OCR AS & A Level Physics (A)

Course Overview

A Level Physics A will give you an exciting insight into the contemporary world of physics. It covers the key concepts of physics and practical skills are integrated throughout the course. This combination of academic challenge and practical focus makes the prospect of studying A Level Physics highly appealing. You will learn about the core concepts of physics and about the impact of physics research and how it links to everyday life. You will learn to apply your knowledge, investigate and solve problems in a range of contexts. Key features

- Simple straightforward assessment through examinations
- Based on key concepts in physics
- Opportunities to develop practical skills through a range of experiments and investigations.

Course Content

Year 12

- **Module 1:** Development of practical skills in physics
- **Module 2: Foundations of Physics**. This includes: Physical quantities and units; Scalars and vectors; Measurements.
- **Module 3: Forces and motion**. This includes: Motion; Forces in action; Work, energy and power; Materials; Newton's laws of motion and momentum.
- **Module 4: Electrons, waves and photons**. This includes: Charge and current; Energy, power and resistance; Electrical circuits; Waves; Quantum physics.

Year 13

In addition to the modules studied as part of Year 12, the following modules are studied in Year 13:

- **Module 5: Newtonian world and astrophysics**. this includes: Thermal physics; Circular motion; Oscillations; Gravitational fields; Astrophysics.
- **Module 6: Particles and medical physics**. This includes: Capacitors; Electric fields; Electromagnetism; Nuclear and particle physics; Medical imaging.

Assessment

For the new A levels from September 2015 the AS Level examinations do not contribute to the final grade awarded for A Level at the end of Year 13.

In Year 12 you will sit the following examinations:

- **Breadth in physics:** 70 Marks, 1h30mins written paper (50% of AS Level)
- **Depth in physics:** 70 Marks, 1h30mins written paper (50% of AS Level)

In Year 13 you will sit the following examinations:

- **Modelling physics (01):** 100 marks, 2h15mins written paper (37% of A Level) - assesses content from modules 1,2,3 and 5
- **Exploring physics (02):** 100 marks, 2h15mins written paper (37% of A Level) - assesses content from modules 1,2,4 and 6
- **Unified physics (03):** 70 marks, 1h30mins written paper (26% of A Level) - assesses content from modules 1 to 6

Practical endorsement - a non exam assessment and does not contribute to the awarding of the A Level grade in physics.

Trinity Catholic College 6th form

Entry Requirements

To follow A Level Physics successfully, students should have gained a minimum of two grade 5, at higher tier. It is anticipated that students will have studied Physics as a Separate Science subject or will have followed the Combined Science route. A Level Physics has approximately 30% maths content therefore we require a minimum GCSE Mathematics Grade 5 but will consider each applicant of an individual basis.

Progression

A Level Physics is a good facilitating subject and can lead directly into further study at university across a range of subjects. Science based A Level subjects can also be of value to many vocational options post-18 because of the transferable skills developed throughout the course.

Course Contact

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