Advanced Higher Physics (Course Code: C857 77)

SCQF Level 7 (32 Credit Points)

Why study Physics?

This course is designed to increase your knowledge and understanding of the concepts of Physics and its many applications in modern society. It provides the opportunity to develop skills necessary to find solutions to scientific problems, such as experimenting, investigating and analysing, and gives a deeper insight into the structure of the subject. The course makes a valuable contribution to your general education and provides a sound basis for further study.

The skills you learn on this course are valuable for careers in medicine, energy, industry, material development, the environment and sustainability.

Career Pathways

To see what career areas this subject could lead to and the routes to get there, download and view these career pathways:

Animals, Land and Environment

Computing and ICT

Construction

Engineering

Health and Medicine

Science and Maths

Teaching and Classroom Support

Transport and Distribution

Uniformed and Security Services

What do I need to get in?

This is at the discretion of the school/college but you would normally be expected to have attained one of the following:

- **Higher Physics**

What will I study?

The course comprises **four** areas of study.

Rotational Motion and Astrophysics

You will study:

- kinematic relationships; angular motion; rotational dynamics; gravitation; general relativity; and stellar physics.

Quanta and Waves

You will study:

- introduction to quantum theory; particles from space; simple harmonic motion; waves; interference; and polarisation.

Electromagnetism

You will study:

- fields; circuits; and electromagnetic radiation.

Units, prefixes and uncertainties

You will study:

- units, prefixes and scientific notation; uncertainties; data analysis; and evaluation and significance of experimental uncertainties.

How will I be assessed?

The course assessment consists of **two** components **totalling 185 marks**:

- Component 1: Question paper - worth 155 marks (scaled to 120 towards the overall total)
- Component 2: Project - worth 30 marks (scaled to 40).

For the project component, you will carry out an in-depth investigation of a physics topic, and produce a report that has a logical structure.

The question paper is set and externally marked by the Scottish Qualifications Authority (SQA).

The grade awarded is based on the total marks achieved across course assessment.

The course assessment is graded A-D.

Study Materials

SQA Past Papers Physics Advanced Higher

SQA Specimen Physics Advanced Higher Question Paper

What can I go on to next?

Further study, training or employment in:

- Animals, Land and Environment
- Computing and ICT
- Construction
- Engineering
- Health and Medicine
- Science and Mathematics
- Teaching and Classroom Support
- Transport and Distribution
- Uniformed and Security Services