to-date desktop computers that are available to all current DTS students; and there is also a comfortable collaboration space for students and faculty. Scanners and printers are available in the lab, as well as through other department offices. Ph.D. students are provided with shared office space (desks, bookshelves, filing cabinets), mail boxes, and full access to DTS electronics (such as laptops). Individual department faculty and researchers maintain access to a variety of research environments to support their work, and students working with them can also have access to these facilities.

#### Requirements for the M.S. Degree in Technological Systems Management

Typically, students in the master's program choose one of the three concentrations and take all 15 elective courses within the selected concentration. Students are required to complete five courses (EMP 501, EST 502, EST 581, EST 582, and EST 590) for 15 credits, 15 additional elective credits, and a master's project. Suggested additional credits for each of the concentrations and information about how to address the master's project are indicated below. Consult with the Graduate Program Director or Graduate Program Coordinator for more guidance.

**Required Courses** (15 credits): EMP 501, EST 502, EST 581, EST 582, and EST 590

Note: Entering students are presumed to have essential communications, computer, and mathematical skills. Otherwise, prerequisite study in these areas will be required.

#### Elective Courses (15 credits)

##### Educational Computing Concentration

Elective Courses: EST 524, EST 565, EST 570, EST 571, EST 573, EST 574, EST 579, EST 599, Masters Project.



**Technology Management Concentration**

Elective Courses: EMP 502, EMP 504, EMP 506, EMP 517, EMP 518, EMP 532, EST 519, EST 569, EST 599, EST 605, Masters Project

**Resilience and Sustainability Concentration**

Elective Courses: EST 535, EST 536, EST 558, EST 559, EST 569, EST 583, EST 592, EST 593, EST 597, EST 599, EST 603, EST 605, EST 694, Masters Project

**Master's Project**

Students typically address the Master's project in one of three ways:

- 1) a literature search on a technical issue in the concentration area.
- 2) a project that combines some form of technical training from two or more classes in the program.
- 3) by addressing a professional problem where there is not sufficient time or available effort to address in the working environment and which requires additional technical information.

**Requirements for the Advanced Graduate Certificate in Data and Computational Science**

- 17 credits, courses can be double counted toward the certificate and the student's major
- Three core courses: (1) JRN 501: Distilling Your Message (2); JRN 503 Improvisation for Scientists (3); DCS 521 Introduction to Computational and Data Science (*Spring - Students are strongly encouraged to take DCS 521 in their first year of study*)
- Students are expected to take at least 3 credits in AMS and 3 credits in CS from the course catalog (cdcse-course-catalog-final.docx).  
 ----- CS students: at least 3 credits in AMS (not crosslisted with CS) and 3 credits in a non-CS crosslisted course in any department  
 ----- AMS students: at least 3 credits in CS (not crosslisted with AMS) and 3 credits in a non-AMS crosslisted course in any department
- Up to 6 credits of courses that are listed in the course catalog from the student's home department can count toward the certificate
- CDCS Course Catalog.pdf

**Requirements for the Advanced Graduate Certificate in Industrial Management**

\*the department is in the process of proposing course updates to the Advanced Graduate Certificate in Industrial Management. Until the changes have been approved by our Graduate School, SUNY Central and New York State Education, we are allowing select course substitutions.

A total of 18 credits (three core courses, two required courses, and one elective course) are required

**Core Courses**

EMP 502

EMP 506

Department approved course substitute for EMP 509

**Required Courses**

Two of the five courses must be taken.

EMP 501, EMP 503, EMP 504, EMP 511, EMP 517

**Elective Course**

Select one of the following:

EMP 501, EMP 503, EMP 504, EMP 511, EMP 517, EST 520, EST 530, EST 581, EST 582

**Requirements for the Ph.D. Degree in Technology, Policy, and Innovation**

Please refer to our web site for the application deadline: <https://www.stonybrook.edu/commcms/est/phd/admission.php>. Applications are only accepted for the fall semester.

**A. Residence**

The student must complete two consecutive semesters of graduate study. For full time students, take 9 credits for two consecutive semesters including at least one face to face course and attending department lectures and events.. For part students, for two consecutive semesters, taking six credit hours per semester with at least one face to face class per semester and attending Department events.

**B. Qualifying Examination**

The qualifying examinations must be taken by all students, regardless of whether they enter the program holding a master's degree or a bachelor's degree only. Full time students must complete department exams by the end of Year 4. Part time students must complete department exams by the end of Year 5. Failure to complete these timelines could result in students being placed on academic probation.

. The qualifying exam has two parts: the Part A examination and the Part B examination.

**Part A Examination:** The student conducts an original research project, typically starting in the first semester in the program, and presents the results to the department, typically during the fourth semester. The purpose of this is to ascertain the student's preparation to conduct independent original research in a TPI area.

The student is expected to conduct an independent research project under the guidance of a faculty advisor, and present the results. We expect that the quality of the methodology and results should be sufficient for a poster presentation at a leading academic conference.

The Part A exam may be presented at any time that is convenient for the student and the student's Part A committee. For full-time students, this typically should occur sometime during the 4th semester; part-time students may take the exam up to one year later. The student's advisor and the student consult to make a recommendation to the Chair of the Department regarding the composition of the Part A Committee. Typically, the student's Part A Committee will be comprised of three faculty members, and include at least one faculty member from outside of the Department of Technology and Society. The student's advisor does not serve on the student's Part A committee.

The Part A committee will evaluate the exam in terms of its three components:

1. Written report – typically, 15-30 pages, and, typically, 50-100 citations. The report must a) identify a research question of interest to some research community; b) provide an overview of related background research; c) describe a reasonable approach to addressing the research question; and d) present the results of the research project.
2. Presentation - approximately 45 minutes. The presentation must a) provide a motivation for conducting this line of research; b) summarize the background material, emphasizing only the most important related work; c) give an overview of the methodology, emphasizing why this approach was taken; and d) give results.
3. Questions - posed by members of the committee following the presentation. Questions may be related to any aspect of the presentation or the written report.

The Part A examination will be graded on the following basis: Pass; Pass with Conditions; and Fail. A student who receives a Pass with Conditions must address the conditions by the end of the following semester or the Pass with Conditions will convert to Fail. A student who does not pass the Part A examination will be dismissed from the program.

**Part B Examination:** The student achieves an average GPA of 3.5 or higher on three social sciences-related courses:

Research Methods I – from a social sciences department

Research Methods II – from a social sciences department

EST 610 (Advanced Statistics)—within Department of Technology and Society.

A student who does not achieve the 3.5 GPA in the course work shall be required to take a statistics examination prepared by department faculty. If the student does not pass this written examination, one retake will be allowed. A student who does not pass the Part B examination will be dismissed from the program.

### C. Course Requirements

1. For students who entered the Ph.D. Program prior to Fall, 2014, course requirements are as follows:

EST 600 (Technology and Policy);

EST 610 (Data Analysis, or equivalent approved course);

EST 620 (Decision Making);

Three courses from Social Sciences Departments (Research Method I, Research Methods II, and Advanced Statistics);

Fifteen (15) credits of technical electives (foundation for technical/technology dimension of planned research).

2. For students who entered the Ph.D. program in Fall, 2014 or later, course requirements are as follows:

EST 600 (Technology and Policy);

EST 610 Revised (Advanced Statistics);

EST 625 (Advanced Technology and Policy);

Two (2) courses from social sciences departments (Research Methods I, and Research Methods II);

Fifteen (15) credits of technical electives (foundation for technical/technology dimension of planned research).

Full time students must complete core coursework by the end of Year 3. Part time students must complete core coursework by the end of Year 4. Failure to complete this timeline could result in students being placed on academic probation.

The following courses have been designated as “highly recommended”, and advisors ensure that nearly all students take the courses:

EST 605, EST 606, EST 692 (Research Seminar). For students in the energy area, EST 601 is highly recommended.

In addition to regular course requirements, University policy requires that all doctoral students participate in an appropriately structured teaching practicum. This can be accomplished with a Practicum in Teaching course (EST 698), in conjunction with T.A. responsibilities.

#### **D. Thesis Proposal and Preliminary Examination**

Students who pass the qualifying examination are expected to develop a thesis proposal within one semester for full-time students, and two semesters for part-time students. This thesis proposal must then be presented and defended in an oral preliminary examination. Failure to fulfill this requirement within 18 months of passing the qualifying examination, and without a formal extension, may be considered evidence of unsatisfactory progress toward the Ph.D. degree.

The major requirements of the thesis proposal are as follows: (1) the student must be thoroughly familiar with the background and current status of the intended research area; (2) the student must have clear and well-defined plans for pursuing the research objectives; and (3) the student must offer evidence of progress in achieving these objectives.

The student will present the thesis proposal to the thesis committee in a seminar presentation. It is limited to members of the committee. The committee for the student's preliminary examination, dissertation and defense will include at least one faculty member who does not have a primary or joint appointment in Department of Technology and Society. Students will be strongly encouraged to have at least one faculty member from another university on their committee. As part of the preliminary examination, faculty members are free to question the student on any topics they feel are in any way relevant to the student's objectives and career preparation. Most questions, however, will be directed toward verifying the student's grasp of the intended specialty in depth. The student will be expected to show complete familiarity with the current and past literature of this area.

The findings of the committee will be communicated to the student as soon as possible and to the Graduate School within one week of the presentation of the proposal. A student who does not pass the preliminary examination on the first attempt will be given a second chance. If the preliminary is failed on the second attempt, the student will be dismissed from the program.

Having passed the preliminary examination, the student is advanced to candidacy. This status, called G5, is conferred by the Dean of the Graduate School upon recommendation of the Department. Note that unlike the change from G3 to G4, the change from G4 to G5 is not automatic—the student must request to be advanced to candidacy by notifying the Technology and Society Graduate Program Coordinator. Students must advance to candidacy at least one year before defending their dissertations. The Graduate School requires G5 students to register for nine credits, which can be research or other graduate courses relevant to their dissertation with permission from the Graduate Program Director and the Graduate School. Courses outside of the major require the approval of the dissertation advisor and Graduate Program Director. Failure to complete the preliminary examination within the specified timeframe and obtain the G5 status is considered evidence of unsatisfactory progress.

#### **E. Dissertation**

An important requirement of the Ph.D. program is the completion of a dissertation which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate reputable scholarly journals.

#### **F. Approval and Defense of Dissertation**

The dissertation must be orally defended before a dissertation examination committee, and the candidate must obtain approval of the dissertation from this committee. The oral defense of the dissertation is open to all interested faculty members and graduate students. The final draft of the dissertation must be submitted to the committee no later than three weeks prior to the date of the defense.

#### **G. Satisfactory Progress and Time Limit**

Students are expected to finish all the requirements, including thesis research and defense, in four to five full-time-equivalent years. A student who does not meet the target dates for the Qualifying Examination, Thesis Proposal, and Preliminary Examination, or who does not make satisfactory progress toward completing thesis research, may lose financial support and/or be placed on academic probation. The candidate must satisfy all requirements for the Ph.D. degree within seven years after completing 24 credit hours of graduate courses in the Department of Technology and Society at Stony Brook. In rare instances, the Dean of the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the Department's Graduate Program Director. A petition for extension must be submitted before the time limit has been exceeded. The Dean or the Department may require evidence that the student is still properly prepared for the completion of work.

#### **H. Part-Time Students**

Students admitted into the Ph.D. program for part-time study are bound by all the rules set out henceforth. In particular, part-time students should adhere to the schedule for the Qualifying Examination, Thesis Proposal, and Preliminary Examination unless a different schedule has been approved in writing by the Graduate Program Director. Students failing to make sufficient progress towards completing their degree may be placed on academic probation.

#### **Faculty of the Department of Technology and Society**

##### *Distinguished Service Professor*

Paldy, Lester G., M.S., 1966, Hofstra University: Nuclear arms control; science policy.

##### *Distinguished Teaching Professor*

Liao, Thomas T., Emeritus, Ed.D., 1971, Columbia University: Computers in education; science and technology education.

**Professors**

Mueller, Klaus; Professor, Ph.D., 1998, The Ohio State University: Visual analytics, explainable machine learning and AI, algorithmic fairness and transparency, data science and computational and medical imaging.

Pittinsky, Todd L; Professor, Ph.D., 2001, Harvard University: Models intergroup relations in their ecosystems of society, technology, and policy.

**Associate Professors**

Hewitt, Elizabeth, L, Associate Professor, Ph.D., 2015, Rutgers University, Building occupant behavior; social science and behavioral energy research; organizational energy issues; green building design and technology; environmental economics

Scarlato, Lori L., Associate Professor, Ph.D. 1993, Stony Brook University: Educational technology; tangible, physical, multi-modal, and collaborative human- computer interfaces; serious games; computer graphics; multimedia.

Tonjes, David J., Research Associate Professor, Ph.D., 1998, Stony Brook University: Environmental management (waste management, alternative energy sources), contamination (groundwater, pesticides), and monitoring (groundwater, surface water, estuaries); public policy and communication (risk assessment, environmental impact analyses, environmental justice).

Woodson, Thomas, Associate Professor, Ph.D., 2014, Georgia Institute of Technology, Innovation Systems, bibliometrics, science and technology policy, international development

Number of teaching, graduate, and research assistants, Fall 2022: 13

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

Technology and Society

[www.stonybrook.edu/est](http://www.stonybrook.edu/est)

### Interim Chairperson

Klaus Mueller, 1209 Computer Science Building, (631) 632-7924, [Klaus.Mueller@stonybrook.edu](mailto:Klaus.Mueller@stonybrook.edu)

### Graduate Program Director

Lori Scarlatos, 1431 Computer Science Building, (631) 632-8761, [lori.scarlatos@stonybrook.edu](mailto:lori.scarlatos@stonybrook.edu)

### Graduate Program Coordinator

Marypat Taveras, 1426 Computer Science (631) 632-8762, [Marypat.Taveras@stonybrook.edu](mailto:Marypat.Taveras@stonybrook.edu)

### Advanced Graduate Certificates Awarded

Advanced Graduate Certificate in Data and Computational Science; Advanced Graduate Certificate in Industrial Management

### Degrees Awarded

M.S. in Technological Systems Management; Ph.D. in Technology, Policy, and Innovation

Technology and Society

Technology defines 21<sup>st</sup> century life and work. Understanding general and specific characteristics, capabilities, and limitations of modern technologies is essential for those who need to use, manage and create them. Leading teams and otherwise interacting in modern scientific, engineering, and educational settings requires skills specific to certain needs. The Department of Technology and Society, located within the College of Engineering and Applied Sciences, was created to help address these diverse needs.

The **Master's Degree in Technological Systems Management** offers three degree concentrations: Technology Management, Resilience and Sustainability, and Educational Technology. This degree is well-suited for recent baccalaureate graduates; however, those with some practical experience in the workplace who are seeking to gain pertinent management and necessary leadership skills to advance their careers will find our courses especially appropriate, and will appreciate that our face-to-face classes are offered in the evenings to accommodate work schedules. It is also possible to complete our degree programs entirely on-line, through a combination of evening synchronous classes and asynchronous classes for those who wish to set their own schedule. Course offerings are scheduled so that it is possible to complete the degree in three full-time (9 credit) semesters if an additional course is taken over the summer. It is also feasible to complete the degree on a part-time basis.

Each specialization requires 30 credits (10 courses) of classwork plus a Master's project. The coursework includes four required courses shared across the concentrations. The Master's project is completed under the supervision of a faculty member. It is typically addressed in three ways: 1) a literature search on a technical issue in the concentration area; 2) a project that combines some form of technical training from two or more classes in the program; or 3) by addressing a professional problem where there is not sufficient time or available effort to address in the working environment and which requires additional technical information.

Students completing the master's degree program will find that they can:

- use multiple quantitative decision-making techniques and to analyze the role of bias in judgements.
- manage technical and social aspects to explain complicated phenomena and demonstrate mastery of socio-technological systems.
- evaluate and criticize the ethical decisions encountered in the engineering design process.
- identify, explain, and apply basic concepts of Science, Technology, Society research.
- demonstrate concepts, analytical tools and practical skills for the purpose of managing technologies.

**The Technology, Policy, and Innovation (TPI) Ph.D. program** has a four-part mission:

- To develop a cadre of scholars who will be engines of national leadership in charting and gauging the future course of technologies;
- To carry out policy and design/planning research in intersecting socio-technological areas: energy and environmental systems; and engineering and technology workforce policy;
- To establish a new model for doctoral education that promotes highly intensive collaborations and uses advanced educational technologies in a fertile, diverse, globally networked laboratory environment that transcends disciplinary boundaries; and,
- To serve as an exemplary resource for regional and national industry and government, as well as for schools, colleges/universities, and other educational institutions in both implementing technological innovation and carrying out policy studies.

Students in the **Technology, Policy, and Innovation (TPI) Ph.D. program** will work in one or more areas of faculty research strength. In addition to drawing on the expertise of faculty in the Department of Technology and Society, the Ph.D. program is supported by more than 10 affiliated faculty members from throughout the Stony Brook campus.

The **Advanced Graduate Certificate in Computational Science** teaches students how to evaluate data trends, make predictions and solve problems using mathematics, computer science and machine learning. Students must be enrolled in the master's program before applying to the Advanced Graduate Certificate in Computational Science. Credits earned in the certificate can be counted both for the certificate and the master's

---

degree. The **Advanced Graduate Certificate in Industrial Management** helps managers develop their abilities to use advanced technologies in

their companies, understand their business processes, reduce waste and inefficiencies, and improve the bottom line of their companies. Students can earn an Advanced Graduate Certificate in Industrial Management without enrolling in the master's program. However, up to 12 credits earned in the AGC can be applied towards the master's degree.

#### Admission Requirements for the Department of Technology and Society

Admission to the M.S. and Ph.D. programs is handled separately by the Departmental admissions committee. The requirements for admission to graduate study in this department include:

1. A bachelor's degree in engineering, natural sciences, social sciences, mathematics, or a closely related area from an accredited college or university. For admission to the M.S., students will need to have completed prerequisite courses of one year of calculus (MAT 131 and 132 or equivalent).
2. A minimum undergraduate grade point average of 3.00.
3. Three letters of recommendation.
4. Acceptance by the Department of Technology and Society and the Graduate School.
5. If your native or primary language is not English, a test to measure your English proficiency is required. The department and Graduate School accept TOEFL and IELTS examination scores. English proficiency requirements for the master's and the Ph.D. programs are different. For the master's program, the minimum score for TOEFL is 85 and an overall score of 6.5 with no subsection below 6 for IELTS. For the Ph.D. program, the minimum score for TOEFL is 90 and the overall score of 7.5 with no subsection below 6.5 for IELTS.
6. A Statement of Purpose describing the applicant's relevant past experience and immediate and long-term goals. For the **master's** program, your statement of purpose must include your concentration: Technology Management, Resilience and Sustainability, or Educational Technology. For the Ph.D. program, the statement of purpose should describe how the type of research that students expect to conduct while in the program relates to one of the department's research areas. All admission material should be entered into the graduate School on-line application system. In unusual cases, official transcripts, recommendation letters can be mailed to Office of Graduate and Health Sciences Admissions, Stony Brook University, Health Sciences Tower, Level 2, Room 271, Stony Brook, NY 11794-8276, Email: [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu), [stonybrook.edu/graduate-admissions](http://stonybrook.edu/graduate-admissions), **Official E-Transcripts: email to [gradadmissions@stonybrook.edu](mailto:gradadmissions@stonybrook.edu)**
7. In special cases, applicants who do not satisfy requirement A or B may be admitted on a conditional basis and may be subject to additional course requirements. Appropriate courses taken in non-matriculated status may be applied towards the M.S. degree in Technological Systems Management and the Ph.D. degree in Technology, Policy and Innovation; however, no more than 12 credits taken in non-matriculated status can be applied to the credit requirements for the M.S. and Ph.D. degrees.

For admission to the Advanced Graduate Certificate program, students must have a bachelor's degree and an undergraduate GPA of at least 3.0. Students with lower averages may be admitted in non-matriculated status that may be changed upon earning six or more graduate credits applicable to the certificate with a GPA of 3.0 or higher.

Credits for certificate program courses may be applied to requirements for the M.S. degree in Technological Systems Management, subject to Graduate School rules and limitations; however, no more than 12 credits may be transferred.

#### Facilities of the Department of Technology and Society

DTS has an expanse of contiguous office space on the first floor of the Computer Science Building, where professors and staff maintain offices, PhD student offices are housed, and department conference spaces are found. There, the department has a computer lab with approximately 15 up-to-date desktop computers that are available to all current DTS students; and there is also a comfortable collaboration space for students and faculty. Scanners and printers are available in the lab, as well as through other department offices. Ph.D. students are provided with shared office space (desks, bookshelves, filing cabinets), mail boxes, and full access to DTS electronics (such as laptops). Individual department faculty and researchers maintain access to a variety of research environments to support their work, and students working with them can also have access to these facilities.

#### Requirements for the M.S. Degree in Technological Systems Management

Typically, students in the master's program choose one of the three concentrations and take all 15 elective courses within the selected concentration. Students are required to complete five courses (EMP 501, EST 502, EST 581, EST 582, and EST 590) for 15 credits, 15 additional elective credits, and a master's project. Suggested additional credits for each of the concentrations and information about how to address the master's project are indicated below. Consult with the Graduate Program Director or Graduate Program Coordinator for more guidance.

**Required Courses** (15 credits): EMP 501, EST 502, EST 581, EST 582, and EST 590

Note: Entering students are presumed to have essential communications, computer, and mathematical skills. Otherwise, prerequisite study in these areas will be required.

#### Elective Courses (15 credits)

##### Educational Computing Concentration

Elective Courses: EST 524, EST 565, EST 570, EST 571, EST 573, EST 574, EST 579, EST 599, Masters Project.

**Technology Management Concentration**

Elective Courses: EMP 502, EMP 504, EMP 506, EMP 517, EMP 518, EMP 532, EST 519, EST 569, EST 599, EST 605, Masters Project

**Resilience and Sustainability Concentration**

Elective Courses: EST 535, EST 536, EST 558, EST 559, EST 569, EST 583, EST 592, EST 593, EST 597, EST 599, EST 603, EST 605, EST 694, Masters Project

**Master's Project**

Students typically address the Master's project in one of three ways:

- 1) a literature search on a technical issue in the concentration area.
- 2) a project that combines some form of technical training from two or more classes in the program.
- 3) by addressing a professional problem where there is not sufficient time or available effort to address in the working environment and which requires additional technical information.

**Requirements for the Advanced Graduate Certificate in Data and Computational Science**

- 17 credits, courses can be double counted toward the certificate and the student's major
- Three core courses: (1) JRN 501: Distilling Your Message (2); JRN 503 Improvisation for Scientists (3); DCS 521 Introduction to Computational and Data Science (*Spring - Students are strongly encouraged to take DCS 521 in their first year of study*)
- Students are expected to take at least 3 credits in AMS and 3 credits in CS from the course catalog (cdcse-course-catalog-final.docx).  
 ----- CS students: at least 3 credits in AMS (not crosslisted with CS) and 3 credits in a non-CS crosslisted course in any department  
 ----- AMS students: at least 3 credits in CS (not crosslisted with AMS) and 3 credits in a non-AMS crosslisted course in any department
- Up to 6 credits of courses that are listed in the course catalog from the student's home department can count toward the certificate
- CDCS Course Catalog.pdf

**Requirements for the Advanced Graduate Certificate in Industrial Management**

\*the department is in the process of proposing course updates to the Advanced Graduate Certificate in Industrial Management. Until the changes have been approved by our Graduate School, SUNY Central and New York State Education, we are allowing select course substitutions.

A total of 18 credits (three core courses, two required courses, and one elective course) are required

**Core Courses**

EMP 502

EMP 506

Department approved course substitute for EMP 509

**Required Courses**

Two of the five courses must be taken.

EMP 501, EMP 503, EMP 504, EMP 511, EMP 517

**Elective Course**

Select one of the following:

EMP 501, EMP 503, EMP 504, EMP 511, EMP 517, EST 520, EST 530, EST 581, EST 582

**Requirements for the Ph.D. Degree in Technology, Policy, and Innovation**

Please refer to our web site for the application deadline: <https://www.stonybrook.edu/commcms/est/phd/admission.php>. Applications are only accepted for the fall semester.

**A. Residence**

The student must complete two consecutive semesters of graduate study. For full time students, take 9 credits for two consecutive semesters including at least one face to face course and attending department lectures and events.. For part students, for two consecutive semesters, taking six credit hours per semester with at least one face to face class per semester and attending Department events.

**B. Qualifying Examination**

The qualifying examinations must be taken by all students, regardless of whether they enter the program holding a master's degree or a bachelor's degree only. Full time students must complete department exams by the end of Year 4. Part time students must complete department exams by the end of Year 5. Failure to complete these timelines could result in students being placed on academic probation.



. The qualifying exam has two parts: the Part A examination and the Part B examination.

**Part A Examination:** The student conducts an original research project, typically starting in the first semester in the program, and presents the results to the department, typically during the fourth semester. The purpose of this is to ascertain the student's preparation to conduct independent original research in a TPI area.

The student is expected to conduct an independent research project under the guidance of a faculty advisor, and present the results. We expect that the quality of the methodology and results should be sufficient for a poster presentation at a leading academic conference.

The Part A exam may be presented at any time that is convenient for the student and the student's Part A committee. For full-time students, this typically should occur sometime during the 4th semester; part-time students may take the exam up to one year later. The student's advisor and the student consult to make a recommendation to the Chair of the Department regarding the composition of the Part A Committee. Typically, the student's Part A Committee will be comprised of three faculty members, and include at least one faculty member from outside of the Department of Technology and Society. The student's advisor does not serve on the student's Part A committee.

The Part A committee will evaluate the exam in terms of its three components:

1. Written report – typically, 15-30 pages, and, typically, 50-100 citations. The report must a) identify a research question of interest to some research community; b) provide an overview of related background research; c) describe a reasonable approach to addressing the research question; and d) present the results of the research project.
2. Presentation - approximately 45 minutes. The presentation must a) provide a motivation for conducting this line of research; b) summarize the background material, emphasizing only the most important related work; c) give an overview of the methodology, emphasizing why this approach was taken; and d) give results.
3. Questions - posed by members of the committee following the presentation. Questions may be related to any aspect of the presentation or the written report.

The Part A examination will be graded on the following basis: Pass; Pass with Conditions; and Fail. A student who receives a Pass with Conditions must address the conditions by the end of the following semester or the Pass with Conditions will convert to Fail. A student who does not pass the Part A examination will be dismissed from the program.

**Part B Examination:** The student achieves an average GPA of 3.5 or higher on three social sciences-related courses:

Research Methods I – from a social sciences department

Research Methods II – from a social sciences department

EST 610 (Advanced Statistics)—within Department of Technology and Society.

A student who does not achieve the 3.5 GPA in the course work shall be required to take a statistics examination prepared by department faculty. If the student does not pass this written examination, one retake will be allowed. A student who does not pass the Part B examination will be dismissed from the program.

### C. Course Requirements

1. For students who entered the Ph.D. Program prior to Fall, 2014, course requirements are as follows:

EST 600 (Technology and Policy);

EST 610 (Data Analysis, or equivalent approved course);

EST 620 (Decision Making);

Three courses from Social Sciences Departments (Research Method I, Research Methods II, and Advanced Statistics);

Fifteen (15) credits of technical electives (foundation for technical/technology dimension of planned research).

2. For students who entered the Ph.D. program in Fall, 2014 or later, course requirements are as follows:

EST 600 (Technology and Policy);

EST 610 Revised (Advanced Statistics);

EST 625 (Advanced Technology and Policy);

Two (2) courses from social sciences departments (Research Methods I, and Research Methods II);

Fifteen (15) credits of technical electives (foundation for technical/technology dimension of planned research).

Full time students must complete core coursework by the end of Year 3. Part time students must complete core coursework by the end of Year 4. Failure to complete this timeline could result in students being placed on academic probation.

The following courses have been designated as “highly recommended”, and advisors ensure that nearly all students take the courses:

EST 605, EST 606, EST 692 (Research Seminar). For students in the energy area, EST 601 is highly recommended.

In addition to regular course requirements, University policy requires that all doctoral students participate in an appropriately structured teaching practicum. This can be accomplished with a Practicum in Teaching course (EST 698), in conjunction with T.A. responsibilities.

#### **D. Thesis Proposal and Preliminary Examination**

Students who pass the qualifying examination are expected to develop a thesis proposal within one semester for full-time students, and two semesters for part-time students. This thesis proposal must then be presented and defended in an oral preliminary examination. Failure to fulfill this requirement within 18 months of passing the qualifying examination, and without a formal extension, may be considered evidence of unsatisfactory progress toward the Ph.D. degree.

The major requirements of the thesis proposal are as follows: (1) the student must be thoroughly familiar with the background and current status of the intended research area; (2) the student must have clear and well-defined plans for pursuing the research objectives; and (3) the student must offer evidence of progress in achieving these objectives.

The student will present the thesis proposal to the thesis committee in a seminar presentation. It is limited to members of the committee. The committee for the student's preliminary examination, dissertation and defense will include at least one faculty member who does not have a primary or joint appointment in Department of Technology and Society. Students will be strongly encouraged to have at least one faculty member from another university on their committee. As part of the preliminary examination, faculty members are free to question the student on any topics they feel are in any way relevant to the student's objectives and career preparation. Most questions, however, will be directed toward verifying the student's grasp of the intended specialty in depth. The student will be expected to show complete familiarity with the current and past literature of this area.

The findings of the committee will be communicated to the student as soon as possible and to the Graduate School within one week of the presentation of the proposal. A student who does not pass the preliminary examination on the first attempt will be given a second chance. If the preliminary is failed on the second attempt, the student will be dismissed from the program.

Having passed the preliminary examination, the student is advanced to candidacy. This status, called G5, is conferred by the Dean of the Graduate School upon recommendation of the Department. Note that unlike the change from G3 to G4, the change from G4 to G5 is not automatic—the student must request to be advanced to candidacy by notifying the Technology and Society Graduate Program Coordinator. Students must advance to candidacy at least one year before defending their dissertations. The Graduate School requires G5 students to register for nine credits, which can be research or other graduate courses relevant to their dissertation with permission from the Graduate Program Director and the Graduate School. Courses outside of the major require the approval of the dissertation advisor and Graduate Program Director. Failure to complete the preliminary examination within the specified timeframe and obtain the G5 status is considered evidence of unsatisfactory progress.

#### **E. Dissertation**

An important requirement of the Ph.D. program is the completion of a dissertation which must be an original scholarly investigation. The dissertation shall represent a significant contribution to the scientific literature, and its quality shall be compatible with the publication standards of appropriate reputable scholarly journals.

#### **F. Approval and Defense of Dissertation**

The dissertation must be orally defended before a dissertation examination committee, and the candidate must obtain approval of the dissertation from this committee. The oral defense of the dissertation is open to all interested faculty members and graduate students. The final draft of the dissertation must be submitted to the committee no later than three weeks prior to the date of the defense.

#### **G. Satisfactory Progress and Time Limit**

Students are expected to finish all the requirements, including thesis research and defense, in four to five full-time-equivalent years. A student who does not meet the target dates for the Qualifying Examination, Thesis Proposal, and Preliminary Examination, or who does not make satisfactory progress toward completing thesis research, may lose financial support and/or be placed on academic probation. The candidate must satisfy all requirements for the Ph.D. degree within seven years after completing 24 credit hours of graduate courses in the Department of Technology and Society at Stony Brook. In rare instances, the Dean of the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the Department's Graduate Program Director. A petition for extension must be submitted before the time limit has been exceeded. The Dean or the Department may require evidence that the student is still properly prepared for the completion of work.

#### **H. Part-Time Students**

Students admitted into the Ph.D. program for part-time study are bound by all the rules set out henceforth. In particular, part-time students should adhere to the schedule for the Qualifying Examination, Thesis Proposal, and Preliminary Examination unless a different schedule has been approved in writing by the Graduate Program Director. Students failing to make sufficient progress towards completing their degree may be placed on academic probation.

#### **Faculty of the Department of Technology and Society**

##### *Distinguished Service Professor*

Paldy, Lester G., M.S., 1966, Hofstra University: Nuclear arms control; science policy.

##### *Distinguished Teaching Professor*

Liao, Thomas T., Emeritus, Ed.D., 1971, Columbia University: Computers in education; science and technology education.

**Professors**

Mueller, Klaus; Professor, Ph.D., 1998, The Ohio State University: Visual analytics, explainable machine learning and AI, algorithmic fairness and transparency, data science and computational and medical imaging.

Pittinsky, Todd L; Professor, Ph.D., 2001, Harvard University: Models intergroup relations in their ecosystems of society, technology, and policy.

**Associate Professors**

Hewitt, Elizabeth, L, Associate Professor, Ph.D., 2015, Rutgers University, Building occupant behavior; social science and behavioral energy research; organizational energy issues; green building design and technology; environmental economics

Scarlato, Lori L., Associate Professor, Ph.D. 1993, Stony Brook University: Educational technology; tangible, physical, multi-modal, and collaborative human- computer interfaces; serious games; computer graphics; multimedia.

Tonjes, David J., Research Associate Professor, Ph.D., 1998, Stony Brook University: Environmental management (waste management, alternative energy sources), contamination (groundwater, pesticides), and monitoring (groundwater, surface water, estuaries); public policy and communication (risk assessment, environmental impact analyses, environmental justice).

Woodson, Thomas, Associate Professor, Ph.D., 2014, Georgia Institute of Technology, Innovation Systems, bibliometrics, science and technology policy, international development

Number of teaching, graduate, and research assistants, Fall 2022: 13

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

## Television Writing

**Stony Brook Manhattan Center for Creative Writing & Film****Associate Provost:** Paul Harding, (631) 632-5028**Artistic Director:** Christine Vachon, (646) 472-2025**Director:** Alan Kingsberg, (646) 472-2025**Director of the Manhattan Center:** Scott Sullivan 646) 472-2025**Degree Awarded:** M.F.A. in Television Writing**Web Sites:** [https://www.stonybrook.edu/commcms/lichtenstein-center/academic-programs/Film\\_TV/index.php](https://www.stonybrook.edu/commcms/lichtenstein-center/academic-programs/Film_TV/index.php)**Application:** <https://graduateadmissions.stonybrook.edu/apply/>**MFA in Television Writing**

The MFA in Television Writing is a two plus year program that is designed to enable the aspiring Television Writer to expand their artistic vision, hone their skills and build their writing portfolio in order to break into this growing and dynamic field and thrive once working in the profession. Students will graduate with a portfolio of three pilot scripts. In addition, each student will write, direct and produce a micro pilot for an original web series. Students will also learn how to work in collaborative writers rooms with showrunners to break stories and build season arcs on both open ended and limited series. Faculty: Christine Vachon, Pamela Koffler, Alan Kingsberg, Magdalene Brandeis, Scott Burkhardt, Syd Sidner, Jim Jennewein, Kris Lefcoe, Adam Yaffe, Stephen Gates, Perry Blackshear, Jennie Allen, Simone Pero, Karen Offitzer, and Jordan Roberts, along with top industry professionals, guide participants through the essential elements of TV Writing. Hands-on, experiential, in-depth, project driven.

The curriculum requires 45-48 credits.

Interested students should request information from the department and find application information at <https://www.stonybrook.edu/commcms/mfa-film-tv/admissions.php>

Students are encouraged to apply as early as possible, especially if they plan to apply for financial aid.

**Admissions APPLICATION DEADLINE**

The scholarship application deadline is January 1, 2024 for Fall 2024

**Admissions APPLICATION DEADLINE**

The scholarship application deadline is January 1, 2024 for Fall 2024.

**ADMISSION REQUIREMENTS**

This MFA program is intensive, and admission to it is highly selective. Upon review, finalists may be invited for an on-campus interview.

Please use Stony Brook Graduate School's Online Application.

You must create an account to start a new application. You can also log in to continue an application after an account has been created.

For admission, the following, in addition to the minimum Graduate School requirements, are required:

1. A bachelor's degree from an accredited college or university.
2. Undergraduate grade point average of at least 3.0.
3. Three letters of recommendation.
4. A current resume
5. A statement of purpose. Describe in a page or two why you are interested in this opportunity, how you would benefit, and what makes you a particularly deserving candidate. Upload this to the Additional Supplemental Materials, personal statement section of the application.
6. Video Pitch. (Go to Portfolio Instructions and upload Video Pitch to the Digital Portfolio section of the application.)
  - All candidates: This is one of the more important elements to your application. You have probably seen people pitching for donations on a crowdsourcing site. In this case, you should pitch us yourself as a candidate. You can mention a project you want to work on, or something else that is exciting to you but we are interested in who you are as a creative artist/storyteller. The video pitch should be creative, polished, inventive. We want you to win us over here! SUGGESTED LENGTH: 3 MINUTES
  - Written materials: (All written materials may be uploaded in the Additional Supplemental Materials section)  
Your written material should include:

- All Candidates: The Scene. Write a short, 2-3-page scene inspired by one of these words that have no English language translation. We prefer a scene with two characters where one character wants something from the other, and that you do NOT explicitly use the word you have chosen.
  - Glas wen (Welsh) - A smile that is insincere or mocking. Literally, a blue smile. Yputka
  - (Ulwa) - The phantom sensation of something crawling on your skin. Iktsuarpok
  - (Inuit) - You know that feeling of anticipation when you're waiting for someone to show up at your house and you keep going outside to see if they're there yet? This is the word for it.
- All Candidates: The Logline. Write an extended log line or a paragraph describing a project you'd like to realize with us. Attach this logline to the bottom of your scene. Please note here as well: MFA in Television Writing.

#### UPON ACCEPTANCE BY THE MFA PROGRAM IN TELEVISION WRITING

If a student accepted into the M.F.A. program wishes to offer, either for credit toward the degree or for exemption from enrollment in courses required by Stony Brook, analogous courses taken at another university, transcripts and other supporting material must be presented for consideration by the graduate program director before the end of the student's first semester in the program (see Transfer of Credit from Other Universities).

#### Robert Sklar Diversity Fellowship

In Fall 2024, we will award a handful of full and partial Graduate and Teaching Assistantships to our incoming students, particularly to those students who can contribute to the diversity of Stony Brook. All applications for full-time study in the Fall term are considered, provided that the application is submitted by January 1, 2024. These GA/TA awards are extremely competitive.

A full TA/GA offer comes with an academic-year stipend of approximately \$20,000, a 15-20 hour/week workload, full tuition waiver and subsidized health insurance. A partial TA/GA offer comes with a 50% tuition remission scholarship, and an academic-year stipend of approximately \$10,000, as well as subsidized health insurance and an 8-10 hour/week workload; after 8-10 hour/week workload; or with a 25% tuition remission scholarship, and an academic-year stipend of approximately \$5,000, as well as subsidized health insurance and an 4-6 hour/week workload. Students in good standing could expect to have their funding renewed for their second year, when they teach film and screenwriting courses to Stony Brook undergraduates.

Recipients of funding offers who can contribute to the diversity of Stony Brook may be additionally eligible for the Turner Fellowship. Those with outstanding academic promise may be eligible for the Graduate Council Fellowship. These fellowships award an additional \$30,000 over the course of three years to their recipients, along with tuition waiver and stipend.

**GRE** - Even though the application will ask for it, you do not need GRE scores.

In the program drop-down menu, please choose MFA in TV Writing, and indicate whether you are applying as a part-time or full-time student. Type "Manhattan Track" in the "Specialization" line.

If a recommender does not want to submit a letter online or doesn't use email, you may print out a blank recommendation form for him or her to fill out and mail directly to the program.

Electronic official transcripts from any undergraduate and graduate institutions you have attended should be sent to the Office of Graduate and Health Sciences Admissions, at gradadmissions@stonybrook.edu.

or snail-mailed directly to the graduate school:

Office of Graduate and Health Sciences Admissions  
Stony Brook University  
Health Sciences Tower, Level 2 - Rm. 271  
Stony Brook, NY 11794-8276

For questions, please call Margaret Grigoris at (631) 632-5028

*Qualified graduate students without TA/GA funding are encouraged and, in their second year, eligible to apply for teaching artist and administrative jobs as they arise.*

*To favor one incoming student over another, by awarding assistantships or prizes, runs counter to our philosophy that we are all in this together, faculty and students alike, struggling with the extraordinarily difficult work of putting words together. If you earn admission to our program, with funding or without, we guarantee that you will be treated with the same respect as any other member of our community.*

*Then there's your own resourcefulness in defraying the costs of graduate study. Applicants are encouraged to explore opportunities for external funding independent of our program's limited resources. For more information on other types of financial aid, contact the Office of Student Financial Aid Services at (631) 632-6840.*

BACK TO TOP

For More Information

The fine print about transfer credits, international students, and other admissions arcana is revealed in the [Graduate Bulletin](#).

Or contact us:

MFA Program in Television Writing

Chancellors Hall, Room 239

Stony Brook Southampton

239 Montauk Highway Southampton, NY 11968

Phone: (631) 632-5028

Fax: (631) 632-2576

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

#### Facilities

The MFA in Film is located primarily at the Stony Brook Manhattan Center for Creative Writing and Film at 535 8th Avenue, and also in the Carriage House on the Stony Brook Southampton campus, which includes the Avram Theater and Gallery, a 429-seat theater that was substantially renovated in 2007. The program features an impressive range of industry standard camera, light, grip and sound equipment. Highlights include the RED Epic-W, Canon C100 MKII, Canon XC10, Canon 5D and 7D, Go Pro Hero 4, Canon Cine Prime Lenses, Zooms, Kino Flos, ARRI 4 and 3 Light Kits, Lite Panels, Dedos, Tascam Field Recorders, RODE, AT and Sennheiser Shotguns, Countryman Lavs, Kessler Slider, and several one ton grip packages. Our post-production offerings include 27" iMacs equipped with Adobe Creative Cloud, AVID Media Composer and Pro Tools. The University Library holds in excess of 15,000 items comprised of books, eBooks, videos, periodicals, music scores, dissertations, and audio files related to the study of film, which are easily accessible through interlibrary document delivery. Our book collection contains over 7,500 volumes.

#### Degree Requirements

The MFA in Television Writing requires a minimum of 45 credits. In addition to the minimum Graduate School requirements, the following are required:

Program requirements: 45 – 49 credits

Required Core Courses: 19 credits

TVW 500 Introduction to Graduate Studies, 4 cr.

TVW 501 Film Tools, 3 cr.

TVW 537 Production I, 3 cr.

TVW 638 Directing I, 3 cr.

TVW 650 Screenwriting Workshop, 3 cr.

TVW 660 Acting Workshop, 3 cr. (SOUTHAMPTON)

Experiential Option: 3 credits

One or more of the following Experiential options:

TVW 591 Independent Project

TVW 690 Professional Internship; or

TVW 550 Teaching Practicum, 3 cr.

Required MFA Project & Thesis: 6 credits

TVW 691 MFA Project, 3 cr. (SOUTHAMPTON)

TVW 692 Thesis, 3 cr. (SOUTHAMPTON)

Select six or more of the following (17-21 credits):

TVW 505 TVW Management I

TVW 510 TV Writing History

TVW 526 Topics in TV Writing

TVW 536 Forms of TV Writing

TVW 575 Adaptation

TVW 525 Topics in TV Writing

TVW 576 TV Writing Workshop

TVW 651 Screenwriting Workshop II

TVW 652 Screenwriting Workshop III

CWL 530 Forms of Scriptwriting

With permission of MFA Director, one additional course from Creative Writing and Literature (CWL 510 or above).

### ***Residence Requirement***

This program is normally completed in three years of full-time residency. Three credits must include Southampton residency, TVW 660 Acting for Directors, (or course substitution, pending approval from Director).

### **University Requirements**

The granting of master's degree is based upon the completion of any special departmental requirements in addition to the items listed below:

### ***Courses and Grade Point Average***

A student must maintain a 3.0 overall grade point average

### ***Registration***

Degree candidates must be registered in the program granting their degree. Students must be registered for the semester in which they intend to graduate. Spring (May) and Fall (December) candidates must register for at least one graduate credit; Summer (August) candidates may register for zero credits in either summer session, but it still must be graduate level.

### ***Time Limits***

The time limit for the MFA is three years for full-time study and five years for part-time study. A student's full- or part-time status is based on registration, and the time-limit may be modified if enrollment switches between part- and full-time. The student may petition for an extension of time limit for the degree. Such requests must be filed before the limit is exceeded and must contain a significant justification.

### **Faculty of the MFA in Television Writing Program**

#### **Associate Professor**

Reeves, Robert, Associate Provost. M.A., 1977, Harvard University

Kingsberg, Alan. Director, MFA in TV Writing, M.F.A. 1984, New York University.

#### **Visiting Professor**

Vachon, Christine, Artistic Director. B.A., 1983, Brown University

#### **Visiting Assistant Professor**

Brandeis, Magdalene, Executive Director. M.F.A., 2008, Stony Brook University

Koffler, Pamela. B.A., 1987, Yale University

Allen, Jennie. M.F.A., 2013, Columbia University

Crooks, Leonard. M.B.A., 1981, Strathclyde University, Scotland. Former head of the UK Film Council's New Cinema Fund.

Pero, Simone. M.P.P., 1994, University at Albany

Blackshear, Perry. M.F.A., MFA 2012, New York University

Sidner, Syd. M.F.A., 2000. Columbia School of the Arts

**Lecturer**

Burkhardt, Scott. M.F.A., 2008. Columbia School of the Arts

Gates, Stephen, MFA, 1990, NYU.

Jennewein, Jim. University of Notre Dame

Lefcoe, Kris. 1993. University of Toronto.

Offitzer, Karen. M.F.A. University of Arizona, M.A. NYU.

Roberts, Jordan. M.F.A., 2009. New York Film Academy

Adam Yaffe, MFA, 1996, Columbia University.

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



MFA in Theatre

### **Tracks in Acting, Playwriting, Directing, Dramaturgy, and Film**

#### **Southampton Graduate Arts**

##### **Director**

Carla Caglioti, Chancellors Hall (631) 632-2576

##### **Administrative Coordinator**

Margaret Grigonis, (631) 632-5028

##### **Degree Awarded**

M.F.A. in Theatre

##### **Web Site**

<http://www.stonybrook.edu/sb/mfa/taf/index.shtml>

### **MFA in Theatre**

Southampton Arts offers an MFA in Theatre with tracks in Acting, Playwriting, Directing, Dramaturgy and Film. Students study with internationally acclaimed artists in an interdisciplinary, collaborative environment. We offer crossover opportunities between theatre and film, which include ensemble creation and digital filmmaking, as well as all genres of creative writing and the visual arts. The program is for entrepreneurial students who wish to explore multiple approaches—from traditional to experimental—to create and produce new work.

The MFA in Theatre is a three year program that includes a core curriculum, a specialization (track), lab projects, a culminating MFA performance project, MFA written thesis, and a professional internship.

The curriculum requires 44-48 credits, including 30-31 required core and 14-17 track credits. All students take the required core courses and specialize in one of the four tracks.

Interested students should request information from the department and find application information at [http://www.grad.sunysb.edu/admissions/app\\_info.shtml](http://www.grad.sunysb.edu/admissions/app_info.shtml). Students are encouraged to apply as early as possible, especially if they plan to apply for financial aid.

Admission to the M.F.A. Program in Theatre

This M.F.A. program is intensive, and admission to it is highly selective. Upon review, finalists are invited for an on-campus interview. Interview requirements vary depending on track. For admission, the following, in addition to the minimum Graduate School requirements, are normally required:

- A.** A bachelor's degree from an accredited college or university.
- B.** Undergraduate grade point average of at least 3.0.
- C.** A minimum of three years of professional experience / training (preferred).
- D.** Three letters of recommendation.
- E.** A current resume
- F.** A written statement of artistic, educational and professional goals
- G.** The following are required for a chosen Track. Choose one:

**Playwriting:** 1) a completed play of any length that best represents your work; 2) a brief description of a play you are currently writing or wish to write while in our program

**Directing:** 1) a brief description of your approach (concept) to a chosen play, either one you have directed or one you wish to direct. You may provide select supporting materials, such as research (written or visual), and any other inspiration for your approach; 2) a list of plays and/or ideas for original devised pieces that you would like to direct / create while in our program

**Dramaturgy:** 1) three writing samples, including, critiques, production program notes, and/or literary criticism of a chosen play; 2) a play, screenplay or alternative performance piece if you have written one; 3) a brief statement describing your view of the role of the Dramaturg in today's theatre, and particularly in relation to creating new work

**Film:** 1) a film you have written, directed and/or produced if you have one; 2) a screenplay if you have written one; 3) a list of proficiencies in various production skills: camera, lighting, editing, directing, production and/or production design.

Crossover between tracks is possible, depending on each student's interests and professional goals. For the application, choose one track and indicate in your statement of goals (F) your interest, if any, in crossover

**F.** Acceptance by both the MFA in Theatre program and the Graduate School.

**I.** If a student accepted into the M.F.A. program wishes to offer, either for credit toward the degree or for exemption from enrollment in courses required by Stony Brook, analogous courses taken at another university, transcripts and other supporting material must be presented for consideration by the graduate program director before the end of the student's first semester in the program (see Transfer of Credit from Other Universities).

#### Facilities

The MFA in Theatre is located on the Stony Brook Southampton campus which includes the Avram Theater and Gallery, a 429-seat theater that was substantially renovated in 2007. Students also work in a flexible black box studio, and a digital film studio. The program recently purchased Panasonic AG 150s, Kino flo and Arri light kits, Sennheiser lavaliers and booms, iMacs and Final Cut Studio.

The University Library holds in excess of 27,000 volumes related to the study of theatre arts which is easily accessible through interlibrary document delivery. Special collections of play texts, including translations, and theatre archives are being developed continually.

#### Requirements for the M.F.A. Degree in Theatre

In addition to the minimum Graduate School requirements, the following are required:

##### **A. Courses**

Courses required for the degree are:

TAF 500: Introduction to Graduate Theatre, 3-4 credits

TAF 510: Theatre History and Literature I, 3 credits

One of the following : TAF 520: Theatre History and Literature II, 3 credits or TAF 530 Directed Readings in Theatre, 3 credits

TAF 523: Theatre in New York, 3 credits

TAF 525: Topics in Theatre, 3 credits

TAF 591: Independent Project, 3 credits

One of the following : TAF 690: Professional Internship, or TAF 550 Teaching Practicum, 3 credits

TAF 691: MFA Project, 3 credits

TAF 692: Thesis, 3 credits

One of the following:

Any additional SB Southampton TAF or CWL course with the permission of the MFA Director, or any other SBU graduate course with the permission of the MFA Director. Interdisciplinary studies are encouraged, 3-4 credits

##### **B. TRACKS**

Choose one of the following Tracks (14 – 17 credits)

**ACTING** (15 cr.)

TAF 560: Acting Theory & Practice, 3 credits

TAF 576: Theatre Workshop, 2-3 credits

TAF 576: Theatre Workshop, 2-3 credits

TAF 660: Acting Workshop, 3 credits

One of the following: TAF 638 Directing I, or TAF 639 Directing II, or TAF 670 Directing Workshop, or TAF 650 Playwriting I, or TAF 651 Playwriting Workshop II, 3 credits

Acting Track students will also participate in public readings, live performance and/or film projects associated with various workshops

**DRAMATURGY** (14-15 cr.)

TAF 505: Dramaturgy I, 3 credits

TAF 506: Dramaturgy II, 3 credits

TAF 575: Adaptation Workshop, 3 credits

TAF 576: Theatre Workshop, 2-3 credits

TAF 680: Dramaturgy Workshop, 3 credits

Dramaturgy Track students also participate in public readings, live performance and/or film projects associated with various workshops.

#### DIRECTING (14-15 cr.)

TAF 576: Theatre Workshop, 2-3

TAF 638: Directing I, 3 credits

TAF 639: Directing II, 3 credits

TAF 660: Acting Workshop, 3 credits

TAF 670: Directing Workshop, 3 credits

Directing Track students also participate in public readings, live performance and/or film projects associated with various workshops.

#### PLAYWRITING (14-16 cr.)

TAF 576: Theatre Workshop, 2-3 credits

TAF 650: Playwriting Workshop I, 3 credits

TAF 651: Playwriting Workshop II, 3 credits

Choose one of the following: CWL 510 Forms of Fiction, CWL 520 Forms of Poetry, or CWL 530 Forms of Scriptwriting, or TAF 575 Adaptation Workshop, 3-4 credits

TAF 660: Acting Workshop, 3 credits

Playwriting Track students also participate in public readings, live performance and/or film projects associated with various workshops.

#### FILM TRACK (14-17 cr.)

CWL 530: Forms of Scriptwriting: Screenwriting, 4 credits

Choose one of the following: CWL 510 Forms of Fiction, or CWL 520 Forms of Poetry, or CWL 530 Forms of Scriptwriting, TAF 640 Scenography & New Media, or TAF 575 Adaptation Workshop, 3-4 credits.

TAF 576: Theatre Workshop, 2-3 credits

TAF 660: Acting Workshop, 3 credits

Film Track students also participate in public readings, live performance and/or film projects associated with various workshops.

### F. Residence Requirement

This program is normally completed in three years of full-time residency. One semester of the last year is typically spent in a professional internship program.

### H. Master's Thesis

A master's thesis must be successfully completed under the direction of a faculty advisor.

#### University Requirements

The granting of master's degree is based upon the completion of any special departmental requirements in addition to the items listed below:

#### A. Courses and Grade Point Average

A student must maintain a 3.0 overall grade point average

**C. Registration**

Degree candidates must be registered in the program granting their degree. Students must be registered for the semester in which they intend to graduate. Spring (May) and Fall (December) candidates must register for at least one graduate credit; Summer (August) candidates may register for zero credits in either summer session, but it still must be graduate level.

Faculty of MFA in Theatre Program

**Professor**

Mangano, Nick, Director. MFA, Columbia University, School of the Arts. Directing, Acting.

**Visiting Assistant Professors**

Alda, Alan, BS, Fordham: Writing.

Baitz, Jon Robin. Scriptwriting, Playwriting

Brandeis, Magdalene, MFA, Stony Brook University. Digital Film Production.

Feiffer, Jules, The Pratt Institute. Screenwriting.

Hamilton, Stephen. Playwriting.

Handley Chandler, Annette. Screenwriting.

Kriegman, Mitchell, Scriptwriting, Digital Film Production.

Norman, Marsha, M.A.T., University of Louisville. Playwriting, Musical Book

**Lecturers**

Burford, William. MFA, University of Texas-Austin. Playwriting, Production

**Guest Teaching Artists**

Baker, Annie, MFA, Playwriting

Baldwin, Alec, Acting.

Bock, Adam, Playwriting.

Brancato, Paula, Screenwriting.

Carden, William, Acting

Hedges, Peter, Screenwriting.

Lazaridi, Christina, Screenwriting.

Mann, Emily, Playwriting, Directing.

Mantello, Joe, Directing

Marshall, Kathleen, Directing.

Pendleton, Austin, Directing.

Walton, Tony, Directing.

Wing-Davey, Mark, Directing.

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

## Theatre Arts

**Chairperson**

John Lutterbie, Staller Center for the Arts 3013 (631) 632-7300

**Graduate Studies Director**

Amy Cook, Staller Center for the Arts 3014 (631) 632-7586

**Graduate Program Coordinator**

Lisa Perez, Staller Center for the Arts 3046 (631) 632-7270

**Degree Awarded**

M.A. in Theatre, Accelerated B.A./M.A. in Theatre Arts (Note: Currently not accepting new students)

**Web Site**

<http://www.stonybrook.edu/commcms/theatre-arts/>

## Description of Theatre Arts

The Department of Theatre Arts offers a 30-credit Master of Arts in Theatre. The M.A. offers an interdisciplinary, collaborative curriculum encourages our graduate students to produce, write and adapt their own work, serve as dramaturgs for department productions, and to apply the historical and theoretical knowledge they attain in course work to the practice of innovative theatre making and new play development.

Among the world-class faculty are directors, actors, playwrights, theorists, dramaturgs and designers all of whom work closely with graduate students. The Staller Center for the Arts is Long Island's hub of creative activity, and provides a wonderful inter-arts working atmosphere for students of Theatre, Art and Music. Students are also introduced to the art of devising new work in collaboration with faculty and students from Art and Music.

The goals of the M.A. program are (1) to study the dramatic tradition and the history of the performing arts, (2) to develop an understanding of the vital relationship between theatre theory and onstage practice, and (3) to prepare students qualified to matriculate in programs of study at the M.F.A. or Ph.D. level.

The Department of Theatre Arts recognizes the contribution of the dramaturg in institutional American theatre. In the United States and throughout the world, the dramaturg plays a vital part in the direction of professional theatre. He or she must be well informed in historical, critical, and comparative studies, and sensitive to every aspect of theatre practice. Training in dramaturgy is useful even to students who later decide to pursue other careers in the theatre or other media, or in teaching. Professional dramaturgs often become directors, producers, administrators, drama critics, teachers, or playwrights, and many combine two or three different careers.

The Stony Brook program offers opportunities for students with a wide range of interests in theatre practice and dramatic criticism to pursue individual development with an applied orientation. This can mean, for example, that graduates could find themselves working with a psychology professor on autism research, as one of our graduates are, or working with an artist on a video installation piece.

The 2-year program culminates in the creation of a Thesis.

Interested students should request information from the department and find application information at [http://www.grad.sunysb.edu/admissions/app\\_info.shtml](http://www.grad.sunysb.edu/admissions/app_info.shtml). Students are encouraged to apply as early as possible, especially if they plan to apply for financial aid.

## Admission to the M.A. Program in Theatre Arts

For admission to the M.A. program in Theatre Arts, the following, in addition to the minimum Graduate School requirements, are normally required:

- A. A bachelor's degree from an accredited college or university.
- B. Advanced undergraduate courses in theatre history, dramatic literature, and/or theatre practice.
- C. Undergraduate grade point average of at least 3.0.
- D. Three letters of recommendation.
- E. Graduate Record Examination (GRE) General Test scores.
- F. Supporting materials must include a sample of the applicant's writing as well as other materials such as scripts, essays, publications, portfolio, etc. (For the returned work, the applicant must include a stamped, self-addressed envelope with the completed application.)
- G. Acceptance by both the Department of Theatre Arts and the Graduate School.
- H. If a student accepted into the M.A. program wishes to offer, either for credit toward the degree or for exemption from enrollment in courses required by Stony Brook, analogous courses taken at another university, he or she must present transcripts and other supporting materials for consideration by the graduate program director before the end of his or her first semester in the program (see Transfer of Credit from Other Universities).

## Theatre Arts Facilities

The Theatre Arts department is located in the Staller Center for the Arts, which houses a 1,106-seat proscenium stage and three black box theatres. Additional theatre spaces are also available on campus. A newly acquired studio/theatre space in the basement of the Staller Center is the home of the Graduate Student Cabaret. This flexible, intimate, 50-seat performance space can also be used as a studio/classroom. The Cabaret serves M.F.A. Dramaturgy students as a production space and theatrical laboratory.

The University Library is adjacent to the Staller Center and holds in excess of 27,000 volumes related to the study of theatre arts. Special collections of play texts, including translations, and theatre archives are being developed continually. Manhattan is an easy commute by train, bus, or car, and its many theatres, exhibitions, archives, and libraries (most notably the New York Public Library of the Performing Arts at Lincoln Center) are easily accessible.

## Requirements for the M.A. Degree in Theatre

In addition to the minimum Graduate School Requirements, the following are required:

### A. Courses

Courses required for the degree are:

THR 500 Introduction to Graduate Studies

THR 510 and THR 521 Western Theatre History and South and Southeast Asian Theatre and Drama or

THR 511 and THR 520 Far Eastern Theatre and Drama and Western Dramatic Literature

THR 535 Theories of Theatre or

THR 635 Theories of Performance

THR 550 Teaching Practicum

THR 590 M.A. Thesis (6 Credits)

In addition, students select from among a range of courses in consultation with the graduate program director and a faculty advisor. A minimum of 30 credits is required for graduation.

### B. Examination

Successful completion of the M.A. exam is required, normally at the end of the second semester of full-time residence.

### C. Foreign Language

Proficiency in a foreign language must be demonstrated.

### D. Teaching Experience

Teaching for at least one semester at the University level is required of all graduate students.

### E. Master's Thesis

A master's thesis must be successfully completed under the direction of a faculty advisor.

### F. Residency Requirement

This program is normally completed in one to two years of full-time residency. Students may be enrolled in the M.A. program on a full-time or part-time basis.

### G. Time Limitations

Depending on the student's first-time, matriculated enrollment in the Graduate School, full-time students must complete all degree requirements within three years, part-time students in five years.

## Theatre Art Faculty

Phillip Baldwin, Associate Professor, M.F.A., 1987, Yale University. Scene design; interactive media; cultural studies.

Izumi Ashizawa, Assistant Professor, M.F.A., Yale University. Directing and Devising

Mallory Catlett, Assistant Professor, M.F.A., 2000, Simon Fraser University. Interdisciplinary arts, directing and critical studies

Amy Cook, Associate Professor, Ph.D., 2006 University of San Diego, California. Shakespeare, Performance, and Cognitive Science

John Lutterbie, Professor, Chair, Ph.D., 1983, University of Washington. Theatre history: performance theory and criticism; dramaturgy; directing.

Nick Mangano, Professor, M.F.A., Columbia University. Directing.

Deborah Mayo, Director of Undergraduate Studies, M.F.A., 1973, Yale School of Drama. Acting.

Ken Weitzman, Assistant Professor, M.F.A., 2003, University of California, San Diego. Dramatic writing.

Steve Marsh, M.F.A., 2000, Stony Brook University: Dramaturgy.

Elizabeth Bojza, M.F.A., 2004, Stony Brook University: Dramaturgy.

**Adjunct Faculty**

Cate Cammarata, M.F.A., Stony Brook University. Acting and Producing.

Jian Jung, M.F.A., New York University. Theatre Design

Nancee Moes, M.F.A. Stony Brook University. Acting and Analysis

Norman L Prusslin, Director of Media Director, B.A., 1973, University at Stony Brook: Broadcast management.

*For current course listings, please go to: <http://www.stonybrook.edu/registrar/class-schedules.shtml>*

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

**Department of Women's, Gender, & Sexuality Studies****Chairperson**

Liz Montegary  
liz.montegary@stonybrook.edu

**Graduate Program Director**

Ritch Calvin  
Ritchie.Calvin@stonybrook.edu

**Assistant to the Chair & Graduate Program Coordinator**

Jacqueline Donnelly, Humanities Building #2049 (631) 632-1466  
jacqueline.m.donnelly@stonybrook.edu

**Website**

Visit our web page at: <http://www.stonybrook.edu/commcms/wgss/>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

**Women's, Gender, and Sexuality Studies**

The Department of Women's, Gender, and Sexuality Studies which is part of the College of Arts and Sciences, offers the M.A. and Ph.D. degrees in Women's, Gender and Sexuality Studies, as well as an advanced graduate certificate in Women's, Gender and Sexuality Studies.

**Registration**

All students enrolled in the Graduate School in any program, whether in residence or absentia, must register each fall and spring for at least one graduate credit until all degree requirements have been met. A student is not considered to have registered until enrollment is posted on the University system, SOLAR, and arrangements regarding tuition and fees have been made with the Bursar's Office. Students who hold a TA, GA, RA, fellowship, or tuition scholarship must be registered as full-time students by the fifteenth day of classes each semester. Students failing to register before the first day of classes or before late registration begins may still register during the first 15 days of the semester, but will be charged a late fee of \$40. Students who have not been granted an official Leave of Absence by the Dean of the Graduate School and have not yet registered will be considered to have withdrawn from the University. Students are responsible for making sure they are registered on time. Programs or individual faculty members do not have authority to waive these rules.

**Admission Requirements of Women's, Gender, and Sexuality Studies Program**

To be considered for admission to graduate studies in Women's, Gender, and Sexuality Studies, all applicants must hold a baccalaureate degree from an accredited college or university with a suitable overall grade point average and with a high average in a major field appropriate for study in Women's, Gender, and Sexuality Studies. In addition, they must submit the following:

1. B.A. or M.A. degree from a recognized institution in a suitable area of study
2. An official graduate application including a statement of purpose and 3 letters of recommendation can be completed on-line at the following Web site: <https://app.applyyourself.com/?id=sunysb-gs>. Guidance on how to choose recommenders for letters and how to write an effective statement of purpose is available on the department website.
3. One official copy of any transcript from any undergraduate college or university attended, **from which a degree was conferred**. Applicants must submit one official copy of any transcript relating to any graduate level work undertaken, **regardless of whether or not a degree was earned**. (*If transcripts are in a foreign language, authoritative English translations are required in addition to the original documents. See Academic FAQs under Transcripts for a list of acceptable translation services.*)  
Note: Educational systems that cannot be compared to the United States must be evaluated by a US credentials evaluation service before admission can be finalized.
4. For international students, proficiency in English as demonstrated by a minimum TOEFL score of 550 (paper) or 213 (computer) or 90 (iBT) OR an IELTS total score of 6.5. In order to teach, any graduate student whose native language is not English must score 55 or above on the TSE or SPEAK test OR obtain a score of 7.0 or better in the speaking component of the IELTS test. The website for ETS (TOEFL) is [www.ets.org](http://www.ets.org);
5. One research or term paper in Women's, Gender, and Sexuality Studies or a related field of approximately 20-25 pages. Please consult the department website for information about choosing a good writing sample.
6. An application fee of \$100.

Any deficiencies in these requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation will normally require the student to take additional work, the amount to be determined by the graduate program committee and not to be used to fulfill any specific degree requirements.

In all cases, admission is by action of the graduate studies committee of the department under guidelines established by the Graduate School. Applicants are admitted on the basis of their total records, and no predetermined quantitative criteria by themselves ensure a positive or a negative decision.



## **Admission to the Women's, Gender, and Sexuality Studies Graduate Program**

The graduate programs in Women's and Gender Studies at Stony Brook creates a space within the academy for critical thinking across disciplines about the explanatory categories of gender, race, class, sexuality, nation, and disability. Women's, Gender, and Sexuality Studies explores how these categories come into being and operate across different cultures and historical periods, and how they shape social, political, economic and institutional organizations as well as personal experience and perception. The program is particularly strong in four key areas: transnational social movements and globalization; the politics of representation and media analysis; gender and health; and the critical analysis of sexuality.

Along with the core faculty in Women's, Gender, and Sexuality Studies, the graduate programs draw from an extensive network of Graduate Associate Faculty from across Stony Brook University, including in the social and behavioral sciences, humanities, and health sciences.

As an institution, Stony Brook is committed to increasing the opportunities for interdisciplinary activity crucial to the programs in Women's, Gender, and Sexuality Studies. The University's Humanities Institute and the Center for the Study of Inequalities, Social Justice, and Policy are the most visible expressions of a broad university commitment to bringing diverse scholars together for a common intellectual enterprise.

Applicants to the graduate programs in Women's, Gender, and Sexuality Studies are required to fulfill the minimum admission requirements of the Graduate School. In addition, applicants are ordinarily required to hold a bachelor's degree in an appropriate field from a recognized institution.

Any deficiencies in these requirements shall not automatically bar admission, but it is understood that inadequacies in undergraduate preparation will normally require the student to take additional work, the amount to be determined by the graduate program committee and not to be used to fulfill any specific degree requirements.

In all cases, admission is by action of the graduate studies committee of the department under guidelines established by the Graduate School. Applicants are admitted on the basis of their total records, and no predetermined quantitative criteria by themselves ensure a positive or a negative decision.

Applicants holding the M.A. degree in Women's, Gender, and Sexuality Studies from Stony Brook may, upon the advice of the graduate studies committee, be admitted to the Ph.D. program after review of their qualifications.

## **Requirements for the M.A. Degree in Women's, Gender, and Sexuality Studies**

In addition to the minimum requirements of the Graduate School, the following are required:

### **A. Course Requirements**

The minimum course requirement for the M.A. degree is 30 graduate credit hours. An M.A. candidate is expected to take:

1. WST 600 Feminist Interdisciplinary Histories and Methods
2. WST 601 Feminist Theories
3. WST 698 Practicing Women's and Gender Studies
4. Two additional WST courses numbered 600 or higher

The remaining courses may be distributed among graduate offerings in other appropriate fields. A student must achieve a 3.5 overall grade point average for all graduate courses taken at Stony Brook to receive a degree.

### **B. First-Year Evaluation**

In the middle of the student's second semester of graduate work, the director of graduate studies requests a report on progress from the student that asks them to comment on their progress through the degree program and prepares a file for the student's first-year evaluation. It consists of (1) the student's grades and (2) the submitted progress report. Students may submit any other relevant material such as a seminar paper or original essay. The graduate studies committee will discuss the student's progress and evaluate the dossier in order to decide whether the student should be encouraged to continue in the program.

### **C. Satisfactory Progress Toward the M.A.**

Because so many factors depend on satisfactory progress toward the degree, it is important for students to be aware of and monitor their own progress. The following define the minimum limits for satisfactory progress for full-time students:

1. Maintain a 3.5 average, with no course below B-, in each semester of graduate study, as well as complete all incomplete grades by the first deadline. Students who fail to fulfill these requirements in any semester will be automatically placed on probation during the following semester and will be subject to possible dismissal.
2. Receive an acceptable first-year evaluation in the spring semester of the first year of study.

### **D. Foreign Language Requirements**

Students must show competence in a foreign language if it is necessary for their M.A. thesis research topic. Competence in a foreign language can be demonstrated by (1) earning a grade of B or better in a graduate translation course or (2) passing a language examination to be taken with a dictionary. If relevant, the student must have passed the language requirements before they are allowed to submit their M.A. thesis.

### **E. M.A. Examination**

M.A. students will complete a thesis on a substantive topic in Women's, Gender, and Sexuality Studies requiring original research. The student will form a committee of three faculty, at least two of whom must be from the WGSS graduate faculty, who will supervise the project and give final approval. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements.

### **F. Advisor and Mentor**

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose an official graduate advisor from the WGSS core faculty. Advisor and student meet regularly to discuss the student's progress and program. Students are encouraged to consult with all members of the faculty.

### **G. Residence Requirements**

The University requires that students receiving an M.A. must take at least two consecutive semesters of full-time graduate study, which usually means 12 credits per semester.

### **Requirements for the Ph.D. Degree in Women's, Gender, and Sexuality Studies**

In addition to the minimum requirements of the Graduate School, the following are required:

#### **A. Course Requirements**

1. WST 600 Feminist Interdisciplinary Histories and Methods
2. WST 601 Feminist Theories
3. WST 698 Practicing Women's and Gender Studies
4. WST 680 Interdisciplinary Research Design
5. Twelve additional graduate courses, at least three of which must be WST courses numbered 600 or higher or appropriate graduate level seminars offered by another department and cross-listed by WGSS.

A minimum of 48 credits of graduate work is required for the Ph.D. Students who hold an M.A. in Women's and Gender Studies or a related discipline can request that their transcripts be evaluated by the graduate studies committee and may receive a maximum of 30 credits toward their Ph.D.

All students seeking the Ph.D. must take the required courses listed above, unless the graduate program committee accepts comparable courses taken previously. All Ph.D. students must acquire a minimum of one semester of formal teaching experience (even if they are unsupported or are on a fellowship requiring no teaching duties) and must concurrently take the formal teaching practicum (WST 698).

The Women's and Gender Studies Teaching Practicum prepares students to teach an introductory course in Women's and Gender Studies by engaging with recent developments in feminist pedagogy. Students will observe introductory and upper-level classes in WGSS, and write a syllabus for Introduction to Women's and Gender Studies (WST 102 or WST 103), as well as a syllabus rationale and teaching philosophy. At the same time, we will consider broader questions about the university as an institution in the current moment, and the place of Women's and Gender Studies within the contemporary university. Along with a consideration of the changing practices and objects of feminist knowledge production, we will also discuss the changing politics and economics of academia, and the impact of the wider academic milieu on what and how knowledge is produced.

Students must take the required courses when they are offered, and cannot replace them by Independent Study courses, except in the most unusual circumstances and by petition to the director of graduate studies at the beginning of the term the course is offered. The petition has to be signed by the person directing the Independent Study and must be approved by the graduate studies committee.

Students taking any . Under exceptional circumstances, the director of graduate studies may approve Independent Study under another department's designator. A maximum of six credits of Independent Study courses is applicable to the degree requirements for the Ph.D. All such courses must be approved by the director of graduate studies before the end of the add/drop period of the semester during which they are to be taken. All students taking Independent Study or Directed Reading courses must file a detailed description, for which forms are available in the Department office. Failure to have these courses approved in a timely fashion will result in de-registration or in denial of credit for the courses.

#### **B. First-Year Evaluation**

In the middle of the student's second semester of graduate work, the director of graduate studies requests a report on progress from the student that asks them to comment on their progress through the degree program (seminars taken, TA assignments given, conferences attended, papers submitted for publication etc). A file for the student's first-year evaluation. will be collated and will include 1) the student's grades, 2) and, if the student is a teaching assistant, a letter of evaluation from appropriate faculty, 3) student evaluations, and 4) the progress report. Students may submit any other relevant material such as a seminar paper or original essay. The graduate studies committee will meet to discuss the progress of the student, evaluate the dossier, and decide whether the student should be encouraged to continue in the program. In May of the second year, and each year following, the student will complete a report on progress in the program, including specific progress towards degree (coursework, qualifying exams, dissertation proposal, and dissertation) and other achievements (funding, research, presentations, and publications). They will then meet with the director of graduate studies or dissertation advisor to discuss their progress in the program. The graduate studies committee will evaluate the report and decide whether the student should be encouraged to continue in the program. C. Satisfactory Progress toward the Ph.D.

In addition to requirements above, Ph.D. students must fulfill the following requirements:

1. Maintain at least a 3.5 average, with no course below B-, in each semester of graduate study. There is a one-year maximum limit on incompletes. A student may accumulate no more than two incomplete grades in any one semester or he/she will no longer be considered a Student in Good Standing, a prerequisite to continue in the program. As a result, the student will lose his or her T.A. line as well as face likely dismissal from the program;
2. Receive a satisfactory first-year evaluation in the spring semester of the first year of study, and satisfactory progress report each following May;
3. Satisfy the language requirement before the comprehensive examination;
4. Complete all core courses in the first two years of full-time study and all 48 credits for the Ph.D. in three years;
5. Take the comprehensive examination no later than one year after completion of coursework;
6. Submit and defend a dissertation proposal in the semester following satisfactory completion of the comprehensive examination, no later than one year after completion of coursework.

By rules of the Graduate School, students must satisfy all requirements for the Ph.D. within seven years after completing 24 credits of graduate work in the Stony Brook department in which they are registered. In rare instances, the Graduate School will entertain a petition to extend this time limit, provided it bears the endorsement of the department. The program may require evidence that the student is still properly prepared for completion of the degree. In particular, the student may be required to pass the comprehensive examination again in order to be permitted to continue work.

#### **D. Foreign Language Requirements**

Entering graduate students are expected to have a good command of at least one foreign language. All language requirements must be met before students sit for their comprehensive examination.

All students are also required to demonstrate full command of written and spoken English, the language of instruction in most Women's, Gender, and Sexuality Studies courses.

Whenever possible, language exams for students will be given by core or associate faculty in Women's, Gender, and Sexuality Studies. Each exam will be read by a faculty member.

Competence in a foreign language can be demonstrated in one of the following ways:

1. By earning a grade of B or better in a graduate translation course taught by one of the foreign language departments at Stony Brook. Credits for a graduate translation course do not count toward the total credits required for the M.A. or the Ph.D. degree in Women's and Gender Studies.
2. By passing an examination consisting of two parts, each one hour long, to be taken with a dictionary: a) a short theoretical, critical, or scholarly article that the student is required to summarize and discuss in English; b) a translation of a short scholarly article or passage of medium difficulty.
3. By passing an hour-long oral examination. This option is encouraged for students intending to do interviewing or field research for their dissertation.

#### **E. Comprehensive Examination**

*Comprehensive Examination in Women's, Gender, and Sexuality Studies* Full-time students who are candidates for the Ph.D. will normally take their comprehensive examination no more than one year after completing their course work. Completing the language requirement is a prerequisite for sitting for the examination.

*Committee for the Examination:* will comprise of three faculty members, one of whom will act as Chair of the exam. Faculty will be selected by the student in consultation with the director of graduate studies, their advisor, or/and the chair of the exam committee. At least two of the three members of the examination committee must be members of the WGSS core or graduate associate faculty. At least two of the members of the committee must be physically present at the oral examination. In most cases, this committee will be the same as the committee for the student's dissertation, which will provide continuity between the comprehensive examination and the writing of the dissertation.

*Reading Lists:* A reading list for all three parts enumerated below will be compiled by the student with the help of the examination committee. The student's examination committee will review and approve the exam lists before the student submits the signature sheet to the Director of Graduate Studies for final pre-examination review of requirements. The list must be approved by all members of the student's committee. Students should submit a description of the special area, related to the dissertation, along with the reading list (see below).

*Examination:* The examination is written, with each of the three areas of examination (see below) scheduled for one day (8 hours). The written exam will be followed within 1-2 weeks by an in-person discussion (oral exam) of the student's written exam. Questions posed by examiners will be based on the three reading lists for the examination. The examination may be passed, passed with distinction, failed, or failed in part. In case of failure, the examination may be retaken once, but no later than the end of the semester following the time when it was initially scheduled. In case of partial failure, the second examination will cover only the area(s) on which the candidate's performance was inadequate. The Women's, Gender, and Sexuality Studies comprehensive examination will consist of three parts.

1. Feminist theories/interdisciplinary methods
2. One of the doctoral program's four areas of specialization (transnational social movements and globalization; the politics of representation and media analysis; critical analysis of sexuality; and gender and health)
3. Special area (related to the student's dissertation project)

#### **F. Advancement to Candidacy**

Advancement to candidacy is granted by the Graduate School upon recommendation of the director of graduate studies after a successful comprehensive examination. Again, all other requirements must have been met before the student sits for the comprehensive examination. Students who have passed their Ph.D. comprehensive exam will be deemed to have passed the equivalent of the master's exam and be granted a M. Phil. degree unless they already have a master's degree in Women's, Gender, and Sexuality Studies from another institution. The student must file appropriate papers with the department and graduate school to obtain the M.A. degree.

#### **G. Dissertation**

The dissertation represents the culmination of the student's degree program and should be a serious contribution to scholarship.

Within three months of passing the comprehensive examination, the student must be prepared to schedule the Dissertation Proposal Review (Prospectus). This must be scheduled at a date no later than one year after completion of coursework.

As soon as possible, after the Comprehensive Examination, the candidate should choose a dissertation director, as well as the two readers of the dissertation, from the WGSS core or associate faculty. Generally, this will be the same as or based on the comprehensive examination committee. The director of the dissertation must be a member of the WGSS faculty, though a student can submit a petition to the director of graduate studies to request an associate faculty member serve as their dissertation director. In consultation with the dissertation director and the readers, the candidate drafts a dissertation proposal. *Dissertation Proposal:* The dissertation proposal, which must be appropriate to Women's, Gender, and Sexuality Studies, should be between 2000 and 5000 words, not counting footnotes or bibliography, and should include the following:

- Title of the dissertation;
- Description of the topic and its appropriateness for Women's, Gender, and Sexuality Studies in focus and method;
- The rationale behind the choice of topic, and the anticipated contribution of the proposed research to knowledge;
- A discussion of the argument your dissertation will advance;
- Current state of research on the topic and a basic bibliography;
- Description of research methods.

When the director and readers have approved the proposal, the student and the director will schedule a Dissertation Prospectus Review to be attended by the student, the director, and all other members of the dissertation committee. Faculty and/or graduate students may be invited to the review at the discretion of the student. The review should be no less than one hour in length. The director, the readers, and others in attendance will discuss the proposal with the student in order to insure that the student is ready to proceed with the project. When the director and the readers agree that the student is ready, they will sign off on the proposal and submit it to the Director of Graduate Studies. The candidate then proceeds to the dissertation.

*Guidelines for Dissertation Prospectus Review*

- The student will circulate her or his proposal to all members of the committee three weeks prior to the review.
- The student will begin the review with a summary of the project in less than five minutes. They should clearly communicate the core thesis of the prospective dissertation.
- The members of the committee will then ask questions and make suggestions.
- The student should take notes during the meeting and make sure that they understand what the committee is suggesting.

- At the end of the meeting, the student will be asked to leave the room so that the members of the committee can discuss whether or not they are ready to sign off on the proposal. If the members of the committee are satisfied that the student is prepared to begin writing the dissertation, they will sign off on the document and send it to the DGS.
- In some cases the committee may decide not to sign and request a revised proposal. If the members of the committee are satisfied with the revised proposal, there is no need for a second dissertation prospectus review. In some cases, however, the committee may decide that a second review is necessary.

*Dissertation:* Although there are no strict regulations on length, dissertations will normally be between 200 and 400 pages, not including bibliography and other supplemental material. The dissertation committee may, in special cases and with justification, allow a student to submit a shorter or longer dissertation. The student should discuss with their dissertation director and committee members their expectations for their involvement in the research/writing process.

When the dissertation has been completed in accordance with guidelines published in Guide to the Preparation of Theses and Dissertations, legible copies of the complete dissertation must be given to all committee members at least one month in advance of the scheduled defense. All dissertation defenses shall take place on campus and require the full attendance of the dissertation examining committee. Any exceptions from this practice will require approval from the Dean of the Graduate School. Campus Audio/Video Services can be employed in the event that either a committee member or the defending student cannot be on the premises due to extenuating circumstances. While the examining committee may wish to hold the committee examination of the defense in private, the public presentation of the defense will be open to the university community and should be advertised campus-wide three weeks prior to the scheduled date. A minimum of three weeks prior to the dissertation defense, the dissertation abstract, approved by the student's advisor and director of graduate studies, must be submitted to the Graduate School with details of the time and location for the defense. The Graduate School will be responsible for advertising the defense to the university community. The dissertation examining committee will set up the ground rules for the defense, which usually involves the student giving a short précis of the research problem, the research method, and the results. This is followed by questions from the Committee and, if the committee so desires, from the audience.

### **H. Teaching Assistantships**

For Ph.D. students awarded teaching assistantships, four years of full support is the department's norm. Awards are renewable annually, provided the student maintains satisfactory academic progress towards the degree and performs teaching duties appropriately (see above, Satisfactory Progress). Students (other than Graduate Council fellows and Turner fellows) should not count on assistantship resources beyond the fourth year of study.

During their first year, Ph.D. students will normally be placed as teaching assistants in a WGSS lecture courses. After the first year, students' teaching obligation may be fulfilled in several ways depending on departmental needs, including assisting an instructor in a large course or teaching a small section of a 200-level or 300-level women's and gender studies class. While placements will vary according to student and program needs and constraints, every effort will be made to provide each student with the available range of teaching experiences.

T.A. assignments differ, but the amount of work required cannot exceed 20 hours per week. T.A.s will usually: Hold office hours to review course materials, assist in grading, and discuss other course-related issues with undergraduates; attend classes (graduate courses will be scheduled to minimize interference with T.A. assignments) and read all required entries on the syllabus; lead discussion groups; grade exams, homework, and other written material.

The performance of teaching assistants is monitored by evaluation forms given to undergraduate students at the end of each semester, as well as by faculty members who visit certain classes taught by the T.A. and submit a written evaluation. Stipends of teaching assistants may be terminated if (on the basis of these evaluations and other relevant criteria) the graduate studies committee judges that they have been deficient in carrying out their teaching duties. Superior work as a T.A. is highly valued by the WGSS faculty and by the Graduate School. In the past, several T.A.'s from WGSS have won the President's Award for Excellence in Teaching by a Graduate Student. This and other prizes for which T.A.'s are eligible carry a cash award.

### **I. Advisor and Mentor**

The Graduate School requires all students to have an advisor. The director of graduate studies serves as advisor to all entering students during their first year and helps them plan their programs. Before the end of the first academic year, full-time students should choose an official graduate advisor from the WGSS core or graduate faculty. Advisor and student meet regularly to discuss the student's progress and program. The advisor will most often end up directing the student's dissertation. Students are encouraged to consult with all members of the faculty. Students will have selected a dissertation committee by the end of their third year.

### **J. Residence Requirement**

The University requires that students receiving a Ph.D. must take at least two consecutive semesters of full-time graduate study. For those entering without prior graduate study or with fewer than 24 graduate credits, this usually means 12 credits per semester; for those entering with more than 24 graduate credits or with advanced standing provided by prior graduate work, this would mean 9 credits per semester.

### **The Graduate Certificate Program in Women's, Gender, and Sexuality Studies**

The Women's, Gender, and Sexuality Studies Program, in the College of Arts and Sciences, offers a course of study that leads to the Graduate Certificate in WGSS. The program has affiliated faculty members from more than 20 different programs in the social and behavioral sciences, humanities, and health sciences. The program is designed to allow students working toward a degree in departments such as Art, English, History, Philosophy, Theatre, Music, , Psychology, or Sociology to draw on faculty whose work deals with gender and sexuality issues in a wide range of disciplines. Since WGSS has affiliates in nearly every department in the social sciences and humanities, the certificate program offers graduate students the opportunity for an unusually rich interdisciplinary experience.

The graduate certificate entails three required seminars—feminist theory, feminist histories and methodologies, and the teaching practicum in women's, gender, and sexuality studies—and two electives that can be taken with affiliated faculty in the student's home department or from a list of seminars offered by faculty affiliates in other departments. Recent and future courses offered by our core faculty and affiliates include, for example, "Modernism and Cultural Studies," "Madness and Civilization, 1960-1980," "Globalization and Gender," "Fashion in Theory and Film," and "Race, Gender, and Global Culture," and "Silk, Gold and Spices: Literature and International Trade." Where courses are not available for a particular topic, students may arrange directed readings with an affiliated faculty member.

It is expected that most students can fulfill the requirements for the Graduate Certificate in WGSS while working toward the master's, doctoral, or other degree. Students should consult with their home program to determine whether the credits earned in the certificate program can be used toward their degrees.

### Requirements for the Graduate Certificate in Women's, Gender, and Sexuality Studies

The Graduate Certificate Program in WGSS is designed to provide an interdisciplinary course of instruction for students already enrolled in a graduate degree-granting program or to those admitted to the free-standing Graduate Certificate Program. To earn the certificate, students must complete a minimum of 15 graduate credits in courses approved for the Certificate Program. Approved credits earned toward a graduate degree in another program or department may be applied toward the Graduate Certificate in Women's Studies. Students should consult with their home programs to determine whether credits earned for the certificate can be applied to the master's or doctoral degree.

#### Core Requirements (9 credits):

WST 600 Histories and Methods of Gender Studies  
WST 601 Feminist Theories  
WST 698 Practicing Women's and Gender Studies

#### Electives (6 credits):

Only one elective (3 credits) may be a readings course taken with an affiliated faculty member and with approval from the WGSS graduate director.

#### For more information, contact

Department of Women's, Gender, and Sexuality Studies  
Room 2048, Humanities Building  
SUNY Stony Brook  
Stony Brook, NY 11794-5356  
(631) 632-1967

### Faculty of Women's, Gender, and Sexuality Studies

**Mary Jo Bona**, *Distinguished Professor* (Ph.D., 1989, University of Wisconsin-Madison) Feminist theories and literatures; feminist and queer narrative theories; multi-ethnic American literary cultures; Italian American/Italian diasporic literary and cultural studies; diaspora/migration/critical race theories.

**Ritch Calvin**, *Associate Professor* (Ph.D., 2000, Stony Brook University) Feminist theory, Latina literature and culture, Latina feminisms, feminist science fiction, reproductive technologies.

**Manisha Desai**, *Professor* (Ph.D., 1990, Washington University) Gender and Globalization; Transnational Feminism; Human Rights; Contemporary Indian Society; Social Movements; Gender and Development; South Asian American Issues.

**Lisa Diedrich**, *Professor* (Ph.D., 2001, Emory University) Critical medical studies, disability studies, feminist theories, interdisciplinary methods.

**Victoria Hesford**, *Associate Professor* (Ph.D., 2001, Emory University) Gender, sexuality, queer and feminist theory, U.S. queer and feminist history, popular and mass culture in the postwar era, and critical theory.

**Nancy Hiemstra**, *Associate Professor* (Ph.D., 2012, Syracuse University) Global migration, migration policy-making, immigration enforcement practices, "homeland security" at the scales of home and community, processes of racialization, constructions of borders and sovereignty, Latin America, feminist epistemology and methodologies.

**Jenean McGee**, *Assistant Professor* (Ph.D., 2023, University of Colorado, Boulder) Africana Studies, Black Feminist/ Womanist Theory, Critical Race Theory, Critical Data Studies, Critical Media Studies, Critical Social Media Studies, Surveillance Capitalism, African Diaspora Studies, Visual Culture Studies, Popular Culture.

**Liz Montegary**, *Associate Professor* (Ph.D., 2011, University of California, Davis) Feminist and queer theory; transnational American studies; LGBT/queer activism; travel, tourism, and mobility studies; cultural studies of militarization.

**Cristina Silva**, *Assistant Professor* (Ph.D., 2019, University of Connecticut) Sexualities, race/ethnic studies, body/embodiment, Latina/o/x studies, qualitative methods, sex work, women of color feminisms

#### Affiliated Faculty

**Nerissa Balce**, *Associate Professor* (Ph.D., University of California-Berkeley Ethnic Studies): Asian American literature and popular culture, Filipino American studies, Humor studies, Postcolonial theory, U.S. Empire studies.

**Michelle Bogart**, Professor Emeritus, (Ph.D. University of Chicago): Social History of Art in the United States; Public Art, Urban Design, and Commercial Culture

**Simone Brioni**, Assistant Professor, (Ph.D., 2013, University of Warwick): Postcolonial theory; migration studies; film studies and filmmaking; diaspora cultures from the Horn of Africa

**Lena Burgos-Lafuente**, Associate Professor, (Ph.D. 2011, New York University): Modern and contemporary Caribbean and Latin-American literatures, poetry, modern transatlantic literatures, Poetics and Literary Politics.

**Rebekah Burroway**, Associate Professor, (Ph.D., 2011, Duke University): Poverty & Inequality, Global Health, Gender, Development & Developing Countries, Political Sociology, Social Demography.

**Alix Cooper**, Associate Professor, (Ph.D., 1998, Harvard University): Early modern Europe, science, medicine, environment, women and gender, cross-cultural encounters

**Megan Craig**, Associate Professor (Ph.D., 2007, The New School for Social Research): color, synesthesia, autism, psychoanalysis, and embodiment

**Joanne Davila**, Professor (Ph.D., 1993, University of CA, Los Angeles): Development and course of interpersonal functioning and psychopathology (especially depression) among adolescents and adults; Romantic competence among adolescents and adults; Romantic relationship education for adolescents and young adults; Well-being among LGBT individuals.

**Patricia Dunn**, Professor: composition and rhetoric, English education, and disability studies

**Nicholas Eaton**, Associate Professor (Ph.D., 2012, University of Minnesota): Classification and structure of psychopathology and comorbidity; quantitative methods and psychometrics; LGBTQ issues; sexual behavior, risk, and health; mental health of oppressed minorities (e.g., defined by race/ethnicity, sexual orientation, gender identity).

**Kathleen Fallon**, Professor (Ph.D., 2002, Indiana University): political sociology-1, social movements, gender, international development, Africa

**Barbara, Frank**, Associate Professor (Ph.D., Indiana University): contemporary African and Diasporic Art, Ancient African and Mesoamerican Art.

**Crystal Fleming**, Professor (Ph.D., 2011, Harvard University): Critical Race Theory, Global White Supremacy, Temporality, Collective Memory, Social Movements, Mindfulness and Spirituality

**Daniela Flesler**, Professor (Ph.D., 2001, Tulane University): Contemporary Spanish Literature and Cultural Studies, Postcolonial Theory, Spain and North Africa, Immigration, Tourism.

**Lori Flores**, Associate Professor (Ph.D., 2011, Stanford University): Twentieth-century U.S., Latino, immigration, race, labor, gender, U.S.-Mexico borderlands

**Lauren Hale**, Professor (Ph.D., 2003, Princeton University): Social Determinants of Sleep, Retirement

**Amy Hammock**, Associate Professor (Ph.D., 2009, University of Michigan): Prevention and response to intimate partner violence; youth development; community-level prevention programming; community-based participatory research; qualitative research methods.

**Erick Haralson**, Associate Professor (Ph.D., Columbia University): Anglo-American modernism, Henry James, American poetry, contemporary World Literature

**Dawn Harris** (Ph.D., York University): history of punishment in the British Caribbean during the 19th century and those relating to issues of women and gender during the colonial period

**Susan Hinely, Visiting Scholar** (J.D., 1983, Harvard Law School; Ph.D., 1987, Stanford University): European intellectual history, women's movements, international law

**Kevin, Holt**, Assistant Professor (Ph.D., 2018, Columbia University): American popular music and issues of race class & gender as they manifest in popular culture. In addition to ethnomusicology, Holt's disciplinary specialties include Africana studies, hip-hop studies, performance studies, and women's, gender & sexuality studies.

**Young-Sun Hong**, Professor (Ph.D., 1989, University of Michigan): Modern Germany, humanitarianism and human rights, race, gender

**Leonie Huddy**, Distinguished Professor (Ph.D., 1989, University of California, Davis): political behavior in the United States and elsewhere through the lens of intergroup relations, with a special focus on gender, race, and ethnic relations

**Heidi Hutner**, Associate Professor (Ph.D., 1993, University of Washington, Seattle): Environmental literature and film; ecofeminism; environmental justice; feminism; race studies; women's literature; Restoration and eighteenth-century literature and culture.

**Isabela Kalinowska-Blackwood**, Associate Professor (Ph.D., Yale University): Russian and Polish literature; culture and film.

**Brooke Larson**, Professor (Ph.D. 1978, Columbia University): Colonial and post-colonial [Latin America](#), Bolivia, peasants, race, ethnicity

**Shirley Jennifer Lim**, Professor (Ph.D., 1998, University of California at Los Angeles): U.S. racial minority women's cultural history.

**Laura Lindenfeld**, Professor, (Ph.D., University of California, Davis): Cultural studies, communications, environmental sustainability, food, and food cultures

**Sara Lipton**, *Professor* (Ph.D., 1991, Yale University): Religious identity and experience, Jewish-Christian relations, and art and cultural in the high Middle Ages (11th-14th centuries).

**Marci Lobel**, Professor (Ph.D., 1989, University of California, Los Angeles): Using social psychological theory to understand stress, coping, and health, particularly reproductive health. Also, research on social comparison processes, focusing on the ways that people coping with stress use social comparison to improve their emotional state and preserve positive self-views

**Judith Lochead**, Professor (Ph.D., 1982, Stony Brook University): recent musical practices in North America and Europe, with particular emphasis on music of the western classical tradition.

**Kristina Lucenko**, Assistant Professor (Ph.D., University at Buffalo)

**Iona Man-Cheong**, *Associate Professor* (Ph.D., 1991, Yale University): Chinese history, culture and society, particularly Qing dynasty; women, gender and sexuality in China.

**Catherine Marrone**, Advanced Senior Lecturer: Medical Sociology, Gender, Gender and Work, Sociology of Human Reproduction, Sociology of Aging

**Celia Marshik**, *Professor* (Ph.D. 1999, Northwestern University): 20th Century British Literature; Modernism; Feminist Studies.

**April Masten**, Associate Professor (Ph.D., 1999, Rutgers University): Nineteenth-century U.S. cultural history

**Anne Moyer**, Professor (Ph.D., 1995, Yale University): Psychosocial issues surrounding cancer and cancer risk, medical decision making, gender and health, the psychology of research participation, research methodology and meta-analysis.:

**Elizabeth Newman**, Associate Professor (Ph.D., 2008, Yale University): Mexico, environmental humanities, anthropology, archaeology

**Anne O'Byrne**, Associate Professor (Ph.D., 1999, Vanderbilt University): Social and political philosophy; contemporary political philosophy; philosophy and race; philosophy and genocide; *Sensus communis*; critical phenomenology; Arendt; Nancy; Nietzsche; Descartes; philosophy, commemoration and mourning; art and society

**Oyeronke Oyewumi**, Professor: Sociology of Gender, Sociology of Knowledge, Sociology of Culture, Comparative Historical-Sociology, Feminist Theory, Transnational Feminisms, Social Theory, Social Inequalities in Local, Regional, and Global systems, African Studies, (Post) Colonial Studies and Modernities

**Joseph Pierce**, Associate Professor (Ph.D., 2013, University of Texas, Austin): kinship, gender, sexuality, and race in Latin America, 19th century literature and culture, and hemispheric approaches to citizenship and belonging

Loredana Polezzi, Alfonse M. D'Amato Chair in Italian and Italian American Studies (Ph.D., University of Warwick): contemporary Italian travel writing, colonial and postcolonial literature, migrant and diasporic cultures, translingualism and self-translation

**Mary C. Rawlinson**, *Professor Emeritus* (Ph.D., 1978, Northwestern): Aesthetics, literature, and philosophy; Proust, mystery, and detective fiction; 19th-century Philosophy (esp. Hegel); philosophy of medicine.

**Jeffrey Santa Ana**, Associate Professor (Ph.D., 2003, University of California, Berkeley): American literature and culture; Asian American literature and film; Filipino diaspora; global migration and transnationalism; gender and sexuality studies; race and ethnicity; emotion studies.

**Shobana Shankar**, Professor (Ph.D., 2003, University of California, Los Angeles): Africa (particularly West Africa), colonial and postcolonial politics, religion, health, Muslim-Christian interactions, Africa-South Asia connections

**Katy Siegel**, **Professor (Ph.D., University of Texas at Austin)**: Postwar and Contemporary European and American Art, Material and Social Histories, Curatorial Studies.

**Benjamin Tausig**, Associate Professor (Ph.D., New York University): music, sound, and political protest in Bangkok, Thailand

**Nancy Tones**, Distinguished Professor (Ph.D., 1978, University of Pennsylvania): U.S. social and cultural history, history of medicine, women, gender

**Kathleen M. Vernon**, *Professor* (Ph.D., 1982, University of Chicago): Contemporary Spanish and Latin American cinema and cultural studies; gender and popular culture; contemporary Hispanic literature.

**Adryan Wallace (bold name)**, *Assistant Professor* (**Ph.D. Rutgers**): gender, political economy, Islam and the dynamic interactions of politics and culture on political institutions

**Tracey Walters**, *Professor* (Ph.D., 1999, Howard University): African American literature; Black British literature and culture.

**Kathleen Wilson**, Distinguished Professor (Ph.D., 1985, Yale University): Modern British cultural and political history.

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

**Writing and Rhetoric****Graduate Program Director**

Shyam Sharma, Humanities Building 2109, (631) 632-9186

**Program Assistant and Graduate Certificate Coordinator**

Adam Schultheiss, Humanities Building 2005 (631) 632-7390

Graduate Certificate Awarded

Advanced Certificate in Teaching Writing

**Website**

<http://www.stonybrook.edu/commcms/writrhet/graduate/certificate.html>

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

The Program in Writing and Rhetoric, in conjunction with the English Department and the Linguistics Department, offers a course of study that leads to the Advanced Certificate in Teaching Writing. The certificate program, a 15-unit graduate program approved by the State University of New York, is designed to complement graduate work in rhetoric and composition, English, literacy studies, linguistics, or cultural analysis and theory, to name a few examples. The certificate also provides further professional development and mentoring for those already teaching writing at the secondary or college levels.

Learning to teach writing effectively requires study of a variety of fields. Our program draws on theories, research and practices from psycholinguistics, sociolinguistics, cognitive psychology, language acquisition research, genre theory, rhetorical theory, media studies and linguistic anthropology.

Teachers who are grounded in this body of theory and research will be better equipped to implement effective teaching strategies or undertake doctoral studies.

Individuals who would benefit from this certificate program include MA and MAT candidates in English who are preparing for a teaching career in high school or community college teaching; PhD candidates in a range of disciplines who would like a broad-based degree program and want to do research in methods of teaching writing; and high school and college teachers seeking advanced training, accreditation, mentoring, or promotion.

Admission to the Graduate Certificate Program in Teaching Writing is open to any student enrolled a graduate degree-granting program at Stony Brook University or to free-standing certificate students who have completed their BAs who meet the admissions criteria.

For applicants already admitted to the university, admission involves filling out a brief form. For admission to the free-standing Certificate Program in Teaching Writing, students are required to have earned a bachelor's degree with a cumulative grade point average of 3.0 on a 4 point scale. The following must be submitted to the Program in Writing and Rhetoric for admission to the Certificate program:

- A. A letter of application stating the purpose of study
- B. A Graduate School application form
- C. An official transcript of undergraduate record culminating in a bachelor's degree and graduate degree transcript if applicable
- D. Two letters of recommendation from teaching supervisors and/or professors. The forms and additional information are available through the Program in Writing and Rhetoric office:

Program in Writing and Rhetoric

Stony Brook University

Stony Brook, NY 11794-5340

**Certificate Requirements**

The Certificate, which can be completed in two years, consists of five courses, chosen from among the following:

WRT 506 / EGL 506 Studies in Literary Theory

WRT 509 / EGL 509 Studies in Language and Linguistics

WRT 592 / EGL 592 Problems in the Teaching of Writing

WRT 612 / EGL 612 Composition Theory

WRT 613 / EGL 613 Research in Composition



WRT 614 / EGL 614 Topics in Composition and Writing

(may be repeated with different topics)

WRT 698 / EGL 698 Practicum in Teaching of Writing (for PhD candidates or teachers with an MA degree) or

Up to two courses may be taken from the following list, with enrollment permission from the Linguistics Department:

LIN 522 Phonetics

LIN 527 Structure of English

LIN 530 Introduction to General Linguistics

Note: One course from another university may be applied towards this Certificate with approval from the Director

Note 2: Students may petition to the Director of the Writing Program that a course at Stony Brook other than those above be counted towards the Certificate if the course is determined to contribute to the student's mastery of writing and language study.

#### Affiliated Faculty

Broselow, Ellen. Linguistics. PhD, 1976, University of Massachusetts-Amherst: Phonology, phonetics, second language acquisition.

Davidson, Cynthia. Writing and Rhetoric. PhD, 2000, University of Illinois at Chicago: Rhetoric and digital media.

Dunn, Patricia. English. PhD, 1991, The University at Albany: Composition and rhetoric, English education, disability studies.

Hammond, Eugene. Writing and Rhetoric. PhD, 1977, Yale University: Composition and rhetoric; history of rhetorical theory, Jonathan Swift.

Khost, Peter. Writing and Rhetoric. PhD, 2011, CUNY Graduate Center: Teaching writing and teaching literature, political implications of teaching writing, humanitarianism.

Lindblom, Kenneth. English. Director of the English Teacher Education Program. PhD, 1996, Syracuse University: English education; theory, history, and practice of composition-rhetoric; discourse pragmatics.

Lucenko, Kristina. Writing and Rhetoric. PhD, 2009, University at Buffalo: Women's writing, feminism, life narrative, service learning.

Martinez-Pizarro, Joaquin. English. PhD, 1976, Harvard University: Literary history of the Middle Ages, classical and medieval backgrounds, comparative studies.

Pfeiffer, Douglas. English. PhD, 2005, Columbia University: Renaissance humanism, history of literary and rhetorical theory.

Sharma, Shyam. Writing and Rhetoric. PhD, 2012, University of Louisville: Writing in the disciplines, English as a second language.

Thompson, Roger. Writing and Rhetoric. PhD, 2000, Texas Christian: Rhetorical theory, history of rhetorical theory, writing about war experience, veterans issues, trauma.

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