

Module specification

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Module Code	ANM437
Module Title	Introduction to Evolution
Level	4
Credit value	20
Faculty	FSLS
HECoS Code	100858
Cost Code	GAAN

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
FdSc Practical Wildlife Management	Core

Pre-requisites

N/A

Breakdown of module hours

Learning and teaching hours	36 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	36 hrs
Placement / work based learning	0 hrs
Guided independent study	164 hrs
Module duration (total hours)	200 hrs

For office use only	
Initial approval date	12/05/2022
With effect from date	September 2023

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Date and details of revision	
Version number	1

Module aims

This module aims to introduce students to the history of evolution, from the beginning of life on earth, through extinction events, to the rise of the mammals and evidence of current evolutionary trends. Evidence for evolution will be examined along with details of the mechanisms by which life evolves. Concepts in this module will help students to understand the diversity of life on the planet.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Explain the evolutionary origins of life
2	Identify the mechanisms of evolution
3	Recognise the evidence for evolution

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment 1: Poster explaining evolutionary origins of life (1000 word equivalent)

Assessment 2: Coursework: Case Study: Mechanisms and evidence for evolution of a chosen species (2000 words)

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1	Coursework	40
2	2, 3	Coursework	60

Derogations

N/A

Learning and Teaching Strategies

A blended format will be utilised to deliver this module. An active and inclusive learning environment aligned to Universities ALF will enable flexible, accessible, and individualised learning opportunities for students. This approach will include both synchronous and asynchronous learning. Practical sessions and workshops will enable students to implement theory in practice. Assessments will take place midpoint and at the end of the module.

Indicative Syllabus Outline

Beginning of life, out of the sea, insects, plants, amphibians, reptiles, birds, dinosaurs, extinction events, rise of the mammals, continuing evolution.

Theories of evolution; Anaximander, Lamarck, Wallace, Darwin. Species. Variation (sexual reproduction, gene flow, mutation), natural selection, sexual selection, fecundity selection, adaptation, genetic drift, reproduction isolation & speciation, artificial selection, adaptive evolution, co-evolution, co-operation, divergent evolution, convergent evolution, evolutionary ecology.

Evidence: fossil, anatomy, embryology, biochemistry, biogeography, molecular biology, genomics.

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Losos, J. B., Baum, D. A., Futuyma, D. J., Hoekstra, H. E., Lenski, R. E. (2017), *The Princeton Guide to Evolution*. New Jersey: Princeton University Press

Other indicative reading

Godfrey-Smith, P. (2018), *Other Minds: The Octopus and the Evolution of Intelligent Life*. Glasgow: William Collins.

Panciroli, E. (2021), *Beasts Before Us: The Untold Story of Mammal Origins and Evolution*. (1st Edition). London: Bloomsbury Sigma.

Shaw, S. (2015), *Planet of the Bugs: Evolution and the Rise of Insects*. Chicago: University of Chicago Press.

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

Core Attributes

Engaged
Enterprising
Creative
Ethical

Key Attitudes

Commitment
Curiosity
Resilience
Confidence
Adaptability

Practical Skillsets

Digital Fluency
Organisation
Critical Thinking
Emotional Intelligence
Communication