



MODULE SPECIFICATION

Part 1: Information			
Module Title	Biology in Practice		
Module Code	USSKCJ-30-0	Level	Level 3
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Health & Applied Sciences	Field	Applied Sciences
Department	HAS Dept of Applied Sciences		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Educational Aims: See Learning Outcomes.</p> <p>Outline Syllabus: This module will introduce you to the central themes in biology, including the following topics:</p> <p>The criteria of life, the cell as the unit of life and the establishment and use of the genetic blueprint.</p> <p>Biomolecules as building blocks of life.</p> <p>Metabolic biochemistry with an emphasis on catabolism and energy capture.</p> <p>Membrane structure and function.</p> <p>Comparative animal physiology.</p> <p>Comparative aspects of whole organism physiology.</p> <p>Principles of taxonomy and classification.</p>

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Evolution.

Ecology.

Ecosystems and the stresses upon the environment.

Plants – form and function.

Microbiology and biotechnology.

Teaching and Learning Methods: Scheduled learning will be combined with periods of independent study:

Scheduled Learning

Scheduled learning will include online lectures, laboratory classes and associated group tutorial exercises and discussions. Practical classes in the laboratory will cover the principles of microbiological study including growth, staining and identification of various microorganisms, areas of applied biology including microbial-derived enzyme isolation and testing, and DNA isolation and staining.

Student learning will be supported by electronic teaching materials posted on the University's E-Learning Environment, Blackboard and the use of hand-out material in lectures and tutorials.

Independent Learning

Students will be expected to spend a significant amount of time in private study and in preparing assignments, consulting relevant text books, journal articles and recommended web sites.

Part 3: Assessment

Component A (online assessment):

Two examinations (one for each semester; each online exam over a 24-hour period) will assess the students' knowledge acquired during lectures, tutorials and practical sessions, in addition to their own independent learning. Each exam comprises a section (A) of compulsory multiple choice questions, followed by a section (B) of compulsory short answer questions.

Component B (coursework):

CW1: Students will undertake laboratory experiments designed to learn basic biological and microbiological laboratory investigations. Their ability to interpret and report their results and observations will be formally assessed by a laboratory practical write-up.

CW1: Students will be required to write an essay, on a set topic related to their lecture and tutorial material, and which is supplemented by tutorial slides and discussion. The essay is designed to assess knowledge acquired during lectures and tutorials, but also from students' own independent learning, including use of library systems and information retrieval for biological study, and referencing using the UWE Harvard system. It is particularly aimed at meeting the learning outcome of "understanding how knowledge of biology can be utilised in application areas including biomedical, environmental and forensic science."

First Sit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A		20 %	Examination (online exam with 24-hr completion time; 1500 word count equivalent to a 1.5 hour controlled conditions exam)
Examination (Online) - Component A	✓	20 %	Examination (online exam with 24-hr completion time; 1500 word count equivalent to a 1.5 hour controlled conditions exam)

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Laboratory Report - Component B		30 %	Laboratory Practical Write-up
Written Assignment - Component B		30 %	500 word essay
Resit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	40 %	Examination (online, with 24-hour completion time; 3000 word count, equivalent to 3-h controlled conditions exam).
Laboratory Report - Component B		30 %	Practical write up, based on experimental data.
Written Assignment - Component B		30 %	500 word essay.

Part 4: Teaching and Learning Methods

Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:	
	Module Learning Outcomes	Reference
	Describe the principles of organism taxonomy and classification of organisms into Kingdoms, Phyla, genera, species and sub-species groups	MO1
	Demonstrate a knowledge of the criteria of life and the cell as the unit of life, together with its component organelles	MO2
	Describe outlines of important metabolic pathways	MO3
	Describe aspects of comparative organism physiology by examination of form and function	MO4
	Show an understanding of the principles and mechanisms of genetics and evolution and biological energetics	MO5
	Describe ecosystem structure and function and human impact on natural ecosystems	MO6
	Understand how knowledge of biology can be utilised in application areas including biomedical, forensic, conservation and environmental sciences	MO7
	Conduct practical laboratory methods used in biological study and interpret and report their observations	MO8
Use library systems and information retrieval for biological study	MO9	
Contact Hours	Independent Study Hours:	
	Independent study/self-guided study	234
	Total Independent Study Hours:	234
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	66

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	Total Scheduled Learning and Teaching Hours:	66
	Hours to be allocated	300
	Allocated Hours	300
Reading List	<i>The reading list for this module can be accessed via the following link:</i> https://uwe.rl.talis.com/modules/usskcj-30-0.html	

Part 5: Contributes Towards

This module contributes towards the following programmes of study: