MAT 533, Stony Brook University, Spring 2021
Real Analysis II

Topics: Functional analysis, Radon measures, Fourier analysis, distributions. Some probability and fractal geometry, if time permits. This is one of the required core courses for first year PhD students in mathematics, and is a continuation of MAT 532, taught by Prof. Cheng in the Fall semester.

Instructor: Christopher Bishop, `bishop@math.stonybrook.edu`

Grader: Jordan Rainone, `jordan.rainone@stonybrook.edu`

Lecture times: MW 2:40pm-4:00pm

Location: online (perhaps hybrid later, depending on vaccine distribution). See class webpage or Blackboard for the Zoom link.

Class Webpage: `http://www.math.stonybrook.edu/~bishop/classes/math533.S21/`

Text: *Real Analysis*, Gerald Folland, 2nd edition, Wiley.

Schedule: Chapters 5, 7, 8, 9. A day-by-day schedule will be posted on the webpage.

Grades: Homework, a midterm and a final will each count for a third of the grade.

Homework: Problems will be assigned weekly from the textbook and posted on the webpage.

Important Dates:

February 1: first day of class
March 15: midterm (tentative, depending on other core course exams)
May 5 : last class of class
May 13: final exam, 11:15am-1:45pm

Office hours:

Bishop: TBA & by appointment. Emailed questions welcome.
Rainone: TBA

Technical requirements: You should have a laptop with camera and microphone to participate in class.

Required statements: The University Senate Undergraduate and Graduate Councils have authorized that the following required statements appear in all teaching syllabi (graduate and undergraduate courses) on the Stony Brook Campus.

DISABILITY SUPPORT SERVICES (DSS) STATEMENT: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at `sasc@stonybrook.edu`. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

ACADEMIC INTEGRITY STATEMENT: 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 HSC 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.