

Fundamental Concepts of Analysis

MATH 425a

Text: “Principles of Mathematical Analysis, 3rd ed.” by W. Rudin

The topics covered will include: Chapter Lectures (approx.)

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| The Real and Complex Numbers | 1 | 3 |
| Topology in Metric Spaces | 2 | 7 |
| Numerical Sequences and Series | 3 | 7 |
| Continuity | 4 | 7 |
| Differentiation | 5 | 7 |
| Riemann-Stieltjes Integration | 6 | 7 |
| Sequences and Series of Functions | 7 | 5 |

Office hours: TBA
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Course credit: 4 units

Grader:
Midterm Dates: TBA

Grading Distribution

2 Midterm exams –40% of grade
Homework –40%
Final – 20%

Caveat: This is an extremely challenging and at the same time satisfying course for those who take it seriously and do the necessary work. This course dwells on one theme, namely proving theorems.

Hint: Just “Reading the book” and cutting classes won't cut it.