University of the West of England
BRISTOL

CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Advanced Animal Microbiology					
Module Code	UINV4T-15-3		Level	3	Version	1.1
UWE Credit Rating	15	ECTS Credit Rating	7.5	WBL module?	No	
Owning Faculty	Hartpury		Field	Animal and Land Science		
Department	Animal and Land		Module Type	Standard		
Contributes towards	BSc (Hons) Animal Science BSc (Hons) Animal Science (SW) BSc (Hons) Applied Animal Science BSc (Hons) Applied Animal Science (SW) BSc (Hons) Applied Animal Science with Therapy BSc (Hons) Applied Animal Science with Therapy (SW) BSc (Hons) Bioveterinary Science BSc (Hons) Equine Science BSc (Hons) Equine Science (SW) MSci Equine Science MSci Equine Science (SW)					
Pre-requisites	Animal Microbiology (UIN XRK-15-2)		Co- requisites	None		
Excluded Combinations	None		Module Entry requirements	None		
Valid From	01 September 2016		Valid to	01 September 2021		

CAP Approval Date	12 January 2015

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: 1. Critically analyse a range of biotechnologies used in the study of animal microbiology. (A) 2. Analyse and apply the underlying principles behind advanced diagnostic techniques. (B) 3. Critically evaluate a range of current developments in animal microbiology. (A, B) 4. Analyse the impact of recent developments in microbial molecular genetics on veterinary science. (A) 5. Interpret and apply the results from advanced diagnostic techniques. (B)

Syllabus Outline	• Molecular and cellular microbiology • Analysis and manipulation of microbial DNA • Microbial biology and pathogenesis • Diagnostic methods in microbiology • Antimicrobial chemotherapy • Bioinformatics • Applications of micro-organisms and molecular genetics in animal science
Contact Hours	Indicative delivery modes: 1. Lectures, guided learning, seminars etc. 33 2. Self-directed learning 3 3. Independent learning 114 TOTAL 150
Teaching and Learning Methods	This module is delivered using large group learning sessions and opportunities for small group work. Additionally essential and recommended reading and exercises will be introduced to guide the students through the core syllabus. **Scheduled learning** includes lectures, practicals and tutorials. **Independent learning** includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc. These sessions constitute an average time per level as indicated in the table below. ***Virtual Learning Environment (VLE)*** This module is supported by VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within VLE.
Key Information Sets Information	Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for. **Key Information Set - Module data** *Number of credits for this module* 15 Hours to be allocated: 150 | Scheduled learning and teaching study hours: 36 | Independent study hours: 114 | Placement study hours: 0 | Allocated Hours: 150 The table below indicates as a percentage the total assessment of the module which constitutes a - **Written Exam**: Unseen written exam, open book written exam, In-class test **Coursework**: Written assignment or essay, report, dissertation, portfolio, project **Practical Exam**: Oral Assessment and/or presentation, practical skills assessment, practical exam Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:

	Total assessment of the module:
	Written exam assessment percentage 50%
	Coursework assessment percentage 0%
	Practical exam assessment percentage 50%
	100%
Reading Strategy	**Essential readings** Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be required to purchase a set text, be given a print study pack or be referred to texts that are available electronically or in the library. Module guides will also reflect the range of reading to be carried out. **Further readings** Further reading will be required to supplement the set text and the other printed readings. Students are expected to identify all other reading relevant to their chosen topic for themselves. They will be required to read widely using the library search, a variety of bibliographic and full text databases, and internet resources. Many resources can be accessed remotely. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from their academic literature. **Access and skills** Formal opportunities for students to develop their library and information skills are provided within the induction period and student skills sessions. Additional support is available through online resources. This includes interactive tutorials on finding books and journals, evaluation information and referencing. Sign up workshops are also offered.
Indicative Reading List	The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms, including the module guide. Books Chan, E. C. S., Pelczar, N., and Krieg, N. (Current Edition) *Laboratory Exercises in Microbiology*. London: McGraw-Hill Science. Glazer, A. N. and Nikaido, H. (Current Edition) *Microbial Biotechnology: Fundamentals of Applied Microbiology*. Cambridge: Cambridge University Press. Lowrie, P. and Wells, S. (Current Edition) *Microbiology and Biotechnology*. Cambridge: Cambridge University Press. Journals Advances in Applied Microbiology Cellular Microbiology Molecular Microbiology

Part 3: Assessment	
Assessment Strategy	The assessment strategy for the module will include a written examination (1.5 hours) and written assignment in the form of a laboratory report (1500 words). The examination will allow the student to demonstrate the knowledge and

	skills gained throughout the module, assessed in controlled examination settings. The laboratory report will allow the student to facilitate practical application of the information covered in the laboratory sessions and additional study, formulated into a report of a laboratory experiment designed by the student. Formative feedback can be gained from this module in the module delivery, on the VLE, in tutorials and in revision sessions. Summative feedback can be gained upon exam and assignment scripts. In line with the College's commitment to facilitating equal opportunities, a student may apply for alternative means of assessment if appropriate. Each application will be considered on an individual basis taking into account learning and assessment needs. For further information regarding this please refer to VLE.

Identify final assessment component and element	Written Examination	
% weighting between components A and B (Standard modules only)	**A:** 50%	**B**: 50%

First Sit	
Component A (controlled conditions) **Description of each element**	**Element weighting**
Written Examination (1.5 hours)	100%
Component B **Description of each element**	**Element weighting**
Laboratory Report (1500 words)	100%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting**
Written Examination (1.5 hours)	100%
Component B **Description of each element**	**Element weighting**
Laboratory Report (1500 words)	100%
If a student is permitted a retake of the module under the University Regulations and Procedures, the assessment will be that indicated by the Module Description at the time that retake commences.	