

DATE	BOOK	TOPIC
T 1.15	p. 1-7	Course introduction
R 1.17	p. 8-10	Set notation; relations and functions
T 1.22		Cardinality; finite vs. infinite; countable vs. uncountable
R 1.24		More on cardinality
T 1.29	p. 15-23	Algebraic and order properties of the real numbers
R 1.31		Distance in \mathbb{R} ; convergent and divergent sequences
T 2.5		Suprema and infima
R 2.7	p. 23-26	Cauchy sequences; completeness properties of \mathbb{R}
T 2.12		Subsequences; limits inferior and superior
R 2.14		Intervals in \mathbb{R} ; Nested Interval Theorem
T 2.19	p. 27-28	Decimal representations; Cantor diagonal argument
R 2.21	p. 34-44	Topology of metric spaces
T 2.26	p. 44-48, 51-52	Convergent sequences in metric spaces; completeness
R 2.28	p. 52-61	Compactness and connectedness
T 3.5	p. 78-79, 82-83	Introduction to continuous functions
R 3.7	p. 68-75	Continuous functions on metric spaces; limits
T 3.12		<i>No class - Spring Break</i>
R 3.14		<i>No class - Spring Break</i>
T 3.19	p. 80-81	Uniform continuity
R 3.21	p. 83-90	TAKE-HOME EXAM 1 DUE Topologizing the space of continuous functions <i>Last day for W grades</i>
T 3.26	p. 98-100	Derivatives of real-valued functions
R 3.28		<i>No class - Mid-semester recess</i>
T 4.2	p. 100-105	Mean Value Theorem and associated results
R 4.4	p. 106-108	Taylor polynomials and Taylor's Theorem; interchanging limit and derivative
T 4.9	p. 112-116	Definition of the Riemann integral
R 4.11	p. 118-123	Upper and lower Riemann sums; integral existence criteria
T 4.16	p. 116-118, 123-126	Properties of Riemann integrals
R 4.18	p. 126-128, 138-140	Fundamental Theorem of Calculus; interchanging limits and integrals
T 4.23	p. 141-143, 150	Introduction to infinite series; convergence tests
R 4.25	p. 146-149, 150-153	Power series
T 4.30	p. 153-156	Taylor series
R 5.2		A continuous but nowhere differentiable function
M 5.6		FINAL EXAM: 10-11:40 AM
T 5.7		TAKE-HOME EXAM 2 DUE