MAT131 - Calculus I - Summer I 2019

Syllabus
MWTh: 6:00- 9:05 PM, Library E4130

Instructor: Lisandra Hernandez
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Office hours: Check Website for Updated Hours

Course Description: MAT 131 is the first course in the 2-semester single variable calculus sequence. It covers limits, continuous functions, derivatives and their applications, antiderivatives and the fundamental theorem of calculus.

Course Pages:

1. Course Website: http://www.math.stonybrook.edu/~lisandra/course.html
2. Blackboard: http://blackboard.stonybrook.edu.

Course Textbook: *Single Variable Calculus Concepts and Contexts* (Special Edition for Stony Brook University), by James Stewart. I will assign homework from the book, so make sure you have access to it.

Homework: There will be weekly homework assignments (5 sets in total), due in class each Monday. **Check the *Announcements* section on Blackboard for the homework assignments**. 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. **Late Homework will not be accepted under any circumstances.**

Exams: There will be one in-class midterm and the final exam. The tentative dates and times are listed below. Success on the exams will require correct and efficient solutions to the more difficult of the homework problems.

Midterm: Thursday, June 13th, in class
Final: Wednesday, July 3rd, in class

Make sure that you can attend the exams at the scheduled times; *make-ups will not be given.* If the 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.

Grading Policy: Grades will be computed according to the following percentages:

Homework: 20 %
Midterm: 30 %
Final Exam: 50 % (cumulative)

Schedule of Topics: The following is a tentative schedule of topics. We will roughly cover sections 2.2-5.5, with the exception of Sections 3.8, 3.9, 4.4 and 4.7. It would be a good idea to briefly read over each section before the lecture.

Schedule of Topics	
Class	Topics
5/29	Syllabus and Introduction 2.2-2.3: Limit of a Function and Calculating Limits
5/30	2.4: Continuity
6/3	2.6-2.7: The Derivative of a Function
6/5	3.1, 3.3, 3.6, 3.7: Derivative of various standard functions
6/6	3.2, 3.4: Product Rule, Quotient Rule and Chain Rule
6/10	2.5, 4.5: Limits involving infinity, indeterminate forms and L'Hopital's Rule
6/12	3.5, 4.1: Implicit Differentiation and Related Rates
6/13	**MIDTERM**
6/17	2.8, 4.2: Graphing Functions Using Calculus Part 1
6/19	4.3: Graphing Functions Using Calculus Part 2
6/20	4.6: Optimization Problems
6/24	4.8, 5.1: Introduction to Integrals: Antiderivatives, areas and distances
6/26	5.2, 5.4: The Definite Integral and the Fundamental Theorem of Calculus
6/27	5.3, 5.5: Evaluating Definite Integrals; Substitution Rule
7/1	REVIEW FOR FINAL
7/3	**FINAL EXAM**

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

Americans with Disabilities Act: If you have a physical, psychological, medical, or learning disability that may impact on your ability to carry out assigned course work, please contact Disability Support Services at (631) 632-6748 DSS . DSS office: EEC (Educational Communications Center) Building, Room 128. DSS will review your concerns and determine, with you, what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Arrangements should be made early in the semester so that your needs can be accommodated. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and DSS. For procedures and information go to the DSS website above.

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another persons 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 here.

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 University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits the students' ability to learn. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Handbook and the Faculty-Employee Handbook.