

## SM331 Syllabus Fall 2009

**Textbook:** Steven R. Lay, Analysis with an Introduction to Proof, 4th edition, Prentice-Hall.

**Review:** Chapters 1 and 2 of the textbook contain material that you have already studied in SM291. Some time will be spent reviewing these chapters.

**Assignments:** Homework problems are not included on the syllabus and will be assigned in each class by your instructor.

Section	Topic	Number of Classes
1-7, 10	Review of SM291	3
8	Inductive Proofs	1
11	Ordered Fields	2
12	Completeness	4
	Review	1
	Test 1	1
13	Topology of the Reals	4
	Bolzano-Weierstrass Theorem	1
16	Convergence of Sequences	5
	Review	1
	Test 2	1
17	Limit Theorems	4
18	Monotone and Cauchy Sequences	4
19	Subsequences	4
	Review	1
	Test 3	1
20	Limits of Functions	5
21	Continuous Functions	3
22	Properties of Continuous Functions	3
23	Uniform Continuity	4
	Review	2
	Test 4	1
	Review for Final	4

Contact: Richard Maruszewski  
[rfm@usna.edu](mailto:rfm@usna.edu)