Course Name : Linear Algebra

Course Code	Course Type	Regular Semester	Lecture (hours/week)	Seminar (hours/week)	Lab. (hours/week)	Credits	ECTS
CMP 112	A	Spring	3.00	1.00	0.00	3.50	5.00

Lecturer	Sofokli Garo, PhD
Assistant	
Course language	Albanian
Course level	Bachelor
Description	Students in this course will learn methods of solving systems of linear equations.
Objectives	At the end of this course studentet will be able to learn simple systems of linear equations and apply the knowledge at siuations related to their profession.
Core Concepts	Equations of the first degree with two variables and graphic representation; systems of linear equations and Gauss-Jordan method; implementation in electric network situations; matrx equations and their applicaion in solving linear equation systems.

Course Outline

Week	Topic
1	Syllabus explanation and course regulation
2	Introduction to systems of linear equations
3	Gaussian elimination and Gauss-Jordan elimination
4	Applications of systems of linear equations
5	Operations with matrices
6	Properties of matrix operations
7	The inverse of a matrix
8	Midterm test
9	Elementary matrices
10	Applications of matrix operations
11	The determinant of a matrix
12	Evaluation of a determinant using elementary operations
13	Properties of dterminant
14	Introducing to Eigenvalues
15	Review
16	Final Exam

Prerequisites	The student must attend the course at a minimum rate of 75%.
Literature	• Larson.K; Valvo.V; Linear elementary algebra.
References	• Petro.P. Alghebra lineare. Tiran 2012

Course Outcome

1	Students will be able to mathematically model professional situations that result in systems of linear equations

Course Evaluation

In-term Studies	Quantity	Percentage
Midterms	1	30
Quizzes	0	0
Projects	0	0
Term Projects	0	0
Laboratory	0	0
Class Participation	1	20
Total in-term evaluation percent		**50**
Final exam percent		**50**
Total		**100**

ECTS Workload (Based on Student Workload)

Activities	Quantity	Duration (hours)	Total (hours)
Course duration (Including the exam week: 16x Total hours of the course)	16	4	64
Study hours outside the classroom (Preparation, Practice, etc.)	14	1	14
Duties	0	0	0
Midterms	1	2	2
Final Exam	1	5	5
Other	9	4	36
Total Work Load			**121**
Total Work Load / 25 (hours)			**4.84**
ECTS			**5.00**