

# COURSE DETAIL

## ALGEBRA III

### Country

United Kingdom - England

### Host Institution

Imperial College London

### Program(s)

English Universities, Imperial College London

### UCEAP Course Level

Upper Division

### UCEAP Subject Area(s)

Mathematics

### UCEAP Course Number

142

### UCEAP Course Suffix

### UCEAP Official Title

ALGEBRA III

### UCEAP Transcript Title

ALGEBRA III

### UCEAP Quarter Units

5.00

### UCEAP Semester Units

3.30

## **Course Description**

In this course, students study the following topics: rings, integral domains, unique factorization domains, modules, ideals homomorphisms, quotient rings, submodules quotient modules, fields, maximal ideals, prime ideals, principal ideal domains, Euclidean domains, rings of polynomials, Gauss's lemma, Eisenstein's criterion, field extensions, Noetherian rings and Hilbert's basis theorem, dual vector space, tensor algebra and Hom, basics of homological algebra, and complexes and exact sequences.

## **Language(s) of Instruction**

English

## **Host Institution Course Number**

M3P8

## **Host Institution Course Title**

ALGEBRA III

## **Host Institution Course Details**

### **Host Institution Campus**

Imperial College London

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Mathematics

## **Course Last Reviewed**

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