

The University of Calgary
Faculty of Science
Department of Mathematics and Statistics
Applied Mathematics 309 Course Schedule

Opposite are useful dates for Applied Mathematics 309, Lecture 01, Winter 2005.

All section numbers are taken from the text *Several variables calculus*, by R. Adams, fifth edition.

If you wish to use a different text than the prescribed one, it is your responsibility to transcribe the sections overleaf to something appropriate for your text.

Month	Day	Section	Commentary
January	10	10.2	Vectors
January	12	10.3	Cross Product
January	14	10.4	Lines and Planes
January	17	10.6	Linear Algebra
January	19	11.1,2	Vector Derivatives
January	21	11.3	Curves, Arc Length
January	24	11.4	Frenet Equations
January	26	11.5	Arbitrary Parametrizations
January	31	11.6	Kepler's Problem
February	2	11.6	Kepler's Problem
February	4	12.1,3	Partial Derivatives
February	7	12.4	Higher Derivatives, PDEs
February	9	12.5	The Derivative and the Chain Rule
February	11	12.6	Linear Approximation
February	14	12.7	The Gradient
February	16	12.9	Taylor Series
February	18	13.1	Critical Points, Maxima, Minima
February	21		Reading Week, Family Day
February	23		Reading Week
February	25		Reading Week
February	28	13.2	Constrained Extrema I
March	2		Midterm
March	4	13.3	Constrained Extrema II
March	7	14.1	Double Integrals
March	9	14.2	Fubini's Theorem
March	11	14.4	Change of Variables
March	14	14.5	Triple Integrals
March	16	14.6	Change of Variables II
March	18	14.7	Surface Area, Moments of Inertia
March	21	15.1,2	Vector Fields, Conservative Fields
March	23	15.3	Line Integrals
March	25		Good Friday
March	28	15.5	Surface Integrals
March	30	15.6	Flux Integrals
April	1	16.1,2	Differential Operators and Identities
April	4	16.3	Theorem of Green
April	6	16.4	Divergence Theorem
April	8	16.5	Stokes' Theorem
April	11	16.6	Applications to Fluids
April	13	16.6	Applications to Electromagnetism
April	15		Review