TOROS ÜNİVERSİTESİ

Faculty Of Engıneerıng
Electrıcal And Electronıcs Engıneerıng (Englısh)

Course Information

LINEAR ALGEBRA					
Code	**Semester**	**Theoretical**	**Practice**	**National Credit**	**ECTS Credit**
		Hour / Week			
MAT201	Fall	3	0	3	4

Prerequisites and co-requisites	
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Asst. Prof. Ali Kemal HAVARE
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	An exposure to linear systems and linear relationships. Using matrices to represent linear systems, and vector spaces.
Contents of the Course	Systems of linear equations. Matrices, matrix algebra determinants. Vector spaces, subspaces, orthogonal spaces. Charactersitic equation of matrix, eigenvalues, eigenvectors. Cayley-Hamilton Theorem.

Learning Outcomes of Course

#	Learning Outcomes
1	Getting knowledge about Linear Eqwuations and matrices
2	Getting knowledge about Determinants
3	Getting knowledge about Solving linear systems
4	Getting knowledge about Real vector spaces
5	Getting knowledge about Eigenvalues and eigenvectors

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Linear Eqwuations and matrices	lecture
2	Solving linear systems	lecture
3	Solving linear systems	lecture
4	Determinants	lecture
5	Determinants	lecture
6	Real vector spaces	lecture
7	Real vector spaces	lecture
8	Real vector spaces	lecture
9	Real vector spaces	lecture
10	Midterm	
11	Inner product spaces	lecture

12	Inner product spaces	lecture
13	Eigenvalues and eigenvectors	lecture
14	Eigenvalues and eigenvectors	lecture
15		
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Internet resources		
2	B. Kolman, D. Hill, Elementary Linear Algebra with Applications		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Getting knowledge about Linear Eqwuations and matrices	1	1,2
2	Getting knowledge about Determinants	1	1,2
3	Getting knowledge about Solving linear systems	1	1,2
4	Getting knowledge about Real vector spaces	2	1,2
5	Getting knowledge about Eigenvalues and eigenvectors	3	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	3	42
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	17	17
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	25	25

16	Final Exam	1	2	2
				130