University : Telafer
Faculty: College of Basic Education
Department: Mathematic
Stage: second
Subject: **Linear algebra**
Semester: First

Republic of Iraq
Ministry of Higher Education & Scientific Research

Course Weekly Outline

Name	Hassan Abbas Ali			
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Qualification	Master of Mathematics Science			
Scientific title	assistant teacher			
Work site	Manager of the Department of Quality Assurance and University Performance / University Presidency / Talafar University			
Course objective	1. Vector space, subspace, linear independence, linear correlation, dimension and base 2. Multiplication of vectors and point multiplication, the perpendicular process (for Gram-Schmidt) 3. Linear transformations 4. Eigenvalues and Eigenvectors 5. Game theory, linear inequality			
Course description	Qualifying the student to know the conditions of vector space in relation to addition and multiplication on the field of real and integer numbers, knowing the conditions of the subspace, achieving the conditions of the basis, and then finding the angle and the distance between vectors, using the Kram-Schmidt method to transform vectors into standard orthogonal base vectors, knowing the conditions of linear transformations, finding values and eigenvectors, and knowing the variance in an image. Short game theory. Linear algebra lectures are given 4 hours per week, 3 theoretical hours and 1 practical hour			
Ratings (Division of grades)	**First assessment**	**Second assessment**	**Annual quest**	**Final assessment**
	25 %	**25 %**	**50 %**	**50 %**

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Week	Date	Article theoretical and practical
First		Vector space and conditions
Second		Subspace, independence, and linear correlation
Third		Bases and dimension
Fourth		Inner multiplication / Cauchy-Schwartz / perpendicular
Fifth		Finding the angle between vectors
Sixth		Finding the distance and angle between vectors
Seventh		Using the Gram-Schmidt method to convert vectors to perpendicular vectors
Eighth		Using the Cram-Schmidt method to convert vectors to an perpendicular scalar vector and the solution verification method
Ninth		Linear Transfer Terms
Tenth		Finding the eigenvalues
Eleventh		Finding eigenvectors
Twelfth		Contrast conditions, image and kernel
Thirteenth		game theory
Fourteenth		Midterm Exam
Fifteenth		Final Exam