MAT 337 H1S Introduction to Real Analysis

Books:

"Real Analysis and Applications. Theory in Practice", by K. R. Davidson and A. P. Donsig

Supplementary Books:

"Mathematical Analysis, a straightforward approach", by K. G. Binmore
"Principles of Mathematical Analysis", by W. Rudin

Instructor

Regina Rotman	6262 Bahen Building
Office Hours	Thursday, 9:30-10:30, or by appointment

Grading Policy:

5 Homework Assignments	20 points towards the final grade
Two Midterm Exams	20 points each towards the final grade
Final Exam	40 points towards the final grade

Syllabus:

Jan. 6	The Least Upper Bound Principle, Convergence of Sequences (sections 2.3-2.8)
Jan. 13	Series (chapter 3)
Jan. 20	Topology of $\mathbb{R}^n$ (chapter 4)
Jan. 27	Metric spaces (chapter 9)
Feb. 3	Functions (chapter 5)
Feb. 10	Norms and Inner Products (sections 7.1, 7.2), Midterm Exam
Feb. 24	Norms and Inner Products (sections 7.3-7.7)
March 3	Limits of Functions (chapter 8)
March 10	Midterm
March 17	Approximation by Polynomials (sections 10.3-10.6)
March 24	Discrete Dynamical Systems (sections 11, 11.2, 11.7)
March 31	Review