Module Specification

Biology in Practice

Version: 2025-26, v2.0, Approved

Contents

Part 1: Information

Module title: Biology in Practice

Module code: USSKCJ-30-0

Level: Level 3

For implementation from: 2025-26

UWE credit rating: 30

ECTS credit rating: 15

College: College of Health, Science & Society

School: CHSS School of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Biology in Practice provides a grounding in essential biological concepts, skills and techniques, suitable for degree-level study.

Features: Not applicable

Educational aims: The module provides students with the knowledge and understanding, practical and academic skills and confidence in biological sciences needed for success at Level 4 in any of the programmes within Applied Sciences.

The content is equivalent to UK A-level and B-Tec Biology courses and covers biological ideas, theories and processes along with key practical techniques and procedures used in the laboratory and the field.
In addition, students will learn skills including data analysis, use of academic literature, independent and group working, and the communication of science through lab reports and other written assessments.

Outline syllabus: The indicative syllabus is as follows:

SUBJECT CONTENT
Cells and viruses
Classification and biodiversity
Biological molecules
Energy for biological processes
Exchange and transport
Microbiology
Control systems
Genetics and evolution
Reproduction
Ecosystems and environment
Modern genetics

SKILLS
Use and application of scientific methods and practices.
Conducting investigations with safe and appropriate use of instruments and equipment, including dissection, use of light microscope, microbiological techniques and environmental sampling.
Making accurate and reliable records and measurements.
Data collection, processing, analysis, interpretation and presentation.

Part 3: Teaching and learning methods

Teaching and learning methods: Lectures:
Covering key biological ideas, theories and processes.

Tutorials:
Smaller, classroom-based session developing material from lectures, with opportunities for questions and feedback. Including taught content, discussion, group work and practice exercises.

Practicals:
Developing proficiency and confidence with basic biological laboratory and field skills, techniques, data collection and handling.

Support sessions:
Optional sessions providing more in-depth and individualised support.

Pre-and post-session work:
Students will be directed to specific pre-session reading or other preparation materials, plus post-session materials to consolidate learning and deepen understanding.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Demonstrate knowledge and understanding of relevant biological ideas, theories and processes

MO2 Apply knowledge and understanding of relevant biological ideas, processes, techniques and procedures in a practical context

MO3 Analyse, interpret and evaluate biological information, data and other evidence to make judgements and reach conclusions

MO4 Demonstrate awareness of how biology can be applied (e.g. to biomedical, forensic, ecological and environmental sciences)

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/usskcj-30-0.html

Part 4: Assessment

Assessment strategy: Assessment 1: Portfolio
A practical workbook with one exercise per practical to be completed individually during or after timetabled classes.
Tasks will vary in style and will together form a portfolio of work across the module, covering key aspects of practical investigations such as experimental design; data collection, handling and interpretation; and analysis and discussion of results.
The assessment authentically develops the important scientific skills of maintaining accurate records, interpreting and communicating results.
Students will be supported by exemplar materials, worked examples and verbal formative feedback during practical classes.
The best eight marks from a possible eleven will be used to calculate a final mark, allowing for some unavoidable absence.

Assessment 2: Set Exercise (2 hours)
A written test assessing learning across the year, comprising a combination of multiple-choice questions, data handling and interpretation tasks and a choice of synoptic questions.
Students will be supported to succeed in multiple ways. The format of the test will be shared and explained in advance, and there will be opportunities throughout the year for support and formative feedback through practice exercises, worked examples, tutorial sessions, peer assessment and post-session quizzes. Optional support sessions will provide additional chances to ask questions and receive individualised support and feedback.

Questions will use real-world biological examples and data and allow students to demonstrate knowledge and proficiency suitable for success in degree-level study.

Assessment tasks:

Portfolio (First Sit)
Description: A workbook with one task per practical.
Weighting: 60 %
Final assessment: No
Group work: No
Learning outcomes tested: MO2, MO3, MO4

Set Exercise (First Sit)
Description: Written test comprising MCQs, data interpretation tasks and synoptic questions (2 hours)
Weighting: 40 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO4

Portfolio (Resit)
Description: A workbook with one task per practical.
Weighting: 60 %
Final assessment: No
Group work: No
Learning outcomes tested: MO2, MO3, MO4

Set Exercise (Resit)
Description: Written test comprising MCQs, data interpretation tasks and synoptic questions (2 hours)
Weighting: 40 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Environmental Science {Foundation} [Frenchay] BSc (Hons) 2025-26

Wildlife Ecology and Conservation Science {Foundation} [Frenchay] BSc (Hons) 2025-26

Forensic Science {Foundation} [Frenchay] BSc (Hons) 2025-26

Biological Sciences {Foundation} [Frenchay] BSc (Hons) 2025-26

Biomedical Science {Foundation} [Frenchay] BSc (Hons) 2025-26

Biological Sciences {Foundation} [Frenchay] BSc (Hons) 2025-26

Environmental Science {Foundation} [Frenchay] BSc (Hons) 2025-26