

Math 20550: Calculus III, Syllabus & Tentative Schedule Spring 2015

	Jan	14	12.1 3D Coordinates
(in tutorial)		15	12.2 Vectors.
		16	12.3 Dot Product; 12.4. Cross Product
		19	12.4 Cross Product (finish)
		21	12.5 Lines, Planes
		23	12.5 Planes
		26	13.1 Vector Functions, Space Curves
		28	13.2 Derivatives, Integrals
		30	13.3 Arc Length
	Feb	2	13.3 Normal and Binormal vectors
	Feb	4	13.4 Motion in Space
	Feb	6	14.1 Functions of Several Variables
	Feb	9	14.2 Limits, Continuity
	Feb	11	14.3 Partial Derivatives
	Feb	13	14.5 Chain Rule
	Feb	16	Instructor's Choice
		17	Exam I
	Feb	18	14.6 Directional Derivatives, Gradients
(in tutorial)		19	14.6 Tangent Planes, Normal Lines
	Feb	20	14.7 Local Maxima, Local Minima, Saddle Points
	Feb	23	14.7 Maxima and Minima on bounded regions
	Feb	25	14.8 Lagrange Multipliers (one constraint)
	Feb	27	14.8 Two Constraints
	Mar	2	15.1 Double Integrals over Rectangles
	Mar	4	15.2–3 Iterated Integrals, General Regions
	Mar	6	15.3 Double Integrals over General Regions
		7-15	<i>Spring Break</i>
	Mar	16	Instructor's Choice
		17	Exam 2
	Mar	18	15.4 Polar Coordinates
(in tutorial)		19	15.5 mass, centers of mass, and moments
	Mar	20	15.7 Triple Integrals
	Mar	23	15.8 Triple Integrals in Cylindrical Coordinates
	Mar	25	15.9 Triple Integrals in Spherical Coordinates
	Mar	27	15.10 Change of Variables in Multiple Integrals
	Mar	30	16.2 Line Integrals of Functions
	April	1	16.1–2 Vectors Fields, Line Integrals
	April	3	<i>Easter Holiday</i>
	April	6	<i>Easter Holiday</i>
	April	8	16.3 Fundamental Theorem of Line Integrals
	April	10	16.4 Green's Theorem
	April	13	16.5 Curl, Divergence
	April	15	16.6 Parametric Surfaces, Tangent Planes, Area
	April	17	16.7 Surface Integrals, Flux Integrals
	April	20	Instructor's Choice
		21	Exam 3
	April	22	16.8 Flux Integrals, Stokes' Theorem
	April	24	16.8 Stokes' Theorem
	April	27	16.9 Divergence Theorem
	April	29	Review
	May	7	Final Exam, 1:45–3:45