Stony Brook University

# MATH EXPECTATIONS FOR PROSPECTIVE FRESHMEN

*as of April 7, 2014*

**WHAT WE LOOK FOR IN A FRESHMAN APPLICANT**

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

Successful applicants will typically have:
- High school diploma or equivalent (Regents diploma preferred for NY residents)
- Strong performance in a college preparatory high school academic program that includes:
  - 4 units of English
  - 4 units of social studies
  - 3 units of mathematics (4 units required for engineering, applied sciences, and pharmacology)
  - 3 units of science (4 units required for engineering, applied sciences, and pharmacology)
  - 2 or 3 units of a foreign language
- Standardized test scores that indicate the promise of success in a rigorous undergraduate course of study.

**AP CREDIT** Students who score a **4 or 5 on the AP Calculus AB Exam will receive credit for Calculus I** at Stony Brook; thosewho score a **4 or 5 on the AP Calculus BC Exam will receive credit for Calculus I and II**. This will satisfy the Stony Brook Curriculum's Master Quantitative Problem Solving (QPS) requirement, and may serve to lighten a student's academic course load in their first year or provide an opportunity to advance more rapidly in their math courses and related subjects. Students who score a 3 will receive 3 elective credits.

Students with a score of **3, 4, or 5 on the AP Statistics Exam will receive credit for Elements of Statistics** at Stony Brook. This will satisfy the Stony Brook Curriculum's Master Quantitative Problem Solving (QPS) requirement, and may serve to lighten a student's academic course load in their first year or provide an opportunity to advance more rapidly in their math courses and related subjects.

| MAJOR | HIGH SCHOOL PREPARATION: MATH EXPECTATIONS FOR SUCCESS | STONY BROOK MATH REQUIREMENTS |
|---|---|---|
| Africana Studies, BA<br>American Studies, BA<br>Anthropology, BA<br>Art History & Criticism, BA<br>Asian & Asian American Studies, BA<br>Cinema & Cultural Studies, BA<br>Comparative Literature, BA<br>English, BA<br>Environmental Humanities, BA<br>European Studies, BA<br>French Language & Literature, BA<br>German Language & Literature, BA<br>History, BA<br>Italian Studies, BA<br>Journalism, BA<br>Linguistics, BA<br>Multidisciplinary Studies, BA<br>Music, BA<br>Philosophy, BA<br>Religious Studies, BA<br>Spanish Language & Literature, BA<br>Studio Art, BA<br>Theatre Arts, BA | Students pursuing any of these majors are expected to have completed four years of math in high school and demonstrate basic math competence by: (1) having passed the NY State Regents Exam in Algebra 2/Trigonometry with a score of 75+; (2) having socred 560+ on the SAT I or 530+ on the SAT II in math or 56+ on the math portion of the PSAT or 23+ on the ACT Test in Mathematics; or (3) having received a score of 3+ on an AP exam in calculus or statistics. | These majors have no specific math requirements. Students pursuing these majors need only satisfy the Stony Brook Curriculum's Master Quantitative Problem Solving (QPS) requirement. Courses offered at Stony Brook that satisfy this requirement include Statistics, Mathematical Thinking, Introduction to Symbolic Logic, Calculus and Overview of Calculus with Applications. |
| Political Science, BA<br>Psychology, BA<br>Sociology, BA<br>Social Work, BS | Students pursuing these majors are expected to have satisfactorily completed four years of math in high school, preferably including a precalculus course, calculus course, and/or AP Statistics. | These majors require an introductory statistics course |
| Business Management, BS<br>Coastal Environmental Studies, BS<br>Economics, BA<br>Ecosystems & Human Impact, BA<br>Environmental Design, Policy, & Planning, BA<br>Sustainability Studies, BA | Students pursing these majors are expected to have satisfactorily completed 12th Year High School Math (Precalculus). When possible, a year of calculus in high school is strongly recommended. | These majors require Overview of Calculus with Applications or other calculus course |
| Applied Mathematics & Statistics, BS<br>Astronomy/Planetary Sciences, BS<br>Athletic Training, BS<br>Atmospheric & Oceanic Sciences, BS<br>Biochemistry, BS<br>Biology, BS<br>Chemistry, BS & BA<br>Clinical Laboratory Sciences, BS<br>Earth & Space Sciences, BA<br>Engineering Chemistry, BS<br>Environmental Studies, BA<br>Geology, BS<br>Health Science, BS<br>Marine Sciences, BS<br>Marine Vertebrate Biology, BS<br>Mathematics, BS<br>Nursing, BS<br>Occupational Therapy<br>Pharmacology, BS<br>Physics, BS<br>Pre-Med, Pre-Dental, Pre-Vet, Pre-PT<br>Psychology, BS<br>Respiratory Care, BS<br>Technological Systems Management, BS | Students pursuing any of these majors, as well as those preparing for the graduate health professions, are expected to have a strong aptitude for math, typically demonstrated by a score of 600 or higher on the Math Section of the SAT I Exam and an above-average performance in 12th Year High School Math (Precalculus).<br><br>Completion of a year of calculus in high school, where possible, is strongly recommended. | These majors require more advanced mathematics courses for completion of the degree at Stony Brook |
| Biomedical Engineering, BE<br>Chemical & Molecular Engineering, BE<br>Civil Engineering, BE<br>Computer Engineering, BE<br>Computer Science, BS<br>Electrical Engineering, BE<br>Engineering Science, BE<br>Information Systems, BS<br>Mechanical Engineering, BE | Students pursuing any of these majors are expected to have a strong aptitude for math, typically demonstrated by a score of 600 or higher on the Math Section of the SAT I Exam and a year of calculus in high school with an above-average performance. | These majors require more advanced mathematics courses for completion of the degree at Stony Brook |