

Physics

Higher

Recommended Entry Requirements

A to C at
National 5
Physics

Progression through Physics

Advanced
Higher
Physics

A pass at Higher level would provide access to study the subject at Advanced Higher or would provide a university entry level qualification.



Course Content

Our Dynamic Universe

- motion — equations and graphs
- forces, energy and power
- collisions, explosions, and impulse
- gravitation
- special relativity
- the expanding Universe

Particles and waves

- forces on charged particles
- the Standard Model
- nuclear reactions
- inverse square law
- wave-particle duality
- interference
- spectra
- refraction of light

Electricity

- monitoring and measuring AC
- current, potential difference, power, and resistance
- electrical sources and internal resistance
- capacitors
- semiconductors and p-n junctions

Skills Developed

- demonstrating knowledge and understanding of physics by making accurate statements
- describing information, providing explanations and integrating knowledge
- applying physics knowledge to new situations, interpreting information and solving problems
- planning and designing experiments/practical investigations to test given hypotheses or to illustrate particular effects
- carrying out experiments/practical investigations safely, recording detailed observations and collecting data
- selecting information from a variety of sources
- presenting information appropriately in a variety of forms
- processing information (using calculations, significant figures and units, where appropriate)
- making predictions from evidence/information
- drawing valid conclusions and giving explanations supported by evidence/justification
- quantifying sources of uncertainty
- evaluating experimental procedures and suggesting improvements
- communicating findings/information effectively

Assessment

Exam Paper 1
25 marks

Exam Paper 2
130

Practical Assignment
20 marks

Related Careers

A qualification in Physics can lead to careers in:

- flight
- engineering
- construction (electrician)
- scientific research
- architecture

Dara Ó Briain, Brian May, Albert Einstein and Stephen Hawking and Brian Cox all studied Physics!

