

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 02, Winter 2004.

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	12	10.2	Vectors
January	14	10.3	Cross Product
January	16	10.4	Lines and Planes
January	19	10.6	Linear Algebra
January	21	11.1,2	Vector Derivatives
January	23	11.3	Curves, Arc Length
January	26	11.4	Frenet Equations
January	28	11.5	Arbitrary Parametrizations
January	30	11.6	Kepler's Problem
February	2	11.6	Kepler's Problem
February	4	12.1,3	Partial Derivatives
February	6	12.4	Higher Derivatives, PDEs
February	9	12.5	The Derivative and the Chain Rule
February	11	12.6	Linear Approximation
February	13	12.7	The Gradient
February	16		Reading Week, Family Day
February	18		Reading Week
February	20		Reading Week
February	23	12.9	Taylor Series
February	25	13.1	Critical Points, Maxima, Minima
February	27	13.2	Constrained Extrema I
March	1	13.3	Constrained Extrema II
March	3	14.1	Double Integrals
March	5	14.2	Fubini's Theorem
March	8	14.4	Change of Variables
March	10	14.5	Triple Integrals
March	12	14.6	Change of Variables II
March	15	14.7	Surface Area, Moments of Inertia
March	17	15.1,2	Vector Fields, Conservative Fields
March	19	15.3	Line Integrals
March	22	15.4	Line Integrals II
March	24	15.5	Surface Integrals
March	26	15.6	Flux Integrals
March	29	16.1	Differential Operators
March	31	16.2	Identities of Differential Operators
April	2	16.3	Theorem of Green
April	5	16.4	Divergence Theorem
April	7	16.5	Stokes' Theorem
April	9		Good Friday
April	12	16.6	Applications to Fluids
April	14	16.6	Applications to Electromagnetism
April	16		Review