



MODULE SPECIFICATION

Part 1: Information			
Module Title	Research Skills		
Module Code	USSKAP-30-2	Level	2
For implementation from	September 2018		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Health and Applied Sciences (HAS)	Field	Applied Science
Department	Department of Applied Sciences (DAS)		
Contributes towards	BSc(Hons) Biological Science MSci Biological Science BSc(Hons) Biological Science with Foundation Year MSci Biological Science with Foundation Year		
Module type:	Standard		
Pre-requisites	USSKA6-30-1 Skills for Biosciences		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	N/A		

Part 2: Description	
<p>This module will introduce students to the process of devising, carrying-out and disseminating their own research. The skills students will practice within this module will be instrumental for their final year research project.</p> <p>Students will learn:</p> <ul style="list-style-type: none"> -how to design appropriate experimental procedures to carry out work in a biological laboratory; The design of experiments will be discussed, including the choosing of methodologies, the use of controls, how to prepare materials and how to collect data. -the expectation of the output of experiments to show how the proposed use of statistical analysis should be used to inform the structure of the experimental design. -Discussed issues of research governance, including health and safety, ethics, animal welfare and use of genetically modified organisms. -how to determine which statistical analysis is needed to interpret the data and carry out appropriate analysis correctly, including explanation of different distribution patterns and the types of data set that may be generated. -How to perform a range of techniques over the timetabled practical sessions to obtain a data-set for analysis. <p>Following on from this, will be discussions on how to choose the most appropriate type of statistical</p>	

analysis for an experiment. A variety of statistical analysis methods will be covered, including t-test and two-way and multi-way ANOVA. Practical classes will enable students to set up experiments as discussed in previous session, collect appropriate data, analyses data appropriately and present the study to a wider audience. -how to disseminate the outcome of studies in a variety of ways to a range of audiences. Dissemination in the form of reports (for example a research proposal), posters, press releases etc will be discussed and student will be given the opportunity to plan such dissemination tools.


Part 3: Assessment: Strategy and Details

The assessment for this module is designed to test the breadth and depth of students' knowledge, as well as their ability to analyse, synthesize and summarise information critically, including published research and data from the 'grey' literature. The controlled component consists of two elements. The first element is an exam and will be 1.5 hours duration. This assessment provides students with the opportunity to demonstrate their knowledge and understanding of data handling and statistical assessment. The second element is an oral defence of a scientific poster based on data gathered during the practical sessions on the module. This assessment allows students to demonstrate both their ability to research, prioritise information and produced a structured, evidence based answer. This assessment links directly to requests from employers as they require graduates proficient at researching and scientific writing under pressure. Data is gathered the poster is designed as a team, however the majority of the marks are from individual defence of the poster and submission of an abstract written independently.

The written assignments provides the opportunity for the student to complete an in-depth analysis of selected topic from the module syllabus by critically reviewing published research as well as presenting their own data from the practical sessions.

Opportunities for formative assessment and feedback are built into the assignments and review of past exam papers. All work is marked in line with the Faculty Generic Assessment Criteria and conforms to the University policies for the setting, collection, marking and return of student work. Assessments are described in the Module handbook that is supplied at the start of module.

Identify final timetabled piece of assessment (component and element)	Component A2	
% weighting between components A and B (Standard modules only)	A:	B:
	50	50
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Examination – 1.5 hours	50	
2. Poster, Abstract and 10 minute Viva voce examination.	50	
Component B Description of each element	Element weighting (as % of component)	
1. Research proposal (1500 words), CV and skills reflection	100	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Examination – 1.5 hours	50	
2. Poster, Abstract and 10 minute Viva voce examination. Poster from previous attempt may be used if component B was passed at that opportunity.	50	
Component B Description of each element	Element weighting (as % of component)	

1. Research proposal (1500 words), CV and skills reflection	50																				
Part 4: Learning Outcomes & KIS Data																					
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> -Design appropriate experimental procedures to carry out work in a biological laboratory and as field work (Assessed in Component B, element 1) -Discuss issues of research governance, including Health and Safety, Ethics, Animal Welfare and use of genetically modified organisms (Assessed in Component B, element 1 & Component A, element 2). -Determine which statistical analysis is needed to interpret the data and carry out appropriate analysis correctly (Assessed in Component A, element 1 and Component B, elements 1 & 2). -Carry out laboratory and /or field procedures safety to gather a useable set of data (Assessed in Component A, element 2). -Disseminate the outcome of studies in a variety of ways to a range of audiences (Assessed in Component A, element 2 & Component B, element 2). -Evaluate and critically discuss previously published research (Assessed in Component B, element 1). 																				
Key Information Sets Information (KIS)	<p><i>Further detail on Key Information Sets and how the University is implementing its requirements can be found here. This also contains further guidance on how to complete the information requested below.</i></p> <p><i>A KIS is required for every undergraduate programme (including integrated Masters and foundation degrees) so please fill this section if this module will contribute to an undergraduate programme.</i></p> <table border="1" data-bbox="533 1115 1305 1308" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hours to be allocated</th> <th>Scheduled learning and teaching study hours</th> <th>Independent study hours</th> <th>Placement study hours</th> <th>Allocated Hours</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">300</td> <td style="text-align: center;">72</td> <td style="text-align: center;">228</td> <td style="text-align: center;">0</td> <td style="text-align: center;">300</td> </tr> </tbody> </table> <div style="text-align: right; margin-right: 20px;"></div> <p>The table below indicates as a percentage the total assessment of the module which constitutes a;</p> <p>Written Exam: Unseen or open book written exam Coursework: Written assignment or essay, report, dissertation, portfolio, project or in class test Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam (i.e. an exam determining mastery of a technique)</p> <table border="1" data-bbox="643 1771 1339 2000" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Total assessment of the module:</th> </tr> </thead> <tbody> <tr> <td>Written exam assessment percentage</td> <td style="text-align: center;">50%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td style="text-align: center;">50%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td style="text-align: center;">0%</td> </tr> <tr> <td></td> <td style="text-align: center;">100%</td> </tr> </tbody> </table>	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	300	72	228	0	300	Total assessment of the module:		Written exam assessment percentage	50%	Coursework assessment percentage	50%	Practical exam assessment percentage	0%		100%
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	100%																				
Contact Hours																					
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Reading List	<p>Below is the link to the module reading list.</p> <p>https://uwe.rl.talis.com/lists/8498FC5E-8A4A-A34D-DF21-ED4E26110DC1.html</p> <p>Further information and guidance on reading lists and digitisation are available at https://intranet.uwe.ac.uk/tasks-guides/Collection/using-readinglists</p>
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First CAP Approval Date	<i>July 2016</i>			
Revision ASQC Approval Date	17 Jan 2018	Version	2	<u>RIA 12499</u>