

MATH 541 - Section 001

Real Analysis

Syllabus - Fall 2017

Professor: Dr. Lennard Bakker

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Office Hours: MWF 2:30-3:30 p.m.

Classroom and Time: MWF 12:00-12:50 p.m. in 108 TMCB.

Text: Real Analysis by Emmanuele DiBenedetto (Editions 1 or 2; Edition 2 is free on Springerlink)

Course Description: This is an introductory class on the analysis of real-valued functions on \mathbb{R}^n as well as abstract spaces. Topics covered include basic topology and metric space theory, the theory of measures, the Lebesgue integral, and finally the L^p spaces of real-valued functions. These topics are contained in Chapters I,II,III, and V of the text.

Homework: Homework assignments and their due dates will be posted at math.byu.edu/~bakker. Homework scores will be posted in Grade Book in Learning Suite. Please review these scores to ensure their accuracy.

Lecture Notes: The pdfs of lecture notes will be posted at math.byu.edu/~bakker. Some problems for the homework assignments are in the lecture notes.

Final Exam: The comprehensive final exam will be held on Thursday Dec. 21 from 11:00 am until 2:00 p.m. in 108 TMCB (an in-class final exam).

Grading: The assessment of your grade will be determined by homework assignments (70%) and the in-class final exam (30%), and extra credit for doing the online evaluation. A raw percentage grade of 93% will guarantee a letter grade of A, 90% an A-, 87% a B+, 83 a B, 80% a B-, 77% a C+, 73% a C, 70% a C-, 67% a D+, 63% a D, 60% a D-, and below 60% will be given an E. These cut-offs may be adjusted downward depending upon the distribution of the raw percentage grades.

Miscellaneous: Preventing Sexual Harassment: Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 1-888-238-1062 (24-hours), or <http://www.ethicspoint.com>; or contact the Honor Code Office at 801-422-2847.

Students with Disabilities: BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.

Children in the Classroom: The study of mathematics requires a degree of concentration and focus that is exceptional. Having small children in class is often a distraction that degrades the educational experience for the whole class. Please make other arrangements for child care rather than bringing children to class with you. If there are extenuating circumstances, please talk with your instructor in advance.