

BS122-0 Chemistry for Biological Sciences

22/23

Department

Life Sciences

Level

Undergraduate Level 1

Module leader

Alexander Cameron

Credit value

0

Module duration

11 weeks

Assessment

100% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

An understanding of key principles in Chemistry that are relevant to undergraduate studies in biological disciplines.

Students should achieve a good understanding of (i) organic chemistry as applicable to biological systems, (ii) physical methods used in structure determination for biological molecules, (iii) the fundamentals of physical chemistry important to understanding cell function.

Module aims

To give to students without a post-16 qualification in chemistry the basic knowledge necessary to underpin a molecular and cell biology-orientated Biological Sciences degree.

To extend specific areas of Biochemistry, focusing on topics of biological relevance.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Periodic Table; atomic structure; bonding; isomerism; amounts and measurement; acids and bases; organic chemistry; macromolecules; enzymes and energy

Learning outcomes

By the end of the module, students should be able to:

- An understanding of key principles in Chemistry that are relevant to undergraduate studies in biological disciplines

Indicative reading list

1. Instant Notes Chemistry for Biologists by Fisher and Arnold (ISBN: 1-85996-355-2)
2. Catch Up Chemistry by M. Fry and E. Page (ISBN: 1904842100)
3. Chemistry for Biosciences: The Essential Concepts by Crowe, Bradshaw and Monk (ISBN:0-19-928097-5)

Subject specific skills

have a good understanding of organic chemistry as applicable to biological systems.

appreciate the physical methods used in structure determination for biological molecules.

understand the fundamentals of physical chemistry important to understanding cell function.

Transferable skills

Self directed learning, group learning, adult learning, quantitative skills

Study

Study time

Type	Required
Practical classes	
Total	0 hours

Private study description

No private study requirements defined for this module.

Costs

No further costs have been identified for this module.

Assessment

Students can register for this module without taking any assessment.

Assessment group B

Study time

Online Examination
open book exam (50% of final mark)

- Answer book provided by department

Online Examination 2
exam (50% of final mark)

- Online examination: No Answerbook required

Feedback on assessment

Answers to problems are given on Moodle.

[Past exam papers for BS122](#)

Availability

Courses

This module is Core optional for:

- UBSA-3 Undergraduate Biological Sciences
 - Year 1 of C100 Biological Sciences
 - Year 1 of C100 Biological Sciences
- Year 1 of ULFA-C1A1 Undergraduate Biological Sciences (MBio)
- Year 1 of ULFA-C113 Undergraduate Biological Sciences (with Placement Year)
- Year 1 of ULFA-C1A5 Undergraduate Biological Sciences with Industrial Placement (MBio)
- ULFA-CB18 Undergraduate Biomedical Science with Placement Year
 - Year 1 of CB18 Biomedical Science with Placement Year
 - Year 1 of CB18 Biomedical Science with Placement Year
 - Year 1 of CB18 Biomedical Science with Placement Year

This module is Optional for:

- UBSA-C1B9 Undergraduate Biomedical Science
 - Year 1 of C1B9 Biomedical Science
 - Year 1 of C1B9 Biomedical Science
 - Year 1 of C1B9 Biomedical Science
- Year 1 of ULFA-C1A3 Undergraduate Biomedical Science (MBio)
- Year 1 of ULFA-C1A7 Undergraduate Biomedical Science with Industrial Placement (MBio)
- Year 1 of ULFA-B142 Undergraduate Neuroscience (MBio)
- Year 1 of ULFA-B143 Undergraduate Neuroscience (with Industrial Placement) (MBio)
- Year 1 of ULFA-B141 Undergraduate Neuroscience (with Placement Year) (BSc)

This module is Unusual option for:

- UBSA-C1B9 Undergraduate Biomedical Science
 - Year 1 of C1B9 Biomedical Science
 - Year 1 of C1B9 Biomedical Science
 - Year 1 of C1B9 Biomedical Science
- ULFA-C1A3 Undergraduate Biomedical Science (MBio)
 - Year 1 of C1A3 Biomedical Science
 - Year 1 of C1B9 Biomedical Science

This module is Option list A for:

- Year 1 of ULFA-B140 Undergraduate Neuroscience (BSc)