

King Fahd University of Petroleum and Minerals

Department of Mathematical Sciences

Syllabus of **Math 132 (052)**

(Mohammad Z. Abu-Sbeih)

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, 11^h ed. (2005).

Week	Date	Section	Material	Homework
1	Feb 12 - 16*	10.1	Limits	17,18,33,40,43
		10.2	Limits (cont'd)	2,15,36,42,52,57
		10.4	Continuity	5,11,24,32,37
2	Feb 18-22	11.1	The Derivative	13, 14,17,26,27
		11.2	Rules for Differentiation	22,34,61,73,78,85
		11.3	The Derivative as a Rate of Change	8,12,16,20,27,39,41
3	Feb 25-Mar 01	11.4	Differentiability and Continuity	
		11.5	Product and Quotient Rules	10,16,37,50,61,66
4	Mar 04-08	11.6	The Chain Rule and the Power Rule	8,18,44,46,62,69,72
		12.1	Derivatives of Logarithmic Functions	18,20,26,32,50
		12.2	Derivatives of Exponential Functions	16,26,30,38,39
5	Mar 11-15	12.4	Implicit Differentiation	10,18,24,26,34
		12.5	Logarithmic Differentiation	8,12,19,21,26
		12.7	Higher Order Derivatives	2,14,30,34,37
Major Exam I, Saturday, March 18, 2006				
6	Mar 18-22	13.1	Relative Extrema	18,30,46,48,60
		13.2	Absolute Extrema on a Closed Interval	2,10,12
7	Mar 25-29	13.3	Concavity	14,30,40,46,68
		13.4	The Second-Derivative Test	6,8,12
		13.5	Asymptotes	14,22,38,46
Midterm Break: April 1-2				
8	Apr 03-05	13.6	Applied Maxima and Minima	2,14,18,22,26
		14.1	Differentials	12,18,22,28
9	Apr 08-12	14.2	The Indefinite Integral	10,20,30,42,50
		14.3	Integration with Initial Conditions	6,8,10,12,14
		14.4	More Integration Formulas	9,15,35,53,70,75
10	Apr 15-19	14.5	Techniques of Integration	6,18,30,44,48,55
		14.8	The Fundamental Theorem of Int. Calculus	16,32,36,44,48
		14.10	Area	9,15,20,24,34
Major Exam II, Monday, April 24, 2006				
11	Apr 22-26	14.11	Area between Curves	1,5,12,30,30,32
		15.1	Integration by parts	8,12,18,20,24,28,32
12	Apr 29-May 03	15.3	Integration by Tables	8,12,30,36,49,54
		**	Derivatives and Integrals of Trig. Functions	Handout
13	May 06-10	17.1	Functions of Several Variables	2,5,12,16,23,28
14	May 13-17	17.2	Partial Derivatives	6,18,20,28,34

		17.5	Higher Order Partial Derivatives	6,9,12,20,21
15	May 20-24	17.7	Maxima and Minima for funs. of Two Vars.	4,8,15,19,22,26,29
	May 27		Review	

(* **Thursday Feb. 16: Normal Saturday classes.**

- KFUPM attendance policy will be strictly enforced
- Suggested time for major exams:
 - **First Major: Saturday, March 18, 2006**
 - **Second Major: Monday, April 24, 2006**
- Final Exam is comprehensive and will be announced by the registrar.
- **Important Dates:**
 - **March 29:** Last day for dropping courses with grade of "W"
 - **April 19:** Last day for withdrawal from **all courses** with grade of "W"
 - **May 17:** Last day for withdrawal from **all courses** with grade of "WP/WF"