

F308 PHYSICAL SCIENCES FOUNDATION

carmel
college



Course F308 provides a four-year route to a number of BSc degree programmes from within the Physics Group.

This course would be of interest to students who have followed Advanced level Physics, Vocational A' levels, GNVQ Science or access programmes in Science.

Modules Studied

All students will study three subjects over the two semesters. Students can choose modules to make up their own programme, however certain subjects are compulsory for entry into specific degree courses, degree titles and optional/compulsory modules are marked on the course selection chart. [E] for essential, [P] preferred modules, [R] recommended modules and [O] optional modules.

Physics(2 semesters compulsory)

This module explores in-depth the topics of measurement, mechanics, electricity thermodynamics, atomic physics, forces, magnetism, materials, waves and oscillations. Assignments are set on a regular basis, aimed to extend the ideas studied as part of the lecture course. Practical work is used to reinforce theory.

Mathematics(2 semesters compulsory)

This module aims to introduce students to graph work, differentiation and integration, vectors, statistics, trigonometry, logarithms, iteration and partial fractions. Students can expect to develop problem solving and analytical skills.

Additional Mathematics (2 semesters preferred):

This module covers sequencing and series, binomials, complex numbers, polynomials, differentiation, mechanics, momentum, vectors and differential equations. Students can expect to further develop their problem solving and analytical skills.

Chemistry(2 semesters optional)

This module covers atomic structure, atoms and moles, the periodic table, chemical bonding, chemical energy, kinetics and an introduction to Organic Chemistry, alkanes and alkenes. In the second semester the key areas of Organic Chemistry, the Chemistry of the main group elements and Equilibria are studied in further depth. During the two semesters problem solving and practical work are integrated into the lecture programme.

Geography(2 semesters optional)

The module takes an enquiry approach into the investigation of the way people interact with their varied environments. Topics include urbanisation, landform systems, hazard management & pollution. Students will develop a range of case studies concerning the question, issues & problems that these geographical areas present.

Biology(2 semesters optional)

This module looks at cell structure and function, biological molecules, cell division, genetics and metabolism in the first semester. During the second semester students will study hormonal control, transport systems in mammals and multicellular animals, the action of drugs, pharmacology and immunity.

Progression

Assessment is by examination and coursework and students are expected to score an overall mark of 50% to progress to the second year of the course.

In the second year options are: *Physics, Physics with Medical Applications, Physics for New Technology, Physics with Nuclear Science, Physics with Astronomy, Geophysics (Geology), Geophysics (Physics), Ocean Sciences (Physics Pathway), Physics and Mathematics.*

Entry Requirements

Applicants will be expected to fall into one of the following categories:

- Adult learners returning to education students with 'A' level passes.
- Adult learners returning to education with 5 GCSE /'O' level passes or more including Maths, Science and English Language.
- Sixth form school leavers currently studying Physics in combination with other subjects.
- Students from within European Union and students following access certificates.

Standard Offer

A typical offer is likely to be CDD or 200 points in three subjects at A2, preferably in related subjects. Students with alternative A2 combinations are welcome to apply but should expect to be made higher offers. All students must also have a pass (grade C or above) in GCSE Mathematics, Science and English Language or hold equivalent qualifications. Adult learners are should have a minimum of 5 GCSE's grade 'C' or above including Mathematics, Science and English and may be invited for interview. Students with access certificates or foreign qualifications will be considered on an individual basis.

Students holding offers at the University of Liverpool may be made a changed course offer to F308, after the examination results, if they fail to gain the required number of points for their first choice course.

Further Information

Please contact Mary Robinson at Carmel College on (01744) 452200. Alternatively, contact Marie Kendrick (Degree Administrator) on (01744) 452213 or e-mail: degree@carmel.ac.uk;