

[Home](#)[Schedule](#)[Links](#)[Blog](#)[Files](#)[Analysis Seminar](#)[MAP 2302 Section
4219](#)[MAA5229 \(Section
3014\) MAA4227
\(Section 01CH\)](#)

MAA5229 (Section 3014) MAA4227 (Section 01CH)

Modern Analysis 2

Time and Location

MWF Period 4 (10:40-11:30) LIT 125

Office hours

Mon period 5

Wed period 7

Text

Walter Rudin, *Principles of Mathematical Analysis*, Third Edition

Topics

This second-semester course has the same foundational goals as the first, but addresses a different set of topics. In principle, it will cover material from chapters six, seven, eight, and eleven of Rudin as indicated in the official [syllabus](#). Regarding chapter six, we shall focus primarily on the Riemann integral but incorporating modifications that are attributable to Darboux. Our study of chapters seven and eight will be rooted in the notion of uniform convergence for sequences of functions, with excursions into approximation theory (via the Stone-Weierstrass theorem) and differential equations (via the Arzela-Ascoli theorem). Taken together, these topics are likely to take us a little way past midterm. The remainder of the semester is devoted to chapter eleven, on the Lebesgue integral; this is perhaps the most demanding part of the course, coverage of which is fully deserving of half a semester.

Homework problems will be assigned and discussed in class. Some of these problems will be officially posted, collected and graded. There will also be a two-hour midterm (approximately half way through the semester) and a two-hour final: each of these will simultaneously serve as practice for the Analysis First-Year Examination. Assignment of grades will be determined by performance in the official homework assignments.

The Canvas page for this course will be just that: a 'page'; expect neither bells nor

whistles. It will serve as a repository for course materials: homework problems to be submitted for grading, 'practice' midterm and 'practice' final, and whatever additional items seem appropriate.

Policies

For various matters of policy, please consult 'Policies plus' at the [Files page](#).



© 2022 **University of Florida**, Gainesville, FL 32611; (352) 392-3261. Page Updated: December 30, 2021

This page uses **Google Analytics** ([Google Privacy Policy](#))

