MAT 125: Calculus A   Stony Brook,   Spring 2018

About this course: The goal of this course is to develop your understanding of the concepts of differential calculus and your ability to apply it to problems both within and outside of mathematics. Part of this is a deeper understanding of functions, whether viewed as graphs, tables, or formulae. Fluency in understanding the languange of mathematics is essential for success in the sciences or engineering.

Text: *Single Variable Calculus (Stony Brook Edition 4)*, by James Stewart.
This text is used throughout the MAT125/126/127 sequence as well as MAT131/132. Use of WebAssign is required. There are many options regarding the text other than from the bookstore; please see the page you about the text on the class web page for details.

Homework: You *can not* 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 with 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 class web page.

There will be weekly homework assignments, in two parts. One part will be done online in WebAssign and a separate assignment will be handed in on paper; see the class web page for details. WebAssign homeworks are due **every wednesday in the morning** (think "Tuesday before I go to sleep"); problems solved at least 2 days before the due date get extra credit. Paper homeworks will be due during recitation each week.

Examinations and grading: There will be two 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 in both recitation and lecture.

What	When		% of Final Grade
Exam 1	Monday, Feb 19	8:45–10:15 pm	25%
Exam 2	Thursday, Mar 29	8:45–10:15 pm	25%
Final Exam	Wednesday, May 9	8:00–10:45 am	35%
homeworks (WebAssign and paper)			10%
participation in lecture and recitation			5%

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 (documented) illness or emergency, the semester grade will be determined based on the balance of the work in the course.

Before class: Most weeks, one or more videos will be posted. The material in the videos is also covered in the textbook. **Watch the videos and read the text before the lecture!** This will greatly increase your comprehension, and enable you to ask intelligent questions in class. Furthermore, the lectures will assume you have prepared for class by doing this.

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 dependant on their calculators, and wind up being unable to do anything without them. In this course, **no calculators will be allowed on exams**.

Office Hours: All lectures and TAs must 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.

Learning outcomes: This course is certified to fulfill the **Master Quantitive Problem Solving (QPS)** objective of the Stony Brook Curriculum, as well as **DEC C**. These include the following learning outcomes:

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics.

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

3. Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems.

4. Estimate and check mathematical results for reasonableness.

5. Recognize the limits of mathematical and statistical methods.

Note that a course grade of **C or better** (not C-) is required to fulfill these objectives.

Math Learning Center: The Math Learning Center, in Math S-2235, is there for you to get help with Calculus. It is staffed most days and some evenings— your lecturer or TA may hold some of his or her office hours there. A schedule should be posted outside the room and at the Math Undergraduate Office.

Disabilities: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at `http://studentaffairs.stonybrook.edu/dss/` or (631) 632-6748. 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 the following website:

`http://www.stonybrook.edu/ehs/fire/disabilities.shtml`

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/uaa/academicjudiciary/` .

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.