Syllabus for MAT 123 Fall 2017

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 (7th edition)*, by Stewart, Redlin, and Watson.
Use of WebAssign 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 6th or 5th edition, that will be fine. You can purchase WebAssign directly through Cengage. Or, when you initially access WebAssign, you will be offered the opportunity to purchase it directly through the web site. That is often the easiest way to get WebAssign.

You will access WebAssign through BlackBoard so you won't need a class key.

You may use calculators to help you with learning the material or for homework and WebAssign problems. You may **NOT** use 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:
https://www.math.stonybrook.edu/~scott/mat123.fall15/vids/

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 WebAssign for further homework problems. ***In general, WebAssign assignments will be due on Wednesdays at Noon. You should check WebAssign 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 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	Monday, October 2	8:45 – 10:15 PM
Midterm 2	Thursday, November 2	8:45 – 10:15 PM
Final	Wednesday, December 13	2:15 – 5:00 PM

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:

There are no classes September 4 and 5, and November 22-26.
Classes end on December 8.
You may drop without any tuition liability until September 3.
You may withdraw without a "W", or add/swap classes, until September 12 at 4:00 pm.
You may move up or down in MAT/MAP courses until October 6 at 4:00 pm.
You may withdraw with a "W" until October 27 at 4:00 pm.
You may change the course to Grade/Pass/No Credit until October 27 at 4:00 pm.

How your grade will be calculated

Homework, WebAssign – 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	MW	5:30 pm-6:50 pm	Earth&Space	001	David Kahn
R01	Tu	11:30am-12:23pm	Library	N4072	Nicholas Wagner
R02	M	12:00pm-12:53pm	Harriman	116	Deneice Patterson
R03	W	4:00pm-4:53pm	Earth&Space	069	Thomas Rico
R04	M	7:00pm-7:53pm	Earth&Space	069	Prithviraj Chowdhury
R05	Tu	2:30pm-3:23pm	Library	E4310	Jiamin Lin
R06	Tu	5:30pm- 6:23pm	Physics	P130	Xiaolong Lin
LEC 02	TuTh	10:00am-11:20am	Javits	110	Deb Wertz
R20	M	12:00pm-2:53pm	Library	P116	Fredrik Benirschke
R21	F	1:00pm-1:53pm	Earth&Space	079	Josephine Opoku
R22	Tu	8:30am-9:23am	Library	E4320	Prithviraj Chowdhury
R23	M	1:00pm-1:53pm	Earth&Space	069	Deneice Patterson
R24	W	4:00pm-4:53pm	Physics	P113	Holly Chen
R25	W	5:30pm- 6:23pm	Physics	P116	Holly Chen
LEC 03	MWF	10:00am-10:53pm	Earth&Space	001	Deb Wertz
R30	Th	8:30am-9:23am	Mathematics	P131	Nicholas Wagner
R31	Th	5:30pm- 6:23pm	Physics	P116	TanyaLisa Agha
R32	M	4:00pm-4:53pm	Physics	P117	Thomas Rico
R33	M	11:00am-11:53am	Earth&Space	079	Yuhan Sun
R34	M	5:30pm- 6:23pm	Library	N4072	Fredrik Benirschke
R36	W	11:00am-11:53am	Lgt Engr Lab	154	Jae Ho Cho
LEC 30					Deb Wertz
R40	Tu	8:30am-9:50am	Mathematics	P131	Stephanie Salvator

Course Schedule

Date	Topic	Relevant Chapters
Week of 28-Aug	Administrative material	
	Functions and Graphs	2.1, 2.2, 2.3
	Composition of functions	2.7
Week of 4-Sept	Transformations	2.6
	Inverse Functions	2.8
Week of 11-Sept	Linear equations and graphs	1.10
	Quadratic equations and graphs	3.1
	Polynomials	3.2
Week of 18-Sept	Right Triangle Trigonometry	6.1, 6.2
	Right Triangle Trigonometry	6.1, 6.2
	Unit Circle Trigonometry	5.1, 5.2
Week of 25-Sept	Trig Functions of Angles	6.3
	Review for Midterm 1	
	Review for Midterm 1	
Week of 2-Oct	Midterm 1	
	Go over Midterm 1	
	Exponential Functions	4.1, 4.2
Week of 9-Oct	Logarithms	4.3
	Logarithms	4.4
	Word problems	4.5 - 4.7
Week of 16-Oct	Word problems	4.5 - 4.7
	Word Problems	4.5 - 4.7
	Graphs of Sine and Cosine	6.1
Week of 23-Oct	Graphs of Sine and Cosine	6.1
	Inverse Trig Functions	6.4, 5.5
	Inverse Trig Functions	6.4, 5.5
Week of 30-Oct	Review for Midterm 2	
	Review for Midterm 2	
	Midterm 2	
Week of 6-Nov	Trig Identities	7.1
	Angle Sum/Difference Formulas	7.2
	Double and Half Angle Formulas	7.3
Week of 13-Nov	Law of Sines	6.5
	Law of Cosines	6.6
	Trig Problems	5.6,
Week of 20-Nov	Rational Functions	2.6
	Solving Equations	7.4, 7.5
	Solving Equations	7.4, 7.5
Week of 27-Nov	Modeling	pp. 325, 392, 466, 533, 581
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Week of 4 Dec	Cumulative Review	
	Cumulative Review	

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.