



UNIVERSITY OF LINCOLN

Programme Specification

Title:

Bioveterinary Science

Final Award: **Master of Biosciences (MBio)**

With Exit Awards at:

Certificate of Higher Education (CertHE)

Diploma of Higher Education (DipHE)

Bachelor of Science with Honours (BSc (Hons))

Master of Biosciences (MBio)

To be delivered from: 1 Sep 2015

Level	Date
Level 1 or Certificate of Higher Education (CertHE)	2019-20
Level 2 or Diploma of Higher Education (DipHE)	2020-21
Level 3 or Bachelor of Science with Honours (BSc (Hons))	2021-22
Level 4 or Master of Biosciences (MBio)	2022-23

Table Of Contents

1. Introduction	3
2. Basic Programme Data	4
3. Programme Description	5
3.1 Overview	5
3.2 Aims and Objectives	5
3.3 Variations to Standard Regulations and Guidance	5
4. Programme Outcomes	6
4.1 Knowledge and Understanding	6
4.2 Subject Specific Intellectual Skills	6
4.3 Subject Specific Practical Skills	7
4.4 Transferable Skills and Attributes	7
5. Learning, Teaching and Assessment Strategies	8
5.1. Learning and Teaching Strategy	8
5.2. Assessment Strategy	10
6. Programme Structure	11
Appendix I - Curriculum Map	13
Appendix II - Assessment Map	19
Appendix III - Benchmark Analysis	28
Appendix IV - Benchmark Statements(s)	40

1. Introduction

This document describes one of the University of Lincoln's programmes using the protocols required by the UK National Qualifications Framework as defined in the publication *QAA guidelines for preparing programme specifications*.

This programme operates under the policy and regulatory frameworks of the University of Lincoln.

2. Basic Programme Data

Final Award:	Master of Biosciences (MBio)
Programme Title:	Bioveterinary Science
Exit Awards and Titles	Certificate of Higher Education (CertHE) Diploma of Higher Education (DipHE) Bachelor of Science with Honours (BSc (Hons)) Master of Biosciences (MBio)
Subject(s)	Biological Sciences
Mode(s) of delivery	Full Time
Is there a Placement or Exchange?	No
UCAS code	D303
Awarding Body	University of Lincoln
Campus(es)	Lincoln Campus
School(s)	School of Life Sciences
Programme Leader	Paul Squires (PSquires)
Relevant Subject Benchmark Statements	
Professional, Statutory or Regulatory Body Accreditation	
Programme Start Date	2019-20

3. Programme Description

3.1 Overview

This MBio Bioveterinary Science is designed to meet the needs of students who want to gain knowledge and understanding of the breadth of modern animal biology within an academically challenging yet supportive research-led environment. Our aim is to produce confident, knowledgeable and questioning graduates with the skills and experience needed for a wide range of careers. This broad-based programme builds on the success of the more specialist biosciences programmes currently offered within the University of Lincoln and includes teaching from agriculture, biochemistry, molecular biology, animal science and biomedical sciences. Students will be expected to integrate information and concepts from the breadth of biosciences, but will be given opportunities to develop specialist interests in their final year, as this will enhance their employability in certain sectors. Teaching and learning methods will include some conventional lectures and practical classes, which cover the core subject matter and technical skills, supported by tutorials and seminars which allow students to develop, analyse and present their own findings. Practical classes in laboratory and field allow students to practise project management and data gathering, handling and interpretation skills. All students will have the opportunity to conduct some original research in their final year research project, and will have opportunities to direct their curriculum at other points in the syllabus. A varied assessment diet has been designed to encourage and test the development of the skills and knowledge needed in their future careers. Students will be supported throughout their degree by a strong personal tutoring system.

3.2 Aims and Objectives

This programme aims to equip students with skills, knowledge and confidence necessary to pursue graduate careers in the laboratory based biological sciences, animal biology or other areas requiring graduates with strong analytical, communication and enquiry skills. This will be achieved by providing students with an educational framework in which they can develop their knowledge and understanding of the fundamental principles of whole animal, cellular and molecular biology in a context where skills development is encouraged and supported as an integral part of the academic experience. Students will be encouraged to learn independently and to pursue areas they find particularly interesting in an enquiry-based approach.

3.3 Variations to Standard Regulations and Guidance

None

4. Programme Outcomes

Programme-level learning outcomes are identified below.

Refer to *Appendix I – Curriculum Map* for details of how outcomes are deployed across the programme.

4.1 Knowledge and Understanding

On successful completion of this programme a student will have knowledge and understanding of:

- 1 Molecular Biology: describe the basic reactions of life and major molecules of life especially DNA, RNA and key proteins and understand the relevance of this information to every aspect of biology
- 2 Cells: demonstrate understanding of the structure and function of various types of cells in unicellular and multicellular organisms, the structure and function of cell membranes
- 3 Understand the key metabolic and catabolic reactions of animals, and how they are controlled
- 4 Genetics: understand the importance of genetics as the key to modern biology including the potential for genomics and other 'omics' technologies to advance our knowledge and provide solutions to problems
- 5 Health and Disease: understand the fundamental process of health and disease in animals
- 6 Behaviour: understand the responses of organisms to external and internal stimuli within the interdisciplinary context of evolution, cell biology, physiology and ecology
- 7 Growth and reproduction: appreciate the relationships between genetics, physiology, nutrition, and environment, and their influence on biological systems
- 8 Welfare and protection: understand the ethical issues associated with animal husbandry and how welfare is assessed
- 9 Scientific discovery: understand that biology is interdisciplinary and ever-changing – that hypotheses can only ever be refined – and knowledge is rarely fixed
- 10 Scientific approach; demonstrate a thorough and critical knowledge of the primary literature and cutting-edge research questions in several areas of specialism as presented in final year modules

4.2 Subject Specific Intellectual Skills

On successful completion of this programme a student will be able to:

- 11 Evaluate ethical issues in biology
- 12 Synthesise information/data from a variety of sources
- 13 Formulate and test hypotheses
- 14 Analyse, interpret and critically evaluate research data and/or evidence based practice
- 15 Utilise problem solving skills and/or risk assessment systems
- 16 Design a process and/or system to meet a need

17 Plan, conduct and/or report on an investigation

4.3 Subject Specific Practical Skills

On successful completion of this programme a student will be able to:

- 18 Apply laboratory techniques such as analytical and/or microscopic analysis
- 19 Work safely and effectively in laboratories
- 20 Demonstrate competence in handling and statistical analysis of data gained from practical work
- 30 Develop knowledge of research planning, logistics and constraints
- 31 Demonstrate a breadth of advanced laboratory, field and analytical skills

4.4 Transferable Skills and Attributes

On successful completion of this programme a student will be able to:

- 21 Work effectively both in team and/or independently
- 22 Structure and communicate ideas effectively by written and/or verbal means
- 23 Gather and evaluate relevant information/data from appropriate manual and/or electronic sources
- 24 Manage time, resources and task to deadlines
- 25 Negotiate informally with peers and/or professionals
- 26 Apply numerical and statistical techniques of analysis
- 27 Demonstrate self-awareness and confidence in skills transferable to the workplace
- 28 Articulate opinions and formulate arguments effectively
- 29 Use IT to store, retrieve and produce material
- 32 Enhance employability skills for a variety of professional and research sectors

For details of each module contributing to the programme, please consult the module specification document.

5. Learning, Teaching and Assessment Strategies

5.1. Learning and Teaching Strategy

The programme ensures compliance with the Framework for Higher Education Qualifications in the following ways (quotations are from www.qaa.ac.uk/academicinfrastructure/FHEQ/EWNI/default.asp):

Those completing their studies at Certificate or Intermediate levels will have acquired, respectively, “sound knowledge of the basic concepts” and “sound understanding of the principles” of Bioveterinary Science. Honours graduands “will have developed an understanding of a complex body of knowledge, some of it at the boundaries [of the subject area]”. The syllabus aims to provide this knowledge, capitalising upon the research activity of the teaching staff. The syllabus is also designed to develop the “analytical techniques and problem-solving skills” relevant to graduate-level employment.

The curriculum is designed to enable students to demonstrate the attributes tabulated in Annex 1 of the Framework text.

Learning and Teaching Strategy:

The overarching strategy for learning and teaching at the University of Lincoln is that of Student as Producer. Students are encouraged to see themselves as producers of knowledge and collaborators in their learning experience. This ethos should be experienced throughout the Bioveterinary Science Degree programme but will be particularly stressed in a number of key modules including Research Methods for Life Scientists, Ecology, Plant-Animal Interactions, Overseas Field Course, Current Issues in Life Sciences and Life Sciences Research Project.

Lectures introduce key topics in the subject area and guide students' independent study. Practical exercises will allow students to develop laboratory skills and skills in fieldwork, surveying, data handling and processing, as well as to encounter at first hand the principles introduced in the lectures. Students will also develop their own interests through self-guided research skills, as library based study and background research and project work. Seminars and small group tutorials will be used to facilitate class discussion. There will be site visits and lectures by external specialists to provide opportunities to meet employed biologists and employers of biologists. Reference will be made to the practical application of principles and the development of graduate skills will be included in subject specific units.

Students on the Bioveterinary Science programme will be allocated to a personal academic tutor who will support them throughout their studies. This person will guide them during timetabled tutorials in the first year module Research Methods for Life Scientists, ensuring they develop sound study practice from their first term at Lincoln. Their academic tutor will be available for advice (including pastoral advice) and guidance at all key academic decision points during the degree and help them to develop a career plan based on the skills and attributes they have acquired during their degree.

Discovery: Student as Producer:

Problem – based learning (PBL)

At level 1, students will research problems/case studies chosen from a suggested list, in groups of 3-4 and present their findings to a group of their peers and a tutor. Presentation may be via Powerpoint, poster or web based media such as a wiki. Module staff will provide guidance and support. This will be further developed at level 2 with more emphasis on individual presentations and reports and more challenging problems. At level 3 the students will work more autonomously and present their findings in written format.

Enquiry – based learning (EBL)

At level 1, students will research topics chosen from a suggested list, either individually or in groups of 3-4. They will decide which aspects to focus on based on a suggested generic structure. They may present their findings to a group of their peers and a tutor. Presentation may be via Powerpoint, poster or web based media such as a wiki, or they may write an individual report. Module staff will provide guidance and support. This will be further developed at level 2 with more emphasis on individual presentations and reports and more challenging problems. At level 3 the students will work more autonomously and negotiate topics with module staff that are relevant to the content.

Research – based learning (RBL)

At level 1 and 2, students will learn research skills in terms of data collection and analysis. They will also discuss ethical issues and governance of research. At level 2 there will be a focus on preparation to undertake their final year research project. Assessments on other level 1 and 2 modules will develop skills in literature review, generation, interpretation and presentation of laboratory and field data.

At level 3 students will undertake a research project where they work with an academic supervisor and technical support usually to generate primary data, in all cases students will carry out individual analysis of either primary or secondary data and present their findings. This may involve working in groups but presentation of data will be individual.

Academic staff will use their research experience to inform their teaching, particularly at level 3.

Technology in Teaching: Digital Scholarship:

Staff use blackboard to post lecture notes, web links and video clips to support classroom and laboratory based learning. Electronic communication is widely used to inform students about classes, assessments, marking criteria and module content. Some staff use online submission of work and revision tests via blackboard to aid learning.

Space and spatiality: Learning Landscapes in HE:

Laboratory space is critical to the teaching of bioveterinary and other biological science. The modern science building has six large teaching well-equipped multi-functional teaching laboratories for analytical and microscopic practical sessions and four small specialist laboratories on the first and second floor for demonstration and preparation in addition to the biomedical teaching and research laboratories on the ground floor. There is a dedicated microbiology lab on the second floor for category 2 microbiology and molecular biology practical classes.

Students will also make use of animal facilities based at Riseholme campus and the course will include study trips to the field including zoos, farms and rescue centres to experience the application of good and bad animal management.

Research and Evaluation: Scholarship of Teaching and Learning:

All modules are evaluated using either electronic or paper questionnaires. Module co-ordinators have the discretion to adapt the questions to suit their delivery and content. Some pedagogic research is being developed, involving students and staff. Members of the team reflect on student perception and achievement in terms of progress, classifications and employability both formally and informally and adapt practice and modules accordingly.

Student Voice: Diversity, Difference and Dissensus:

We currently have a number of mechanisms by which students can make their views heard. In addition to the standard subject committees student representatives meet with year tutors informally

to discuss issues, or can raise them with their academic tutor or with the Programme Leader or Head of School. They can ask questions about professional issues at the employer liaison committee. We encourage students to engage with the course and wider school and university activities.

Support for research- based teaching and learning through expert engagement with information resources:

All students have a library induction in induction week. The subject librarian has access to several of the blackboard sites including the award sites to facilitate communication with students. Library workshops and updates are posted on these sites and students are encouraged by staff to engage with workshops in the library.

Creating the future: employability, enterprise, postgraduate, beyond employability:

Employability has always been a key factor in our design and delivery, though we shall increase the range of transferable and scientific skills to facilitate this further. With this in mind we are looking to further improve the analytical and molecular biology content of the new curriculum. External examiners have identified practical and project work as a strength of our curriculum. Students gain experience of a range of techniques including histology, immunological and microbiology in addition to the analytical and molecular techniques. There are several opportunities for group and collaborative work and to communicate findings in a range of media

If a student were to withdraw, leave or be terminated from any work placement that the University recognises as constituting a year out within industry, then the respective student is expected to provide an alternative means to support themselves until their return to the University at the start of the next academic year. The University holds no responsibility in finding or providing an additional placement nor living costs associated with the withdrawal or loss of any industrial work placements. Moreover, a student who fails to successfully complete the placement, will be awarded an appropriate exit award on the equivalent full-time programme.

5.2. Assessment Strategy

Assessment is varied to allow for the development and testing of all the skills listed as programme outcomes as well as the relevant knowledge and will include unseen examinations and coursework. Coursework will include laboratory exercises or reports, case studies, problem solving exercises, essays, poster or oral group presentations, short answer and structured questions and project reports.

All assessment will have a formative element as well as a summative element and feedback will be prompt and designed to enhance student skills. Assessment criteria will be made clear to students when the assignment is allocated at the start of the term in which the module is taught.

The use of technology is embedded within the learning process via our Virtual Learning Environment, Blackboard. Student electronic communities are used to facilitate communication and wikis are used to encourage students to develop their own shared learning resources.

6. Programme Structure

The total number of credit points required for the achievement of Certificate of Higher Education (CertHE) is 120.

The total number of credit points required for the achievement of Diploma of Higher Education (DipHE) is 240.

The total number of credit points required for the achievement of Bachelor of Science with Honours (BSc (Hons)) is 360.

The total number of credit points required for the achievement of Master of Biosciences (MBio) is 480.

Level 1

Title	Credit Rating	Core / Optional
Integrative Biochemistry 2019-20	15	Core
Research Methods for Life Scientists 1 2019-20	15	Core
Genetics 2019-20	15	Core
Introduction to Animal Behaviour and Welfare 2019-20	15	Core
Health & Disease 2019-20	15	Core
Cell Biology 2019-20	15	Core
Comparative Form and Function in Animals 2019-20	15	Core
Vertebrate Physiology 2019-20	15	Core

Level 2

Title	Credit Rating	Core / Optional
Molecular Biology 2020-21	15	Optional
Animal Management Systems 2020-21	15	Optional
Introduction to Clinical Biochemistry 2020-21	15	Core
Medical Microbiology 2020-21	15	Core
Animal Nutrition 2020-21	15	Core
Research Methods for Life Scientists 2 2020-21	15	Core
Immunology 2020-21	15	Core
Animal Behaviour 2020-21	15	Optional
Reproduction and Development 2020-21	15	Optional
Fundamentals of Pharmacology & Toxicology 2020-21	15	Optional
Animal Health and Disease 2020-21	15	Core
Animal Protection 2020-21	15	Optional

Level 3

Title	Credit Rating	Core / Optional
Life Sciences Research Project 2021-22	30	Core
Veterinary Parasitology 2021-22	15	Core
Haematology 2021-22	15	Core
Infection Sciences 2021-22	15	Core
Population Genetics 2021-22	15	Optional
Clinical Biochemistry & Immunology 2021-22	15	Optional
Current Issues in Life Sciences 2021-22	15	Core
Animal Welfare Science 2021-22	15	Optional

Overseas Field Course 2021-22	15	Optional
Conservation Biology 2021-22	15	Optional
Palaeobiology 2021-22	15	Optional

Level 4

Title	Credit Rating	Core / Optional
MBio Research project 2022-23	60	Core
MBio Research techniques 2022-23	30	Core

Masters

Title	Credit Rating	Core / Optional
Professional and Research Skills in Biosciences A 2022-23	15	Core
Professional and Research Skills in Biosciences B 2022-23	15	Core

Appendix I - Curriculum Map

This table indicates which modules assume responsibility for delivering and ordering particular programme learning outcomes.

Key: Delivered and Assessed Delivered Assessed

Level 1

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Cell Biology 2019-20		✓	✓									✓
Comparative Form and Function in Animals 2019-20												
Genetics 2019-20	✓	✓		✓			✓				✓	✓
Health & Disease 2019-20					✓			✓				✓
Integrative Biochemistry 2019-20	✓		✓	✓								✓
Introduction to Animal Behaviour and Welfare 2019-20				✓		✓		✓	✓		✓	✓
Research Methods for Life Scientists 1 2019-20									✓	✓	✓	✓
Vertebrate Physiology 2019-20												

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20	PO21	PO22	PO23	PO24
Cell Biology 2019-20			✓			✓	✓		✓	✓	✓	✓
Comparative Form and Function in Animals 2019-20												
Genetics 2019-20			✓			✓	✓		✓	✓	✓	✓
Health & Disease 2019-20						✓	✓		✓	✓	✓	✓
Integrative Biochemistry 2019-20			✓			✓	✓	✓	✓	✓	✓	✓
Introduction to Animal Behaviour and Welfare 2019-20	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
Research Methods for Life Scientists 1 2019-20	✓	✓	✓	✓	✓				✓	✓	✓	✓

Vertebrate Physiology 2019-20													
						PO25	PO26	PO27	PO28	PO29	PO30	PO31	PO32
Cell Biology 2019-20						✓		✓	✓	✓			
Comparative Form and Function in Animals 2019-20													
Genetics 2019-20						✓		✓	✓	✓			
Health & Disease 2019-20						✓		✓	✓	✓			
Integrative Biochemistry 2019-20						✓	✓	✓	✓	✓			
Introduction to Animal Behaviour and Welfare 2019-20						✓	✓	✓	✓	✓			
Research Methods for Life Scientists 1 2019-20						✓	✓	✓	✓	✓			
Vertebrate Physiology 2019-20													

Level 2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Animal Behaviour 2020-21						✓			✓			
Animal Health and Disease 2020-21		✓			✓		✓	✓				✓
Animal Management Systems 2020-21					✓	✓	✓	✓	✓		✓	
Animal Nutrition 2020-21	✓		✓				✓					✓
Animal Protection 2020-21						✓		✓			✓	
Fundamentals of Pharmacology & Toxicology 2020-21		✓			✓							✓
Immunology 2020-21		✓		✓	✓							✓
Introduction to Clinical Biochemistry 2020-21	✓		✓									✓
Medical Microbiology 2020-21	✓	✓			✓							✓
Molecular Biology 2020-21	✓		✓	✓								✓
Reproduction and Development 2020-21		✓		✓			✓					
Research Methods for Life Scientists 2 2020-21									✓	✓	✓	✓
	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20	PO21	PO22	PO23	PO24

Animal Behaviour 2020-21	✓	✓			✓			✓	✓	✓	✓	✓
Animal Health and Disease 2020-21			✓			✓	✓		✓	✓	✓	✓
Animal Management Systems 2020-21		✓		✓	✓				✓	✓	✓	✓
Animal Nutrition 2020-21			✓			✓	✓	✓	✓	✓	✓	✓
Animal Protection 2020-21		✓		✓					✓	✓	✓	✓
Fundamentals of Pharmacology & Toxicology 2020-21			✓			✓	✓		✓	✓	✓	✓
Immunology 2020-21			✓			✓	✓		✓	✓	✓	✓
Introduction to Clinical Biochemistry 2020-21			✓			✓	✓	✓	✓	✓	✓	✓
Medical Microbiology 2020-21			✓			✓	✓		✓	✓	✓	✓
Molecular Biology 2020-21			✓			✓	✓		✓	✓	✓	✓
Reproduction and Development 2020-21						✓	✓		✓	✓	✓	✓
Research Methods for Life Scientists 2 2020-21	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓

	PO25	PO26	PO27	PO28	PO29	PO30	PO31	PO32
Animal Behaviour 2020-21	✓	✓	✓	✓	✓			
Animal Health and Disease 2020-21	✓	✓	✓	✓	✓			
Animal Management Systems 2020-21	✓		✓	✓	✓			
Animal Nutrition 2020-21	✓	✓	✓	✓	✓			
Animal Protection 2020-21	✓		✓	✓	✓			
Fundamentals of Pharmacology & Toxicology 2020-21	✓		✓	✓	✓			
Immunology 2020-21	✓		✓	✓	✓			
Introduction to Clinical Biochemistry 2020-21	✓		✓	✓	✓			
Medical Microbiology 2020-21	✓		✓	✓	✓			
Molecular Biology 2020-21	✓		✓	✓	✓			
Reproduction and Development 2020-21	✓		✓	✓	✓			
Research Methods for Life Scientists 2 2020-21	✓	✓	✓	✓	✓			

Level 3

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Animal Welfare Science 2021-22						✓		✓	✓		✓	
Clinical Biochemistry & Immunology 2021-22	✓		✓		✓							✓
Conservation Biology 2021-22												
Current Issues in Life Sciences 2021-22					✓	✓			✓	✓	✓	✓
Haematology 2021-22		✓	✓									✓
Infection Sciences 2021-22		✓	✓		✓							✓
Life Sciences Research Project 2021-22								✓	✓	✓	✓	✓
Overseas Field Course 2021-22									✓	✓	✓	✓
Palaeobiology 2021-22									✓	✓	✓	✓
Population Genetics 2021-22	✓		✓	✓								
Veterinary Parasitology 2021-22		✓			✓		✓					

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20	PO21	PO22	PO23	PO24
Animal Welfare Science 2021-22		✓	✓						✓	✓	✓	✓
Clinical Biochemistry & Immunology 2021-22		✓	✓			✓	✓		✓	✓	✓	✓
Conservation Biology 2021-22												
Current Issues in Life Sciences 2021-22	✓	✓	✓	✓	✓				✓	✓	✓	✓
Haematology 2021-22		✓	✓			✓	✓		✓	✓	✓	✓
Infection Sciences 2021-22		✓	✓			✓	✓		✓	✓	✓	✓
Life Sciences Research Project 2021-22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Overseas Field Course 2021-22	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Palaeobiology 2021-22	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
Population Genetics 2021-22		✓				✓	✓		✓	✓	✓	✓
Veterinary Parasitology 2021-22		✓			✓	✓			✓	✓	✓	✓

	PO25	PO26	PO27	PO28	PO29	PO30	PO31	PO32
Animal Welfare Science 2021-22	✓		✓	✓	✓			
Clinical Biochemistry & Immunology 2021-22	✓		✓	✓	✓			
Conservation Biology 2021-22								
Current Issues in Life Sciences 2021-22	✓		✓	✓	✓			
Haematology 2021-22	✓		✓	✓	✓			
Infection Sciences 2021-22	✓		✓	✓	✓			

Life Sciences Research Project 2021-22	✓	✓	✓	✓	✓							
Overseas Field Course 2021-22	✓	✓	✓	✓	✓							
Palaeobiology 2021-22	✓	✓	✓	✓	✓							
Population Genetics 2021-22	✓		✓	✓	✓							
Veterinary Parasitology 2021-22	✓		✓	✓	✓							

Level 4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MBio Research project 2022-23									✓	✓		
MBio Research techniques 2022-23										✓		

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20	PO21	PO22	PO23	PO24
MBio Research project 2022-23	✓	✓	✓		✓	✓	✓	✓		✓	✓	
MBio Research techniques 2022-23										✓		

	PO25	PO26	PO27	PO28	PO29	PO30	PO31	PO32
MBio Research project 2022-23						✓		
MBio Research techniques 2022-23							✓	

Masters

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Professional and Research Skills in Biosciences A 2022-23												
Professional and Research Skills in Biosciences B 2022-23												

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20	PO21	PO22	PO23	PO24
Professional and Research Skills in												

Biosciences A 2022-23

Professional and Research Skills in

Biosciences B 2022-23

	PO25	PO26	PO27	PO28	PO29	PO30	PO31	PO32
Professional and Research Skills in Biosciences A 2022-23								
Professional and Research Skills in Biosciences B 2022-23								

Appendix II - Assessment Map

This table indicates the spread of assessment activity across the programme. Percentages indicate assessment weighting.

Level 1

	01	02	03	04	05	06	07	08	09	10	11	12
Cell Biology 2019-20									50			
Comparative Form and Function in Animals 2019-20												
Genetics 2019-20												
Health & Disease 2019-20												
Integrative Biochemistry 2019-20								50				
Introduction to Animal Behaviour and Welfare 2019-20												
Research Methods for Life Scientists 1 2019-20										50		50
Vertebrate Physiology 2019-20												

	13	14	15	16	17	18	19	20	21	22	23	24
Cell Biology 2019-20		50										
Comparative Form and Function in Animals 2019-20	50			50								
Genetics 2019-20												50
Health & Disease 2019-20										50		
Integrative Biochemistry 2019-20		50										
Introduction to Animal Behaviour and Welfare 2019-20						50						
Research Methods for Life Scientists 1 2019-20												
Vertebrate Physiology 2019-20										60		

	25	26	27	28	29	30	31	32	33	34	35	36
Cell Biology 2019-20												
Comparative Form and Function in Animals 2019-20												
Genetics 2019-20										50		
Health & Disease 2019-20												
Integrative Biochemistry 2019-20												
Introduction to Animal Behaviour and Welfare 2019-20										50		
Research Methods for Life Scientists 1 2019-20												
Vertebrate Physiology 2019-20									40			

	37	38	39	40	41	42	43	44	45	46	47	48
Cell Biology 2019-20												
Comparative Form and Function in Animals 2019-20												
Genetics 2019-20												
Health & Disease 2019-20												
Integrative Biochemistry 2019-20												
Introduction to Animal Behaviour and Welfare 2019-20												
Research Methods for Life Scientists 1 2019-20												
Vertebrate Physiology 2019-20												

	49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Cell Biology 2019-20						
Comparative Form and Function in Animals 2019-20						

Genetics 2019-20												
Health & Disease 2019-20												50
Integrative Biochemistry 2019-20												
Introduction to Animal Behaviour and Welfare 2019-20												
Research Methods for Life Scientists 1 2019-20												
Vertebrate Physiology 2019-20												

Level 2

	01	02	03	04	05	06	07	08	09	10	11	12
Animal Behaviour 2020-21												
Animal Health and Disease 2020-21												50
Animal Management Systems 2020-21						40						60
Animal Nutrition 2020-21												
Animal Protection 2020-21						50						
Fundamentals of Pharmacology & Toxicology 2020-21												
Immunology 2020-21												
Introduction to Clinical Biochemistry 2020-21												
Medical Microbiology 2020-21												
Molecular Biology 2020-21							50					
Reproduction and Development 2020-21												
Research Methods for Life Scientists 2 2020-21										50		50

	13	14	15	16	17	18	19	20	21	22	23	24
Animal Behaviour 2020-21						50						50
Animal Health and Disease 2020-21				50								
Animal Management Systems 2020-21												
Animal Nutrition 2020-21								50				50
Animal Protection 2020-21												

Fundamentals of Pharmacology & Toxicology 2020-21										50		
Immunology 2020-21							50					
Introduction to Clinical Biochemistry 2020-21									50			
Medical Microbiology 2020-21	50											
Molecular Biology 2020-21												
Reproduction and Development 2020-21						50						50
Research Methods for Life Scientists 2 2020-21												
	25	26	27	28	29	30	31	32	33	34	35	36
Animal Behaviour 2020-21												
Animal Health and Disease 2020-21												
Animal Management Systems 2020-21												
Animal Nutrition 2020-21												
Animal Protection 2020-21												
Fundamentals of Pharmacology & Toxicology 2020-21												
Immunology 2020-21												
Introduction to Clinical Biochemistry 2020-21												
Medical Microbiology 2020-21												
Molecular Biology 2020-21												
Reproduction and Development 2020-21												
Research Methods for Life Scientists 2 2020-21												
	37	38	39	40	41	42	43	44	45	46	47	48
Animal Behaviour 2020-21												
Animal Health and Disease 2020-21												
Animal Management Systems 2020-21												
Animal Nutrition 2020-21												
Animal Protection 2020-21												
Fundamentals of Pharmacology & Toxicology												

2020-21												
Immunology 2020-21												
Introduction to Clinical Biochemistry 2020-21												
Medical Microbiology 2020-21												
Molecular Biology 2020-21												
Reproduction and Development 2020-21												
Research Methods for Life Scientists 2 2020-21												
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Animal Behaviour 2020-21												
Animal Health and Disease 2020-21												
Animal Management Systems 2020-21												
Animal Nutrition 2020-21												
Animal Protection 2020-21										50		
Fundamentals of Pharmacology & Toxicology 2020-21												50
Immunology 2020-21												50
Introduction to Clinical Biochemistry 2020-21												50
Medical Microbiology 2020-21										50		
Molecular Biology 2020-21										50		
Reproduction and Development 2020-21												
Research Methods for Life Scientists 2 2020-21												

Level 3

	01	02	03	04	05	06	07	08	09	10	11	12
Animal Welfare Science 2021-22												

Clinical Biochemistry & Immunology 2021-22											50	
Conservation Biology 2021-22			30					30			40	
Current Issues in Life Sciences 2021-22												
Haematology 2021-22												50
Infection Sciences 2021-22												
Life Sciences Research Project 2021-22										100		
Overseas Field Course 2021-22	20											
Palaeobiology 2021-22												
Population Genetics 2021-22						50						
Veterinary Parasitology 2021-22								50				50

	13	14	15	16	17	18	19	20	21	22	23	24
Animal Welfare Science 2021-22												50
Clinical Biochemistry & Immunology 2021-22												
Conservation Biology 2021-22												
Current Issues in Life Sciences 2021-22											50	50
Haematology 2021-22				50								
Infection Sciences 2021-22									50			
Life Sciences Research Project 2021-22												
Overseas Field Course 2021-22				80								
Palaeobiology 2021-22												
Population Genetics 2021-22		50										
Veterinary Parasitology 2021-22												

	25	26	27	28	29	30	31	32	33	34	35	36
Animal Welfare Science 2021-22												
Clinical Biochemistry & Immunology 2021-22												
Conservation Biology 2021-22												
Current Issues in Life Sciences 2021-22												
Haematology 2021-22												
Infection Sciences 2021-22												
Life Sciences Research Project 2021-22												
Overseas Field Course 2021-22												

Palaeobiology 2021-22							50						
Population Genetics 2021-22													
Veterinary Parasitology 2021-22													
	37	38	39	40	41	42	43	44	45	46	47	48	
Animal Welfare Science 2021-22													
Clinical Biochemistry & Immunology 2021-22													
Conservation Biology 2021-22													
Current Issues in Life Sciences 2021-22													
Haematology 2021-22													
Infection Sciences 2021-22													
Life Sciences Research Project 2021-22													
Overseas Field Course 2021-22													
Palaeobiology 2021-22													
Population Genetics 2021-22													
Veterinary Parasitology 2021-22													
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)	
Animal Welfare Science 2021-22												50	
Clinical Biochemistry & Immunology 2021-22												50	
Conservation Biology 2021-22													
Current Issues in Life Sciences 2021-22													
Haematology 2021-22													
Infection Sciences 2021-22												50	
Life Sciences Research Project 2021-22													
Overseas Field Course 2021-22													
Palaeobiology 2021-22												50	
Population Genetics 2021-22													
Veterinary Parasitology 2021-22													

Level 4

	01	02	03	04	05	06	07	08	09	10	11	12
MBio Research project 2022-23								20				
MBio Research techniques 2022-23							25					
	13	14	15	16	17	18	19	20	21	22	23	24
MBio Research project 2022-23				10								20
MBio Research techniques 2022-23			25								25	
	25	26	27	28	29	30	31	32	33	34	35	36
MBio Research project 2022-23								45		5		
MBio Research techniques 2022-23							25					
	37	38	39	40	41	42	43	44	45	46	47	48
MBio Research project 2022-23												
MBio Research techniques 2022-23												
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
MBio Research project 2022-23												
MBio Research techniques 2022-23												

Masters

	01	02	03	04	05	06	07	08	09	10	11	12
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Professional and Research Skills in Biosciences A 2022-23										50			
Professional and Research Skills in Biosciences B 2022-23													
	13	14	15	16	17	18	19	20	21	22	23	24	
Professional and Research Skills in Biosciences A 2022-23		50											
Professional and Research Skills in Biosciences B 2022-23										50			
	25	26	27	28	29	30	31	32	33	34	35	36	
Professional and Research Skills in Biosciences A 2022-23													
Professional and Research Skills in Biosciences B 2022-23					50								
	37	38	39	40	41	42	43	44	45	46	47	48	
Professional and Research Skills in Biosciences A 2022-23													
Professional and Research Skills in Biosciences B 2022-23													
								49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Professional and Research Skills in Biosciences A 2022-23													
Professional and Research Skills in Biosciences B 2022-23													

Appendix III - Benchmark Analysis

This table maps programme learning outcomes to relevant QAA subject benchmark statements or PSRB guidelines.

Knowledge and Understanding

	AHFFCS01	AHFFCS02	AHFFCS03	AHFFCS04	AHFFCS05	AHFFCS06	AHFFCS07	AHFFCS08	AHFFCS09
PO1	✓								
PO2	✓								
PO3	✓								
PO4	✓								
PO5	✓								
PO6	✓								
PO7	✓								
PO8	✓							✓	
PO9	✓								
PO10	✓				✓				

	AHFFCS10	AHFFCS11	AHFFCS12	AHFFCS13	AHFFCS14	AHFFCS15	AHFFCS16	AHFFCS17	AHFFCS18
PO1				✓					
PO2				✓					
PO3				✓	✓				
PO4		✓	✓	✓					
PO5		✓	✓	✓					
PO6			✓	✓					
PO7		✓	✓	✓	✓				
PO8		✓		✓					
PO9									
PO10				✓					

	AHFFCS19	AHFFCS20	AHFFCS21	AHFFCS22	AHFFCS23	AHFFCS24	AHFFCS25	AHFFCS26	AHFFCS27
PO1									

PO2									
PO3									
PO4									
PO5									
PO6									
PO7									
PO8									
PO9									
PO10									

	AHFFCS28	AHFFCS29	AHFFCS30	AHFFCS31	AHFFCS32	AHFFCS33	AHFFCS34	AHFFCS35	AHFFCS36
PO1									
PO2									
PO3									
PO4									
PO5									
PO6									
PO7									
PO8									
PO9									
PO10	✓								

	AHFFCS37	AHFFCS38	AHFFCS39	AHFFCS40	AHFFCS41	AHFFCS42	AHFFCS43	AHFFCS44	AHFFCS45
PO1		✓	✓						
PO2		✓	✓						
PO3		✓	✓						
PO4		✓	✓						
PO5		✓	✓						
PO6		✓	✓						
PO7		✓	✓						
PO8		✓	✓						
PO9									
PO10			✓						

	AHFFCS46	AHFFCS47	AHFFCS48	AHFFCS49	AHFFCS50	AHFFCS51	AHFFCS52	AHFFCS53	AHFFCS54
PO1								✓	
PO2								✓	
PO3								✓	
PO4								✓	
PO5								✓	
PO6								✓	
PO7								✓	
PO8								✓	
PO9								✓	
PO10								✓	

	AHFFCS55	AHFFCS56	AHFFCS57	AHFFCS58	AHFFCS59	AHFFCS60	AHFFCS61	AHFFCS62	AHFFCS63
PO1									
PO2									
PO3									
PO4									
PO5									
PO6									
PO7									
PO8									
PO9									
PO10									

	AHFFCS64	AHFFCS65	AHFFCS66	AHFFCS67	AHFFCS68	AHFFCS69	AHFFCS70	AHFFCS71	AHFFCS72
PO1		✓							
PO2		✓							
PO3		✓							
PO4	✓	✓							
PO5	✓	✓							
PO6	✓	✓							
PO7	✓	✓							

PO8		✓							
PO9									
PO10		✓							

	AHFFCS73	AHFFCS74	AHFFCS75	AHFFCS76	AHFFCS77	AHFFCS78
PO1						
PO2						
PO3						
PO4						
PO5						
PO6						
PO7						
PO8						
PO9						
PO10						

Subject Specific Intellectual Skills

	AHFFCS01	AHFFCS02	AHFFCS03	AHFFCS04	AHFFCS05	AHFFCS06	AHFFCS07	AHFFCS08	AHFFCS09
PO11	✓							✓	
PO12	✓								
PO13	✓	✓	✓						
PO14	✓	✓	✓						
PO15	✓	✓	✓						
PO16	✓	✓							
PO17	✓	✓	✓						

	AHFFCS10	AHFFCS11	AHFFCS12	AHFFCS13	AHFFCS14	AHFFCS15	AHFFCS16	AHFFCS17	AHFFCS18
PO11			✓						
PO12	✓								
PO13	✓								

PO14	✓								
PO15	✓								
PO16	✓								
PO17	✓								

	AHFFCS19	AHFFCS20	AHFFCS21	AHFFCS22	AHFFCS23	AHFFCS24	AHFFCS25	AHFFCS26	AHFFCS27
PO11									
PO12									
PO13									
PO14									
PO15									
PO16									
PO17									

	AHFFCS28	AHFFCS29	AHFFCS30	AHFFCS31	AHFFCS32	AHFFCS33	AHFFCS34	AHFFCS35	AHFFCS36
PO11									
PO12									
PO13									
PO14			✓						
PO15			✓						
PO16									
PO17			✓						

	AHFFCS37	AHFFCS38	AHFFCS39	AHFFCS40	AHFFCS41	AHFFCS42	AHFFCS43	AHFFCS44	AHFFCS45
PO11		✓							
PO12									
PO13									
PO14									
PO15									
PO16									
PO17									

	AHFFCS46	AHFFCS47	AHFFCS48	AHFFCS49	AHFFCS50	AHFFCS51	AHFFCS52	AHFFCS53	AHFFCS54
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PO11									
PO12								✓	
PO13								✓	✓
PO14								✓	✓
PO15								✓	✓
PO16									✓
PO17									✓

	AHFFCS55	AHFFCS56	AHFFCS57	AHFFCS58	AHFFCS59	AHFFCS60	AHFFCS61	AHFFCS62	AHFFCS63
PO11					✓				
PO12									✓
PO13									
PO14	✓								✓
PO15	✓								
PO16									
PO17									

	AHFFCS64	AHFFCS65	AHFFCS66	AHFFCS67	AHFFCS68	AHFFCS69	AHFFCS70	AHFFCS71	AHFFCS72
PO11	✓								
PO12									
PO13									
PO14									
PO15									
PO16									
PO17									

	AHFFCS73	AHFFCS74	AHFFCS75	AHFFCS76	AHFFCS77	AHFFCS78
PO11						
PO12						
PO13						
PO14						
PO15						
PO16						

PO17

Subject Specific Practical Skills

	AHFFCS01	AHFFCS02	AHFFCS03	AHFFCS04	AHFFCS05	AHFFCS06	AHFFCS07	AHFFCS08	AHFFCS09
PO18		✓							
PO19		✓							
PO20	✓	✓	✓						
PO30									
PO31									

	AHFFCS10	AHFFCS11	AHFFCS12	AHFFCS13	AHFFCS14	AHFFCS15	AHFFCS16	AHFFCS17	AHFFCS18
PO18									
PO19									
PO20									
PO30									
PO31									

	AHFFCS19	AHFFCS20	AHFFCS21	AHFFCS22	AHFFCS23	AHFFCS24	AHFFCS25	AHFFCS26	AHFFCS27
PO18									
PO19									
PO20									
PO30									
PO31									

	AHFFCS28	AHFFCS29	AHFFCS30	AHFFCS31	AHFFCS32	AHFFCS33	AHFFCS34	AHFFCS35	AHFFCS36
PO18		✓							
PO19		✓							
PO20		✓	✓						
PO30		✓	✓						
PO31		✓	✓						

	AHFFCS37	AHFFCS38	AHFFCS39	AHFFCS40	AHFFCS41	AHFFCS42	AHFFCS43	AHFFCS44	AHFFCS45
PO18									
PO19									
PO20									
PO30									
PO31									

	AHFFCS46	AHFFCS47	AHFFCS48	AHFFCS49	AHFFCS50	AHFFCS51	AHFFCS52	AHFFCS53	AHFFCS54
PO18									
PO19									
PO20									
PO30								✓	✓
PO31								✓	✓

	AHFFCS55	AHFFCS56	AHFFCS57	AHFFCS58	AHFFCS59	AHFFCS60	AHFFCS61	AHFFCS62	AHFFCS63
PO18									
PO19									
PO20									
PO30	✓								
PO31			✓						

	AHFFCS64	AHFFCS65	AHFFCS66	AHFFCS67	AHFFCS68	AHFFCS69	AHFFCS70	AHFFCS71	AHFFCS72
PO18									
PO19									
PO20									
PO30									
PO31									

	AHFFCS73	AHFFCS74	AHFFCS75	AHFFCS76	AHFFCS77	AHFFCS78
PO18						
PO19						
PO20						

PO30									
PO31									

Transferable Skills and Attributes

	AHFFCS01	AHFFCS02	AHFFCS03	AHFFCS04	AHFFCS05	AHFFCS06	AHFFCS07	AHFFCS08	AHFFCS09
PO21		✓		✓					
PO22	✓	✓	✓						
PO23		✓			✓		✓		
PO24		✓					✓		
PO25		✓				✓			
PO26			✓		✓		✓		
PO27							✓		
PO28									
PO29									
PO32									

	AHFFCS10	AHFFCS11	AHFFCS12	AHFFCS13	AHFFCS14	AHFFCS15	AHFFCS16	AHFFCS17	AHFFCS18
PO21		✓							
PO22									
PO23									
PO24	✓								
PO25									
PO26									
PO27									
PO28									
PO29		✓							
PO32									

	AHFFCS19	AHFFCS20	AHFFCS21	AHFFCS22	AHFFCS23	AHFFCS24	AHFFCS25	AHFFCS26	AHFFCS27
PO21									

PO22									
PO23									
PO24									
PO25									
PO26									
PO27									
PO28									
PO29									
PO32									

	AHFFCS28	AHFFCS29	AHFFCS30	AHFFCS31	AHFFCS32	AHFFCS33	AHFFCS34	AHFFCS35	AHFFCS36
PO21		✓		✓					
PO22			✓						
PO23					✓				
PO24		✓							
PO25				✓		✓			
PO26							✓		
PO27							✓		
PO28		✓		✓			✓		
PO29		✓					✓		
PO32		✓		✓			✓		

	AHFFCS37	AHFFCS38	AHFFCS39	AHFFCS40	AHFFCS41	AHFFCS42	AHFFCS43	AHFFCS44	AHFFCS45
PO21									
PO22									
PO23									
PO24									
PO25									
PO26									
PO27									
PO28									
PO29									
PO32									

	AHFFCS46	AHFFCS47	AHFFCS48	AHFFCS49	AHFFCS50	AHFFCS51	AHFFCS52	AHFFCS53	AHFFCS54
PO21									✓
PO22									
PO23									
PO24									
PO25									✓
PO26									
PO27									
PO28									✓
PO29									✓
PO32									✓

	AHFFCS55	AHFFCS56	AHFFCS57	AHFFCS58	AHFFCS59	AHFFCS60	AHFFCS61	AHFFCS62	AHFFCS63
PO21		✓							✓
PO22									✓
PO23			✓						✓
PO24									✓
PO25				✓					✓
PO26					✓				✓
PO27					✓				✓
PO28				✓					✓
PO29	✓		✓						✓
PO32		✓							✓

	AHFFCS64	AHFFCS65	AHFFCS66	AHFFCS67	AHFFCS68	AHFFCS69	AHFFCS70	AHFFCS71	AHFFCS72
PO21									
PO22									
PO23									
PO24									
PO25									
PO26									
PO27									

PO28									
PO29									
PO32									

	AHFFCS73	AHFFCS74	AHFFCS75	AHFFCS76	AHFFCS77	AHFFCS78
PO21						
PO22						
PO23						
PO24						
PO25						
PO26						
PO27						
PO28						
PO29						
PO32						

Appendix IV: Benchmark Benchmark Statement(s)

AHFFCS01 - *Intellectual skill, Recall knowledge based on the directly taught programme. Demonstrate some understanding of subject specific theories, paradigms, concepts and principles. Demonstrate ability to define and solve routine problems ...*

AHFFCS02 - *Practical skills. Plan, conduct and present an independent investigation with significant guidance. Relate investigations to some prior work and reference it appropriately. Use appropriate laboratory and field equipment safely ...*

AHFFCS03 - *Numeracy skills. Select an appropriate sampling procedure. Recognise when information is incomplete. Appreciate risk. Process and interpret data. Solve basic numerical problems using appropriate techniques*

AHFFCS04 - *Communication skills. Communicate to a variety of audiences in written, graphical and verbal forms. Make contributions to group discussions. Listen and respond to others*

AHFFCS05 - *ICT skills. Use the internet for communication and information retrieval. Handle computer-based information with guidance, using appropriate techniques and software*

AHFFCS06 - *Interpersonal and teamwork skills. Make some contribution to teamwork and goals. Recognise and respect the views of others. Reflect on team performance*

AHFFCS07 - *Self-management and professional development skills. Recognise the existence of moral and ethical issues associated with the subject. Appreciate the need for professional codes of conduct. Accept some responsibility for their own learning ...*

AHFFCS08 - *Graduates will have some familiarity with the science and management of sustainable production systems which comprise the broad agricultural or horticultural industries within the socio-economic and environmental contexts required by society...*

AHFFCS09 - *Graduates will have some familiarity with the social, economic, legal, scientific and technological principles underlying the business management of farm or horticultural enterprises. They will be able to ...*

AHFFCS10 - *Graduates will be able to select and apply a limited range of concepts, theories and methods drawn from the constituent disciplines of their degree programme to agricultural or horticultural enterprises. They will be able to ...*

AHFFCS11 - *In addition to possessing the knowledge, understanding and expertise described on the following pages, graduates will be familiar with one or more of the following subdivisions of applied science. Applied plant science. Applied animal science ...*

AHFFCS12 - *Graduates will have some familiarity and awareness of ethical issues related to agricultural practice, and. the physical and chemical processes of the biosphere. the biochemical processes of life ...*

AHFFCS13 - *Graduates will. Have achieved a level of specialist knowledge and understanding, allowing them to work adaptably to apply their discipline within the broad agricultural industry or a cognate field of activity ...*

AHFFCS14 - Graduates will have some familiarity with the key scientific disciplines relevant to food. They will be able to. Demonstrate some understanding of the chemistry underpinning molecular interactions occurring in foods and food production ...

AHFFCS15 - Graduates will be able to assist in the extension of knowledge and understanding of food through a scientific approach. They will be able to ...

AHFFCS16 - Graduates will be able to assist in the application and communication of knowledge of food to meet the needs of society, industry and the consumer for sustainable food quality, safety and security of supply. They will be able to ...

AHFFCS17 - Graduates will have some familiarity with the physical, social, economic and cultural aspects of the rural environment. They will be able to. Describe the physical characteristics of the rural environment and the factors limiting its development ...

AHFFCS18 - Graduates will have some familiarity with the issues of sustainable development, conservation of biodiversity and landscapes, and environmental protection. They will be able to ...

AHFFCS19 - Graduates will be familiar with an integrated and holistic view of rural management and will be able to select and apply a limited range of quantitative and qualitative analytical methods. They will be able to ...

AHFFCS20 - Graduates will have some familiarity with the main scientific and socioeconomic principles underlying forestry. They will be able to. Identify the main physical and biological processes that shape the natural world ...

AHFFCS21 - Graduates will understand the structure and behaviour of forest ecosystems. They will be able to. Describe the distribution and main features of the world's forests. Describe the main physical and biological components of forest environments ...

AHFFCS22 - Graduates will understand the main functions and impacts of forests. They will be able to. Describe some of the multiple benefits that forests provide. Identify the main effects of forestry on society and the environment ...

AHFFCS23 - Graduates will understand the meaning and some of the practices of sustainable forest management. They will be able to. Define sustainability in a forestry context. Identify the main components of forest planning ...

AHFFCS24 - Graduates will have some familiarity with the social, individual and environmental contexts of consumer behaviour. They will be able to. Describe a limited range of social and individual factors in the formation of consumer knowledge ...

AHFFCS25 - Graduates will have some familiarity with the social, individual and environmental contexts of consumer behaviour. They will be able to. Describe a limited range of social and individual factors in the formation of consumer knowledge ...

AHFFCS26 - Graduates will have some familiarity with the social, economic, legal, ethical, scientific and technological principles underlying the production of, and access to, consumer goods and services. They will be able to ...

AHFFCS27 - Graduates will be able to select and apply to consumer issues a limited range of concepts, theories and methods drawn from the constituent disciplines of their degree programme. They will be able to ...

AHFFCS28 - Intellectual skill. Recall knowledge based on the directly taught programme with some evidence of wider enquiry ...

AHFFCS29 - Practical skills. Plan, conduct and present an independent investigation with some reliance on guidance. Relate investigations to prior work and reference it appropriately; recognise when information is incomplete ...

AHFFCS30 - Numeracy skills. Define a suitable and effective sampling procedure. Recognise incomplete sets of information and propose appropriate solutions. Understand risk. Process and interpret data effectively ...

AHFFCS31 - Communication skills. Communicate effectively to audiences in written, graphical and verbal forms. Contribute coherently to group discussions. Listen attentively and respond to others

AHFFCS32 - ICT skills. Use the internet critically for communication and information retrieval. Handle computer-based information using appropriate techniques and software

AHFFCS33 - Interpersonal and teamwork skills. Organise a team effectively. Contribute effectively to teamwork. Identify individual and collective goals. Recognise and respect the views of others. Evaluate performance as an individual and team member

AHFFCS34 - Self-management and professional development skills. Recognise and be able to comment on the moral and ethical issues associated with the subject. Understand and be able to apply professional codes of conduct ...

AHFFCS35 - Graduates will have a well-grounded understanding of the science and management of sustainable production systems which comprise the broad agricultural or horticultural industries within the socioeconomic and environmental contexts required by...

AHFFCS36 - Graduates will have a well-grounded understanding of the social, economic, legal, scientific and technological principles underlying the business management of farm or horticultural enterprises. They will be able to ...

AHFFCS37 - Graduates will be able to select, apply and evaluate a wide range of concepts, theories and methods drawn from the constituent disciplines of their degree programme to agricultural or horticultural enterprises. They will be able to ...

AHFFCS38 - Graduates will have a well-grounded understanding of ethical issues related to the use and exploitation of biological entities, and. The physical and chemical processes of the biosphere. The biochemical processes of life ...

AHFFCS39 - With extended knowledge in some areas. Graduates will. Have achieved a level of specialist knowledge and understanding, allowing them to work as subject specialists within the broad agricultural industry or a cognate field of activity ...

AHFFCS40 - Graduates will have a well-grounded understanding of the key scientific disciplines relevant to food. They will be able to ...

AHFFCS41 - Graduates will have a well-grounded ability to extend knowledge and understanding of food through a scientific approach. They will be able to ...

AHFFCS42 - Graduates will have a well-grounded ability to apply and communicate knowledge of food to meet the needs of society, industry and the consumer for sustainable food quality, safety and security of supply. They will be able to ...

AHFFCS43 - Graduates will have a well-grounded understanding of the physical, social, economic and cultural aspects of the rural environment. They will be able to ...

AHFFCS44 - Graduates will have a well-grounded understanding of the issues of sustainable development, conservation of biodiversity and landscapes, and environmental protection. They will be able to ...

AHFFCS45 - Graduates will understand the concept of an integrated and holistic view of rural management and will be able to select, apply and evaluate a wide range of quantitative and qualitative analytical methods. They will be able to ...

AHFFCS46 - Graduates will have a well-grounded understanding of the scientific and socio-economic principles underlying forestry. They will be able to ...

AHFFCS47 - Graduates will have a well-grounded understanding of the structure and behaviour of forest ecosystems. They will be able to. Describe and explain the distribution and features of the world's forests ...

AHFFCS48 - Graduates will have a well-grounded understanding of the functions and impacts of forests. They will be able to. Explain the multiple benefits that forests provide, and evaluate the relative importance of these benefits in particular situations ...

AHFFCS49 - Graduates will have a well-grounded understanding of the meaning and practice of sustainable forest management. They will be able to. Explain the meaning of sustainability in forestry and evaluate the sustainability of some forestry practices ...

AHFFCS50 - Graduates will have a well-grounded understanding of the social, individual and environmental contexts of consumer behaviour. They will be able to ...

AHFFCS51 - Graduates will have a well-grounded understanding of the social, economic, legal, ethical, scientific and technological principles underlying the production of, and access to, consumer goods and services. They will be able to ...

AHFFCS52 - Graduates will be able to select, apply and evaluate to consumer issues a wide range of concepts, theories and methods drawn from the constituent disciplines of their degree programme. They will be able to ...

AHFFCS53 - Intellectual skill. Recall knowledge based well beyond the directly taught programme. Demonstrate thorough understanding of subject-specific theories, paradigms, concepts and principles

as well as in-depth understanding of more specialised areas ...

AHFFCS54 - *Practical skill. Suggest, plan, conduct and present an independent investigation with limited reliance on guidance. Relate investigations to prior work, be aware of recent research developments and reference it appropriately ...*

AHFFCS55 - *Numeracy skills. Define a suitable and efficient sampling procedure. Recognise incomplete sets of information and suggest solutions. Understand and quantify risk. Choose appropriate techniques to process data and interpret them effectively ...*

AHFFCS56 - *Communication skills. Communicate effectively and engagingly to a variety of audiences in written, graphical and verbal forms. Contribute constructively to group discussions. Listen to, evaluate and respond effectively to the views of others*

AHFFCS57 - *ICT skills. Use the internet critically and imaginatively for communication and information retrieval. Handle computer-based information confidently and competently using appropriate techniques and software*

AHFFCS58 - *Interpersonal and teamwork skills. Organise and motivate a team effectively. Contribute effectively and enthusiastically to teamwork. Identify individual and collective goals and responsibilities. Recognise and respect the views of others ...*

AHFFCS59 - *Self-management and professional development skills. Recognise, explain and evaluate the moral and ethical issues associated with the subject. Understand and be able to apply professional codes of conduct ...*

AHFFCS60 - *Graduates will have a comprehensive understanding of the biology and management of sustainable production systems which comprise the broad agricultural or horticultural industries within the socioeconomic and environmental contexts required by...*

AHFFCS61 - *Graduates will have a well-grounded understanding of the social, economic, legal, scientific and technological principles underlying the business management of farm or horticultural enterprises...*

AHFFCS62 - *Graduates will be able to select, apply and evaluate a wide range of concepts, theories and methods drawn from the constituent disciplines of their degree programme to agricultural or horticultural enterprises...*

AHFFCS63 - *Graduates will be able to demonstrate mastery of transferable skills. Additionally, performance will be distinguished by an excellence in their knowledge of the literature and the creative application of the material. They will be able to ...*

AHFFCS64 - *Graduates will have a deep and comprehensive understanding of ethical issues related to the use and exploitation of biological entities, and. The physical and chemical processes of the biosphere. The biochemical processes of life ...*

AHFFCS65 - *With significantly extended knowledge in some areas. Graduates will ...*

AHFFCS66 - *Graduates will have a comprehensive understanding of the key scientific disciplines*

relevant to food. They will demonstrate an excellent knowledge of current scientific developments relevant to food. This will distinguish the manner in which they ...

AHFFCS67 - *Graduates will have a comprehensive ability to extend knowledge and understanding of food through a scientific approach...*

AHFFCS68 - *Graduates will have a comprehensive ability to apply and communicate knowledge of food to meet the needs of society, industry and the consumer for sustainable food quality, safety and security of supply...*

AHFFCS69 - *Graduates will have a comprehensive and deep understanding of the physical, social, economic and cultural aspects of the rural environment...*

AHFFCS70 - *Graduates will have a comprehensive understanding of the issues of sustainable development, conservation and environmental protection. They will demonstrate both excellent knowledge of theory and techniques and creative application of the material ...*

AHFFCS71 - *Graduates will have a comprehensive understanding of the integrated and holistic nature of rural management and will be able to select, apply and evaluate the full range of quantitative and qualitative analytical methods available...*

AHFFCS72 - *Graduates will have a comprehensive understanding of the scientific and socio-economic principles underlying forestry. They will demonstrate excellent knowledge of the literature, creative application of the material, and a capacity for synthesis ...*

AHFFCS73 - *Graduates will have a comprehensive understanding of the structure and behaviour of forest ecosystems. They will demonstrate excellent knowledge of the literature, creative application of the material, and a capacity for synthesis ...*

AHFFCS74 - *Graduates will have a comprehensive understanding of the functions and impacts of forests. They will demonstrate excellent knowledge of the literature, creative application of the material, and a capacity for synthesis ...*

AHFFCS75 - *Graduates will have a comprehensive understanding of the meaning and practice of sustainable forest management. They will demonstrate excellent knowledge of the literature, creative application of the material, and a capacity for synthesis ...*

AHFFCS76 - *Graduates will have a comprehensive understanding of the social, individual and environmental contexts of consumer behaviour. They will demonstrate both excellent knowledge of the literature and creative application of the material ...*

AHFFCS77 - *Graduates will have a deep and comprehensive understanding of the social, economic, legal, scientific, ethical and technological principles underlying the production and supply of, and access to, consumer goods and services...*

AHFFCS78 - *Graduates will be able to select, apply and evaluate to consumer issues a wide range of concepts, theories and methods drawn from the constituent disciplines of their degree programme...*