University : Telafer
Faculty: College of Basic Education
Department: Mathematic
Stage: Third
Subject: **Numerical Analysis**
Semester: First

Republic of Iraq
Ministry of Higher Education & Scientific Research

Course Weekly Outline

Name	**Rana Zaidan Al-Kawaz**
Email	**ranazidan@uotelafer.edu.iq**
Qualification	**Master of Mathematics Science**
Scientific title	**Lecturer**
Work site	Department of Mathematic / College of Basic Education / University of Telafer
Course objective	1. Solving Nonlinear Equations, Locating Roots, Newton's Method, Convergence of Iterative Methods, (finding the roots of a polynomial) 2. Solving Linear Equations, Causs Elimination Method, Causs-Gordon Method 3. Integral and Numerical Differentiation Numerical Numerical Newton's Formulas for Numerical Differentiation, Simson's Rule 4. Solving Ordinary Differential Equations, Rang Kuta Method
Course description	Qualifying and training the student to solve all the different non-linear problems using methods called iterative methods that occur at each step and using iterative methods to overcome the difficulties faced by the student in finding the derivative and integration of some complex functions, which can therefore be used in solving differential equations that are characterized by the difficulty of finding a solution. Numerical Analysis lectures are given in 3 theoretical hours and 1 hour of discussion to clarify the topics in more detail each week.
Methodology books	1. علي محمد صادق وابتسام كمال الدين " مبادئ التحليل العددي " جامعة بغداد 1985 2. كاظم محمد حسين اللامي " مقدمة في التحليل العددي " جامعة البصرة 1987 3. كندال أي اتكنسون " مقدمة في التحليل العددي " ترجمة كاظم محمد حسين ومنتهى جرجيس 1988
External sources	1. Burden, Numerical Analysis", 1985 2. Froberg. C. F., " Introduction to Numerical Analysis" London, 1969. 3. Hildebrand. F. B, " Introduction to Numerical Analysis" New York, 1974.

Ratings (Division of grades)	**First assessment**	**Second assessment**	**Annual quest**	**Final assessment**
	25 %	**25 %**	**50 %**	**50 %**

University : Telafer
Faculty: College of Basic Education
Department: Mathematic
Stage: Third
Subject: **Numerical Analysis**
Semester: First

Republic of Iraq
Ministry of Higher Education & Scientific Research

Course Weekly Outline

Week	Date	Article theoretical and practical
First		Solving Nonlinear Equations, Locating Roots
Second		Newton's method
Third		Convergence of iterative methods (finding the roots of a polynomial)
Fourth		Solving Linear Equations, Causs Elimination Method
Fifth		Causs Gordon Method
Sixth		Review and solve exercises
Seventh		Midterm Exam
Eighth		Numerical differential Newton's formulas for numerical differential
Ninth		Numerical integration
Tenth		Simson's rule
Eleventh		Solve Ordinary Differential Equations
Twelfth		The Rang Kutta Method
Thirteenth		Review and solve exercises
Fourteenth		Midterm Exam
Fifteenth		Final Exam