

Leaving Certificate Chemistry – Overview

Course Content

Course consists of pure chemistry (70%) and social and applied aspects of chemistry (30%). As well as theory to learn there are also mandatory practicals that must be carried out – 28 at Higher level, 21 at Ordinary.

Core Content

1. Periodic Table and Atomic Structure
2. Chemical Bonding
3. Stoichiometry, Formulas and Equations
4. Volumetric Analysis
5. Fuels and Heats of Reaction
6. Rates of Reaction
7. Organic Chemistry
8. Chemical Equilibrium
9. Environmental Chemistry: Water

Option 1

1A Additional Industrial Chemistry

1B Atmospheric Chemistry

Option 2

2A Materials

2B Additional Electrochemistry and Extraction of Metals

Higher/Ordinary Level?

There are two main differences between Ordinary and Higher Level:

- (i) Range of Topics
All the Ordinary level material, except mandatory experiment 4.2A in the ordinary level syllabus forms part of the Higher level syllabus. The Higher Level syllabus contains extra material. Ordinary level students will study one option from 1A, 1B, 2A or 2B. Higher level students in their entirety, either Option 1 or Option 2.
- (ii) Depth of Treatment
The Ordinary level syllabus provides an overview of chemistry and its applications to everyday life. At Higher level, a deeper and more quantitative treatment of chemistry is required.

Assessment

Terminal written exam in June. (Mandatory practicals must be written up and be available for inspection, but no marks are given for these write ups).

Course Objectives

By the end of the course you will be expected to have a knowledge of

- Basic chemical terminology, facts, principles and methods
- Scientific theory
- Social, historical, environmental, technological and economic aspects of chemistry
- How chemistry relates to everyday life
- Scientific information in verbal, graphical and mathematical form
- Basic chemical principles
- How chemical problems can be solved
- How the scientific method applies to chemistry.

Be able to

- Follow instructions given in a suitable form
- Perform experiments safely and co-operatively.