

Math W53

Course Schedule

Online Course Summer 2015

Part 1	Weeks 1 & 2: Preliminaries	Introduction to the course. Geometry of curves Geometry of vectors, dot product, cross product. Planes and quadric surfaces. Vector-valued functions.	Stewart chapter 10 Stewart chapter 12 Stewart chapter 13	Quiz Homework 1 Homework 2
Part 2	Weeks 3 & 4: Differentiation	Limits and continuity, partial derivatives, chain rule, directional derivative and gradient, optimization, La- grange multipliers.	Stewart chapter 14	Quiz Homework 1 Homework 2
Part 3	Week 5 & most of week 6: Integration	Double and triple integrals in Cartesian, polar, cylindrical, and spherical coordinates, change of variables.	Stewart chapter 15	Quiz Homework 1 Homework 2

Part 4	End of week 6, week 7, & most of week 8: Vector calculus	Line integrals and surface integrals, fundamental theorem for line integrals, Green's theorem, Stokes's theorem, divergence theorem.	Stewart chapter 16	Quiz Homework 1 Homework 2
Part 5	End of week 8: Review			Final Exam TBA

Not Final