

DEPARTMENT OF MATHEMATICS SYLLABUS

Course # & Name: MAT 21D: Vector Analysis

Recommended Text(s) & Price: Thomas' Calculus: Early Transcendentals
by Weir/Hass/Giordano (\$142.00)

Prepared by: Prof. Joel Hass

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4/24/2007

Lecture(s)	Sections	Comments/Topics
2	15.1	Double Integrals
1	15.2	Area, Moments, Center of Mass
1	15.3	Double Integrals in Polar Coords
1	15.4	Triple Integrals
1	15.5	Masses and Moments in 3 Space
2	15.6	Triple Integrals in Cylindrical and Spherical Coords
1	15.7	Substitution in Multiple Integrals
1	13.1	Vector Functions
1	13.3	Arc length and the Unit Tangent Vector
1	13.4	Curvature and the Unit Normal Vector
1	16.1	Line Integrals
2	16.2	Work, Circulation, Flux
1	16.3	Path Independence, Conservative Fields
2	16.4	Green's Theorem in the Plane
2	16.5	Surface Integrals
1	16.6	Parametrized Surfaces
2	16.7	Stoke's Theorem
2	16.8	The Divergence Theorem and a Unified Theory

Additional Notes:

Total number of lectures = 25. This leaves five days for exams and time adjustments.

If time allows, add 13.2.