

Syllabus for MAT 125 Fall 2022

MAT 125 – Calculus A

The Course Coordinators are Professor Thomas Rico and Professor David Kahn. Their emails are thomas.rico@stonybrook.edu and david.kahn@stonybrook.edu

Office hours for Professor Rico: Monday, 11:30 – 1:30 (or by appointment), MLC hours are Monday 1:30 to 2:30 (by Zoom).

Office hours for Professor Kahn: MW 3-4 pm (by Zoom). Advising Hour: Tu 12-1 pm (by Zoom). The zoom link can be found at: [Zoom Personal Meeting](#)

Professor Kahn's lectures will be by zoom. The link can be found in Blackboard under the zoom meeting tab. His lectures will be recorded and can be accessed later through a folder posted in Blackboard.

About the Course

The goal of this course is to ensure that you have a proper background to take Calculus B at Stony Brook. This means that we will need to accomplish several things:

- Develop your understanding of the concepts of Differential Calculus and your ability to apply it to problems both within and outside of Mathematics.
- Deepen your understanding of functions whether viewed as graphs, tables, or formulae.
- Develop fluency in the language of mathematics, which is essential for success in the sciences or engineering.

The text is called *Single Variable Calculus* and is available as a free PDF through your Webassign account.

Course Prerequisites: In order to take MAT125, you must have either

- Passed [MAT 123](#) with a grade of C or better, or
- Received a score of level 4 or better on the [math placement exam](#).

BlackBoard

Throughout this course, we will communicate with the course by making announcements in BlackBoard. You will receive an email containing the announcement. The announcement will also remain in BlackBoard throughout the course for you to refer to. You are expected to read each announcement carefully and it is your responsibility to know what has been announced.

We suggest that you check Blackboard before you email your TA or professor.

There are two sections of BlackBoard. One will be the main section of BlackBoard and will contain information that applies to the entire course. The other section will be specific to your recitation and will contain information that applies only to your recitation.

Your paper homework grades and final grades will be posted in the Grade Center in the main section in BlackBoard.

Webassign

You will access Webassign through their website
You can find the grades for all of your Webassign work in the GradeBook in Webassign.

Homework will be assigned through Webassign. You will receive a 10% bonus for every problem that you answer correctly more than 48 hours before the assignment is due. We do not give extensions for Webassign.

Homework

Each week, except the first and last ones, you will have “paper homework”. You will be able to access the homework through Blackboard and upload your answers through Blackboard for your TA to grade. You may not email your TA separately or hand in the homework any other way. The only acceptable way to turn in your homework will be through Blackboard. ***You should check BlackBoard frequently for due dates. Unless otherwise stated, paper homework will be due on Thursdays at Noon to get full credit. Homework that is up to 24 hours late will suffer a 50% penalty.*** We do NOT accept late homework except for medical excuses. Your medical excuse must include a note from a medical professional stating that, ***in that person’s professional opinion, you were so ill that you were unable to complete the homework in a timely fashion or even to email your professor or TA about your issue.***

If you are having difficulty understanding a topic, we suggest that you go to your recitation section, meet with your TA, go to the Math Learning Center (located in the basement of the Mathematics Tower), or go to your professor’s or TA’s office hours. We also strongly recommend that you attend the PAL sessions. They are very helpful!

Recitations

Recitation is very valuable. There, your TA will go over the homework problems and be available to answer your questions.

Exams

There are two midterms and a final. The schedule is:

Midterm 1 – Wednesday, September 28, 7:50 pm – 9:15 pm

Midterm 2 – Thursday, November 3, 8:15 pm – 9:35 pm

Final – Wednesday, December 7, 2:15 – 5:00 pm.

If you are eligible for extra time or other special conditions, please make sure that you contact SASC to set that up.

We do not give makeup exams but instead replace an exam missed for a *valid* reason by a grade computed on the balance of the work in the course.

Important Dates:

The last day of classes is Monday, December 5.

You may drop without any tuition liability until Sunday, August 28.

You may withdraw without a “W”, or add/swap classes, until Friday, September 2 at **4:00 pm**.

There are no classes on Monday, September 5.

You may move down in MAT/MAP courses until Friday, October 7 at **4:00 pm**.

You may withdraw with a “W” until Friday, October 21, at **4:00 pm**.

You may change the course to Grade/Pass/No Credit until Friday, October 21, at **4:00 pm**.

Thanksgiving Break is Wednesday, November 23 until Sunday, November 27.

How your grade will be calculated

Webassign– 10%

Paper homework – 10%

Midterm 1 – 25%

Midterm 2 – 25%

Final – 30%

Course Schedule

Date	Topic	Chapters
Week of 22-Aug	Administrative material	
	Precalculus Review	Chapter 1
Week of 29-Aug	Tangent and Velocity Problems	2.1
	Limit of a function, The Limit Laws	2.2, 2.3
Week of 5-Sept	No class on Sept. 5 (Labor Day)	
	Limits at Infinity and Asymptotes	2.5
Week of 12-Sept	Continuity	2.4
	Derivatives as Rates of Change	2.6
Week of 19-Sept	The derivative as a function	2.7
	What does f' tell us about f ?	2.8
Week of 26-Sept	Review for Midterm One	
	Midterm One on September 28 – 7:50 pm to 9:15 pm	
Week of 3-Oct	Derivatives of polynomials and exponential functions	3.1
	The Product and the Quotient Rules	3.2
Week of 10-Oct	No class on October 10 or 11	
	Derivatives of Trigonometric Functions	3.3
Week of 17-Oct	The Chain Rule	3.4
	Implicit Differentiation	3.5
Week of 24-Oct	Derivatives of Inverse Trigonometric Functions, Logarithmic, and Exponential Functions	3.6, 3.7
	Linear Approximations and Differentials, L'Hopital's Rule	3.9, 4.5
Week of 31-Oct	Review for Midterm Two	
	Midterm Two on November 3 – 8:15 pm to 9:35 pm	
Week of 7-Nov	Related Rates	4.1
	Related Rates	4.1
Week of 14-Nov	Curve Sketching	4.2, 4.3
	Curve Sketching	
Week of 21-Nov	Optimization Problems	4.6
	Thanksgiving Break	
Week of 28-Nov	Optimization Problems	4.6
	Review for Final Exam	

Americans with Disabilities Act:

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (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-people-physical-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 are 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/>

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. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

Conduct

Stony Brook University expects students to maintain standards of personal integrity that are in harmony with the educational goals of the institution; to observe national, state, and local laws and University regulations; and 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. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

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 or labs, the student is responsible for *insert course specific information here (examples include: review posted slides, review recorded lectures, seek notes from a classmate or identified class note taker, write lab report based on sample data)*. 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 click [here](#).