

MAT 131 Calculus I

Spring 2018

Syllabus

Instructor. Zhiqiang Li

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Office: Math Tower 5D-148C

Office hours: Tuesday 3 - 4 pm, Thursday 3 - 4 pm, or by appointment

MLC hours: Thursday 2 - 3 pm

Blackboard. Grades and some course administration will take place on Blackboard. Please login using your NetID at <http://blackboard.stonybrook.edu>.

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. The course moves rather quickly. Students who would like to learn the same material at a somewhat slower pace should take MAT 125. The three-semester sequence MAT 125-126-127 covers the same material as the two-semester sequence MAT 131-132.

Textbook. *Single Variable Calculus: Concepts and Contexts*, 4st Edition (Stony Brook Edition), by James Stewart.

Tentative schedule.

- Week of 1/22: 2.2, 2.3 Limits, 2.4 Continuity.
- Week of 1/29: 2.4 Continuity, 2.5 Limits, 3.1, 3.2 Derivatives.
- Week of 2/5: 2.6, 2.7, 2.8, 3.1, 3.3 Derivatives, 3.4 Chain Rule.
- Week of 2/12: 3.5, 3.6, 3.7 More derivatives.
- Week of 2/19: Review, **Midterm I**, 4.5 L'Hospital rule.
- Week of 2/26: 4.5 L'Hospital rule.
- Week of 3/5: 4.1 Related rates.
- Week of 3/12: **Spring Break**.
- Week of 3/19: 2.8, 4.3 Curve sketching.
- Week of 3/26: 4.2, 4.6 Optimization, Review, **Midterm II**.
- Week of 4/2: 5.1, 5.2 Riemann sums.
- Week of 4/9: 5.1, 5.2 Riemann sums, 5.3 Antiderivatives, 5.4 The fundamental theorem.
- Week of 4/16: Exercises, 5.5 Substitution rules.
- Week of 4/23: 5.5 Substitution rules, Review.
- Week of 4/30: Review.
- Week of 5/7: **Final exam**.

Exams. There will be two midterms and a final exam. There will be no makeup exams.

- Midterm I: 2/21 8:45 pm. Location: TBA.
- Midterm II: 3/28 8:45 pm. Location: TBA.
- Final exam: 5/9 11:15 am - 1:45 pm. Location: TBA.

Grade Distribution.

- Midterm I: 25%
- Midterm II: 25%
- Final exam: 30%
- Written homework: 10%
- WebAssign: 10%

Students are expected to attend class regularly and to keep up with the material presented in the lecture and the assigned reading. There will be a few written assignments during the whole semester as well as weekly web assignments (WebAssign).

Written assignments. There will be a few written assignments during the whole semester. They will be announced during lecture. They will be collected and returned during recitations. A selected number of questions will be graded in each assignment.

WebAssign. WebAssign will begin on 1/25, students will be assigned web-based exercises using an online system.

Note that WebAssign access is **free for the first two weeks and includes an electronic text.** Please visit <http://www.math.stonybrook.edu/~scott/mat126.fall16/textbook.html> to see a discussion of purchasing options for the WebAssign. You **should** purchase your WebAssign through links provided on this webpage.

Please refer to <http://www.math.stonybrook.edu/~lombardi/mat131webassign.pdf> for a helpful guide on how to use WebAssign.

Information on how to access this system will be brought to you via your Blackboard account by 1/25. Please pay careful attention to due dates as there are no extensions!

Extra help. You are welcome to attend the office hours and ask questions about the lectures and about the homework assignments. In addition, math tutors are available at the MLC: <http://www.math.sunysb.edu/MLC>.

Special needs. If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631) 632-6748, or at the following website <http://studentaffairs.stonybrook.edu/dss/index.shtml>. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

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 is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. 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>.