

# Syllabus for MAT 132 Spring 2016

## MAT 132: Calculus II

### About the Course

This course is a continuation of MAT131. We will cover methods of integration, applications of integrals, sequences and series, and an introduction to differential equations. We will follow chapters 5,6,7,8 from our textbook, *Single Variable Calculus (Stony Brook Edition)*, 4<sup>th</sup> edition, by James Stewart. It is the same textbook that you use for MAT 125/126/131.

These topics are essential for studies in mathematics, physical sciences, economics, engineering, and other fields.

A good understanding of differential calculus, as well as elementary integration techniques (sections 5.1-5.5 from the textbook) is expected from you.

Calculators are not needed for this course. You may use calculators to solve your WebAssign problems, but you may **NOT** use calculators on exams.

### Homework and Quizzes

At the beginning of each week we will post on BlackBoard a short list of practice problems. In the following week you will have a 20-25 minutes quiz, during recitation class, which will contain two of the practice problems of the previous week (up to small changes). You will also be required to submit WebAssign homework online. We will not publish solutions for the practice problems.

If you are having difficulty understanding a topic, we suggest that you meet and discuss it with friends from class, go to your recitation, 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 material with you, solve relevant problems, and will be available to answer your questions. This is also where you will take the quizzes every week.

### Exams

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

Midterm 1	Tuesday, February 23	8:45 – 10:15 pm
Midterm 2	Wednesday, April 6,	8:45 – 10:15 pm
Final	Wednesday, May 11,	11:15am – 1:45pm

We **do not** give make up 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

- Classes start on January 25.
- There are no classes on the week of March 14 because of Spring Break.
- Classes end on May 6.
- You may drop without tuition liability until January 29 at 4:00 pm.
- You may withdraw without a “W” (or add/swap classes) until February 5 at 4:00 pm.
- You may move up or down in MAT/MAP courses until March 4 at 4:00 pm.
- You may withdraw with a “W” until April 1 at 4:00 pm.

## Grades

Webassign.....	10%
Quizzes.....	10%
Midterm 1.....	25%
Midterm 2.....	25%
Final.....	30%

## Blackboard

Please check Blackboard regularly. 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 Yaar Solomon**

LEC 01	MFW	10:00am-10:53am	Engineering	143	Yaar Solomon
R01	MW	12:00pm-12:53pm	Library	E4310	Nicholas Valente
R02	TuTh	10:00am-10:53am	Library	E4310	Juan Ysimura
R05	MW	11:00am- 11:53am	Library	E4310	Nicholas Valente
LEC 02	MW	4:00pm-5:20pm	Engineering	145	Yuanqi Wang
R06	TuTh	5:30pm-6:23pm	Library	E4310	Jack Burkart
R07	MW	10:00am- 10:53am	Library	E4310	Paul Frigge
R09	TuTh	11:30am- 12:23pm	Library	E4310	Juan Ysimura

## Course Tentative Schedule

<b>Week:</b>	<b>Chapters:</b>	<b>Material:</b>
<i>January 25</i>	5.1-5.4 (review), 5.5	Course overview, Review the end of MAT131, and substitution method for integration.
<i>February 1</i>	5.6, 5.7	Integration by parts, partial fractions
<i>February 8</i>	5.7, 5.10	Trigonometric integrals, improper integrals
<i>February 15</i>	6.1,6.2	Area between curves, volumes by the washer method
<i>February 22</i>	MT1 review, 6.3	Review for MT1, volumes by cylindrical shells
<i>February 29</i>	6.4, 6.5, 6.6	Arc length, average value, applications to physics
<i>March 7</i>	8.1, 8.2, 8.3	Sequences, series, and the integral test
<i>March 14</i>	<b>SPRING BREAK</b>	<b>SPRING BREAK --- have fun!!</b>
<i>March 21</i>	8.3, 8.4	Comparison tests, and other convergence tests
<i>March 28</i>	8.5, 8.6	Power series, representation of functions as power series
<i>April 4</i>	MT2 review, 8.7	Review for MT2, Taylor and Maclaurin series
<i>April 11</i>	8.7, 8.8 (Appendices H,I, if time permits)	More Taylor and Maclaurin, approximations by Taylor polynomials (some complex numbers and polar coordinates, if time permits)
<i>April 18</i>	7.1, 7.2, 7.3	Modeling with differential equations, direction fields, separable equations
<i>April 25</i>	Notes	Linear equations, second order equations with constant coefficients
<i>May 2</i>	Final review	Review for the Final

## **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. Faculties 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, and 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.