Calculus I *Calendar*
MA113 *Fall 2001*

Text *Calculus* third edition, by James Stewart.
Calendar The calendar below gives the dates of exams and other important deadlines for the course. Students should master all of the unstarred problems on this list. The problems marked by *'s are particularly interesting.

Wed, 22 Aug	Preview and review §1 #77-82, §2 #3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27*
Fri, 24 Aug	Trigonometry review, Appendix D #1, 3, 5, 7, 9, 11, 29, 31, 33, 35, 37, 43, 45, 47, 49, 53, 83*,85*
Mon, 27 Aug	*The tangent and velocity problems,* §1.1 #3, 5, 7
Wed, 29 Aug	*The limit of a function,* §1.2 #1, 3, 5, 9, 11, 13, 15, 17, 19, 23, 25, 27, 28, 29
Fri, 31 Aug	*Calculating limits using the limit laws,* §1.3 #1, 3, 5, 7, 13, 15, 17, 19, 27, 29, 33, 39, 59, 61, 75*, 76*, 78*
Mon, 3 Sep	*Labor day*
Wed, 5 Sep	*The precise definition of a limit,* §1.4 #1, 3, 5, 7, 11, 13, 15, 21, 27, 35
Fri, 7 Sep	*Continuity,* §1.5 #1, 3, 9, 13, 15, 17, 31, 33, 37, 39, 45, 47, 49, 59*, 60*
Mon, 10 Sep	*Tangents velocities and other rates of change,* §1.6 # 1, 5, 7, 11, 13, 15, 17
Wed, 12 Sep	*Derivatives,* §2.1 #1, 3, 5, 7, 11, 13, 15, 23, 31, 33, 34, 35, 37, 39, 44, 45, 53, 55, 59*, 60*, 61*
	Last day to drop
Fri, 14 Sep	*Review*
Mon, 17 Sep	*Review*
Tue, 18 Sep	*First exam,* 7:30pm-9:30pm, room TBA
Wed, 19 Sep	*Differentiation formulas*, §2.2 §1-34 (*Learn to differentiate!*), 37, 41, 43, 45.
Fri, 21 Sep	*Rates of change in the natural and social sciences,* §2.3 #1, 3, 5, 7, 9, 11, 13
Mon, 24 Sep	*Derivatives of trigonometric functions,* §2.4 # 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 33, 35, 37, 43, 45, 47, 53*, 55
Wed, 26 Sep	*The chain rule,* §2.5 1-47 (odds) 49, 51, 67, 69, 71*, 72*, 73*
Fri, 28 Sep	*Implicit differentiation,* §2.6 #1, 3, 5, 7, 9, 11, 21, 23, 25, 31, 35, 41, 43, 45
Mon, 1 Oct	*Higher derivatives,* §2.7 #1, 3, 5, 7, 23, 25, 27, 29, 31*41, 43
Wed, 3 Oct	*Related rates*, §2.8 #1, 3, 5, 7, 9, 11, 13, 15, 23, 27, 31
Fri, 5 Oct	*Fall break*
Mon, 8 Oct	*Differentials,* §2.9 #31, 33, 35, 37, 39, 41, 45, 47, 51*, 54
Wed, 10 Oct	*Newton's method,* §2.10 #1, 2, 3, 13, 23, 25, 31*
Fri, 12 Oct	*Review*
Mon, 15 Oct	*Review*
Tue, 16 Oct	*Second exam,* 7:30pm-9:30pm, room TBA

Wed, 17 Oct	*Maximum and minimum values*, §3.1, #1, 3, 5, 7, 9, 11, 13, 15, 21, 29, 31, 33, 35, 37, 39, 45, 47, 49, 51, 62, 63, 67, 69
Fri, 19 Oct	*Last day to withdraw*
Mon, 22 Oct	*The mean value theorem*, §3.2 #1, 7, 17, 19, 21, 23*, 24, 25, 27, 31, 33, 35
Wed, 24 Oct	*Monotonic functions and the first derivative test*, §3.3 #1, 3, 5, 7, 17, 23, 27, 31, 33, 35, 37, 39, 41, 43, 47*, 49*
Fri, 26 Oct	*Concavity and points of inflection*, §3.4 #1, 3, 5, 7, 9, 13, 17, 21, 23, 25, 27, 31*, 32, 35, 39*, 40
Mon, 29 Oct	*Limits at infinity, horizontal asymptotes*, §3.5 #1, 3, 5, 7, 9, 11, 17, 19, 21, 23, 33, 41, 43, 53, 55, 61, 65, 66
Wed, 31 Oct	*Curve sketching*, §3.6 #1, 3, 5, 11, 13, 31, 35
Fri, 2 Nov	*Applied maximum and minimum problems*, §3.8 #1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 29, 33, 35
Mon, 5 Nov	§3.8, continued
Wed, 7 Nov	*Anti-derivatives*, §3.10 #1, 3, 5, 7, 15, 17, 19, 21, 23, 27, 37, 39, 43, 49, 55, 59*, 63, 65, 67*
Fri, 9 Nov	*Review*
Mon, 12 Nov	*Review*
Tue, 13 Nov	*Third exam,* 7:30pm-9:30pm, room TBA
Wed, 14 Nov	*Sigma notation*, §4.1 #1, 3, 11, 13, 19, 21, 23, 37, 39, 41, 47*, 53*, *Mathematical induction*, Appendix E #1, 7, 9
Fri, 16 Nov	*Area*, §4.2 #1, 3, 9, 11, 13, 23, 25*, 26*
Mon, 19 Nov	*The definite integral*, §4.3 #1, 3, 15, 16, 17, 23, 25, 27, 31, 33, 35, 39, 41, 45, 47, 55, 57, 59
Wed, 21 Nov	*The fundamental theorem of calculus,* §*4.4* #5, 7, 9, 17, 19, 21, 23, 25, 27, 29, 31, 41, 43, 45, 59, 61, 63, 65, 69, 71, 81, 82, 83a,b,c*, 87, 89
22-23 Nov	*Thanksgiving holiday*
Mon, 26 Nov	*Fundamental theorem, continued*
Wed, 28 Nov	*The substition rule*, §4.5 #1, 3, 5, 7, 9, 11, 39, 41, 43, 53, 55, 63, 65, 67
Fri, 30 Nov	*Areas between curves*, §5.1 #1, 5, 7, 9, 13, 15, 17, 19, 25, 29, 33, 45*, 49
Mon, 3 Dec	*Volume*, §5.2 #1, 3, 5, 7, 13, 15, 17, 19, 25, 27, 33, 35, 47, 49, 51, 52, 61, 68
Wed, 5 Dec	*Volume by cylindrical shells*, §5.3 #1, 3, 9, 15, 17, 19, 25, 33, 39, 41, 42
Fri, 7 Dec	*Review*
Thu, 13 Dec	*Final exam*, 6-8pm, room TBA