	MAT 319	MAT 320
Schedule	Tu-Th, 11:30-12:50 *Room*: Heavy Eng 201	Tu-Th, 11:30-12:50, *Room*: P-131 Through 3/2: joint lectures in Heavy Eng 201
Instructor	Henri Guenancia	David Ebin
Office hours	Thursday, 8am-10am in my office 3-121 Thursday, 10am-11am at the MLC, S-235	Tuesdays and Thursdays 10:00 to 10:30 in MLC and 10:30-11:30 in 5-107 Also by appointment
Recitation	MW, 10-10:53 Room: Library E4320	MW, 10-10:53 Room: Frey Hall 226
TA	Ben Wu, ben.wu@stonybrook.edu	Jiasheng Teh, jiasheng.teh@stonybrook.edu
Office hours	M, 4-5pm in S-240A and Tu-Th, 2:30-3:30pm at MLC	
Description	A careful study of the theory underlying topics in one-variable calculus, with an emphasis on those topics arising in high school calculus. The real number system. Limits of functions and sequences. Differentiations, integration, and the fundamental theorem. Infinite series.	A careful study of the theory underlying calculus. The real number system. Basic properties of functions of one real variable. Differentiation, integration, and the inverse theorem. Infinite sequences of functions and uniform convergence. Infinite series.
Overview	The purpose of this course is to build rigorous mathematical theory for the fundamental calculus concepts, sequences and limits, continuous functions, and derivatives. We will rely on our intuition from calculus, but (unlike calculus) the emphasis will be not on calculations but on detailed understanding of concepts and on proofs of mathematical statements.	An introductory course in analysis, required for math majors. It provides a closer and more rigorous look at material which most students encountered on an informal level during their first two semesters of Calculus. Students learn how to write proofs. Students (especially those thinking of going to graduate school) should take this as early as possible.
Prerequisites	C or higher in MAT 200 or permission of instructor; C or higher in one of the following: MAT 203, 205, 211, 307, AMS 261, or A- or higher in MAT 127, 132, 142, or AMS 161.	

	Math majors are required to take either MAT 319 or MAT 320
Textbook	Kenneth Ross *Elementary Analysis: The Theory of Calculus*, **2nd edition**
Homework	Weekly problem sets will be assigned, and collected in *Wednesday recitation*. The emphasis of the course is on writing proofs, so please try to write legibly and explain your reasoning clearly and fully. You are encouraged to discuss the homework problems with others, but your write-up must be your own work. *Late homework will never be accepted*, but under documented extenuating circumstances the grade may be dropped.
Grading	Homework: 20%, Midterm I: 20%, Midterm II: 20%, Final: 40%