

## Math 594: Real Analysis Spring 2017

**Meetings:** TR 11:45am–1:00pm in SH 112

**Instructor:** Shibin Dai

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**Office:** SH 230

**Phone:** 575-646-2417

**Office Hours:** M 2:45–3:45pm, R 10:15–11:15am, and by appointment

**Prerequisite:** Math 593 or consent of instructor

### **Textbooks:**

- (i) *Real Analysis: Measure Theory, Integration, and Hilbert Spaces (Princeton Lectures in Analysis) (Bk. 3)*, by Elias M. Stein, and Rami Shakarchi, Princeton University Press (2005), ISBN-13: 978-0691113869, ISBN-10: 0691113866
- (ii) *Functional Analysis: Introduction to Further Topics in Analysis (Princeton Lectures in Analysis) (Bk. 4)*, by Elias M. Stein, and Rami Shakarchi, Princeton University Press (2011), ISBN-13: 978-0691113876, ISBN-10: 0691113874

**Class communication:** The best way to contact me is through email. All course materials will be posted on canvas.

**Course Objectives:** This is a continuation of Math 593. Differentiation, Hilbert spaces, Banach spaces, and further topics in measure theory and functional analysis.

**Course Evaluation:** Homework will count for 20% of the class grade, the midterm test will count for 30% and the final exam will count for 50%. Homework will be assigned weekly, and you are encouraged to work on them in groups, but you must turn in your own solutions.

**Midterm Exam:** Tuesday, March 07 in class.

**Final Exam:** A comprehensive final exam will be held on Tuesday May 09, 10:30am–12:30pm.

**Grades:** Grades will be assigned as follows:

A [90%,100%), B [80%,90%), C [70%,80%), D [60%,70%), F [0,60%)

**Make-up Exams:** Make-up exams will be provided only in the case of a documented legit excuse, at the discretion of the instructor. Excused absences include absences due to illness and travel on university or career-related business. Unless it is an unforeseen circumstance, arrangements must be made prior to the date of the exam.

**Withdrawals and Incompletes:** You have the primary responsibility for withdrawing from the course. **The last day to drop with a “W” is Friday, March 17.** Under university policy, the grade of **I** (incomplete) is given for passable work that could not be completed due to circumstances beyond the student’s control. The I grade should not be used to avoid a student

receiving a D or F grade.

**Important Notes:**

- You are expected to attend every class and show up on time.
- Announcements and grading will be communicated to you through Canvas. Access your Canvas account regularly.
- At the end of the final examination, the course is over, and there are no more opportunities to submit additional work.
- I will not compose extra credit assignments for students who want to try to compensate for poor results in another component of the course.

**Plagiarism:** Plagiarism is using another person's work without acknowledgment, making it appear to be one's own. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct and are subject to disciplinary action such as failure on the assignment, failure of the course or dismissal from the university. The NMSU Library has more information and help on how to avoid plagiarism at <http://lib.nmsu.edu/plagiarism/>

**Disabilities and Discrimination:** Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) cover issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact:

Trudy Luken  
Student Accessibility Services (SAS) - Corbett Center, Rm. 244  
Phone: 646.6840 E-mail: [sas@nmsu.edu](mailto:sas@nmsu.edu)  
Website: <http://sas.nmsu.edu>

NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation. For more information on discrimination issues, Title IX or NMSU's complaint process contact:

Gerard Nevarez or Agustin Diaz  
Office of Institutional Equity (OIE) - O'Loughlin House  
Phone: 646.3635 E-mail: [equity@nmsu.edu](mailto:equity@nmsu.edu)  
Website: <https://eeo.nmsu.edu>