

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**DEPARTMENT OF MATHEMATICAL SCIENCES**  
**DHAHRAN, SAUDI ARABIA**  
**Course Outline, Semester 071**

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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<sup>h</sup> ed. (2005)

**Notes:**

1. Attendance on time is *very* important. Therefore, ½ % will be deduced for *each* one absence.
2. Mostly, attendance will be checked within the *first five minutes* of the class. Entering the class after that is considered as one late, and *every two “lates”* equals to one absence.
3. In accordance with the university undergraduate bulletin, *ten* unexcused absences will result in a grade of *DN*.
4. All contacts or announcements between the instructor and the students are supposed to be held on the WebCT, so the student *must* check his WebCT inbox *at least once* a day.

## (Tentative Syllabus)

Week	Date	Section	Material	Homework	Notes
1	8/09 – 12/09	10.1	Limits	17,18,33,40,43	Deadline for late registration and adding courses (11/09)
		10.2	Limits (cont'd)	2,15,36,42,52,57	
		10.4	Continuity	5,11,24,32,37	
2	15/09 – 19/09	11.1	The Derivative	13, 14,17,26,27	Deadline for dropping courses without permanent record (18/09)
		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	22/09 – 26/09	11.4	Differentiability and Continuity		
		11.5	Product and Quotient Rules	10,16,37,50,61,66	
4	29/09 – 3/10	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	
<b>Id al-Fitr Vacation</b>					
5	20/10 – 25/10	12.4	Implicit Differentiation	10,18,24,26,34	25/10 Normal Classes
		12.5	Logarithmic Differentiation	8,12,19,21,26	
		12.7	Higher Order Derivatives	2,14,30,34,37	
<b>Major Exam I: 30.10.2007, 7:00 PM – 9:00 PM</b>				Exam Material : Ch10, Ch11, & Ch12.	
6	27/10 – 31/10	13.1	Relative Extrema	18,30,46,48,60	Midterm grade report (30/10)
		13.2	Absolute Extrema on a Closed Interval	2,10,12	
		13.3	Concavity	14,30,40,46,68	
7	3/11 – 7/11	13.4	The Second-Derivative Test	6,8,12	Deadline for dropping courses with “W”(6/11)
		13.5	Asymptotes	14,22,38,46	
		13.6	Applied Maxima and Minima	2,14,18,22,26	
8	10/11 – 14/11	14.1	Differentials	12,18,22,28	
		14.2	The Indefinite Integral	10,20,30,42,50	
9	17/11 – 21/11	14.3	Integration with Initial Conditions	6,8,10,12,14	
		14.4	More Integration Formulas	9,15,35,53,70,75	
		14.5	Techniques of Integration	6,18,30,44,48,55	
10	24/11 – 28/11	14.8	The Fundamental Theorem of Int. Calculus	16,32,36,44,48	
		14.10	Area	9,15,20,24,34	
		14.11	Area between Curves	1,5,12,30,30,32	
<b>Major Exam II: 4.12.2007, 7:00 PM – 9:00 PM</b>				Exam Material : Ch13& Ch14.	
11	1/12 – 5/12	15.1	Integration by parts	8,12,18,20,24,28,32	Deadline for withdrawal from all courses with “W” (27/11)
		15.3	Integration by Tables	8,12,30,36,49,54	
12	8/12 – 12/12	**	Derivatives and Integrals of Trig. Function	<b>Handout</b>	Last day of classes before Id al-Adha Vacation (12/12)
<b>Id al-Adha Vacation</b>					
13	29/12 – 2/01/2008	17.1	Functions of Several Variables	2,5,12,16,23,28	
14	5/01 – 9/01	17.2	Partial Derivatives	6,18,20,28,34	Deadline for Majors and withdrawal from all courses with “WP/WF” (8/01)
		17.5	Higher Order Partial Derivatives	6,9,12,20,21	
15	12/01-16/01	17.7	Maxima and Minima for funs. of Two Vars.	4,8,15,19,22,26,29	