BS120-24 Biochemistry Laboratories and Assessed Work

22/23

Department
Life Sciences
Level
Undergraduate Level 1
Module leader
Daniel Franklin
Credit value
24
Module duration
25 weeks
Assessment
Multiple
Study location
University of Warwick main campus, Coventry

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 aims

Please see section 22 for a detailed breakdown. 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:

- TUTORIAL 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 develop 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

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

develop 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

Self directed learning, presentation skills, quantitative skills, research skills and critical appraisal of source material

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Study

Study time

Type	Required
Tutorials	18 sessions of 1 hour (8%)
Practical classes	12 sessions of 6 hours (30%)
Private study	150 hours (62%)
Total	240 hours

Private study description

150 of self directed learning, preparation for sessions and assessment production

Costs

No further costs have been identified for this module.

Assessment

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

Students can register for this module without taking any assessment.

Assessment group A3

	Weighting	Study time
Experiment 3 - Intro to Microbiology	8%	
Experiment 4 - Growth curve	8%	
Experiment 5 - Endospores	8%	
Experiment 6 - Beta-galactosidase	8%	
Experiment 7 - Allosteric regulation 1	8%	
Experiment 8 - Allosteric regulation 2	8%	
Experiment 9 - Properties of enzymes	8%	

	Weighting	Study time
Experiment 10 - Structural features of proteins	8%	
Experiment 11 - Physiology lab	8%	
Experiment 12 - Neuroscience lab	8%	
Christmas vacation essay	5%	
Individual oral presentation	5%	
Group poster presentation	10%	

Assessment group R

	Weighting	Study time
This module cannot be reassessed.	100%	

Feedback on assessment

Written feedback on submitted work via Moodle for labs and tutorial work. Oral feedback is given for formative tutorial work.

Availability

Courses

This module is Core for:

- Year 1 of UBSA-C700 Undergraduate Biochemistry
- ULFA-C1A2 Undergraduate Biochemistry (MBio)
  - Year 1 of C1A2 Biochemistry
  - Year 1 of C700 Biochemistry
- Year 1 of ULFA-C702 Undergraduate Biochemistry (with Placement Year)
- Year 1 of ULFA-C1A6 Undergraduate Biochemistry with Industrial Placement (MBio)