

MAT 132: Calculus II

Spring 2022

Department of Mathematics
Stony Brook University

Important Note: Every effort will be made to avoid changing the course schedule, but the possibility exists that unforeseen events will make syllabus changes necessary. It is your responsibility to check Blackboard and the course website for corrections or updates to the syllabus. Any changes will be clearly noted in course announcements or through Stony Brook email.

Course Description: A continuation of MAT 131, covering symbolic and numeric methods of integration; area under a curve; volume; applications such as work and probability; sequences; series; Taylor series; differential equations; and modelling. May not be taken for credit in addition to MAT 127, MAT 142, MAT 171, or AMS 161. This course has been designated as a High Demand/Controlled Access (HD/CA) course. Students registering for HD/CA courses for the first time will have priority to do so.

Textbook (required): James Stewart, Single Variable Calculus: Concepts & Contexts, 4th edition (2010). If you have a different edition, make sure that the assigned homework problems are the same.

Prerequisites: C or higher in AMS 151 or MAT 131 or 141, or level 7 on the mathematics placement examination.

SBC Objectives: QPS

Instructors:

- Dimitrios Ntalampekos. Email: dimitrios.ntalampekos@stonybrook.edu. Office hours and Math Learning Center (MLC) hour:

<http://www.math.stonybrook.edu/cards/ntalampekodimitrios.html>

The office hours will be held in person and the MLC hours will be held through the Zoom platform.

- Christina Karafyllia. Email: christina.karafyllia@stonybrook.edu. Office hours and Math Learning Center (MLC) hour:

<http://www.math.stonybrook.edu/cards/karafylliachristina.html>

The office and MLC hours will be held through the Zoom platform.

Teaching assistants:

- Miao Song. Email: Miao.Song@stonybrook.edu. Office hours and Math Learning Center (MLC) hour:

<https://www.math.stonybrook.edu/cards/songmiao.html>

- Yu Xiao. Email: Yu.Xiao@stonybrook.edu. Office hours and Math Learning Center (MLC) hour:

<https://www.math.stonybrook.edu/cards/xiaoyu.html>

- Bowen Zhang. Email: Zhang.Bowen@stonybrook.edu. Office hours and Math Learning Center (MLC) hour:

<https://www.math.stonybrook.edu/cards/zhangbowen.html>

Class Schedule:

- Lecture 01 (Ntalampekos): Monday and Wednesday at 4:25pm-5:45pm in Engineering 145.
- Lecture 02 (Karafyllia): Tuesday and Thursday at 9:45am-11:05am in Engineering 145.

Recitations:

- Recitation 01 (Song): Tuesday and Thursday at 6:30pm-7:25pm in Physics P116.
 - Recitation 02 (Zhang): Monday and Wednesday at 2:40pm-3:35pm in Physics P116.
 - Recitation 03 (Song): Tuesday and Thursday at 9:45am-10:40am in Physics P116.
 - Recitation 20 (Xiao): Tuesday and Thursday at 6:30pm-7:25pm in Physics P130.
 - Recitation 21 (Zhang): Monday and Wednesday at 10:30am-11:25am in Earth and Space 183.
 - Recitation 22 (Xiao): Tuesday and Thursday at 1:15pm-2:10pm in Physics P130.
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Technical Requirements:

- A device (such as computer, cell phone or tablet) that allows you to attend office hours on the Zoom platform (if not held in person), and access the course material in Blackboard, the course website, and the online homework assignments.
- A stable internet connection for completing the online homework assignments.

The university provides technology support. For laptop loans: <https://www.stonybrook.edu/commcms/studentaffairs/studentsupport/>; for IT support: <https://it.stonybrook.edu/services/itsm>.

Course Schedule: The course schedule for MAT 132 is posted in the following website and is **subject to changes**.

http://www.math.stonybrook.edu/~dimitriosnt/teaching/MAT132_spring2022/schedule_MAT132_spring2022.html

Grading Policy:

Written Homework: 10%

Online Homework: 10%

Midterm I: 20%,

Midterm II: 20%,

Final: 40%

Written Homework: Weekly problem sets will be assigned. You are encouraged to discuss the homework problems with others, but your write-up must be your own work.

- Assignments will be posted on Blackboard at the beginning of each week. The homework will be usually due in the beginning of the second meeting of the recitation the following week.
- *Late homework will never be accepted*, but under documented extenuating circumstances the grade may be dropped.
- The lowest grade will be dropped.

Problems must be legible and must use complete sentences, correct grammar, correct spelling, etc. A complete solution will include the following:

- The statement of the problem
- An organized presentation of ideas leading to a solution
- An answer that is circled or boxed
- If a problem has multiple parts it should be solved as though each part were a separate problem, following the order in which parts are listed.
- If there is no work shown, there is no credit. In other words, an answer with no justification is not admissible (even if it is the correct answer!)

Online Homework: Weekly online homework will be assigned. The lowest grade will be dropped. Every student is required to enroll in the course through Lumen OHM in order to complete the online portion of the homework. Follow the link below to access Lumen OHM.

<https://ohm.lumenlearning.com/>

Exams: There will be **two** Midterms as well as a Final, each respectively accounting for 20%, 20%, and 40% of the total grade. All exams will be **in-person**. By enrolling in this course, you are attesting to the fact that you will be available for the exams at the following times:

- **Midterm I:** Thursday, February 24, 8:15pm-9:35pm
- **Midterm II:** Thursday, April 7, 8:15pm-9:35pm
- **Final:** Wednesday, May 11, 8:00am-10:45am

No make-up exams will be given. If you miss a midterm because of convincingly documented circumstances beyond your control, then, at the discretion of the course coordinator, the relevant score may be dropped in computing your course grade. A grade of Incomplete will be granted only if documented circumstances beyond your control prevent you from taking the final exam.

Learning Outcomes: Learning Outcomes for “Master Quantitative Problem Solving”:

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.

Basis of grade determination: A- and A 85-100%; B-, B, and B+ 65-85%; C and C+ 50-65%; D 40-50%; F 0-40% (percentages reflect weighted scores including assignments and exams). NOTE: These letter grades are threshold scores only. Actual final scores needed to earn a certain letter grade may be lowered if warranted based on the difficulty of the exams. In other words, if your final total points in the course equal a 85%, you will not earn less than an A-; however, the threshold for an A- may be lower.

Student Absences Statement

Students are expected to attend every class, report for examinations and submit major graded coursework as scheduled. If a student is unable to attend lecture(s), report for any exams or complete major graded coursework as scheduled due to extenuating circumstances, the student must contact the instructor as soon as possible. Students may be requested to provide documentation to support their absence and/or may be referred to the Student Support Team for assistance. Students will be provided reasonable accommodations for missed exams, assignments or projects due to significant illness, tragedy or other personal emergencies. In the instance of missed lectures the student is responsible for reviewing recorded lectures if available. Please note, all students must follow Stony Brook, local, state and Centers for Disease Control and Prevention (CDC) guidelines to reduce the risk of transmission of COVID. For questions or more information follow the link <https://www.stonybrook.edu/commcms/strongertogether/>.

Face Mask Policy

Face coverings must be worn at all times while participating in the face-to-face components of this course. If a student does not comply, the student will be asked to leave the classroom. If the student does not comply or leave the classroom, the class will end and the student will be reported to the Office of Student Conduct and Community Standards at communitystandards@stonybrook.edu.

Accommodations for Students with Hearing and Communication Impairments: Some students with hearing and communication impairments may need their instructor to wear a clear mask for lip and facial expression purposes. If the student has registered with the Student Accessibility Support Center (SASC) and has requested an accommodation for clear masks, SASC will reach out to the student's instructors and provide a clear mask for

them to wear while teaching and/or interacting with the student. If you have questions, please email sasc@stonybrook.edu or call (631) 632-6748.

Face Mask Accommodations, Modifications, or Exemptions: The Student Accessibility Support Center (SASC) works with students who may require academic accommodations. If a student is unable to wear a mask for health reasons, the student should contact SASC at sasc@stonybrook.edu. SASC will work with the student to help identify arrangements to complete in-person courses in an alternate format. If, however, there is an in-person class that cannot be accommodated in an alternate format, a student may be approved by the Medical Director of Student Health Services to wear a modified face mask or no face covering. In this situation, SASC will communicate this information to the faculty member. Approved students will also be provided with a written exemption from the Medical Director of Student Health Services that indicates any modifications or exceptions, which they must carry with them to show faculty if requested. Please note that medical exemptions are rare and are based solely on medical necessity. If a student is exempt from the face mask policy, proper social distancing will be ensured within a given instructional setting. If you have questions regarding accommodations, please email sasc@stonybrook.edu. For health related concerns in the classroom, please contact Dr. Rachel Bergeson, Medical Director, at rachel.bergeson@stonybrook.edu.

Student Accessibility Support Center Statement (SASC)

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at sasc@stonybrook.edu. 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 the Student Accessibility Support Center. For procedures and information go to the following website: <https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-disabilities> and search Fire Safety and Evacuation and 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 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/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 Student Conduct and Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.