



MODULE SPECIFICATION

Part 1: Information			
Module Title	Genetics		
Module Code	USSKFQ-15-2	Level	2
For implementation from	September 2020		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Health and Applied Sciences	Field	Applied Sciences
Department	Department of Applied Sciences		
Contributes towards	BSc (Hons)/MSci Biological Sciences (with/without Foundation year) - optional BSc(Hons)/MSci Forensic Science (with/without Foundation year) – optional		
Module type:	Standard		
Pre-requisites	USSKA4-30-1 Cells, Biochemistry & Genetics OR USSJRU-30-1 Human Biological Systems		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description			
<p>Genetics is concerned with the study of genes and function, the techniques that enable their study and inherent genetic variation and change within organisms. This module is about the key molecules that underpins this – DNA, RNA and proteins – providing the key to our understanding of life. The module reviews our current understanding of our genetic blueprint & the current techniques which have enabled this analysis and the significance such knowledge has for both health and society.</p> <p>The module will be delivered by a combination of key lecture topics and themes providing opportunities for linking through to current publications and tutorial support to encourage independent study. Practical experience and skills will be gained through the embedded extended research practicals.</p>			
Template for Module Specification: Part 2 Module description			
Generic Graduate Skill	Introduced	Developed	Evidenced
1. Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Critical Thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Digital Fluency	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Innovative and Enterprising	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Forward Looking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Emotional Intelligence	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Globally Engaged	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Part 3: Assessment		
<p>The assessment strategy for this module is follows:</p> <p>The extended research practical assessment will involve the isolation, cloning & characterisation of genes from a eukaryotic organism. It will provide an opportunity to gain the practical skills necessary to clone genes and extend key skills by writing up the findings in a research paper format. As this involves both individual and group working the opportunity for sharing some good practice is provided alongside gaining unique data, inherently designing out plagiarism.</p> <p>Controlled condition examination paper will include seen and unseen questions to enable assessment of broad principles along with specific depth and detail in places. Including seen questions will enable prior formative assessment feedback to be used to potentially enhance performance.</p> <p>The choice of assessment extends the range and diversity of modes of assessment used in the programmes.</p>		
Identify final timetabled piece of assessment (component and element)	Component A	
% 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. 2 hours written exam	50	
Component B Description of each element	Element weighting (as % of component)	
1. extended research practical report 1500 words	50	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. 2 hour written exam	50	
Component B Description of each element	Element weighting (as % of component)	
1. extended research practical report 1500 words	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"> • compare the structure & organization of genomes within organisms, contrasting the processes of gene expression & regulation in prokaryotes and eukaryotes appreciating the importance of the epigenome • review the current techniques used for the isolation, manipulation, cloning and characterization of genes & their products within organisms with a focus on human genome • describe current & potential applications of genetics and ethical issues raised • have acquired an appreciation of the research process through gaining practical experience of molecular genetics & be able to interpret data obtained, using 	

	appropriate information technology resources to seek, retrieve, interpret & present subject specific material to appropriate 'audiences'																													
Key Information Sets Information (KIS)	<table border="1"> <thead> <tr> <th colspan="5">Key Information Set - Module data</th> </tr> </thead> <tbody> <tr> <td colspan="5"><i>Number of credits for this module</i></td> </tr> <tr> <td colspan="4"></td> <td style="border: 2px solid black;">15</td> </tr> <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> <tr> <td>150</td> <td>36</td> <td>114</td> <td>0</td> <td>150</td> </tr> </tbody> </table>					Key Information Set - Module data					<i>Number of credits for this module</i>									15	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	150	36	114	0	150
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Contact Hours	<p>The table below indicates as a percentage the total assessment of the module which constitutes a;</p> <p>Written Exam: Unseen written exam (50%) Coursework: Extended research practical report (50%)</p> <table border="1"> <thead> <tr> <th colspan="2">Total assessment of the module:</th> </tr> </thead> <tbody> <tr> <td>Written exam assessment percentage</td> <td>50%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td>50%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td>0%</td> </tr> <tr> <td></td> <td>100%</td> </tr> </tbody> </table>					Total assessment of the module:		Written exam assessment percentage	50%	Coursework assessment percentage	50%	Practical exam assessment percentage	0%		100%															
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Reading List	https://uwe.rl.talis.com/lists/219D938B-8336-0D14-DD69-84706A8D8422.html																													