Instructor. Remus Radu
   Email: rradu@math.sunysb.edu
   Office: Math Tower 4-103, Phone: (631) 632-8266
   Office Hours: Wednesday 5-6pm in MLC &
   Thursday 11:30am-1:30pm in Math Tower 4-103, or by appointment

Course Grader. Marlon de Oliveira Gomes
   Email: marlon.deoliveiragomes@stonybrook.edu
   Office Hours: Monday, Tuesday & Wednesday 3-4pm in MLC

Lectures. TuTh 10:00-11:20am in Physics P117.

Blackboard. Grades and some course administration will take place on Blackboard. Please

Course Description. In this course we will discuss Lebesgue measure, Lebesgue integration,
metric spaces (including compactness, connectedness, completeness, and continuity), aspects of
Fourier series, function spaces, Hilbert spaces and Banach spaces. After developing the basic
theory we will also give some applications to Probability. The main results will be the Monotone
Convergence Theorem, the Dominated Convergence Theorem, the Radon-Nykodym Theorem,
and the Central Limit Theorem.

Prerequisites. C or higher in MAT 203 or 205 or 307 or AMS 261; B or higher in MAT 320.

Textbook. The following textbook is required:
   Marek Capinski and Ekkehard Kopp, Measure, Integral and Probability, 2nd ed., Springer-

Other general references will be posted on Blackboard.

Exams. There will be a midterm and a final exam, scheduled as follows:
   • Midterm – Thursday, October 23, 10:00-11:20am, in Physics P117.
   • Final Exam – Friday, December 12, 11:15am-1:45pm, TBA.

There will be no make-up exams.

Grading policy. Grades will be computed using the following scheme:
   Homework  25%
   Midterm    30%
   Final Exam  45%

Students are expected to attend class regularly and to keep up with the material presented in
the lecture and the assigned reading. There will be (roughly) weekly homework assignments.
You may work together on your problem sets, and you are encouraged to do so. However, all
solutions must be written up independently.

Extra Help. You are welcome to attend the office hours and ask questions about the lectures
and about the homework assignments. In addition, math tutors are available at the MLC:
http://www.math.sunysb.edu/MLC.

Information for students with disabilities. 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, Room 128, (631) 632-6748, or
at the following website http://studentaffairs.stonybrook.edu/dss/index.shtml. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

**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 is 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 University Community Standards 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 IISC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.