



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Research Skills and Laboratory Project		
Module Code	USSKNN-30-2	Level	Level 5
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		
Contributes towards	FdSc Biological Laboratory Sciences		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Educational Aims:</b> See learning outcomes.</p> <p><b>Outline Syllabus:</b> This module will cover the following topics within the molecular biology field:•            Designing of appropriate experimental procedures to carry out a research project in a biological laboratory. The design of experiments will include choosing the most appropriate methodologies, the use of controls, preparing materials and collection of data. • Planning and management of a research project will be considered, including health and safety, ethics and use of genetically modified organisms. Discussions will include how to carry out risk assessments for biological sciences work, both in the laboratory and in the field. The use of MSDS information and COSHH forms for risk assessment will be included. • Determination and selection of the appropriate statistical analysis will be employed to interpret the data and carry out appropriate analysis correctly. • Practical approaches, which will enable students to set up experiments, collect appropriate data, analyse and evaluate data appropriately and present the study to a wider audience.</p> <p><b>Teaching and Learning Methods:</b> This module aims to deliver specialist knowledge through taught lectures, seminars and practical sessions to promote application of knowledge acquired</p>

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and analytical and problem-solving skills. Independent learning includes hours engaged with essential reading around the subject, project preparation and completion.

### Part 3: Assessment

The assessment strategy has been designed to support and enhance the development of subject-based knowledge and practical skills, whilst ensuring that the learning outcomes are achieved. Component A is a fifteen minute presentation. Students will work in a team to produce a group research proposal. Students will then individually present their group research proposal as a presentation demonstrating their understanding of the research process. The presentation will be followed by a five minute question and answer session. Component B will consist of the students undertaking an agreed research project utilising the skills that they have developed during the course. Students will present and evaluate their findings as a project report. The project will contain an appendix containing project material which could be disseminated to a range of audiences. Opportunities for formative feedback are built into teaching and practical sessions, through discussion, analysis of collected data and evaluation of current research.

First Sit Components	Final Assessment	Element weighting	Description
Project - Component B	✓	70 %	Research project (3500 words)
Oral Presentation - Component A		30 %	Oral Presentation (20 minutes)
Resit Components	Final Assessment	Element weighting	Description
Project - Component B	✓	70 %	Research project (3500 words)
Oral Presentation - Component A		30 %	Oral Presentation (20 minutes)

### Part 4: Teaching and Learning Methods

Learning Outcomes	On successful completion of this module students will be able to:	
		<b>Module Learning Outcomes</b>
	MO1	Design appropriate experimental procedures to carry out work in a biological laboratory or as field work (A and B)
	MO2	Evaluate and discuss research methodology within the biosciences field (B)
	MO3	Apply effective laboratory and /or field procedures to gather a set of data and apply appropriate statistical analysis models (B)
	MO4	Disseminate the outcome of studies in a variety of ways to a range of audiences (A and B)
	MO5	Evaluate and critically discuss previously published research
	MO6	Develop team-work skills in a research environment, including respecting the views of others, identification of collective goals and negotiating (A and B)
Contact Hours	<b>Contact Hours</b>	

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	<b>Independent Study Hours:</b>	
	Independent study/self-guided study	210
	<b>Total Independent Study Hours:</b>	210
	<b>Scheduled Learning and Teaching Hours:</b>	
	Face-to-face learning	90
	<b>Total Scheduled Learning and Teaching Hours:</b>	90
	<b>Hours to be allocated</b>	300
	<b>Allocated Hours</b>	300
Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p><a href="https://uwe.rl.talis.com/index.html">https://uwe.rl.talis.com/index.html</a></p>	