

King Fahd University of Petroleum and Minerals
Department of Mathematical Sciences
Syllabus of MATH 132 (041)

Course #: Math 132
Title : Applied Calculus
Textbook: *Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences*, by Ernest F. Haeussler, Jr. & Richard S. Paul, 10th ed. (2002).

Week	Date	Section	Material	Homework
1	Sept. 11-15	11.1 11.2	Limits Limits (cont'd)	18,30,33,40,43 15,29,52,58,61
2	Sept. 18-22	11.4 12.1	Continuity The Derivative	5,15,24,35,36 13, 14,17,26,27
3	Sept. 25-30	12.2 12.3 12.4	Rules for Differentiation The Derivative as a Rate of Change Differentiability and Continuity	22,34,73,85 8,12,27,40
4	Oct. 02-06	12.5 12.6	Product and Quotient Rules The Chain Rule and Power Rule	10,16,37,50,70 8,18,46,61,69,7
5	Oct. 09-13	13.1 13.2 13.3	Derivatives of Logarithmic Functions Derivatives of Exponential Functions Implicit Differentiation	18,20,26,32,50 16,26,30,38 8,18,24,26
6	Oct. 16-20	13.4 13.5 14.1	Logarithmic Differentiation Higher Order Derivatives Relative Extrema	8,12,19,26 2,14,30,34,37 18,30,46,48,60
7	Oct. 23-27	14.2 14.3	Absolute Extrema on a Closed Interval Concavity	2,10,12 14,30,40,46,64
First exam: Saturday 23 October				6:00-8:00
8	Oct. 30- Nov. 03	14.4 14.5 15.1	The Second-Derivative Test Asymptotes Applied Maxima and Minima	6,8,12 14,22,38,46 4,14,22,26
9	Nov. 20-24	15.2 16.1	Differentials The Indefinite Integral	12,18,22,28 10,20,30,42,50
10	Nov. 27- Dec. 01	16.2 16.3	Integration with Initial Conditions More Integration Formulas	6,8,10,12,14 10,26,58,68,84
11	Dec. 04-08	16.4 16.7 16.8	Techniques of Integration The Fundamental Theorem of Integral Calculus Area	10,24,42,48,60 16,32,36,44,49 14,16,22,27,35
12	Dec. 11-15	16.9 17.1	Area between Curves Integration by Parts	4,15,22,26,32 8,18,24,28,32
Second exam: Sunday 12 December				6:00-8:00
13	Dec. 18-22	17.3 Hand-out 19.1	Integration by Tables Derivatives and Integrals of Trig. Functions Functions of Several Variables	17,23,35,43,54 4,8,10
14	Dec. 25-29	19.2 19.5	Partial Derivatives Higher Order Partial Derivatives	6,18,20,28,34 7,10,14,20,21
15	Jan. 01-03	19.7	Maxima and Minima for Functions of Two Variables	8,15,19,22,29

MAJOR EXAMS:

First major exam: Saturday 23 October 2004.

Second major exam: Sunday 12 December 2004.