

# Syllabus for MAT 122 Fall 2018

## Overview of Calculus with Applications

**About this course:** The goal of this course is to ensure that you learn the basics of calculus that you will use in Business. This means that we will need to accomplish several things:

- Ensure that you have fluency with functions and graphs.
- Ensure that you are comfortable and conversant with the underlying concepts of Differential and Integral Calculus.
- Be able to apply the above to problems in the business world. Fluency in understanding the language of Calculus is essential for success in Business.

The text is *Calculus and it's Applications (11th edition)*, by Bittinger, Ellenbogen, and Surgent.

Use of MyMathLab 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 10<sup>th</sup> or 9<sup>th</sup> edition, that will be fine. You can purchase MyMathLab directly through Pearson. Or, when you initially access MyMathLab, you will be offered the opportunity to purchase it directly through the web site. .

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

**Course Prerequisites:** In order to take MAT122, 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.

### 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 MyMathLab for further homework problems. ***In general, MyMathLab assignments will be due on Wednesdays at Noon. You should check MyMathLab 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.

### Exams

There are three midterms and a final. You will take these midterms in the Testing Center in Frey Hall, during your recitation period.

Midterm 1	Week of September 17	
Midterm 2	Week of October 15	
Midterm 3	Week of November 12	
Final	Thursday, December 13	11:15 AM – 1:45 PM

The Final Exam rooms will be announced in Blackboard approximately one week before the Final.

**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:**

There are no classes September 3, October 8 and 9, and November 21-25.

Classes end on December 10. December 11 is Reading Day.

You may drop without any tuition liability until September 2.

You may withdraw without a “W”, or add/swap classes, until September 10 at 4:00 pm.

You may move up or down in MAT/MAP courses until October 12 at 4:00 pm.

You may withdraw with a “W” until October 26 at 4:00 pm.

You may change the course to Grade/Pass/No Credit until October 26 at 4:00 pm.

### **How your grade will be calculated**

Homework, MyMathLab – 10%

Lowest Midterm – 10 %

Middle Midterm – 15 %

Highest Midterm – 20%

Final – 40%

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**

LEC 01	MWF	11:00am-11:53pm	Simons Center	103	David Kahn
R01	Tu	4:00pm-4:53pm	Library	N4006	Stephanie Salvator
R02	M	10:00am-10:53am	ESS	079	Zhuang Tao
R03	W	10:00am-10:53am	Harriman	116	Zhuang Tao

## Course Schedule

Date	Topic	Relevant Chapters
Week of 27-Aug	Administrative material	
	Functions and Graphs	R.1, R.2
Week of 3-Sept	Domain and Range	R.3
	Slope	R.4
Week of 10-Sept	Linear equations and graphs	R.4
	Nonlinear Functions and Models	R.5, R.6
Week of 17-Sept	Midterm 1	
	Limits	1.1, 1.2
Week of 24-Sept	Limits	
	Average Rate of Change	1.3
Week of 1-Oct	The Definition of the Derivative	1.4
	Derivative Rules	1.5
Week of 8-Oct	Product and Quotient Rules	1.6
	The Chain Rule, Higher-Order Derivative	1.7, 1.8
Week of 15-Oct	Midterm 2	
	Applications	Chapter 2
Week of 22-Oct	Applications	Chapter 2
	Exponential Functions	3.1
Week of 29-Oct	Logarithmic Functions	3.2
	Applications	3.3, 3.4
Week of 5-Nov	Derivatives of Exponential and Logarithmic Functions	3.5-3.6
	Applications	3.6
Week of 12-Nov	Midterm 3	
	Antiderivatives	4.1, 4.2
Week of 19-Nov	Area and Definite Integrals	4.3, 4.4
	Substitution	4.5
Week of 26-Nov	Substitution	4.5
	Applications	Chapter 5
Week of 3 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.