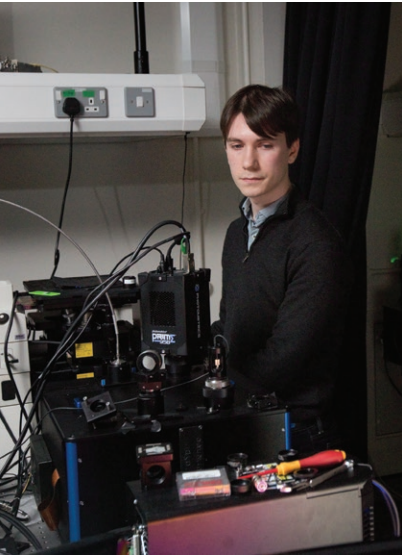


### Work placements.

If you do the MPhys version of the Physics with Medical Physics course, you'll get to do a placement in your final year. This might be at a local hospital, working with teams that use imaging techniques such as MRI to diagnose illnesses, or you could work in industry at a company that's developing new technologies to identify and treat disease.



### Student story.

"I enjoyed how multi-disciplinary the course was. The degree covers modules in bioengineering and computer science, alongside the broad range of physics modules offered by the department."

"I would definitely recommend the course because it shows how physics can be used to improve human health - my degree has inspired me to pursue a career in this field. Working in Medical Physics feels incredibly rewarding, and it provides lots of opportunities to perform fun practical work."

Jothi Venkatesh, Physics with Medical Physics graduate, now on the NHS Scientist Training Programme

## 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 with Medical Physics course.

UCAS codes:  
F350 / F371

You'll study the essential physics that all physics students cover, plus extra modules with a medical focus. These cover the physics that keeps us alive – the fluid mechanics behind blood flow, the forces acting on bones and tissues – as well as the technologies managed by medical physicists in the NHS

There are optional modules from the start of your degree and the choice only expands from there. MPhys students complete a hospital or industrial placement and a major research project in their final year.

### Level one.

#### Core modules:

- Fields and Quanta
- Introduction to Electric and Electronic Circuits
- Mathematics for Physicists and Astronomers
- Motion and Heat
- Physics of Living Systems 2

#### Optional modules:

- Frontiers of Physics
- Introduction to Astrophysics
- Our Evolving Universe
- The Physics of Sustainable Energy
- The Solar System

### Level two.

#### Core modules:

- Aspects of Medical Imaging and Technology
- Biomedical Instrumentation
- Classical and Quantum Physics
- Physics with Labview
- Special Relativity and Subatomic Physics
- Tissue Structure and Function



### Level three.

#### Core modules:

- Atomic and Laser Physics
- Clinical Engineering and Computational Mechanics
- Medical Physics Research Project
- Modelling and Simulation of Natural Systems
- Nuclear Physics
- Particle Physics

- Problem Solving and Advanced Skills in Physics
- Solid State Physics
- Statistical Physics (optional on BSc)

#### Optional modules:

- Astrobiology
- Dark Matter and the Universe
- Introduction to Soft Condensed Matter and Biological Physics
- Mathematical Physics

- Origin of the Chemical Elements
- Physical Computing
- Physics in an Enterprise Culture
- Programming in Python
- Semiconductor Physics and Technology

### Level four (MPhys only).

#### Core modules:

- Hospital or Industrial Placement
- Medical Physics Research Programme

#### Optional modules:

- Advanced Electrodynamics
- Advanced Particle Physics
- Advanced Quantum Mechanics

- Advanced Soft Condensed Matter and Biological Physics
- An Introduction to General Relativity
- Dark Matter and the Universe
- Optical Properties of Solids
- Physics in an Enterprise Culture
- Quantum Optics and Quantum Computing

- The Development of Particle Physics
- The Physics of Soft Condensed Matter