

# BS121-30 Biological Sciences & Biomedical Sciences Laboratories & Assessed Work

20/21

**Department**

Life Sciences

**Level**

Undergraduate Level 1

**Module leader**

Daniel Franklin

**Credit value**

30

**Module duration**

25 weeks

**Assessment**

100% coursework

**Study location**

University of Warwick main campus, Coventry

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## Description

### Introductory description

Tutorial programme:

To provide academic support for the principle core module LF104 and BS129 via problem based learning small group teaching.

To introduce and develop fundamental study skills.

To identify and support individual pastoral care needs and introduce the referral pathway.

Laboratories:

To develop confidence in fundamental laboratory skills and techniques, be able to follow protocols for handling/setting up equipment, generate good quality data, identify and apply appropriate data presentation, interpretation and analysis.

[Module web page](#)

### Module aims

Students will have learned how to conduct scientific investigations and communicate scientifically in an appropriate style, through lab reports, essays and oral communication.

## **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.

1. A series of experiments in biochemistry, molecular biology, bacterial and eukaryotic genetics and physiology.
2. A program of tutorials providing guidance and support for development of scientific writing, speaking, researching and problem-solving skills in the context of subject matter drawn from the core lecture modules LF104 and BS129
3. An extended essay on a biological topic

## **Learning outcomes**

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

- Research given topics in the primary literature and consolidate relevant information to present a well-structured scientific essay.
- Research given topics using lecture content and primary literature to develop and deliver a short oral presentations. The imagery, content accuracy and the delivery style will be appropriate to the topic and audience.
- Understand key concepts fundamental to the core modules LF104 and BS129
- Show development in their critical analytical skills
- Understand and evidence by key concepts fundamental to the core modules LF104 and BS129
- Understand the scientific process to perform a hypothesis driven simple experiments, with due regard to appropriate accuracy and detail.
- Develop their scientific writing style and understanding of the need for accuracy in the generation of data, its presentation and analysis with the aim of producing a well-structured scientific report

## **Indicative reading list**

Recent/current editions of

Berg, Tymoczko and Stryer. Biochemistry

Lodish et al Molecular Biology of the Cell

Brock, Biology of Microorganisms

## **Subject specific skills**

research given topics in the primary literature and consolidate relevant information to present a well-structured scientific essay.

research given topics using lecture content and primary literature to develop and deliver a short oral presentations. The imagery, content accuracy and the delivery style will be appropriate to the topic and audience.

understand key concepts fundamental to the core modules LF104 and BS129

show development in their critical analytical skills

## LABORATORIES

understand and evidence by key concepts fundamental to the core modules LF104 and BS129

understand the scientific process to perform a hypothesis driven simple experiments, with due regard to appropriate accuracy and detail.

develop their scientific writing style and understanding of the need for accuracy in the generation of data, its presentation and analysis with the aim of producing a well-structured scientific report

## Transferable skills

Adult learning, self directed learning, team based learning, presentation skills, report production, quantitative skills

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## Study

### Study time

Type	Required
Tutorials	18 sessions of 1 hour (6%)
Practical classes	12 sessions of 6 hours (24%)
Private study	210 hours (70%)
Total	300 hours

### Private study description

210 hrs of self directed learning, preparation for sessions and production of assessed work / reports

### Costs

No further costs have been identified for this module.

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## Assessment

You do not need to pass all assessment components to pass the module.

## Assessment group A1

	Weighting	Study time
Y1 Biological Science Labs 10 Summative lab reports throughout term 1 and 2	67%	
Y1 Poster Presentation Group poster- marked base on individual contributions	8%	
Christmas Essay Christmas essay	4%	
Oral presentation individual presentation	4%	
Easter Essay Easter essay	17%	

## Feedback on assessment

Immediate and direct verbal feedback in small group teaching PBL scenarios during weekly tutorials. Verbal feedback during in-lab discussions and further discussion with personal tutor. Written feedback on submitted work via Moodle for tutorial work, model answers for initial lab practical worksheets and written feedback on submitted lab worksheets/reports.

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## Availability

### Courses

This module is Core 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)
- 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
- Year 1 of ULFA-C1A7 Undergraduate Biomedical Science 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
- Year 1 of ULFA-B140 Undergraduate Neuroscience (BSc)
- 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)