36 Real Analysis II, Spring 1997

ıncy Stanton

ext: Protter and Morrey, A First Course in Real Analysis, Second Edition

mments

ıe book is at an appropriate level for the course. As real analysis
oks go, it is fairly easy. There is a good range of problems, from
ry easy to fairly difficult (although few could be described as very
fficult). I did not think the chapter on "Integration in eN" was
ry good, but, after doing it and looking at other treatments, I have
cided that the Riemann and Darboux integrals are inherently
cessively messy in eN, and a good treatment of integration in eN
quires doing the Lebesque integral, which should not be done at this
vel. I suggest that the topic be left out of the course. Instead,
ıe could do parts of Chapter 11 (Functions defined by integrals;
ıproper integrals) and the Weierstrass Approximation Theorem. The
:her chapters I did from the book were good.

ıe minor caution to anyone using the book P some problems refer back
 earlier problems. Occasionally the number of the earlier problem is
ıcorrect (as a result of not changing such references after inserting
w problems in the second edition.)

 will use the book again next year.

llabus

 First Course in Real Analysis
ıapter 6 Elementary Theory of Metric Spaces
.1 The Schwarz and Triangle Inequalities; Metric Spaces
.2 Elements of Point Set Topology
.3 Countable and Uncountable Sets
.4 Compact Sets and the HeinePBorel Theorem
.5 Functions on Compact Sets
.6 Connected Sets
.7 Mappings from One Metric Space to Another
ıapter 7 Differentiation in R^N
.1 Partial Derivatives and the Chain Rule
.2 Taylor's Theorem; Maxima and Minima
.3 The Derivative in R^N
ıapter 8 Integration in R^N
.1 Volume in R^N
.2 The Darboux Integral in R^N
.3 The Riemann Integral in R^N
ıapter 9 Infinite Sequences and Infinite Series
 9.1--9.2 were done in Math 335)
.3 Uniform Convergence of Sequences
.4 Uniform Convergence of Series; Power Series