

MODULE DESCRIPTOR Module Title Ecophysiology Reference PI 2174 Version 1 Created October 2022 SCQF Level SCQF 8 Approved April 2023 SCQF Points 15 Amended August 2021 **ECTS Points** 7.5

Aims of Module

To give students a comprehensive understanding of the anatomical differences between types of animals and their physiological adaptations to the environment.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Explain the general anatomical and physiological principles of key taxa in the animal kingdom.
- 2 Explain the anatomical and physiological adaptations to different environments, including extreme environments, of key taxa in the animal kingdom.
- Demonstrate an appreciation of the relationship between environmental specialization of taxa in the animal kingdom, climate change and species extinction.

Indicative Module Content

amphibians, birds, fish, reptiles, mammals; evolution and extinction; nerves, hormones, immunity and inflammation, circulation, digestion, reproduction, temperature control and homeostasis, ventilation, water and electrolyte handling, locomotion; adaptations to arid conditions, high altitude, hibernation, hyperbaric conditions and migration; adaptations to extremes of environmental temperatures, aquatic or dietary conditions.

Module Delivery

Lectures supported by tutorials, online support material, LabTutor and guided reading.

Indicative Student Workload	Full Time	Part Time
Contact Hours	36	N/A
Non-Contact Hours	114	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

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ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type: Coursework Weighting: 100% Outcomes Assessed: 1, 2, 3

Description: Scientific Essay

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

Component 1 (CW1) comprises 100% of the module grade. A minimum of a Grade D is required to pass the module. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
Α	A
В	В
С	С
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module Successful completion of Stage 1 of the course or equivalent.

Corequisites for module None.

Precluded Modules None.

INDICATIVE BIBLIOGRAPHY

- 1 BUTLER, P.J. et al. 2021. Animal Physiology: An Environmental Perspective. 1st Edition. OUP.
- 2 Hill R. 2016. Animal Physiology. 4th Edition. Sinauer.
- 3 RANDALL D. J. 2002. Eckert animal physiology: mechanisms and adaptations. 5th Edition. Freeman.
- 4 REECE, J.B. et al., 2011. Campbell Biology: Concepts and Connections. 7th Edition. Pearson.