

FACULTY

SCIENCE

TITLE OF COURSE:

CHEMISTRY

LEVEL:

ADVANCED HIGHER

RECOMMENDED ENTRY LEVELS:

A pass in Higher Chemistry preferably at A or B Recommended - pass in Higher Mathematics

Mandatory Units

Inorganic and Physical Chemistry:

Key areas:

- Electromagnetic radiation and atomic spectra
- Atomic orbitals, electronic configurations and the Periodic Table
- Shapes of molecules and polyatomic ions
- Transition metals
- Chemical equilibrium
- Reaction feasibility
- Kinetics

Organic Chemistry and Instrumental Analysis:

Key areas:

- Molecular orbitals
- Molecular structure
- Stereochemistry
- Synthesis
- Experimental determination of structure
- Pharmaceutical Chemistry

Researching Chemistry:

Key areas

- Gravimetric Analysis
- Volumetric Analysis
- Practical skills and Techniques
- Stoichiometric Calculations

The Advanced Higher Chemistry Course aims to enable learners to:

- ◆ develop a critical understanding of the role of chemistry in scientific issues and relevant applications, including the impact these could make on the environment/society
- ◆ extend and apply knowledge, understanding and skills of chemistry
- ◆ develop and apply the skills to carry out complex practical scientific activities, including the use of risk assessments, technology, equipment and materials
- ◆ develop and apply scientific inquiry and investigative skills, including planning and experimental design
- ◆ develop and apply analytical thinking skills, including critical evaluation of experimental procedures in a chemistry context
- ◆ extend and apply problem solving skills in a chemistry context
- ◆ further develop an understanding of scientific literacy, using a wide range of resources, in order to communicate complex ideas and issues and to make

Is there an external examination in the subject?

Yes, final exam consists of 30mrks multiple choice and 70mrks written questions. This is added to the **Project** report mark (out of 30) to give a final grade.

Internal assessment:

Progress of pupils is maintained throughout the course by unit assessments.

These will be amended by the SQA for 2017-18

What careers would benefit from knowledge of the subject?

A vast number of careers benefit from a knowledge of Chemistry. For example: Medicine, Engineering; Oil Industry; Architecture; Forensics; Teaching; Dentistry; Nutrition; Journalism;

Veterinary Science; Material Science; Pharmacy; Archaeology; Geology; Oceanography; Laboratory Technician.

How can parents help?

Encourage students to take responsibility for their own learning and seek support where necessary.