

Practical Skills for Biology

Module Information

2022.01, Approved

Summary Information

Module Code	4202NATSCI
Formal Module Title	Practical Skills for Biology
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	10
Off Site	32
Practical	18
Workshop	14

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	28 Weeks

Aims and Outcomes

Aims	To acquire and demonstrate theoretical and practical knowledge of laboratory and field-based methods in modern biology, with particular emphasis on familiarizing with basic laboratory techniques and equipment, ethics, and safe working practices.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Prepare for and conduct laboratory and fieldwork safely, including the completion of risk assessments.
MLO2	2	Use basic lab instruments correctly, including microscopes, pipettes, scales, spectrophotometers, pH meters, and electrophoresis equipment.
MLO3	3	Apply basic concepts in chemistry and maths such as pH, buffering, and molarity.
MLO4	4	Record, present and communicate scientific information in an appropriate and professional manner, following principles of good laboratory practice.
MLO5	5	Acknowledge and discuss the importance of ethics when designing, conducting and reporting experiments.
MLO6	6	Apply creativity to different aspects of the scientific work, such as the design of experiments and the communication of science.

Module Content

Outline Syllabus	Introduction to basic laboratory instruments, methods and analytical techniques. Introduction to basic field survey techniques. Introduction to basic biochemical and mathematical concepts. Safe work and good practice in the laboratory and the field. Different data recording techniques for laboratory and field situations. Bioethics. Effective team work for conducting and presenting experiments.
Module Overview	The aim of this module is to acquire and demonstrate theoretical and practical knowledge of laboratory and field-based methods in modern biology, with particular emphasis on familiarisation with basic laboratory techniques and equipment, ethics and safe working practices. You will acquire and develop fundamental research and transversal skills, which you will apply and train further throughout the degree and in your future career.
Additional Information	Students will acquire and develop fundamental research and transversal skills, which they will apply and train further throughout the degree and in their future professional careers.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Presentation	Blog post	40	0	MLO4, MLO6
Centralised Exam	Practical Test	60	0	MLO1, MLO2, MLO3, MLO4
Competency	Practical Skills			MLO1, MLO2, MLO3, MLO4, MLO5

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Fatima Perez De Heredia Benedicte	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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