King Fahd University of Petroleum and Minerals
Department of Mathematical Sciences

Syllabus of MATH 201 (Calculus III)
Semester II, 2006-2007 (062)

Course #: MATH 201
Title: Calculus III
Textbook: *Calculus (Early Transcendentals)*, 5th edition (2003), by James Stewart

Week	Dates	Sec.	Topics	Suggested Homework
1	Feb. 17- 21	10.1 10.2	Curves Defined by Parametric Equations Calculus with Parametric Curves	2, 3, 8, 12, 24, 26, 28 4, 8, 12, 18, 32, 38, 41
2	Feb. 24- 28	10.3 10.4	Polar Coordinates Areas and Lengths in Polar Coordinates	12, 18, 26, 29, 36, 40, 60, 62 3, 6, 8, 12, 30, 36, 40, 46
3	Mar. 3- 7	12.1 12.2	Three-Dimensional Coordinate Systems Vectors	6, 10, 14, 18, 22, 24, 27, 30, 38, 40 2, 6, 12, 20, 24, 27, 36
4	Mar. 10- 14	12.3 12.4	The Dot Product The Cross Product	1, 2, 8, 12, 14, 18, 24, 34, 38, 41, 52 4, 9, 14, 26, 32, 34, 39, 45
5	Mar. 17- 21	12.5 12.6	Equations of Lines and Planes Cylinders and Quadric Surfaces	1, 2, 4, 12, 16, 18, 20, 28, 34, 40, 48, 54, 59, 72 2, 4, 9, 12, 21-28, 34
Sunday 25 March: First Major Exam				
6	Mar. 24- 28	12.6 12.7	(Continued) Cylindrical and Spherical Coordinates	 4, 10, 14, 20, 24, 28, 34, 36, 40, 52
7	Mar. 31 - Apr. 4	14.1 14.2	Functions of Several Variables Limits and Continuity	1, 2, 6, 12, 26, 32, 42, 60 1, 6, 8, 10, 19, 30, 38
8	Apr. 7- 11	14.3 14.4	Partial Derivatives Tangent Planes & Linear Approximations	1, 14, 18, 22, 34, 40, 42, 50, 60, 68 (c, f), 83 2, 12, 16, 24, 30, 32, 37
April 12- 15: Midterm Vacation				
9	Apr. 16- 18	14.5 14.6	The Chain Rule Directional Derivatives & the Gradient Vector	4, 8, 18, 22, 28, 32, 44, 45 4, 10, 16, 23, 28, 40, 48, 54
10	Apr. 21- 25	14.6 14.7	(Continued) Maximum and Minimum Values	 1, 6, 12, 18, 27, 30, 37, 40, 46
11	Apr. 28 - May 2	14.7 14.8	(Continued) Lagrange Multipliers	 3, 6, 8, 10, 25, 26, 38
Sunday 6 May: Second Major Exam				
12	May 5- 9	15.1 15.2	Double Integrals over Rectangles Iterated Integrals	3, 11, 12, 14, 17 4, 6, 8, 11, 14, 20, 24, 26, 29
13	May 12- 16	15.2 15.3	(Continued) Double Integrals over General Regions	 4, 5, 14, 16, 24, 26, 39, 44, 50
14	May 19- 23	15.4 15.7	Double Integrals in Polar Coordinates Triple Integrals	2, 4, 8, 10, 14, 18, 22, 30, 31 4, 8, 12, 14, 16, 20, 26, 29, 33
15 & 16	May 26 - June 2	15.8	Integrals in Cylindrical & Spherical Coordinates Review & Catching up	2, 3, 7, 8, 12, 18, 20, 22, 31, 34, 36