Republic of Iraq
The Ministry of Higher Education
& Scientific Research

University:technology university
College: science
Department: computer dep.
Stage:seconed
Lecturer name: manar musab
Academic Status:assistant lecturer
Qualification:m.sc. in appl. Of math. Science.
Place of work:computer science dep.

Course Weekly Outline

Course Instructor	**Manar musab ftekhan**
E_mail	**Manar_m_a@yahoo.com**
Title	**Math. and numerical analysis**
Course Coordinator	**Type here the came of course coordinator**
Course Objective	
Course Description	**Expand the student in math and computer**
Textbook	**Study the diff. eq. and some transforms and numerical analysis.**
References	**1-Thomas, G. Calculus and Analytic Geometry, 5th Edition, Addison Wesley, 1999.** **2-Numerical Methods Using Matlab, Prentice Hall.** التحليل العددي وبرمجة طرقه على الحاسبة الالكترونية ,عبد المطلب -3 **1999.**

Course Assessment	**Term Tests**	**Laboratory**	**Quizzes**	**Project**	**Final Exam**
	(30%)	**(20%)**	**%**	**----**	**(50%)**

General Notes	

Course weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	2014-10-1	**Partial differentiation for first and higher order of derivative**		
2	2014-10-7	**Chain rule and directional derivative**		
3	2014-10-14	**First order differential equations Solution of differential equation by direct integration**		
4	2014-11-1	**Separating the variables and homogeneous equation**		
5	2014-11-7	**Linear and exact method for first order.**		
6	2014-11-14	**Variation method for 2nd order method**		
7	2014-11-21	**Laplace transform for standard important function ●properties of l.t. Shifting,integral Multiplication by tn, division by t**		
8	2014-11-18	**Inverse Laplace transform , Partial fruction Solve second order diff. eq. by Laplace transform**		

9	2014-11-25	**Fourier series and periodic functions**		
10	2014-12-2	**Fourier series for odd and even function**		
11	2014-12-9	**Half range Fourier sin and cosine series. Change of interval**		
12	2014-12-16	**Numerical analysis and solving sets of equation Elimination and iterative methods**		
13	2014-12-23	Interpolating polynomials		
14	1-12-2014	Lagrange polynomial		
15	8-12-2014	Numerical differentiation and numerical integration		
16	2014-12-15	Numerical solution of ordinary differential equation		
Half-year Break				
17	2014-2-1	Curve-Fitting and approximations.		
18	2014-2-8	The solution of integral equation,		
19	2014-2-15	trapezoidal method		
20	2014-2-22	**Runke -kuta method**		
21	2014 -2- 28	Simpsons method		
22	2014- 3 -7	**Partial derivatve**		
23	2014-3-14			
24	2014-3-22			
25	2014-4-1			
26	2014-4-8			
27	2014-4-16			
28	2015-4-22			
29	2015-5- 1			
30	2015-5- 8			
31				
32				

Instructor Signature:

Dean Signature: