Physics with Advanced Research

University of Strathclyde

Content

From the start of your degree, you will focus on developing your understanding of the fascinating world of classical and modern physics.

As you explore the key concepts in physics, the tailored mathematics modules will equip you with the essential tools to support and strengthen your problem-solving skills. These are complemented by hands-on computational and experimental labs, offering a well-rounded, practical approach to tackling real-world challenges.

Year 1
All classes are compulsory and you'll study the foundations of physics. Classes will cover mathematics, mechanics and waves, electromagnetism and quantum physics. You'll undertake practical work in the teaching laboratory. In addition to this, you'll also be introduced to the programming language Python and start to learn the basis of computational physics. You will also develop your study and communication skills, and interact with the careers service to develop your employability skills.

Year 2
All classes are compulsory and will increase your understanding of physics and mathematics topics developed in first year. You'll extend your knowledge of scientific computing and the laboratory work becomes more sophisticated, recognising your growing maturity as a physicist. You will further develop your study and communication skills, and again interact with the careers service to extend your employability skills.

Year 3
In addition to extending your study of quantum physics and electromagnetism you will be introduced to new topics centred on solid state physics, and gases and liquids and the fundamentals of thermodynamics. You will also undertake an advanced mathematical physics module. All students undertake some laboratory work in Year 3, aimed at further developing your laboratory skills in readiness for the fourth-year project. You may also choose from optional modules that are designed to enhance your communication or computational skills.

Year 4
You'll undertake a project in research labs supervised by a member of staff in the department together with a class that develops the skills to start successful research. You can select optional classes from topics as diverse as nanoscience, photonics through to enhanced quantum physics.

Year 5
This year includes a further project, which runs over summer and in the first semester and follows on from the project work undertaken in fourth year. In the second semester you can select classes from a range of optional classes which link to those taken in fourth year.

Start Date

September

Qualification

Degree

Study Method

Full time

Award Title

MPhys

UCAS Code

F3F3

Course Length

5 years

Faculty

Faculty of Science

Department

Physics

Entry Requirements

2027 entry requirements

Standard entry:
4 or 5 Highers at AAAA or AAABB including Maths and Physics at A plus English at National 5. Higher English preferred.

Widening access entry:
4 Highers at AABB including Maths and Physics plus English at National 5. Higher English preferred.

A Foundation Apprenticeship is accepted in place of a non-essential Higher.

SCQF Level

11

Progression Routes

«ProgressionRoutes»

Combination Courses

«htmlCombinationCourse» «htmlCombinationUCASCode»

Address

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Website

www.strath.ac.uk