

# Mathematical Physics

University of Edinburgh

## Venues

King's Buildings Campus

## Content

The Mathematical Physics degree programme is designed to give you a thorough grounding both in the fundamental theories of physics and the mathematical concepts needed to formulate, understand and develop them.

### Year 1

You will study four compulsory courses: Physics 1A, Introduction to Linear Algebra, Calculus and its Applications and Mathematics for Physics 2. You will also have the opportunity to take a further course in pure mathematics or physics.

### Year 2

You will study modern physics, dynamics, fields and waves, and physics of matter. Mathematics courses will cover several variable calculus and the foundations of pure mathematics. You will be introduced to practical physics, including programming, data analysis and (optionally) experimental techniques. You will also have the freedom to choose a further specialist maths course or a course from other academic areas.

### Year 3

You will study core courses in quantum mechanics, thermodynamics and statistical mechanics, electromagnetism and relativity, and lagrangian dynamics. You will also undertake further specialist mathematics and physics courses from a range available.

### Year 4

In this year there are a number of compulsory courses covering quantum theory, symmetries of quantum mechanics, classical electrodynamics, Hamiltonian dynamics and statistical physics. Students also take a number of other courses from a range available.

## Start Date

September

## Qualification

Degree

## Study Method

Full time

## Award Title

BSc Hons

## UCAS Code

F326

## Course Length

4 years

## Faculty

College of Science and Engineering

## Department

Physics and Astronomy

## Entry Requirements

2027 entry requirements

Standard entry:

4 Highers at AAAA (by end of S5 preferred) including Maths and Physics plus English at National 5. Advanced Higher Maths is recommended.

Direct entry to year 2 is possible with 3 Advanced Highers at AAA including Maths and Physics plus the above.

Widening access entry:

4 Highers at AABB (by end of S6) including Maths at A and Physics plus English at National 5. Advanced Higher Maths is recommended. Highers at BBB must be achieved in one sitting S4-S6.

## SCQF Level

10

## Progression Routes

«ProgressionRoutes»

## Combination Courses

«htmlCombinationCourse»

«htmlCombinationUCASCode»

## Address

Old College  
 South Bridge  
 Edinburgh  
 City of Edinburgh  
 EH8 9YL

**Website**

www.ed.ac.uk