

Module Title Chemistry For Life Sciences	Reference AS1801 SCQF Level SCQF 7 SCQF Points 15 ECTS Points 7.5 Created February 2011 Approved September 2011 Amended September 2012 Version No. 2
Keywords Atomic Structure, Bonding, Equilibria, Water and pH, Organic Chemistry, Electromagnetic Spectrum	

This Version is No Longer Current

The latest version of this module is available [here](#)

Prerequisites for Module

None, in addition to course entry requirements.

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Lectures	28
Tutorials	8

Corequisite Modules

None.

<i>Directed Study</i>	
Directed Study	24

Precluded Modules

None.

<i>Private Study</i>	
Private Study	90

Aims of Module

To provide students with a knowledge and understanding of the basic concepts of chemistry.

Mode of Delivery

Lectures , on-line support material and tutorials.

Assessment Plan

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

	Learning Outcomes Assessed
Component 1	1,2,3

1. Demonstrate knowledge of the basic concepts and principles of atomic structure, the electromagnetic spectrum, bonding and chemical equations.
2. Understand and apply the basic principles of ionic equilibria.
3. Demonstrate knowledge of the shape, structure and typical reactions of various classes of organic molecules.

Indicative Module Content

Atomic theory, electronic structure of atoms and relation to the periodic table.
 Electromagnetic spectrum. Ionic and covalent bonding, shapes of molecules. Electronegativity and intermolecular forces, chemical formulae, equations and the mole. Oxidation and reduction. Ionic equilibria, water and pH. Aliphatic, alicyclic and aromatic compounds. Isomersim.
 Bonding in carbon compounds: bond breaking and formation, bond polarity and radical formation.

Examination- closed book

Indicative Bibliography

1. KOTZ, J.C., et al. *Chemistry & chemical reactivity*. Current Edition. Brooks/Cole/Cengage Learning
2. BRUCE, P.Y. *Organic Chemistry*. Current Edition. [electronic resource] Pearson Education