Republic of Iraq The Ministry of Higher Education & Scientific Research



University: Anbar College: Department: Computer Science Stage: 2nd Instructor name Academic status: Qualification: Place of work: University of Anbar

## Course Weekly Outline Course Name: Numerical Analysis

<b>Course Instructor</b>						
E-mail	taiseer.a.yaseen@uoanbar.edu.iq					
Title						
<b>Course Coordinator</b>						
Course Objective						
Course Description	Numerical Analysis for 2 <sup>nd</sup> Stage					
Textbook	Richard L. Burden and etc." Numerical Analysis ", 9 <sup>th</sup> edition, 2014					
References						
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam	
	25%	15%	5%	5%	50%	
General Notes	-					

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## **Course Weekly Outline**

4			Lab.	
Vee	Date	<b>Topics Covered</b>	Experiment	Notes
k			Assignments	
1		Direct methods for solving linear system of equation		
2		Simple Gaussian elimination method, gauss elimination method with partial pivoting,		
3		determinant evaluation, gauss Jordan method,		
4		L U decompositions Doolittle's LU decomposition, Doolittle's method with row interchange		
5		Finding Matrix Inverse		
6	Iterative methods for solving linear systems of			
	equations			
7		Jacobin iteration, gauss – seidel method,		
8		Successive over relaxation method (sort method)		
9		Mid-term Exam		
10		Newton-Raphson Method		
11		Runge-kutta Method		
12		Interpolation and the Lagrange Polynomial, Data		
		Approximation and Neville's Method		
13		Numerical Analysis Methods for Differential Equation		
14		Numerical Analysis Methods for Integral Equation		
15		Final Exam		

**Instructor Signature:** 

**Dean Signature:**