COURSE DETAIL

LINEAR ALGEBRA

Country
United Kingdom - England

Host Institution
King's College London

Program(s)
King's College London

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Mathematics

UCEAP Course Number
127

UCEAP Course Suffix

UCEAP Official Title
LINEAR ALGEBRA

UCEAP Transcript Title
LINEAR ALGEBRA

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course sets concepts from the determinant and dimension methods, in the more general framework of abstract vector spaces. It also gives the precise definitions and proofs that are essential for much of higher mathematics, both pure and applied. Examples from Rn and Cn will be given where possible to illustrate the geometrical meaning behind the algebraic ideas. The course emphasizes the interplay between abstract and more concrete ideas. Students learn: general definition and properties of vector spaces, subspaces and linear maps; linear independence, basis and dimension; rank and nullity for linear maps; the relation between linear maps and matrices; change of basis and similarity of matrices; inverse matrices; eigenvectors; eigenvalues and diagonalization of matrices; inner product spaces and orthogonal diagonalization.

Language(s) of Instruction
English

Host Institution Course Number
5CCM222A

Host Institution Course Title
LINEAR ALGEBRA

Host Institution Course Details
http://www.kcl.ac.uk/nms/depts/mathematics/study/current/handbook/progs/modules...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

Course Last Reviewed
2025-2026

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