Mathematics 11 – Term Syllabus
Fall 2004 — Based on Stewart 5^e

July 6, 2004

Lecture	Sections	Topic
Day 1	13.1, 13.2	Coordinates and vectors in $\mathbb{R}^2$ and $\mathbb{R}^3$
Day 2	13.3, 13.4	Dot product and cross product
Day 3	13.5	Lines and planes in $\mathbb{R}^3$
Day 4	14.1, 14.2	Vector functions, space curves, derivatives and integrals
Day 5	14.3, 14.4	Arclength, velocity, acceleration
Day 6	15.1, 15.2	Functions of several variables, limits, continuity
Day 7	15.3	Partial Derivatives
Day 8	15.4	Tangent Planes and Approximation
Day 9	15.5	Chain Rule
Day 10	15.6	Directional Derivatives and the gradient
Day 11	15.7	Maxima and Minima
Day 12	15.7	Maxima and Minima
Day 13	16.1	Double Integrals over rectangles
Day 14	16.2	Iterated Integrals
Day 15	16.3	Double Integrals over General Regions

Day 16	16.4	Double Integrals in polar coordinates
Day 17	16.6	Surface Area
Day 18	16.7	Triple Integrals
Day 19	13.7, 16.8	Cylindrical and spherical coordinates; Integrals
Day 20	17.1, 17.2	Vector Fields, Line Integrals
Day 21	17.3	Fundamental Theorem for line integrals
Day 22	17.3	Fundamental Theorem for line integrals
Day 23	17.4	Green's Theorem
Day 24	17.5	Curl and Divergence
Day 25	17.6	Parametric Surfaces and their Areas
Day 26	17.7	Surface Integrals
Day 27	17.8, 17.9	Stokes' and Gauss' Theorem
Day 28	17.8, 17.9	Stokes' and Gauss' theorem
Day 29		Wrap up