Syllabus for MAT 123 Spring 2019

MAT 123: Precalculus

About the Course

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 *Precalculus A Right Triangle Approach(4th edition)*, by Ratti, McWaters, and Skrzypek.
Use of MyLab Math is required but you are NOT required to purchase the textbook. There are many options regarding the text other than from the bookstore. If you can find a used copy, or a 3rd or 2nd edition, that will be fine. You can purchase MyLab directly through Pearson. You MUST use your Stony Brook email address when you sign up for MyLab.

You will access MyLab through BlackBoard, not through the Pearson site.

You may use calculators to help you with learning the material or for homework and MyLab problems. You may **NOT** use a calculator on exams.

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.

The video page can be found at:
http://www.math.stonybrook.edu/Videos/courses/?open=MAT123

Homework

Most weeks you will have paper homework problems that you must hand in at recitation. *Homework is due at the beginning of your recitation.* You will also be required to use MyLab for additional homework problems. *In general, MyLab assignments will be due on Wednesdays at 10 am. You should check MyLab frequently for due dates.*
If you are having difficulty understanding a topic, we suggest that you meet 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.

Recitations

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

Exams

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

Midterm 1	Thursday, February 28	8:45 – 10:15 PM
Midterm 2	Thursday, April 4	8:45 – 10:15 PM
Final	Wednesday, May 15	8:00 – 10:45 AM

Rooms the exams will be announced in Blackboard in advance of each exam.

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.
Note that the Midterms are at night, not in the morning!

Important Dates:

Spring Break is March 18-24.
Classes end on May 11.
You may drop without any tuition liability until February 3.
You may withdraw without a "W", or add/swap classes, until February 8 at **4:00 pm.**
You may move up or down in MAT/MAP courses until March 8 at **4:00 pm.**
You may withdraw with a "W" until March 29 at **4:00 pm**.
You may change the course to Grade/Pass/No Credit until March 29 at **4:00 pm**.

How your grade will be calculated

Homework, MyLab – 10%
Midterm 1 – 25%
Midterm 2 – 25%
Final – 35%
We reserve up to 5% for participation.

Blackboard

Please check Blackboard frequently. Assignments, announcements, grades, etc. will be posted on Blackboard. When items are posted, you will receive an email informing you of the fact. At that point, you will be presumed to know what has been posted. We suggest that you check Blackboard before you email your TA or professor.

Professors and Teaching Assistants

The Course Coordinator is David Kahn

LEC 01	MWF	10:00am-10:53am	Javits	102	Christiane Stidham
R01	M	7:00pm-7:53pm	Library	E4310	Jiahao Hu
R02	Th	8:30am-9:23am	Mathematics	P131	Saman Habibi Esfahani
R03	Tu	10:00am-10:53am	Mathematics	P131	Myeongjae Lee
R04	W	4:00pm-4:53pm	Library	E4310	Jiahao Hu
LEC 02	TuTh	2:30pm-3:50pm	Engineering	143	Deb Wertz
R20	M	1:00pm-1:53pm	Library	E4310	Christiane Stidham
R21	W	11:00am-11:53am	Library	E4310	Shamyuel Auyeung
R22	M	4:00pm-4:53pm	Library	E4310	Mark Lombardi
R23	Th	10:00am-10:53am	Mathematics	P131	Saman Habibi Esfahani
R24	Tu	5:30pm- 6:23pm	Library	E4320	Timothy Alland
LEC 03	MWF	4:00pm-5:20pm	Javits	102	David Kahn
R30	M	12:00pm-12:53pm	Library	E4330	Christiane Stidham
R31	W	12:00pm-12:53pm	Library	E4330	Shamyuel Auyeung
R32	Th	1:00pm-1:53pm	Physics	P127	Timothy Alland
R33	M	5:30pm- 6:23pm	Library	E4310	Mark Lombardi
LEC 30	FLEX		Online		Deb Wertz
R40	Tu	8:30am-9:50am	Library	N4072	Stephanie Salvator

Course Schedule

Date	Topic	Relevant Chapters
Week of 28-Jan	Administrative material	
	Functions and Graphs	2.1, 2.4
	Composition of functions	2.8
Week of 4-Feb	Transformations	2.7
	Inverse Functions	2.9
	Linear equations and graphs	1.1, 2.3
Week of 11-Feb	Quadratic equations and graphs	3.1
	Polynomials	3.2
	Right Triangle Trigonometry	5.1, 5.2
Week of 18-Feb	Right Triangle Trigonometry	5.1, 5.2
	Unit Circle Trigonometry	5.3
	Trig Functions of Angles	5.3
Week of 25-Feb	Review for Midterm 1	
	Review for Midterm 1	
	Go over Midterm 1	
Week of 4-Mar	Exponential Functions	4.1
	Logarithms	4.2
	Logarithms	4.3
Week of 11-Mar	Word problems	4.4 - 4.5
	Word problems	4.4 - 4.5
	Word problems	4.4 - 4.5
Week of 25-Mar	Rational Functions	3.6
	Rational Functions	3.6
	Review for Midterm 2	
Week of 1-Apr	Review for Midterm 2	
	Midterm 2	
	Go over Midterm 2	
Week of 8-Apr	Graphs of Sine and Cosine	5.4
	Graphs of Sine and Cosine	5.4
	Inverse Trig Functions	5.6
Week of 15-Apr	Trig Identities	6.1
	Angle Sum/Difference Formulas	6.2
	Double and Half Angle Formulas	6.3
Week of 22-Apr	Law of Sines	7.1
	Law of Cosines	7.2
	Trig Equations	6.5
Week of 29-Apr	Trig Problems	
	Solving Equations	
	Solving Equations	
Week of 6-May	Review for Final Exam	
	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 Disability Support Services, ECC (Educational Communications Center) Building, room128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students requiring emergency evacuation are encouraged to discuss their needs with their professors and DSS. For procedures and information, go to: http://www.ehs.sunysb.edu and look at 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.