King Fahd University of Petroleum and Minerals
Department of Mathematics & Statistics
Math 132 – Syllabus
2014-2015 (142)
Instructor: Mohammad Z. Abu-Sbeih

Instructor: Dr. Mohammad Z. Abu-Sbeih
Office: Building 5, Room 401
Email: abusbeih@kfupm.edu.sa
Office Phone: 13- 860 -2296

Office Hours: UTR : 10 am to 10 :50 am.
Title: Math 132: Applied Calculus
Credit: 3-0-3

Textbook: *Introductory Mathematical Analysis (for Business, Economics, and the Life and Social Sciences), by Ernest F. Haeussler, Jr. Richard S. Paul and Richard J. Wood, 13th edition, Pearson, 20011.*

Math 132 Syllabus
2014-2015 (142)

Week	Date	Section	Material	Homework
1	January 25-29	10.1 10.2 10.3	Limits Limits (cont'd) Continuity	18, 22, 32, 40, 43 2, 15, 30, 39, 45, 50, 52, 58 6, 11, 22, 30, 36
2	February 01-05	11.1 11.2 11.3	The derivative Rules for differentiation The derivative as a rate of change	12, 15, 18, 20, 25, 27 22, 33, 60, 72, 78, 85 8, 10, 12, 16, 21, 27, 40, 41
3	February 08-12	11.4 11.5	Product &quotient rule The chain rule & the power rule	9,15 , 28,37,57,66 -----
4	February 15-19	12.1 12.2	Derivative of logarithmic functions Derivative of exponential functions	,30 ,28 ,24 ,20 ,18 ,16 50,32 10, 14, 16, 22, 28, 30, 38,39
5	February 22-26	12.4 12.5 12.7	Implicit differentiation Logarithmic differentiation Higher order derivative	10, 14, 20, 22, 30, 34 7, 10, 14, 18, 20, 27 2, 8, 14, 30, 33, 35
Exam I, Tuesday, February 24, 2015, Material: Ch. 10, 11 & 12 (25%)				
6	March 01-05	13.1 13.2 13.3	Relative extrema Absolute extrema on a closed interval Concavity	16, 18, 30, 38, 48, 52 2, 10, 12 12, 28, 40, 42, 60, 68
7	March 08-12	13.4 13.5 13.6	The second derivative test Asymptotes Applied maxima and minima	5, 6, 8, 10, 12 14, 20, 22, 34, 35, 45 4, 15, 18, 22, 26
8	March 15-19	14.1 14.2	Differentials The indefinite integral	12, 14, 20, 22, 29 8, 10, 18, 27, 30, 45
9	Mar 29-Apr 02	14.3 14.4 14.5	Integration with initial conditions More integration formulas Techniques of integration	5, 7, 11, 14,15 9, 12, 15, 33, 35, 52 6, 12, 23, 30, 40, 44, 53,63
10	Apr 05-09	14.7 14.9	Fundamental theorem of calculus Area between curves	16,36 ,42 ,44,48 1, 3, 5, 20, 33, 37,46,58

Exam II, Tuesday April 14, 2015, Material: Ch. 13 & 14 (25%)				
11	Apr 12-16	15.1 15.3	Integration by parts Integration by tables	6, 8, 12, 18, 20, 24, 32
12	Apr 19-23	Handout	Derivative and integrals of trigonometric Functions	
13	Apr 26-30	17.1	Partial derivatives	2,8, 18, 20, 24, 30, 35
14	May 03-07	17.4	Higher order partial derivatives	6, 8, 12, 18, 20,21, 23
15	May 10-14	17.6	Maxima and minima	4, 9, 17, 19, 22, 26, 29
Final Exam: **30%** (120 points), a **comprehensive multiple choice exam.** (**Date: Wednesday May 20, 2015 at 12:30 PM)**.				

Tips on how to enhance your problem-solving abilities:

1. Please do all the homework assignments on time.
2. You are urged to practice (but not memorize) more problems than the above lists.
3. You should always try to solve a problem on your own before reading the solution or asking for help.
4. If you find it difficult to handle a certain type of problems, you should try more problems of that type.
5. You should try the recitation problems before coming to class.
6. You are encouraged to solve some of the review problems at the end of each chapter.
7. The practice you get doing homework and reviewing the class lectures and recitations will make exam problems easier to tackle.
8. Try to make good use of the office hours of your instructor.