Physics with Teaching

University of Strathclyde

Content

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.

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.

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. All students undertake some laboratory work in Year 3, aimed at further developing your laboratory skills. You can also choose from optional modules that are designed to enhance your communication skills, mathematical physics techniques, or computational skills.

Year 4
In this year you will take classes that develop the pedagogy of teaching.

Alongside these classes, a major part of year 4 in The Strathclyde Institute of Education is school placements in Scottish secondary schools. There are 18 weeks of placement in total with one placement in each semester of the programme.

Placement one operates on a model of solo teaching, team teaching and observation of your colleagues within the science department in which you are based. This progression is designed to support you in developing your confidence at this early stage of your teaching journey.

The second placement is longer with greater expectations on you in terms of planning for greater periods of responsibility, becoming an active member in your science department and gaining the confidence to get involved in the wider life of the school. The aim here is to see you become a rounded practitioner ready for your own classroom.

Placement is your chance to put what you are learning into practice, and you will be encouraged to explore your own teaching style, learn new techniques and develop relationships with your pupils. You will be assessed during placements and school and University staff will assist your professional development in ways that should help you meet the ‘Standard for Provisional Registration’ set by the General Teaching Council for Scotland (GTCS). Successful completion of the course will see you enter a guaranteed probationary year in a Scottish local authority

school where you will be supported further with mentoring and a reduced timetable in your first year.

Start Date

October

Qualification

Degree

Study Method

Full time

Award Title

BSc Hons

UCAS Code

F3XC

Course Length

4 years

Faculty

Faculty of Science

Department

Physics

Entry Requirements

2026 entry requirements

Standard entry:
4 or 5 Highers at AABB or ABBBB including Maths and Physics at B and English.

Widening access entry:
4 Highers at BBBB including Maths and Physics at B and English.

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

SCQF Level

10

Progression Routes

«ProgressionRoutes»

Combination Courses

«htmlCombinationCourse» «htmlCombinationUCASCode»

Address

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Website

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