

## Updated Syllabus (9/16/01)

### MATH 361 - ADVANCED CALCULUS I

Week	Date	Read	Topics
1	Aug 20-24	Ch. 1 - Sec 1-2	Introduction. Logic.
2	Aug 27-31	Ch. 1 - Sec 3-4	Techniques of proof.
3	Sep 3-7	Ch. 2 - Sec 5-6	Set theory.
4	Sep 10-14	Ch. 2 - Sec 6-7	Equivalence classes. Functions.
5	Sep 17-21	Ch. 2 - Sec 8 Ch. 3 - Sec 10	Cardinality. Natural numbers and induction.
6	Sep 24-28	Ch. 3 - Sec 11 <b>Midterm # 1</b>	Ordered fields.
	Sep 29	<i>Last drop day</i>	
7	Oct 1-5	Ch. 3 - Sec 12-13	Infimum and supremum. Topology of the reals.
8	Oct 8-10 Oct 11-12	Ch. 3 - Sec 14 <i>FALL BREAK</i>	Compact sets.
9	Oct 15-19	Ch. 4 - Sec 16-17	Sequences: convergence and limits
10	Oct 22-26	Ch. 4 - Sec 18-19	Cauchy sequences, subsequences
11	Oct 29-31 Nov 1-2	Ch. 5 - Sec 20-22	Limits and continuity of functions. Properties.
12	Nov 5-9	Ch. 5 - Sec 23 Review	Uniform continuity.
	Nov 9	<i>Last withdraw day</i>	
13	Nov 12-16	<b>Midterm # 2</b> Ch. 6 - Sec 25	Differentiation.
14	Nov 19-21 Nov 22-23	Ch. 6 - Sec 26 <i>THANKSGIVING</i>	Mean value theorem.
15	Nov 26-30	Ch. 6 - Sec 27-28	L'Hopital's rule. Taylor's theorem.
16	Dec 3-7	Review week	
	Dec 11th	<b>FINAL EXAM</b>	10am-noon