BIODIVERSITY - 2024/5

Module code: BMS2081

Module Overview

This module considers what the diversity of life, from organisms to ecosystems and why conservation of biodiversity is important for the sustainability of the planet.

Module provider

School of Biosciences

Module Leader

PIRIE Tara (Biosciences)

Number of Credits: 15

ECTS Credits: 7.5

Framework: FHEQ Level 5

Module cap (Maximum number of students): N/A

Overall student workload

Independent Learning Hours: 72

Lecture Hours: 28

Tutorial Hours: 3

Practical/Performance Hours: 12

Guided Learning: 5

Captured Content: 30

Module Availability

Semester 2

Prerequisites / Co-requisites

N/A

Module content

Indicative content includes diversity and roles within an ecosystem:

Bacteria and archaea

Singled Celled Eukaryotes (protists)

Fungi

Plants

Invertebrates

Vertebrates

Ecology and ecosystems

Biodiversity conservation

Plus fieldwork/site visits

Computer lab tutorial sessions

Basic analysis

Assessment pattern

Assessment type	Unit of assessment	Weighting
Coursework	Group poster (including peer review)	30
Coursework	Individual summary	30
Examination Online	Exam (90 mins)	40

Alternative Assessment

Assessment 1: If a student cannot complete the group work, the student will be required to produce a poster individually.

Assessment Strategy

The assessment strategy is designed to provide students with the opportunity to demonstrate their knowledge and understanding of the course content and transferable skills in research, reporting and analysis.

Thus, the **summative assessment** for this module consists of:

Assignment 1: Group poster (including peer review) – LO3 - 5.

Assignment 2: An individual summary - LO3 - 5.

Exam: MCQs and short answer questions. LO 1 - 4.

Formative assessment:

- On a draft of assignment 1

- MCQ questions

- SAQ questions

<u>Feedback</u>:

- Immediate feedback is provided as part of the formative automated MCQs / class quizzes.

- Verbal feedback following lectures, during tutorials or practicals.

- Feedback to specific queries via email, with responses being made available to all via Surrey Learn discussion boards or during tutorials as appropriate

- Feedback/forward will be given on summative coursework.

- Feedback given on 1 draft of assignment 1 coursework.

Module aims

- Consider the Tree of Life and the 7 kingdoms.
- Introduce taxonomy.
- Understand the evolutionary link between organisms.
- Understand how organisms are interconnected.
- Consider the threats to and conservation of biodiversity.
- Consider the role of organisms within ecosystems and how organisms may be used by humans.

Learning outcomes

		Attributes Developed
001	Describe the diversity within the 7 kingdoms	K
002	Describe the roles that both geography and evolution play in defining ecosystems	KC
003	Compare the roles taxa from different kingdoms have within an ecosystem and they may be used by humans	KC
004	Evaluate how biodiversity can be impacted and methods of conservation	KC
005	Analyse and evaluate research material in a creative and clear form	KCPT

Attributes Developed

C - Cognitive/analytical

K - Subject knowledge

T - Transferable skills

P - Professional/Practical skills

Methods of Teaching / Learning

The <u>learning and teaching</u> strategy is designed to:

The learning and teaching strategy is designed to give students a broad understanding of biodiversity and roles within an ecosystem.

The delivery of the skills element will be two-fold, being both class and practical.

The class component will be based upon student focused learning based on the biodiversity within and between the different kingdoms and ecosystems as well as the importance of conserving biodiversity for a more **sustainable** future.

The fieldwork component will focus on biodiversity monitoring, evaluation and field experience to encourage and develop **employable and transferable skills** such as teamwork, communication, being aware of health and safety for themselves and others, and the practicalities of working in the field.

The group assignment will allow peer-to-peer interaction with students from different **cultures or capabilities**, thus aiding personal understanding and developing transferable/ social interaction skills which are **employable** skills. The analysis and reporting encourage and develop **employable** and transferable **skills** such as communication (e.g. group communication and for the assignment), **resourcefulness, and resilience** (e.g. research for the assignment, dealing with group dynamics and meeting deadlines) and reflection (peer review). The assignment will also allow for the development of **digital capabilities** through the application of computer software to process and analyse data, search for online resources, and create the assignment.

The learning and teaching methods include:

Lectures

Interactive tutorials

Practical sessions – field and computer

Formative MCQ tests

Summative assessments

Indicated Lecture Hours (which may also include seminars, tutorials, workshops and other contact time) are approximate and may include in-class tests where one or more of these are an assessment on the module. In-class tests are scheduled/organised separately to taught content and will be published on to student personal timetables, where they apply to taken modules, as soon as they are finalised by central administration. This will usually be after the initial publication of the teaching timetable for the relevant semester.

Reading list

https://readinglists.surrey.ac.uk
Upon accessing the reading list, please search for the module using the module code: **BMS2081**

Other information

Resourcefulness & resilience: The assessments for this module rely on the ability to interpret and understand primary research literature. The assignments which have individual and group elements will allow students to develop problem-solving, decision-making, self-efficacy, self-regulation and confidence.

Global & cultural capabilities: Students will work in small groups during the practical sessions and for an assignment which will encourage and engage students in working with other students from different cultures and abilities to achieve an end goal.

Sustainability: The module will consider biodiversity and conservation for a sustainable future. Students will consider the role of diversity within an ecosystem to understand how the natural world and its sustainability are linked.

Digital capabilities: Students engage with self-help videos and in person class demonstrations to introduce and improve the use of statistical software and excel. Students will also utilize the virtual learning environment SurreyLearn and other digital resources. The skills learned will be applied in the assignments they undertake to equip the students for a variety of modern professions.

Employability: Transferable skills such as the ability to work in a team, report findings in a scientific manner and analysis of data will equip students for a variety of modern professions.

Programmes this module appears in

Programme	Semester	Classification	Qualifying conditions
Biological Sciences (Animal Biology and Ecology) BSc (Hons)	2	Compulsory	A weighted aggregate mark of 40% is required to pass the module
Biological Sciences (Cellular and Molecular Sciences) BSc (Hons)	2	Compulsory	A weighted aggregate mark of 40% is required to pass the module
Biological Sciences (Infection and Immunity) BSc (Hons)	2	Compulsory	A weighted aggregate mark of 40% is required to pass the module
Biological Sciences BSc (Hons)	2	Compulsory	A weighted aggregate mark of 40% is required to pass the module
Veterinary Biosciences BSc (Hons)	2	Optional	A weighted aggregate mark of 40% is required to pass the module

Please note that the information detailed within this record is accurate at the time of publishing and may be subject to change. This record contains information for the most up to date version of the programme / module for the 2024/5 academic year.