# **COURSE DETAIL**

2.70

# **LINEAR ALGEBRA I Country** Ireland **Host Institution** Trinity College Dublin Program(s) Trinity College Dublin **UCEAP Course Level Upper Division UCEAP Subject Area(s)** Mathematics **UCEAP Course Number** 111 **UCEAP Course Suffix UCEAP Official Title** LINEAR ALGEBRA I **UCEAP Transcript Title** LINEAR ALGEBRA 1 **UCEAP Quarter Units** 4.00 **UCEAP Semester Units**

### **Course Description**

This course teaches the application of linear algebra. Topics inlcude lines, planes, vectors, dot and cross product; linear systems, Gauss-Jordan elimination, and reduced row echelon form; matrix multiplication, elementary row operations, and inverse matrix; permutations, odd and even, determinants, and transpose matrix; minors, cofactors, adjoint matrix, inverse matrix, and Cramer's rule; vector spaces, linear independence and span, and bases and dimension; linear operators, matrix of a linear operator with respect to a basis; and change of basis, transition matrix, and conjugate matrices.

## Language(s) of Instruction

English

#### **Host Institution Course Number**

MAU11101

#### **Host Institution Course Title**

LINEAR ALGEBRA I

## **Host Institution Campus**

Trinity College Dublin

## **Host Institution Faculty**

**Host Institution Degree** 

## **Host Institution Department**

**Mathematics** 

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