King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics

SYLLABUS
Semester II, 2010-2011 (102)
Coordinator: Dr. Assane Lo

Course #: Math 201
Title: Calculus III
Textbook: Calculus (Early Transcendentals): by James Stewart; **6th edition (2008)**
Course Description: Math 201 is a continuation of Math 101 (Calculus I) and Math 102 (Calculus II). These courses are designed as an introduction to the fundamental concepts of calculus and analytic geometry. The concepts studied in Math 201 include solid analytic geometry, vectors and surfaces, differentiation of functions of several variables and multiple integrals.

Week	Date	Sec. #	Topics
1	Feb. 12-16	10.1 10.2	Curves Defined by Parametric Equations Calculus with Parametric Curves
2	Feb. 19-23	10.3 10.4	Polar Coordinates Areas and Lengths in Polar Coordinates
3	Feb. 26-March 2nd	12.1 12.2 12.3	Three-Dimensional Coordinate Systems Vectors The Dot Product
4	Mar. 05-09	12.4 12.5	The Cross Product Equations of Lines and Planes**(End of Exam I Material)**
Exam I (25% / 100pts): Thursday March 24, 2011. Material [10.1-12.5]		
5	Mar. 12-16	12.6 14.1	Cylinders and Quadric Surfaces Functions of Several Variables
6	Mar. 19-23	14.1 14.2	Functions of Several Variable(Contd.) Limits and Continuity
7	Mar. 26-30	14.3 14.4	Partial Derivatives Tangent Planes & Linear Approximation
8	April. 02-06	14.5 14.6	The Chain Rule Directional Derivatives and the Gradient Vector
April 09-13 : Midterm Vacation		
9	Apr. 16-20	14.7	Maximum and Minimum Values **(End of Exam II Material)**
Exam II (25% / 100pts): Monday April 25, 2011. Material [12.6-14.7]		
10	Apr. 23-27	14.8 15.1	Lagrange Multipliers Double Integrals over Rectangles
11	Apr. 30-May 04	15.2	Iterated Integrals
12	May 07-11	15.3	Double Integrals over General Regions
13	May 14-18	15.4	Double Integrals in Polar Coordinates
14	May 21-25	15.6 15.7	Triple Integrals Triple Integrals in Cylindrical Coordinates
15	May 28-June 1st	15.8	Triple Integrals in Spherical Coordinates Review
Final Exam (35% / 140pts): (Comprehensive MCQ) is scheduled on Tuesday June 07, 2011 at 7:00 PM. The location will be announced later.		

Class Work: (15% / 60pts). It is based on quizzes, homework, or other class activities determined by the instructor. All quizzes must be of written type and not of multiple choice type.
The class-work average (x out of 60) of the sections taught by the same instructor should be in the interval [36, 45].

Math 201, Semester 102
<u>Suggested Homework Problems</u>

Sec. #	Suggested Homework Problems
10.1	2,3,6,11,24,26,28,33,38
10.2	5,8,13,25,28,36,43,57,60
10.3	9,16,22,29,40,48,54,56,60,66
10.4	3,6,8,12,25.28,31,35,40
12.1	6,10,14,18,21,23,32
12.2	1,4,8,18,24,28,39
12.3	1,2,4,8,10,11,14,17,23,37,41,52
12.4	2,9,12,26,33,36,39,45
12.5	1,3,15,16,17,30,38,51,61,66,70
12.6	2,5,9,11,21-28,29,36
14.1	1,2,6,11,30,32
14.2	3,7,10,11,28,37,39
14.3	1,4,5,16,21,51,66,89,90
14.4	2,12,16,20,24,31
14.5	4,8,16,17,22,28,50,52
14.6	3,5,9,15,23,27,36,38,41,48,59
14.7	1,3,5,11,30,36,40,44,47
14.8	1,4,10,23,25,39,40,44
15.1	3,6,8,12,17
15.2	4,5,8,11,14,19,28,36
15.3	3,5,10,16,24,39,43,45,50,52,56
15.4	1,3,7,10,18,21,33,36
15.6	2,8,10,18,28,32,34
15.7	2,4,6,8,17,20,22,28
15.8	2,4,6,10,17,20,23,26,40