MAT 324: REAL ANALYSIS

1. About this course

Measure Theory is a part of analysis. It is the part which connects probability theory and integration. In the course, we will discuss Rieman integration, Lebesgue integration and even more general forms of integration and the relation with probability. This will lead to the notion of measure. The main results will be the Convergence Theorems, the Radon-Nykodyn Theorem, and the most famous one, the Central Limit Theorem.

2. Text

Measure, Integral and Probability, by Marek Capinski and Ekkehard Kopp, 2^{nd} Edition

3. Homework

Each week there will be homework questions assigened. It is crucial that the student do the assigned homework exercises. Most of these exercises are exercises from the book. There is an answer section at the of the book. Often there are extra exercises related to the discussion in class. These exercises will be due the next week. nd will be graded.

4. Examinations and grading

There will be two Midterm held during class, and a final exam. The dates and times are listed below; the locations will be announced later. Success on the exams will require the ability to find correct solutions to the more difficult of the assigned homework problems.

What	When		% of Final Grade
Homework	weekly		25%
Midterm 1	TBA	TBA	25%
Midterm 2	TBA	TBA	25%
Final Exam	TBA	TBA	25%

Make sure that you can attend the exams at the scheduled times; **make-ups will not be given**. Resolve any conflicts *now*. If one midterm exam is missed because of a serious (documented) illness or

emergency, the semester grade will be determined based on the balance of the work in the course.

5. Office Hours

The office hours are listed on the *Office Hours* section on the mat 324 webpage

http://www.math.sunysb.edu/ marco/Marco Martens_ files/MAT 324/mat 324.html

You can also make appointments at other times.

6. Disabilities

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at

http://studentaffairs.stonybrook.edu/dss/

or (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website:

http://www.stonybrook.edu/ehs/fire/disabilities.shtml

7. 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. 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/

8. 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.