MAT 126: Calculus B   Stony Brook,   Fall 2018

About this course: This course picks up where MAT125 leaves off, and covers integral calculus: the definition of the integral, the fundamental theorem, symbolic and numeric methods of integration, area under a curve, volume, and applications such as arc length and work, as well as other topics such as calculus in polar coordinates.

Prerequisites: In order to succeed in MAT126, you *must* have a solid mastery of derivatives. Specifically, you need a C or higher in MAT125 (or MAT131 or AMS151 or equivalent transfer credit), a level 6 or higher on the math placement exam, or a score of 4 or higher on the AB-Calculus AP exam.

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 (but not AMS151/161 or MAT141/2). Use of WebAssign is required. There are several options regarding the text; please see the page 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 do your own homework by yourself, and make sure you *understand* how to do the problems.
Homework assignments will be a combination of problems from WebAssign (due each wednesday morning) and written problems to be turned in during recitation. Specific problem assignments can be found on the class schedule page.

Calculators: A calculator is **not required** for this course, but you may find using a graphing calculator helpful. 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**.

Examinations and grading: There will be two evening exams, and the beloved 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	Thursday, Oct. 11 8:30–10:00 pm	25%
Exam 2	Thursday, Nov. 1 8:30–10:00 pm	25%
Final Exam	Thursday, Dec. 13 2:15–5:00 pm	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.

Videos: There are videos of lectures from previous semesters posted on the class web page. These cover the topics in the class and the text, but do **not** replace the lecture or recitation; they are there to help you review, not skip class. This material also is covered in the textbook. You should use all of these sources to understand the material, and use the homework problems to confirm that you understand.

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 requirements of **DEC C** and the **Master Quantitive Problem Solving (QPS)** objective of the Stony Brook Curriculum. 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.

The course will measure your mastery of these outcomes by a combination of homework assignments and questions on the final and midterms.

Math Learning Center: The Math Learning Center, in Math S-235, is there for you to get help with Calculus. It is staffed on weekdays and some evenings— your lecturer and TA should hold some hours there (as well as other hours in his/her office). A schedule should be posted outside the room, at the Math Undergraduate Office (Math P-143), and on the MLC website.

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.