

# COURSE DETAIL

## ADVANCED MOLECULAR GENETICS

**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)**

Biological Sciences

**UCEAP Course Number**

170

**UCEAP Course Suffix****UCEAP Official Title**

ADVANCED MOLECULAR GENETICS

**UCEAP Transcript Title**

ADV MOL GENETICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## **Course Description**

This course covers advanced molecular genetic concepts, together with their associated analytical or research-driven techniques, presented, where possible, by scientists or clinicians actively employing these concepts and techniques in their own research or clinical practice. The course covers: Genome Wide Association Studies (GWAS) - finding genes associated with complex disease; Pharmacogenetics (PGx) - using genetics to "individualize" drug treatment; Next Generation Sequencing - methods and application to translational medicine; networks of transcriptional control and regulation; chromatin regulation; recombineering and transgenic tools; genome editing techniques and uses; genetically modified (GM) foods and other plant technologies; RNA interference - future therapeutic or useful laboratory tool?; microbiome; and stem cell genetics.

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

English

### **Host Institution Course Number**

6BBB0346

### **Host Institution Course Title**

ADVANCED MOLECULAR GENETICS

### **Host Institution Course Details**

<https://keats.kcl.ac.uk/mod/url/view.php?id=7801923>

### **Host Institution Campus**

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Bioscience

### **Course Last Reviewed**

2024-2025

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