

Module specification

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Module Code	ANM435
Module Title	Introduction to Ecology
Level	4
Credit value	20
Faculty	FSLS
HECoS Code	100347
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
Date and details of revision	
Version number	1

Module aims

This module aims to introduce students to the relationship between organisms and the environment around them. Key ecological definitions will be explained, and students will understand the variety of complex biotic and abiotic interactions that influence the abundance and distribution of organisms.

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

1	Identify the earth's natural physical processes
2	Recognise the earth's living environment of individuals and communities
3	Describe world biomes, biogeographical regions, and habitats

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: In class test: Identify the earth's natural physical processes, MCQ's, short answer and problem-based questions. (1 hr)

Assessment 2: Poster: The biotic and abiotic factors that influence the distribution and abundance of a chosen species (2000 word equivalent)

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1	In-class test	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

Earth's natural physical processes; energy flow, nutrient cycling, photosynthesis, pollination, decomposition. Abiotic factors; hydrology, geomorphology, soil development and soil characteristics, rainfall, humidity, temperature, pH, climate. Natural and anthropogenic factors of change.

Individuals, species, populations, communities, meta-populations, saprophytes, heterotrophs, autotrophs, carnivores, herbivores, omnivores, piscivores. Population dynamics; life histories, population growth rate, survivorship curve, carrying capacity, migration, dispersal, competition, predation. Community ecology; food webs, trophic structures, inter-specific and intra-specific relationships. Natural and anthropogenic factors of change.

World biomes, biogeographical regions and habitats; forests, wetlands, coasts, oceans, grasslands, deserts, polar, boreal, temperate, tropical and sub-tropical, man-made habitats (e.g., agriculture and urban). Natural and anthropogenic factors of change.

Indicative Bibliography:

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

Essential Reads

Begon, M. and Townsend, C. R. (2021). *Ecology: From Individuals to Ecosystems* (5th Edition). New Jersey: Wiley-Blackwell.

Other indicative reading

Amundson, R. (2021), *Introduction to the Biogeochemistry of Soils*. Cambridge: Cambridge University Press.

Lomolino, M. V. (2020), *Biogeography: A Very Short Introduction (Very Short Introductions)*. Oxford: Oxford University Press.

Wilkinson, D. (2021), *Ecology and Natural History*. Glasgow: William Collins.

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