



MODULE SPECIFICATION

Part 1: Information			
Module Title	Microbiology		
Module Code	USSKB6-15-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Health & Applied Sciences	Field	Applied Sciences
Department	HAS Dept of Applied Sciences		
Module type:	Standard		
Pre-requisites	Infection and Disease 2020-21		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: Pre-requisites: students must have Pathophysiology of Disease (USSKA7-30-1) OR Infection and Disease (USSKA7-30-1).</p> <p>Educational Aims: This module aims to deepen your understanding of microorganisms, in particular of bacteria and viruses. By covering fundamental aspects of the bacterial genome, cell structure and physiology, you will gain an insight into their roles in bacterial adaptability, survival and pathogenicity. You will learn about viruses, including viruses of bacteria (bacteriophages), how they are cultivated and their replication cycles.</p> <p>Outline Syllabus: Bacterial growth and death: optimising growth and analysing death The structure and significance of bacterial cell walls and outer membranes Bacterial transport and communication systems: uptake and efflux, quorum sensing Evolution, the bacterial genome and recombinant DNA technology The viruses: virus structure, classification and replication Microbial diseases, virulence factors and control of disease: focus on specific pathogens in the context of the generalised infection cycle and an introduction to epidemiology</p> <p>Generic graduate skills introduced: Innovative and enterprising Emotional intelligence</p>

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Generic graduate skills developed:

Communication
Professionalism
Critical thinking
Digital fluency
Forward Looking
Globally Engaged

Generic graduate skills evidenced:

Communication
Professionalism
Critical Thinking
Digital Fluency
Globally Engaged

Teaching and Learning Methods: See Assessment

Part 3: Assessment

Component A is an online exam. This assessment will provide students with an opportunity to demonstrate both their knowledge on a broad range of topics and more in-depth knowledge of specific areas. This assessment will test the full range of learning outcomes and will provide a valuable learning experience through recalling and demonstrating knowledge, which will be of benefit when progressing to final year modules.

The coursework comprises one element:

This is a researched essay which will require students to complete a 1000 word written account on an aspect of microorganisms. This exercise provides a valuable learning experience through applying knowledge whilst supporting and expanding upon this through the published literature. It is designed to encourage discussion, as opposed to just description, of specific aspects of microorganisms. It builds upon literature searching and evaluation skills acquired at level 1 and supports the development of these, in preparation for level 3.

Students are provided with formative feed-forward for their exam through a revision and exam preparation session prior to the exam and through the support materials supplied through Blackboard.

All work is marked in line with the Faculty of Health and Applied Sciences Generic Assessment Criteria for Level 2 and conforms to 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.

First Sit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online examination (24 hours)
Written Assignment - Component B		50 %	Essay (1000 words)
Resit Components	Final Assessment	Element weighting	Description
Examination (Online) - Component A	✓	50 %	Online examination (24 hours)
Written Assignment - Component B		50 %	Essay (1000 words)

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Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Describe important features of microbial structure and physiology and relate these to the success of microorganisms as pathogens or their survival in the environment</td> <td>MO1</td> </tr> <tr> <td>Describe the unique nature of viruses</td> <td>MO2</td> </tr> <tr> <td>Describe the organisation, modification and manipulation of the bacterial genome</td> <td>MO3</td> </tr> <tr> <td>Contextualise the microbial infection cycle</td> <td>MO4</td> </tr> <tr> <td>Analyse data derived from laboratory study of microorganisms</td> <td>MO5</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Describe important features of microbial structure and physiology and relate these to the success of microorganisms as pathogens or their survival in the environment	MO1	Describe the unique nature of viruses	MO2	Describe the organisation, modification and manipulation of the bacterial genome	MO3	Contextualise the microbial infection cycle	MO4	Analyse data derived from laboratory study of microorganisms	MO5				
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Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/modules/usskb6-15-2.html</p>																

Part 5: Contributes Towards
<p>This module contributes towards the following programmes of study:</p> <p>Healthcare Science (Infection Science) {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19</p> <p>Biomedical Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19</p> <p>Biomedical Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19</p> <p>Biomedical Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2018-19</p> <p>Biomedical Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2018-19</p>