

Course title: Physics A-Level AQA (Block D)

Academic year:	2022
Course Venues:	The Weston Road Academy
Course Type:	A-level
Course Code:	12DWrPH1
Duration:	2 years

Course Description:

Physics is the area of Science that deals with matter, energy and the relationships between them. It has given us the technology we now take for granted from computing and the internet to the vast array of diagnostic equipment such as PET scanners used in hospitals. It allows us to explain many aspects of the other sciences from rates of reaction in chemistry to transport across biological membranes.

The course gives a broad vision of physics from the subatomic particles and their interactions to the structure of the universe. It builds on and extends many topics covered at GCSE level.

Physics is also fundamentally an experimental subject and there are 12 compulsory practical's aimed to link theory to reality. These along with other practicals carried out will equip students with the essential practical and analytical skills they need for employment both in a range of scientific courses and areas of employment. These skills are awarded with an endorsement of practical competency at the end of the course.

Course Content:

- 1 Measurements and their errors
 - 2 Particles and radiation
 - 3 Waves
 - 4 Mechanics and materials
 - 5 Electricity
 - 6 Further mechanics and thermal physics
 - 7 Fields and their consequences
 - 8 Nuclear physics
- And an options from
- 9 Astrophysics
 - 10 Medical physics
 - 11 Engineering physics
 - 12 Turning points in physics
- Or
- 13 Electronics

The option studied will be selected by teaching staff.

Entry requirements: The standard entry criteria to study in the sixth form are a 9-4 in at least seven different subjects, including English and mathematics, which would usually be at grade 4 or above.

To study science subjects at A-level (biology, chemistry, physics or psychology), you will be required to achieve at least a 6 grade in additional science or have achieved 6 or above in the individual subject area if taken as a separate science.

Assessment:

Three written exam papers are taken as follows:

Paper 1 is a 2 hour paper (85 marks, 34% of the A Level). It covers sections 1 to 5 (taught in year 12 and section 6.1 (periodic motion) from year 13. There are 60 marks of short and long answer questions and 25 multiple choice questions on content.

Paper 2 is a 2 hour paper (85 marks, 34% of the A Level). It covers sections from year 13. (6.2, 7 and 8). There are 60 marks of short and long answer questions and 25 multiple choice questions on content.

Paper 3 is a 2 hour paper (80 marks 32% of A Level) and is in two parts. Part A covers practical skills and data analysis building on the required practical's completed during the course (45 marks). Part B covers an option selected by the teaching staff (35 marks). All are short or long answer questions.

In addition to the A Level awarded there will be an endorsement of practical competency (Pass or Fail) based on scientific skills developed through completion of all practical's undertaken during the course.

Financial Information:

Future opportunities: A Level Physics is an excellent base for a university degree in Physics, astrophysics, medical Physics and engineering.

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.

Further information:

To find out more about this qualification, contact us, ask your Connexions Personal Adviser or school/college careers staff.