

King Fahd University of Petroleum & Minerals
Department of Mathematical Sciences
Syllabus of Math 201, Semester 001
(Dr. Rajai S. Alassar)

Course # : Math 201
 Course Title : Calculus III
 Textbook : Calculus, A New Horizon by Howard Anton, sixth edition (1999).

Week	Date	Sec.	Topics	Homework
1	Sept.02 – Sept.06	11.1	Review of Sequences and Series (Math 102)	13,16,19,22
		11.2	Review of Sequences and Series (Math 102)	8,16,18
		11.3	Review of Sequences and Series (Math 102)	7,8,26a,27c
		11.4	Review of Sequences and Series (Math 102)	4,5,8,22
		11.6	Review of Sequences and Series (Math 102)	22,24,26,30,34,38,40,42,44
2	Sept.09 – Sept.13	11.5	Taylor and Maclaurin Series	4,8,10,11,14,22,24,25,27
		11.7	Alternating Series; Conditional Convergence	2,4,6,10,14,15,18,22,27,30, 31,35
3	Sept.16 – Sept.20	11.8	Power Series	2,4,8,10,14,16,20,22,26,29,30
		11.9	Convergence of Taylor Series; Computational Methods	2,4,6,7,8,11,12,13
4	Sept.23 – Sept.27	11.10	Differentiating and Integrating Power Series	2,4,6,8,10,16,22,24,27,29
		13.1	Rectangular Coordinates in 3-Space	8,16,20,22,28
First Major Exam Monday, October 2, 2000				
5	Sept.30 – Oct.04	13.2	Vectors	10,15,18,19,21a,22,35,36a
		13.3	Dot Product; Projections	1c,3c,13,14,16a,22,24,26
6	Oct.07 – Oct.11	13.4	Cross Product	1,6,10,12,14,16,18,22,24,30,32
		13.5	Parametric Equations of Lines	4,5,10,12,18,22,26,28,30,32, 34, 40,45,48
7	Oct.14 – Oct.18	13.6	Planes in 3-Space	4,12,14c,16c,18b,20,22,26,30,36, 42,44
		13.7	Quadric Surfaces	2(a,e),5(a,d,f),7,9c,14,20,22,30
8	Oct.21 – Oct.22*	13.8	Cylindrical and Spherical Coordinates	2c,4d,6b,8a,10a,11d,16,20,26,28,33,36,44
Oct.23 – Oct.25		Mid-Semester Break		
9	Oct.28 – Nov.01	15.1	Functions of Two or More Variables	2,7c,14a,10,16,20a,22,24,34,40,44
		15.2	Limits and Continuity	2,10,12,14,19b,22,26,32,34,38,42
10	Nov.04 – Nov.08	15.3	Partial Derivatives	2,4,6,14,24,30,36,44,52,58,64,73b
		15.4	Differentiability and Chain Rules	4,12,18,22,32a,35c,36a,48,50
Second Major Exam Monday, November 13, 2000				
11	Nov.11 – Nov.15	15.5	Tangent Lines; Total Differentials for Functions of Two Variables	2,10,12,14,16,18,22,23,30,50
		15.6	Directional Derivatives and Gradients for Functions of Two Variables	4,10,12,19,22,26,32,34,38,44,52,58d
12	Nov.18 – Nov.22	15.7	Differentiability, Directional Derivatives, and Gradients for Functions of Three or More Variables	4,6,10,14,18,22,24,28,32,40,50,54,56, 58,64,68,70
		15.8	Maxima and Minima of Functions of Two Variables	2a,4,10,12,14,16,24,28,32,36
13	Nov.25 – Nov.29	16.1	Double Integrals	2,8,12,14,16,20,24,26
		16.2	Double Integrals over Nonrectangular Regions	4,8,12,14,18,22,26,32,38,44,48,50,52
14	Dec.02 – Dec.06	16.3	Double Integrals in Polar Coordinates	2,6,8,14,20,22,24,28,30,37
		16.5	Triple Integrals	2,4,6,8,10,12,16,22,24a
15	Dec.09 – Dec.13	16.7	Triple Integrals in Cylindrical and Spherical Coordinates	2,4,6,8,10,12,14,16,20
Dec.16 – Dec.30		Eid al-Fitr Vacation		
16	Dec.31– Jan.03		Review	

* Sunday October 22 is a Makeup for Saturday Class.
 KFUPM policy with respect to attendance will be enforced.
 Final Exam: To be announced later (**Comprehensive**)