



### MODULE SPECIFICATION

Part 1: Information			
Module Title	Biology in Practice		
Module Code	USSKCJ-30-0	Level	0
For implementation from	Sept 2018		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Health and Applied Sciences	Field	Applied Sciences
Department	Applied Sciences		
Contributes towards	BSc (Hons)/MSci Biological Sciences with Foundation Year BSc (Hons)/MSci Biomedical Science with Foundation Year BSc (Hons)/MSci Environmental Science with Foundation Year BSc (Hons)/MSci Forensic Science with Foundation Year BSc (Hons)/MSci Wildlife Ecology and Conservation with Foundation Year		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description	
<p>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> <p>Evolution.</p>	

Ecology.

Ecosystems and the stresses upon the environment.

Plants – form and function.

Microbiology and biotechnology.

This will be achieved by combining scheduled learning with periods of independent study:

### Scheduled Learning

- Scheduled learning will include formal 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: Strategy and Details

### Component A (controlled conditions):




Two examinations (one for each semester) under controlled conditions 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 be required to write an essay, on a set topic related to their lecture 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."

CW2: Students will undertake laboratory experiments designed to learn basic biological and microbiological laboratory investigations. Their ability to interpret and report their results and observations from two of these will be formally assessed by laboratory handbooks.

Identify final timetabled piece of assessment (component and element)	Component A, Element 2	
% weighting between components A and B (Standard modules only)	<b>A:</b>	<b>B:</b>
	<b>40</b>	<b>60</b>
<b>First Sit</b>		
<b>Component A (controlled conditions)</b> <b>Description of each element</b>	<b>Element weighting</b> <b>(as % of component)</b>	
1. Examination (1.5 hour exam)	50	

2. Examination (1.5 hour exam)	50																														
<b>Component B</b> Description of each element	<b>Element weighting</b> (as % of component)																														
1. 500 word essay	50																														
2. Laboratory Practical Book	50																														
<b>Resit (further attendance at taught classes is not required)</b>																															
<b>Component A</b> (controlled conditions) Description of each element	<b>Element weighting</b> (as % of component)																														
1. Examination (3 hours)	100																														
<b>Component B</b> Description of each element	<b>Element weighting</b> (as % of component)																														
1. 500 word essay.	50																														
2. Practical write up, based on experimental data.	50																														
<b>Part 4: Learning Outcomes &amp; KIS Data</b>																															
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> <li>describe the principles of organism taxonomy and classification of organisms into Kingdoms, Phyla, genera, species and sub-species groups (A1, B1);</li> <li>demonstrate a knowledge of the criteria of life and the cell as the unit of life, together with its component organelles (A1);</li> <li>describe outlines of important metabolic pathways (A1, A2, B1);</li> <li>describe aspects of comparative organism physiology by examination of form and function (A1);</li> <li>show an understanding of the principles and mechanisms of genetics and evolution and biological energetics (A1, A2, B1);</li> <li>describe ecosystem structure and function and human impact on natural ecosystems (A2);</li> <li>understand how knowledge of biology can be utilised in application areas including biomedical, forensic, conservation and environmental sciences (B1, B2).</li> <li>conduct practical laboratory methods used in biological study and interpret and report their observations (B2);</li> <li>use library systems and information retrieval for biological study (B1)</li> </ul>																														
Key Information Sets Information (KIS)	<table border="1" data-bbox="533 1637 1445 2029"> <thead> <tr> <th colspan="5" data-bbox="533 1637 1002 1675"><b>Key Information Set - Module data</b></th> </tr> <tr> <td data-bbox="533 1675 671 1713"></td> <td data-bbox="671 1675 831 1713"></td> <td data-bbox="831 1675 1002 1713"></td> <td data-bbox="1002 1675 1161 1713"></td> <td data-bbox="1161 1675 1445 1713"></td> </tr> </thead> <tbody> <tr> <td colspan="3" data-bbox="533 1713 671 1751"><i>Number of credits for this module</i></td> <td data-bbox="1002 1713 1161 1751" style="text-align: center;"><b>30</b></td> <td data-bbox="1161 1713 1445 1751"></td> </tr> <tr> <th data-bbox="533 1794 671 1951">Hours to be allocated</th> <th data-bbox="671 1794 831 1951">Scheduled learning and teaching study hours</th> <th data-bbox="831 1794 1002 1951">Independent study hours</th> <th data-bbox="1002 1794 1161 1951">Placement study hours</th> <th data-bbox="1161 1794 1445 1951">Allocated Hours</th> </tr> <tr> <td data-bbox="533 1951 671 1989" style="text-align: center;"><b>300</b></td> <td data-bbox="671 1951 831 1989" style="text-align: center;"><b>72</b></td> <td data-bbox="831 1951 1002 1989" style="text-align: center;"><b>228</b></td> <td data-bbox="1002 1951 1161 1989" style="text-align: center;"><b>0</b></td> <td data-bbox="1161 1951 1445 1989" style="text-align: center;"><b>300</b></td> </tr> <tr> <td colspan="5" data-bbox="533 1989 1445 2029" style="text-align: right;"></td> </tr> </tbody> </table>	<b>Key Information Set - Module data</b>										<i>Number of credits for this module</i>			<b>30</b>		Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	<b>300</b>	<b>72</b>	<b>228</b>	<b>0</b>	<b>300</b>					
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Contact Hours																															

Total Assessment	The table below indicates as a percentage the total assessment of the module which constitutes a;																					
	<b>Written Exam:</b> Unseen or open book written exam																					
	<b>Coursework:</b> Written assignment or essay, report, dissertation, portfolio, project or in class test																					
	<b>Practical Exam:</b> Oral Assessment and/or presentation, practical skills assessment, practical exam (i.e. an exam determining mastery of a technique)																					
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Reading List	This is available at the following link: <a href="https://uwe.rl.talis.com/lists/E6312841-D209-9538-5E03-F1874CFB321C.html">https://uwe.rl.talis.com/lists/E6312841-D209-9538-5E03-F1874CFB321C.html</a>																					

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Revision ASQC Approval Date	27/6/2018	Version	2
			<a href="#">RIA 12667</a>