

Module Information

2022.01, Approved

Summary Information

Module Code	5215NATSCI
Formal Module Title	Comparative Animal Physiology
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	22
Off Site	4
Practical	8
Seminar	4
Tutorial	5
Workshop	16

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	The course aims to build on the concepts of animal physiology taught at level 4, allowing students to gain practical skills and theoretical knowledge in key aspects of the main physiological systems of different animal phyla. The course content will reflect the expertise and research interests of the teaching team, allowing students to appreciate how the taught content integrates with current research. The course is also designed to prepare students for advanced physiological studies in the level 6 module Current Topics in Zoology.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate the similarities and the differences between physiological systems in different animal phyla.
MLO2	2	Discuss the role of the sensory systems, nervous system, and endocrine systems in animal physiology and behaviour
MLO3	3	Critically evaluate the utility of model organisms for studying physiological processes
MLO4	4	Communicate and discuss science effectively in written or oral presentation / discussion (normally in a group) formats.

Module Content

Outline Syllabus	The module will focus on employing a comparative approach to study physiological systems across different animal phyla. Major physiological processes such as nervous transmission, hormonal control, and reproduction will be covered. The value and limitations of model organisms in studying physiological processes will be discussed. The biophysical aspects of sensory biology will be introduced: for example wavelengths of light and refraction in visual systems, and the biophysical basis of electroreception and nervous transmission.
Module Overview	This module enables you to learn about physiological systems across animal phyla. Neurobiology, endocrinology, and the link between genes, proteins and behavioural phenotypes will be taught, reflecting the expertise and research interests of the teaching team. The concept of model organisms will be introduced, and model organisms will be used in the practical activities.
Additional Information	This course will allow students to learn about physiological systems across animal phyla. Neurobiology, endocrinology, and the link between genes, proteins and behavioural phenotypes will be taught, to reflect the expertise and research interests of the teaching team. The concept of model organisms will be introduced, and model organisms will be used in the practical activities.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Practical report on chemotaxis	50	0	MLO1, MLO2, MLO3, MLO4
Presentation	Seminar presentation	40	0	MLO1, MLO2, MLO4
Portfolio	Tutorial assessments	10	0	MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Sally Williamson	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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