

Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
MAT262	Linear Algebra II	4	4	0	0	4	7

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	Get to grips with basis Linear Algebra.
Content	Reminder: Determinant, Dual basis, Dual space, Annulators. Reduction of linear operators (Eigenvalues, Eigenvectors, Diagonalization, Endomorphism Polynomials, Triangulation, Jordan Forms)
References	Linear Algebra Right Done, S. Axler Algebre Linéaire, Joseph Grifone, Algèbre linéaire et bilinéaire, F. Cottet Emard, de Boeck, 2007.

Theory Topics

Week	Weekly Contents
1	Introduction of course. Recall: Determinant. Motivation Exercises
2	Dual Spaces
3	Annulators
4	Eigenvalues, Eigenvectors, Diagonalisation
5	Complex Operators
6	Generalized Eigenvectors
7	Revision
8	Midterm Exam
9	Polynomial of endomorphisms
10	Polynomial of endomorphisms
11	Trigonalisation
12	Trigonalisation
13	Jordan decomposition
14	Determinant and Trace: New Definitions