

## Math 451, Spring 2017 – Tentative Schedule

The table below gives an outline of a plan whose pace would allow us to cover the first five chapters of the textbook. This plan will be modified as needed; any instructions given in class will take precedence over this tentative schedule.

Topic / Textbook Section	Date introduced (approximate)
1.1: Sets	M 1/30
1.2: Functions	W 2/1
1.3: Algebraic and order properties	R 2/3
1.4: The positive integers	M 2/6
1.5: The least upper bound axiom	R 2/9
Handout – “What’s bigger than infinity?” (discussion of countable vs. uncountable)	M 2/13
2.1: Sequences and limits	W 2/15
2.2: Limit Theorems	R 2/16
2.3: Monotonic Sequences	F 2/17
2.4: Inductively Defined Sequences	M 2/20
Test #1: Ch. 1 (all), Ch. 2 (through 2.4)	Friday, February 24
2.5: Subsequences	M 2/27
2.6: Cauchy Sequences	W 3/1
2.7: Infinite Limits	R 3/2
3.1: Limit of a Function	M 3/6
3.2: Limit Theorems	R 3/9
3.3: Other Limits	M 3/13
3.4: Continuity	R 3/16
Spring Break	M 3/20-F 3/24
3.5: Intermediate & Extreme Values	M 3/27
3.6: Uniform Continuity	R 3/30
3.7: Functions of Two Variables	M 4/3
Test #2 – Sections 2.5 through 3.7	Friday, April 7
4.1: Definition of the Derivative	M 4/10
4.2: Rules for Differentiation	R 4/13
4.3: The Mean Value Theorem	F 4/14
4.4: Inverse Functions	M 4/17
4.5: Differentiability in $\mathbb{R}^2$	R 4/20
5.1: The Definition of the Integral	M 4/24
5.2: Properties of the Integral	R 4/27
5.3: Existence Theory	M 5/1
5.4: The Fundamental Theorem of Calculus	W 5/3
Test #3 – Sections 4.1 through 5.4	Monday, May 8
5.5 Improper Integrals	W 5/10
5.6: Double Integrals	R 5/11
Final Exam – cumulative	Tuesday, May 23, 8-10:30 AM