

## MODULE DESCRIPTOR

### Module Title

Chemistry For Life Sciences

Reference	AS1801	Version	4
Created	August 2021	SCQF Level	SCQF 7
Approved	September 2011	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

### Aims of Module

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

### Learning Outcomes for Module

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

- 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.

### Module Delivery

This is a lecture based module supplemented by tutorials, on-line support material and guided reading.

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	35	N/A
Non-Contact Hours	115	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type: Examination Weighting: 100% Outcomes Assessed: 1, 2, 3  
 Description: Closed book written examination.

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

Component 1 (EX1) comprises 100% of the module grade. A minimum of a Grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	A: a score of 70% or above is required
<b>B</b>	B: a score of between 60-69% is required
<b>C</b>	C: a score of between 50-59% is required
<b>D</b>	D: a score of between 40-49% is required
<b>E</b>	E: a score of between 35-39% is required
<b>F</b>	F: a score of less than 35% is required
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module None, in addition to course entry requirements.  
 Corequisites for module None.  
 Precluded Modules None.

**INDICATIVE BIBLIOGRAPHY**

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