

Code and Name of Course	MTK 241-01-02 Linear Algebra I
Type of Course	Compulsory
Credit of Course	4 2 5
ECTS Credit	8
Course Lectures	Assoc.Prof. Feride Kuzucuoğlu, Assoc.Prof. Derya Keskin Tütüncü, Assoc.Prof. A. Çiğdem Özcan
Pre-requisites	-
Course Length	1 Semester , 4 hours - 2 hours tutorial per week. Total 6 hours per week
Course Content	<ul style="list-style-type: none"> • matrices and systems of linear equations, • determinants, • vector spaces, • linear dependence, independence, bases, • linear transformations, • matrix representations of linear transformations
Course Objectives: (Learning outlines)	<p>At the end of this course a student</p> <ol style="list-style-type: none"> I. can make matrix operations (addition, multiplication, inverses etc.), II. proves some of the lemmas about matrices, solves system of linear equations by using matrices, III. defines determinat of a squre matrix and able to prove properties of determinant, IV. defines vector space and understand the basic properties of finite dimensional vector spaces, V. proves basic theorem about vector spaces, VI. decides whether the given fuction is a linear transformation or not, VII.writes the matrix form of the linear transformation and decides a linear transformation is one-one, onto or isomorphism.
References	<ul style="list-style-type: none"> • C. Koç, Linear Algebra, METU, 1998. • K. Hoffman, R. Kunze, Linear Algebra, Prentice-Hall, 1971. • Other related lecture notes.
Main Teaching Methods	Lecturing, Discussing, Recitation
Assessment Methods	Midterms(50%), Final (50%).
Language of Course	English