

### Industrial Placement Year.

If you do an Industrial Placement Year course, you spend a year between level two and level three on a work placement. You can apply your physics knowledge in a scientific organisation, or apply the transferable skills from your degree to a role outside science.

You'll pay reduced fees for the year you're on placement, and earn a salary throughout.

Organisations where physics students have done their placements include:

- CERN, Switzerland
- Daresbury Laboratory, Science and Technology Facilities Council
- IBM
- Sellafield Ltd

### Study abroad.

If you want to study abroad, you can apply to spend time in destinations including Australia, Canada, Europe, New Zealand and the USA after you've joined the University.

Universities that Sheffield physics students have gone to include:

- McMaster University, Ontario, Canada
- Monash University, Melbourne, Australia
- University of Auckland, New Zealand
- University of Illinois at Urbana-Champaign, USA
- University of Texas at Austin, USA

### Physics with Philosophy.

On the Physics with Philosophy degree, you'll have similar core and optional physics modules as other physics students, plus lots of philosophy topics to choose from. Options range from religion, ethics and politics, to feminism, the arts and death.

Visit our website to see the exact details of your core and optional modules.

## Be Sheffield Made.

The information given here is based on the current academic year. There may be some changes before you start your course. For the latest information, visit our website.

[www.sheffield.ac.uk/physics](http://www.sheffield.ac.uk/physics)  
[www.youtube.com/sciencesheffield](http://www.youtube.com/sciencesheffield)



## Your Physics course.

UCAS codes:  
F300 / F301 / F309 / F310 / F311 / F3V5 / FV35



In the first two years of your course, you'll cover the essential physics behind everything else you'll study. Lectures and lab classes are included in the same modules, so you'll run experiments to help you understand important theories even more clearly.

There are optional modules from the start of your degree and the choice only expands from there. We offer a range of project modules in level three, and MPhys students spend half of their final year working in one of our leading research groups.

### Level one.

#### Core modules:

- Mathematics for Physicists and Astronomers (Introductory and Further)
- Fields and Quanta
- Motion and Heat

#### Optional modules:

- Introduction to Astrophysics
- The Solar System
- Our Evolving Universe
- Frontiers in Physics
- The Physics of Sustainable Energy
- Physics of Living Systems 2
- Introduction to Electric and Electronic Circuits
- Introduction to Optics

### Level two.

#### Core modules:

- Classical and Quantum Physics
- Programming in Python (optional on BSc)
- Special Relativity and Subatomic Physics (optional on BSc)

#### Optional modules:

- Aspects of Medical Imaging and Technology
- Astronomical Spectroscopy
- Detection of Fundamental Particles
- Galaxies
- Physics of Materials

- Stellar Structure and Evolution
- The Physics of Music
- Physics with Labview



### Level three.

#### Core modules:

- Atomic and Laser Physics
- Particle Physics
- Problem Solving in Physics
- Semiconductor Physics and Technology
- Solid State Physics
- Statistical Physics (optional on BSc)

#### Optional modules:

- Advanced Programming in

#### Python

- Astrobiology
- Dark Matter and the Universe
- History of Astronomy
- Industrial Group Project in Physics
- Introduction to Cosmology
- Introduction to Soft Matter and Biological Physics
- Mathematical Physics
- Microscopy and Spectroscopy Laboratory

- Nuclear Physics
- Origin of the Chemical Elements
- Physical Computing
- Physics Education and Outreach
- Quantum Information Laboratory
- Research Project in Physics
- Physics in an Enterprise Culture

### Level four (MPhys only).

#### Core modules:

- Research Project

#### Optional modules:

- Advanced Particle Physics
- Advanced Quantum Mechanics
- Advanced Soft Matter and Biological Physics
- An Introduction to General Relativity
- Dark Matter and the Universe
- Galaxy Formation and Evolution
- History of Astronomy
- Introduction to Cosmology

- Optical Properties of Solids
- Physics in an Enterprise Culture
- Quantum Optics and Quantum Computing
- Star Formation and Evolution
- The Development of Particle Physics