

## OCR A Level Physics A

Modules	Content
Module 1 – Development of practical skills.	Using CRO. Calculating a constant from a graph, estimating uncertainty.
Module 2 – Foundations of physics	Quantities, units, adding and resolving vectors.
Module 3 – Forces and Motion	D-T and V-T graphs, velocity, acceleration, SUVAT equations stopping distances, g, projectile motion. Force, mass, weight, pressure, torque, density, springs, wires, power.
Module 4 – Electrons, waves and photons	Ohm's and Kirchoff's laws. Diode, resistivity, thermistor, LDR, internal resistance, potential dividers, diffraction, polarisation. Young's double slit, stationary waves, photoelectric effect.
Module 5 – Newtonian world and astrophysics	Heat capacity, latent heat, RMS speed, gas laws, angular velocity, acceleration and centripetal force, SHM, resonance and damping. Gravity, Kepler's laws, H-R diagram and Hubble's law.
Module 6 – Particles and medical physics	Capacitors, electric & magnetic fields, fission, fusion, x-rays, gamma camera, antimatter. Coulomb's, Faraday's and Lenz's laws. Quarks. Exponential decay.

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### How will You be assessed?

This is a linear course, 3 exams at the end of the course, each one will be worth between 30-40% of your mark. Within the exam 40% of the questions will assess mathematical skills in Physics and 15% will assess your knowledge of practical skills used in Physics.

There is no coursework in this course but your performance during practicals will be assessed and you will keep a Laboratory Book to prove your competency in this area. This is a pass or fail aspect and is reported separately to your main A Level Physics grade as the Practical Skills Endorsement.

Assessment	Assessment method and weighting
Paper 1 - Tests modules 2, 3 and 5	2h15 minute paper - 37%
Paper 2 - Tests modules 2, 4 and 6	2h15 minute paper - 37%
Paper 3 - Unified paper testing knowledge and skills across all of A Level Physics	1h30 minute paper - 26%



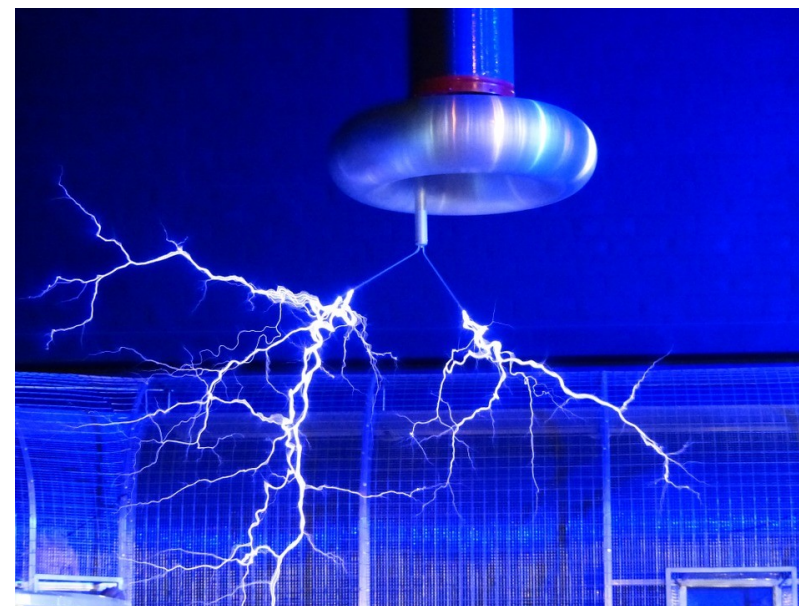
## Entry requirements

In addition to 5 GCSEs 9 to 5 you must achieve a grade 6 in Physics or 66 in Core and Additional Science at GCSE. You will need a 6 in Maths GCSE.

## Careers

Electrical engineer	Mechanical engineer
Civil engineer	Astronomy
Law	Journalism
Radiographer	Oceanography
Seismology	Robotics
Medicine	Research

# A-Level Physics



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