



# Stony Brook University

## College of Business

**Course:** MAT 122 Overview of Calculus

**Semester:** Spring 2018

**Instructor:** Jae Y. Lee, Ph.D.

**Instructor Contact Information:**

- *Office:* Omyong Hall Room 506
- *Phone:* (631) 632-7172
- *Email:* [Jaeyeong.Lee@StonyBrook.edu](mailto:Jaeyeong.Lee@StonyBrook.edu)
- *Office Hours:* Tuesdays & Thursdays, 2 – 3 pm or by appointment

**Meeting Time:**

Lecture: Tuesdays & Thursdays 12:30 - 13:50

Recitation: Mondays 12:30-13:23

**Location:** B 107 (Lecture), B203 (Recitation)

**Course Description:**

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.

**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.,.***

If you are having difficulty understanding a topic, we suggest that you meet with your TA, or go to your professor's office hours.

## **Exams**

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

Midterm 1 Tuesday, April 3, 12:30 – 1:50 PM

Midterm 2 Tuesday, May 8, 12:30 – 1:50 PM

Final Friday, June 15, 12:30 – 3:00 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.**

## **Important Dates:**

There are no classes on

- March 1 (Independent Movement Day)
- May 22 (Buddha's Birthday)

Classes end on June 12.

You may withdraw without a "W", or add/swap classes, until March 9 at 4:00 pm.

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

Homework – 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.

## **Teaching Assistants**

LEC 01 MWF 11:00am-11:53pm Simons Center 103 (TBA)

### Class Schedule:

| Class | Date | Chapter       | Topic                                   |
|-------|------|---------------|---|
| 1     | 2/27 | R.1, R.2      | Administrative material                 |
|       | 3/1  | No Class      | Independent Movement Day                |
| 2     | 3/6  | R.1, R.2      | Functions and Graphs                    |
| 3     | 3/8  | R.3           | Domain and Range                        |
| 4     | 3/13 | R.4           | Slope                                   |
| 5     | 3/15 | R.4           | Linear equations and graphs             |
| 6     | 3/20 | R.5, R.6      | Nonlinear Functions and Models          |
| 7     | 3/22 | 1.1, 1.2      | Limits                                  |
| 8     | 3/27 | 1.1, 1.2      | Limits                                  |
| 9     | 3/29 | 1.5           | Derivative Rules                        |
| 10    | 4/3  |               | Midterm Exam 1                          |
| 11    | 4/5  |               | Go over Midterm 1                       |
| 12    | 4/10 | 1.6           | Product and Quotient Rules              |
| 13    | 4/12 | 1.7, 1.8      | The Chain Rule, Higher-Order Derivative |
| 14    | 4/17 | 1.7, 1.8      | The Chain Rule, Higher-Order Derivative |
| 15    | 4/19 | Chapter 2     | Applications                            |
| 16    | 4/24 | Chapter 2     | Applications                            |
| 17    | 4/26 | 3.1, 3.2      | Exponential/Logarithmic Functions       |
| 18    | 5/1  | 3.1, 3.2      | Exponential/Logarithmic Functions       |
| 19    | 5/3  |               | Review for Midterm 2                    |
| 20    | 5/8  |               | Midterm Exam 2                          |
| 21    | 5/15 | 3.3 ~ 3.6     | Applications                            |
| 22    | 5/17 | 4.1, 4.2      | Anti-derivatives                        |
|       | 5/22 | No Class      | Buddha's Birthday                       |
| 23    | 5/24 | 4.3, 4.4      | Area and Definite Integrals             |
| 24    | 5/29 | 4.3, 4.4      | Area and Definite Integrals             |
| 25    | 5/31 | 4.5           | Substitution                            |
| 26    | 6/5  | 4.5           | Substitution                            |
| 27    | 6/7  | Chapter 5     | Applications                            |
| 28    | 6/12 | Chapter 5     | Applications                            |
|       | 6/15 | Comprehensive | Final Exam (12:30~15:00)                |

### **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

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