# **COURSE DETAIL**

### **INTRODUCTION TO NUMBER THEORY**

## **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**

141

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

INTRODUCTION TO NUMBER THEORY

## **UCEAP Transcript Title**

INTRO NUMBER THEORY

## **UCEAP Quarter Units**

6.00

#### **UCEAP Semester Units**

4.00

### **Course Description**

This course provides an introduction to elementary number theory and to further develop the algebraic techniques met in "Introduction to Abstract Algebra" (is this italicized or in quotes... seems like the name of a book?). This course prepares students for more demanding modules in number theory and algebra by introducing several new concepts in the concrete setting of rational integers. This course includes a review of divisibility, prime numbers and congruences; residue class rings, Euler's f-function, and primitive roots; quadratic residues and quadratic reciprocity law; irrational and transcendental numbers, sums of squares; and some Diophantine equations.

### Language(s) of Instruction

English

**Host Institution Course Number** 

5CCM224A

**Host Institution Course Title** 

INTRODUCTION TO NUMBER THEORY

**Host Institution Campus** 

**Host Institution Faculty** 

**Host Institution Degree** 

**Host Institution Department** 

**Mathematics** 

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