# A Level **Physics**

Physicists explore the fundamental nature of almost everything we know of. They probe the furthest reaches of the earth to study the smallest pieces of matter.

According to bestcourse4me.com, the top seven degree courses taken by students who have an A Level Physics are:

- Mathematics
- Physics
- Mechanical Engineering
- Civil Engineering
- Economics
- Business

### **Entry Requirements**

5 GCSEs above Level 5 with grade 6 in combined science or grade 6 in Physics GCSE. A grade 6 in GCSE maths is recommended. You also need to be studying maths or 2 other sciences at A Level.

### **Possible career options**

Studying A-level Physics offers an infinite number of amazing career opportunities including:

- Geophysicist/field seismologist
- Healthcare scientist, medical physics
- Higher education lecturer
- Radiation protection practitioner
- Research scientist (physical sciences)
- Scientific laboratory technician
- Secondary school teacher
- Meteorologist
- Structural engineer
- Acoustic engineer
- Product/process development scientist
- Systems developer
- Technical author

You can also move into engineering, astrophysics, chemical physics, nanotechnology, renewable energy and more, the opportunities are endless.





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## **Topics Covered**

AS Physics lasts one year, with exams at the end. A Level Physics lasts two years, with exams at the end of the second year. The table below shows the topics covered in each year.

AS and first year of A Level	Second year of A Level
<ul> <li>Measurements and their errors</li> <li>Particles and radiation</li> <li>Waves</li> <li>Mechanics and energy</li> <li>Electricity</li> </ul>	<ul> <li>Further mechanics and thermal physics</li> <li>Fields</li> <li>Nuclear physics</li> </ul>
	<ul> <li>Plus one option from the following:</li> <li>Astrophysics</li> <li>Medical physics</li> <li>Engineering physics</li> <li>Turning points in physics</li> <li>Electronic</li> </ul>

#### **Practical work**

Physics, like all sciences, is a practical subject. Throughout the course you will carry out practical activities including:

- Investigating interference and diffraction of laser light
- Investigation of the links between temperature, volume and pressure
- · Measuring acceleration due to gravity
- Safe use of ionising radiation
- Investigating systems that oscillate
- Investigating magnetic fields



These practicals, will give you the skills needed to investigate the way things behave and work. It will also ensure that if you choose to study a Physics based subject at university, you'll have the practical skills needed to carry out successful experiments in your degree.





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