Syllabus for MAT 123 Fall 2020 - Online

MAT 123: Precalculus

Course coordinator is David Kahn. His email is david.kahn@stonybrook.edu
Office hours: MWTh 11:15-12:15 Online

About the Course

Comprehensive preparation for the regular calculus sequences, with introduction to derivatives. Careful development of rational, exponential, logarithmic, and trigonometric functions, and their applications. Asymptotics and limits. Linear approximations, slope and derivatives, detailed curve sketching. General modeling examples. 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.

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

- Ensure that you have fluency with a variety of topics, such as trigonometry, exponentials and logarithms, algebraic functions (polynomials and rational functions).

- Ensure that you are comfortable and conversant with the underlying concepts such as functions, domain, range, inverse functions, functional composition, and so on.

- Ensure that you have mastered the various means of manipulating functional and algebraic expressions, solving basic equations, and their graphical representations.

- Be able to apply the above to problems both within and outside of mathematics. Part of this is a deeper understanding of functions, whether viewed as graphs, tables, or formulae. Fluency in understanding the language of mathematics is essential for success in the sciences or engineering.

The text is called *Precalculus* and is an OpenStax textbook. You can find and download the textbook in the Documents folder in BlackBoard. The textbook is an Open Educational Resource and is FREE. The computer homework program is through Lumen Learning and is also FREE.

Course Prerequisites: In order to take MAT123, you must have either

- Passed MAP103 with a grade of C or better, or

- Received a score of level 3 or better on the math placement exam.

Hardware and Software Requirements

You will need access to the internet, a computer, a webcam (which can be your smartphone), and a microphone. You may also find it helpful to have access to a printer.

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 master 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 master section in BlackBoard.

Lumen

You will access Lumen through their website https://ohm.lumenlearning.com We have posted instructions in the master section of BlackBoard with instructions on how to set up your Lumen account. You will have approximately 25 assignments in Lumen. We will drop the lowest 5 of them and the other 20 will be graded. You can find the grades for all of your Lumen work in the GradeBook in Lumen.

Homework will be assigned through Lumen. At the beginning of the course, you will receive three "late passes". These are given to you in the place of extensions. You may use these on Lumen homework assignments to do the assignment late. *Note that once you start the assignment, even if you just click on it to look at it, you may not use a late pass.* Also note that *if you are late on more than three assignments, for **ANY** reason, you will not receive an extension.*

The midterm and final exams will also be given through Lumen. You may not use late passes for those. 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.

Lectures

Each week, we will make an announcement in BlackBoard telling you which videos to watch for the upcoming week. It is **YOUR** responsibility to watch the videos in advance of the lectures. The videos can be found in the video page: **http://www.math.stonybrook.edu/Videos/courses/?open=MAT123**

You must watch the videos by 9 am on the Monday of the week that they are assigned.

The lectures will consist of question and answer sessions where your professor will take questions about the material in the lectures. Your professor will also have prepared problems to review with the class. We strongly suggest that you watch these sessions. They will be given through Zoom and will be available for subsequent viewing. You can find the links to Zoom in BlackBoard.

In addition to the videos and lectures, you will have weekly recitations where you can meet with your TA to go over questions that you have about the material.

Homework

Most weeks you will have paper homework problems that you must hand in at recitation. You will scan or upload your homework to your TA, who will grade the homework and put your grades in BlackBoard. ***You should check BlackBoard frequently for due dates.*** You will also have homework in Lumen. See above for details.

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 will be available to answer your questions. Some recitations will be in person and some will be held online (see **Lectures and Recitations** below). If your recitation is online, your TA will post the Zoom link to your recitation in the BlackBoard section for your recitation.

Exams

There are two midterms and a final. Midterms will be 90 minutes, online exams. You will have a 24 hour period during which you may take the exam. The schedule is:

Midterm 1   Thursday, September 24, 9:00am-Friday, September 25 9:00am
Midterm 2   Thursday, October 22, 9:00am-Friday, October 23, 9:00am
Final   Thursday, Dec. 10, 2:15pm-5:00pm

All exams will be given through Lumen.

Important Dates:

There are no classes on September 7 for Labor Day.
Thanksgiving Break is November 23 through November 29.
The last day of classes is December 7.
Classes end on December 7.
 You may drop without any tuition liability until August 28.
You may withdraw without a "W", or add/swap classes, until September 4 at **4:00 pm.**
You may move up or down in MAT/MAP courses until October 2 at **4:00 pm.**
You may withdraw with a "W" until October 23 at **4:00 pm**.
You may change the course to Grade/Pass/No Credit until October 23 at **4:00 pm**.

LEC 01	80609	MW	6:05pm- 7:25pm	Online		David Kahn*
R01	86970	Tu	11:30am-12:25pm	Harriman Hll	137	Lisandra Hernandez Vazquez
R02	80612	M	1:00pm- 1:55pm	Online		Joanna Siemion
R03	80613	W	4:25pm- 5:20pm	Online		Rebecca Augenblick
R04	80614	M	7:50pm- 8:45pm	Online		Rebecca Augenblick
R05	80615	Tu	3:00pm- 3:55pm	Engineering	143	Talika Basantani
R06	86966	Tu	6:30pm- 7:25pm	Online		Kristen Acierno
R31	87053	Th	6:30pm- 7:25pm	Online		Kristen Acierno
R35	87821	W	11:45am-12:40pm	Earth&Space	79	Chloe Sukkarieh
R36	88291	Th	9:45am-10:40am	Online		Roberto Albesiano
R37	88296	Tu	1:15pm- 2:10pm	Socbehav Sci	S218	Xueer Yan
R38	88847	Tu	8:00am- 8:55am	Online		Prithviraj Chowdhury
R40	87331	Tu	11:30am-12:25pm	Javits Lectr	103	Xueer Yan
R42	88720	Tu	8:00am- 8:55am	Online		Roberto Albesiano
R43	88721	W	11:45am-12:40pm	Online		Yevgeniya Zhukova
R44	88722	Th	1:00pm- 1:55pm	Engineering	145	Christiane Stidham
R46	88786	Tu	6:30pm- 7:25pm	Lgt Engr Lab	152	Ying Hong Tham
LEC 02	80610	TuTh	9:45am-11:05am	Online		Thomas Rico

R20	86971	M	1:00pm- 1:55pm	Socbehav Sci	S228	Julian Michele
R21	80616	F	1:00pm- 1:55pm	Javits Lectr	110	Matthew Lam
R22	80617	Tu	8:00am- 8:55am	Online		Yeorgia Kafkoulis
R23	80618	M	1:00pm- 1:55pm	Earth&Space	1	Chloe Sukkarieh
R24	86967	W	4:25pm- 5:20pm	Staller Ctr	3220	Stephanie Bagley
R25	86969	W	6:05pm- 7:00pm	Harriman Hll	137	Stephanie Bagley
R26	88788	Th	3:00pm- 3:55pm	Online		Joanna Siemion
R30	84785	W	6:05pm- 7:25pm	Online		Kristen Acierno
R32	84786	M	4:25pm- 5:20pm	Lgt Engr Lab	102	Anne Davis
R33	84787	M	11:45am-12:40pm	Harriman Hll	116	Ying Hong Tham
R34	86968	M	6:05pm- 7:00pm	Online		Yeorgia Kafkoulis
R41	88719	M	1:00pm- 1:55pm	Online		Yevgeniya Zhukova
R45	88767	W	4:25pm- 5:20pm	Physics	P112	Xueer Yan
R47	88787	Th	3:00pm- 3:55pm	Frey Hall	104	Christiane Stidham

How your grade will be calculated

Lumen – 40%
Paper homework – 10%
Midterm 1 – 15%
Midterm 2 – 15%
Final – 15%
We reserve up to 5% for participation.

Lectures and Recitations

Course Schedule

Date	Topic	Relevant Chapters
Week of 24-Aug	Administrative material	
	Functions and Graphs	1.1, 1.2, 1.3
	Composition of functions	1.4
Week of 31-Aug	Transformations	1.5
	Inverse Functions	1.7
	Linear equations and graphs	2.1, 2.2
Week of 7-Sept	Quadratic equations and graphs	3.2
	Polynomials	3.4, 3.6
	Polynomials	3.4, 3.6
Week of 14-Sept	Rational Functions	3.7
	Review for Midterm 1	4.1, 4.2
	Review for Midterm 1	4.3, 4.4, 4.5

Week of 21-Sept	Logarithms	4.3, 4.4, 4.5
	Logarithms	4.6, 4.7
	Logarithms	4.6, 4.7
Week of 28-Sept	Exponential Functions	
	Models and Equations	
	Models and Equations	
Week of 5-Oct	Right Triangle Trigonometry	5.4
	Right Triangle Trigonometry	5.4
	Unit Circle Trigonometry	5.1, 5.2, 5.3
Week of 12-Oct	Unit Circle Trigonometry	5.1, 5.2, 5.3
	Unit Circle Trigonometry	5.1, 5.2, 5.3
	Graphs of Sine and Cosine	6.1
Week of 19-Oct	Graphs of Sine and Cosine	6.1
	Review for Midterm 2	
	Review for Midterm 2	
Week of 26-Oct	Trig Identities	7.1
	Trig Identities	7.1
	Sum and Difference Identities	7.2
Week of 2-Nov	Double Angles and Half Angles	7.2
	Law of Sines/Cosines	8.1
	Law of Sines/Cosines	8.1
Week of 9-Nov	Inverse Trig Functions	6.3
	Inverse Trig Functions	6.3
	Solving Trig Equations	7.5
Week of 16-Nov	Solving Trig Equations	7.5
	Review for Final Exam	
	Review for Final Exam	
Week of 30-Nov	Review for Final Exam	
	Review for Final Exam	
	Review for Final Exam	

Face Mask Policy

Students should be aware that a face mask is required while in the classroom.
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, we will end the class and the students 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, please consider how to seat students to ensure proper social distancing 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.

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.