

COURSE DETAIL

MATRIX ALGEBRA

Country

Spain

Host Institution

Carlos III University of Madrid

Program(s)

Carlos III University of Madrid

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

150

UCEAP Course Suffix**UCEAP Official Title**

MATRIX ALGEBRA

UCEAP Transcript Title

MATRIX ALGEBRA

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course offers a study of the most relevant properties of finite dimensional inner product spaces, its related applications (with special emphasis on least squares problems), and the classes and factorizations of matrices related to them. It also discusses general bilinear forms in finite dimensional vector spaces. Specific topics include: orthogonality; unitary matrices; QR factorization; bilinear and quadratic forms; Schur triangularization theorem; Spectral Theorem; singular value decomposition (SVD).

Pre-requisites: Linear Algebra; Calculus; Fundamentals of Mathematics

Language(s) of Instruction

English

Host Institution Course Number

20560

Host Institution Course Title

ÁLGEBRA MATRICIAL

Host Institution Course Details

<https://aplicaciones.uc3m.es/cpa/generaFicha?est=362&anio=2025&plan=567&asig=20...>

Host Institution Campus

LEGANÉS

Host Institution Faculty

Escuela Politécnica Superior

Host Institution Degree

Grado en Matemáticas y Computación

Host Institution Department

Departamento de Matemáticas

Course Last Reviewed

2030-2031

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