

**MAA 5228/4226 - MODERN ANALYSIS 1**  
**SYLLABUS**

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INSTRUCTOR: Paul Robinson

CLASS TIME: MWF period 4 (10:40-11:30)

CLASS ROOM: LIT 217

OFFICE HOURS: To be determined

TEXT: Walter Rudin, *Principles of Mathematical Analysis* (third edition)

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The is the first half of a two-semester sequence that provides a common foundation in analysis for students in the graduate program. As well as covering topics in analysis, the course is intended to sharpen critical thinking and writing skills generally.

The topics to be covered in this first semester are essentially those to be found in the first five chapters of 'Rudin'; an official listing of specific topics is posted at <https://math.ufl.edu/first-year-exam-syllabi/maa-5228-modern-analysis-1/> These topics will be addressed in essentially the same order as that in which Rudin presents them, but we shall often present further topics or different views of the same topics. Each chapter can be expected to take up approximately three weeks of class time, but this is only an estimate: circumstances might suggest a variation, in which case the timing will be adjusted accordingly. It is advisable to read ahead in 'Rudin' as preparation for lectures. Be warned: reading 'Rudin' should be done with pencil and paper.

Homework problems will be regularly assigned and discussed in class. Some of these problems will be officially posted (to Canvas), collected and graded; the grading criteria will be discussed in class at the start of semester. There will also be a midterm (approximately half way through the semester) and a final: each of these will serve as practice for the Analysis First-Year Examination.