Master of Arts in Teaching Biology

**Director, Center for Science and Mathematics Education**  
Keith Sheppard, 39 Life Sciences Building (631) 632-2989 Keith.Sheppard@stonybrook.edu

**Program Director**  
Zuzana Zachar, 50 Life Sciences Building (631) 632-8970 Zuzana.Zachar@stonybrook.edu

**Degree Awarded**  
Master of Arts in Teaching Biology

**Website**  
http://www.stonybrook.edu/spd/graduate/matscience.html

**Application**  
https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantLogin.asp?id=sunysb-edl

**Master of Arts in Teaching Biology**

This program is designed as a course of study leading to New York State certification for teaching Biology in the secondary schools (grades 7-12), with an extension option for grades 5-6. Candidates admitted may also qualify for a General Science Extension for grades 7-12. This program, offered in collaboration with the School of Professional Development, the University's Department of Biochemistry and Cell Biology and the Professional Education Program, is designed for those who have little or no previous coursework in education or formal classroom teaching experience.

**Master of Arts in Teaching Admissions**

A. Application essay.

B. Graduate Record Examination (GRE) General Test scores.

C. A bachelor’s degree with an academic major (or a minimum of 36 credits) in the content field. Transcript must reflect a 2.75 minimum cumulative GPA as well as a 3.0 minimum GPA in science courses.

D. One year of college-level study of a foreign language with a grade of “C” or better (this may include American Sign Language)

E. Three letters of recommendation. Two of the three recommendations must be from faculty with whom you have completed a course of study at the college level. It would be preferable that these faculty be in the area of your major.

F. In those cases where the departmental admissions committee deems it desirable, personal interviews with departmental representatives may be necessary.

**Requirements for the MAT in Biology**

The degree program consists of 44 credits, distributed among the areas listed below. Unless otherwise noted, each course is three credits. All degree requirements must be completed within five (5) years from the semester date of admission as a matriculated student.

**1. GRADUATE SCIENCE COURSES**

15 credits; courses not listed are selected with the approval of a departmental advisor

*Core courses (select 3 of the following):*
- CEB 546 Current Topics in Biotechnology
- CEB 547 Current Topics in Molecular Genetics
- CEB 553 Biology of Human Behavior
- CEB 554 Current Topics in Immunology
- CEB 556 Ecology

*Plus two of the following*:
- CEB 505 History of the Long Island Environment
- CEB 557 Forensic Science
- CEB 548 Current Topics in Microbiology
- CEB 549 Laboratory Science Curriculum Development
- CEN 508/CHE 593 Demonstrations in Chemistry

*With prior approval of the MAT Biology program director, you may choose a content course from one of the masters or PhD programs in Marine Science, Genetics, Molecular & Cellular Biology and Ecology & Evolution to satisfy requirements in this area.
2. PROFESSIONAL STUDIES IN EDUCATION - 23 credits

CEE 505 Education: Theory and Practice
CEF 547 Principles and Practices of Special Education
PSY 595 Human Development
SCI 510 Introduction to Science Teaching (co-requisite SCI 549)
SCI 520 Science Teaching Methods (prerequisite SCI 510; co-requisite SCI 550)
SCI 549 Clinical Experience I (one-credit; co-requisite SCI 510)
SCI 550 Clinical Experience II (one-credit; prerequisite SCI 549; co-requisite SCI 520)
SCI 554 Student Teaching Seminar (prerequisites SCI 510, 520, 549, 550, CEE 505, PSY 595, and LIN 544, and all content courses required for completion of the degree; interview with and permission of Science Education Committee 631.632.7059; matriculation in degree [MAT/BIO, CHE, ESS, or PHY] program, successful completion of the LAST Examination. Co-requisites SCI 551 and SCI 552.)
LIN 544 Language Acquisition and Literacy Development

At the program director’s discretion, an undergraduate course from a registered and approved program may be approved as a substitution for any of the courses listed below. In all cases the undergraduate course must have been completed with a B or higher and the student must then take a different graduate pedagogy course to fulfill the graduate credits required for the graduate degree.

- CEE 505: Education – Theory and Practice
- CEF 547: Principles and Practices of Special Education
- LIN 544: Language Acquisition and Literacy Development
- PSY 595: Human Development

Speak to your graduate program director for more information and approval.

3. SUPERVISED STUDENT TEACHING - 6 credits

SCI 551 Supervised Student Teaching High School Grades 10-12: Science (prerequisites SCI 510, 520, 549 and 550; co-requisite SCI 552 & SCI 554)
SCI 552 Supervised Student Teaching Middle School Grades 7-9: Science (prerequisites SCI 510, 520, 549 and 550; co-requisites SCI 551 & SCI 554)

4. WRITTEN PROJECT

Students will be required to complete a teaching project approved by the sponsoring department.

TEACHER CERTIFICATION

The Master of Arts in Teaching is a New York State registered and approved program that qualifies students for license upon successful degree completion. Students must complete all courses required for the MAT and must receive a grade of B or better in all pedagogy and foundation courses as well as an overall GPA of 3.0 or better in all course work attempted while matriculated in a graduate teacher preparation program.

In addition, all teacher preparation candidates must be fingerprinted and must also complete certification workshops in:

- Child Abuse
- Dignity for All Students Act (DASA)
- School Violence (Project Save)

See Certification and Licensing Workshops for details and schedules.

All students will have to complete the ALST (Academic Literacy Skills Test), Educating All Students Test, and the revised CST (Content Specialty Test) in the area of the Certificate. The activation date of some of the new Content Specialty Tests will vary as they become live during the 2013-2014 academic year. It is the student’s responsibility to monitor the TEACH website at http://www.highered.nysed.gov/tcert/ to ensure that they are taking the appropriate examinations. All students are required to complete and submit the edTPA (Education-Teacher Performance Assessment - Portfolio) in their content field. Students should check with the program director for specific requirements.

Faculty

Program faculty are drawn from the Department of Biochemistry and Cell Biology, as well as from the Professional Education Program.

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