MAT 127: Calculus C   Spring 2018

About this course: This is the third semester in a three semester sequence on single-variable calculus. Now that you understand derivatives and integrals (which you learned in MAT 125 and MAT 126), we can turn to two final topics: elementary differential equations and infinite series. These concepts are the focus of this course, and are essential in many areas of science, mathematics, and engineering. Differential equations are especially important in mathematical modeling.

Text: *Single Variable Calculus (Stony Brook Edition 4)*, by James Stewart.
This is the same book as Stewart's *Single Variable Calculus: Concepts and Contexts, 4th ed*, but with a different cover. Scott Sutherland has kindly compiled a list of options for buying the textbook (and access to WebAssign) on the following website:

> http://www.math.stonybrook.edu/~scott/mat125.spr18/textbook.html

Calculators: A calculator is **not required** for this course, but you may find using a graphing calculator helpful. (I prefer a laptop.) However, be careful how you use it. Many students become dependent on their calculators, and wind up being unable to do anything without them. In this course, **no calculators will be allowed on exams**.

Homework: You *cannot* learn calculus without working problems. Expect to spend at least 8 hours a week solving problems; do all of the assigned problems, as well as additional ones to study. If you do not understand how to do something, get help from your TA, your lecturer, your classmates, or in the Math Learning Center. You are encouraged to study and discuss problems with others from the class, but write up your own homework by yourself, and make sure you *understand* how to do the problems. Specific problem assignments can always be found on the web at http://www.math.stonybrook.edu/~cschnell/mat127/schedule. A significant fraction of the homework problems will be done on WebAssign; see the class web page for details. WebAssign homeworks are due every Wednesday in the morning – think, "Tuesday before I go to sleep" – and problems solved at least 2 days before the due date get extra credit. Paper homeworks will be due on Wednesday as well.

Examinations and grading: There will be three evening exams, and the ever-popular final exam. The dates and times are listed below; the locations will be announced later. Success on the exams will require correct and efficient solutions to the more difficult of the homework problems. Part of your grade will be based on class participation.

Early Exam (Wednesday, February 7, 8:45pm–10:15pm)	10%
Midterm 1 (Monday, February 26, 8:45pm–10:15pm)	20%
Midterm 2 (Wednesday, March 28, 8:45pm–10:15pm)	20%
Final Exam (Wednesday, May 9, 11:45am–2:30pm)	35%
Homework and Classwork (WebAssign and paper)	15%

Make sure that you can attend the exams at the scheduled times; **make-ups will not be given**. If you have evening classes, resolve any conflicts *now*. If one midterm exam is missed because of a serious (and documented!) illness or emergency, the semester grade will be determined based on the balance of the work in the course.

Reading: The textbook is intended to be read. Read the assigned sections **before the lecture!** This will greatly increase your comprehension, and enable you to ask intelligent questions in class. Furthermore, the lectures will not always be able to cover all of the material for which you will be responsible.

Office Hours: All lecturers and graders will hold at least three scheduled office hours per week. They are there to help *you*, so make use of these hours. You may go to any hours for any of the people associated with the course; the various office hours are listed on the "Teaching Staff" section of the class web page. You can also make appointments at other times.

Math Learning Center: The Math Learning Center, in Math Tower S-235, is there for you to get help with Calculus. It is staffed most days and some evenings, and all of us will hold some of our office hours there. You can find the schedule outside the room, at the Math Undergraduate Office, and online at `http://www.math.stonybrook.edu/mlc`.

Stony Brook Curriculum This course meets the QPS ("Master Quantitative Problem Solving") requirement of the Stony Brook Curriculum. In addition to the specific material, we will focus on the following general skills:

1. Interpret and draw inferences from mathematical models.

2. Represent mathematical information symbolically, visually, numerically, and verbally.

3. Employ quantitative methods to solve problems.

4. Estimate and check mathematical results for reasonableness.

5. Recognize the limits of mathematical methods.

Disabilities: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at (631) 632-6748 or online at `http://studentaffairs.stonybrook.edu/dss/`. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to `https://ehs.stonybrook.edu//programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities`

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is **always** wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at `http://www.stonybrook.edu/commcms/academic_integrity/index.html`.

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.