HARPER ADAMS UNIVERSITY
Programme Specification

1	**Awarding Institution:**	Harper Adams University
2	**Teaching Institution:**	Askham Bryan College
3	**Course Accredited by:**	Not applicable
4	**Final Award and Level:**	BSc / BSc (Hons) (Level 6)
5	**Interim Award(s) and Level(s):**	Certificate of Higher Education Animal Bioscience and Management (Level 4) Diploma of Higher Education Animal Bioscience and Management (Level 5) BSc Animal Bioscience and Management (Level 6)
6	**Award Title:**	Animal Bioscience and Management
7	**UCAS Code**:	D302
8	**HECoS and CAH2 Group(s):**	HECoS: 100391 - Natural Sciences (30%) 100523 – Animal Science (45%) 100356 – Zoology (25%) CAH03, CAH06, CAH26
9	**QAA Benchmark Statement(s):**	The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014) Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences (2019) Biosciences (2019, likely to be changed to 2023, as this is out for consultation) Earth Sciences, Environmental Sciences and Environmental Studies (2022)
10	**Language of Study:**	English
11	**Mode of Study:**	Full-time Part-time
12	**Course Duration:**	See section below
13	**Date Approved or Revised:**	Validation Event held on 3rd May 2023 (September 2023 – August 2029

CONTEXT AND RATIONALE

The BSc Animal Management and Science course has been successfully running at University Centre Askham Bryan (UCAB) for the last fifteen years. Through a scoping exercise undertaken externally, as well as internally, there is evidence to suggest that the new, slightly modified degree will be more suitable in giving students a more contemporary learning experience whilst meeting students' graduate outcomes.

The course is designed to develop in each student an understanding of biological, environmental and welfare needs of animals, and their surrounding environment, and how to monitor and manage systems to meet these needs. These skills are pertinent in all animal related industries. Additionally, the course is also designed to enable the students to explain

and evaluate the contribution of Biosciences to solving interdisciplinary challenges and the role of interdisciplinary thinking in solving scientific problems.

Securing the Skills Needed by our Industries and Professions

- All our proposed programmes are developed following consultation with the Technical Advisory Group (TAG). With a strong practical element to the programme skills for employment are integrated to the programmes

Working with New Technologies

- The programmes will encompass aspects of digital and innovation in teaching and learning, supported and enabled by the staff within the UCAB Digital Skills Academy.

Turning the Climate Change Debate into Action

Askham Bryan is committed to environmental sustainability and carbon reduction and to adopting appropriate measures to support the Government's net zero emission by 2050 target as set out in the change Act of 2008 (Askham Bryan Sustainability Statement 2022-2023)

Informing Consumer Views about Food, Animal Wellbeing, and the Environment

The institution recognises that to bring about a positive change to the sustainability agenda and environmental enhancement, there is a need to look at organisational, personal and community behaviour to facilitate changes in business practices, and ensure individuals make personal decisions that support a healthy environment, for now and the future generations.

Contributing to UK Economic Prosperity

Animal health, welfare and science is an area of growth for the UK economy with a need for sustainability and self-sufficiency Askham Bryan College HE programmes contribute to this through the meaningful integration of the Education for Sustainable Development Goals. These goals are mapped to both the programmes and the modules to ensure that students are developing an applied knowledge of environmental, social, and economic sustainability which in turn contributes to the UK economic prosperity.

GENERIC AIMS

The BSc/BSc (Hons) Animal Bioscience and Management awards aim to provide the following:

1) To develop in each student subject knowledge and understanding appropriate to individual interests and developing vocational needs.

2) To develop each student's intellectual powers, their understanding and judgement, their ability to see relationships within what they have learned and to examine the field of study in a broader perspective.

3) To develop the personal effectiveness and employability of students, in particular their ability to learn, to communicate, to work with others and to solve problems.

4) To develop those skills of professional scholarship required for career management, lifelong learning and innovation.

5) To inculcate an awareness of the wider consequences of economic activity and a determination to minimise harmful effects on the environment and on people.

6) To provide a lively, stimulating and challenging educational experience.

AWARD-SPECIFIC AIMS

The BSc/BSc (Hons) Animal Bioscience and Management award aims to provide the following:

1. To develop in each student an understanding of biological, environmental and welfare needs of animals and how to monitor and manage systems to meet these needs.

2. To develop an understanding in students about animal husbandry, health and nutrition for both domestic and exotic species.

3. To develop in students an appreciation of the complexity and diversity of life processes in animals at molecular, cellular and physiological level.

4. To develop an understanding of the principles of animal genetics and evolution and the interaction between animals and their environment.

5. To develop students' research skills to allow them to generate realistic and imaginative research projects related to their studies whilst applying methods to solve routine problems relevant to the course, with some awareness of appropriate controls, bias, ethics, and sustainability.

6. To develop communication and management skills and the ability to apply them to problems associated with captive and wild animal management, and with their own chosen career paths.

7. To enable the students to explain and evaluate the contribution of Biosciences to solving interdisciplinary challenges and the role of interdisciplinary thinking in solving scientific problems.

GENERIC OUTCOMES

On successful completion of BSc/BSc (Hons) Animal Bioscience and Management awards, students will be able to:

A	Knowledge	Demonstrate a detailed and specialised knowledge of a range of theories, ideas, terminology and contexts associated with the discipline, with a clear appreciation of the ways in which knowledge is developed and the provisional nature of knowledge.
B	Problem Solve	Select, devise and evaluate the use of appropriate strategies to solve complex, unpredictable, ambiguous and real-world problems.
C	Analysis	Analyse complex data using appropriately selected techniques; draw out robust findings in this process; and, thoroughly evaluate the effectiveness of the analytical strategy.
D	Synthesis	Select and combine ideas and/or data to generate meaningful and convincing composite evidence or arguments with a clear purpose.
E	Evaluation	Review complex and unpredictable information to address unpredictable, ambiguous or real-world problems, with a good awareness of the limitations of both the material under review and the analytical approach.
F	Digital Competence	Select, use and evaluate technologies to enable or enhance the performance of specific tasks, and appreciate the evolution of technology in their discipline.
G	Team Work	Work effectively with others, with minimal or no supervision, to achieve positive outcomes; demonstrate leadership and management capabilities within a team situation; and, critically assess their personal contribution to the team.
H	Career Dev	Recognise, pursue, record and reflect on personal development to pursue personal career goals and appreciate the changing nature of the workplace and the need for personal resilience and **lifelong learning.**
I	Communications	Communicate effectively and professionally for a range of different purposes and through different modes, with consideration of audience needs as well as other contextual factors such as commercial sensitivity, impact maximisation and accessibility requirements.
J	Practical Comp	Perform practical operations in complex, unpredictable, real-world situations that require the selection of combined or novel practical skills and critically review personal effectiveness in practical tasks with reference to relevant professional standards.
K	Autonomy	Act independently and autonomously with minimum supervision in academic and practical tasks.

L	Research	Select and use research to inform the development of knowledge and understanding, and to inform decision-making.
M	Sustain Practice	Evaluate the sustainability of practices, processes or developments, with attention to different stakeholder perspectives, unintended consequences, economic and social dimensions, or environmental considerations.
N	Global	Compare and contrast international examples or case studies that are associated with the discipline and work with an active awareness of global factors or trends that have an impact on specific areas of study.
O	Ethics	Locate a range of ethical issues associated with their own research or professional behaviours, and demonstrate personal responsibility for ethical choices, including adherence to professional codes in complex ethical dilemmas.
P	Placement	Not applicable
Q	Honours	Effectively plan and undertake research.

AWARD-SPECIFIC OUTCOMES

On successful completion of the BSc/BSc (Hons) Animal Bioscience and Management award, students will be able to:

R. Critically evaluate key scientific principles and apply knowledge to situations relating to the husbandry, behaviour and health of animals and the environment.

S. Apply practical skills to the management of domestic, captive and wild animals and their environment.

T. Appraise external factors and their potential influence on the animal management.

U. Appreciate the scientific, societal and environmental influences on animal science and be prepared to work within ethical and professional boundaries.

V. Acquire a level of understanding and knowledge in animal sciences that allows them to work as subject specialists and lead developments within animal management.

RELATIONSHIP WITH EXTERNAL REFERENCE POINT(S)

The aims and outcomes of this Honours Degree programme reflect the level descriptors for higher education qualifications, part of the QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014).

The award is reflected in the benchmark statements for Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences (2019) and Biosciences (2023) as well as Earth Sciences, Environmental Sciences and Environmental Studies (2022). In addition, the themes of sustainability and globalisation are embedded.

The College holds a regular Animal Section Technical Advisory Group and feedback from employers help to shape the curriculum from an industry perspective.

PROFESSIONAL ACCREDITATION ARRANGEMENTS

None.

COURSE PROGRESSION, MODULE COMPENSATION, TRANSFER, ADVANCED STANDING, AND INTERIM AWARDS

Progression

The full-time programme will be completed in three years, with each academic year consisting of two semesters, each typically of 12 weeks duration, in addition to directed study weeks and examination periods.

The part-time programme will be completed in six years and typically be no less than 50% of the standard module diet of the full-time version of the award.

The maximum period of registration is two years beyond the expected course duration, to allow for periods of approved postponement or repeat study.

Module Compensation Exclusions

The following modules are not eligible for compensation within the BSc/BSc (Hons) Animal Bioscience and Management programme:

Part 1 modules: Anatomy and Physiology is not eligible for compensation.

Part 2 modules: Field and Laboratory Skills is not eligible for compensation.

Honours
Part 3 modules: Research Project is not eligible for compensation.

Ordinary
Part 3 modules: Sustainable Development in the Animal Industry is not eligible for compensation.

Transfer
For transfer between courses, students may transfer all credits and marks from the cross-college core modules into the destination award. Only in the case of pre-requisites not being met will students be required to study credit in addition to the normal study load during years two and three (Level 4 and Level 5).

Students demonstrating a high level of achievement (55%+) may apply to transfer to part two of this programme from the FdSc Animal Management programme. Transfer in consultation, to assess suitability, with their Course Manager and Curriculum Area Manager (CAM) HE.

For an Ordinary Degree Animal Management and Science candidate to progress to Honours Degree they must have completed a minimum of 80 credits after re-assessment at Level 6 and achieved a mean grade of >55%.

Students eligible to progress to part three may choose to transfer to the BSc Animal Bioscience and Management Ordinary Degree route, in consultation with their Course Manager and subject to pre-requisites

Entry with Advanced Standing

Table 4.1 in **Section 4** of the *Academic Quality Assurance Manual* identifies the maximum credit that can normally be advanced for students wishing to enter with advanced standing from a Harper Adams' award, or an award from another institution. Harper Adams' awards which qualify for the maximum volume of advanced standing into this programme are listed as follows:

Entry with Accreditation of Prior Learning (APL)/ Accreditation of Prior Experiential Learning (APEL) will be accepted in accordance with the Askham Bryan College procedure and Harper Adams University regulations. No more than ⅔ credit for the award may be derived from APL. Within this limit, no more than half of the total credit value of the award may be derived from APEL.
Holders of a matching HNC/FdSc may apply to be admitted to part two of this programme, subject to satisfaction of the admitting Course manager of their suitability for study on the programme. Students would normally have to achieve the minimum credit requirements for the award specified. Holders of a matching FdSc/HND may be admitted to part three of this programme under the same guidelines.

Interim awards which qualify for a lower level of advanced standing, including Harper Adams' awards, into this programme are listed below:

The course structure diagram(s) identify the specific study programme(s) for candidates entering with advanced standing. **Section 4.5.12** of the *Academic Quality Assurance Manual* specifies the arrangements for transfer and advanced entry and these will apply unless an alternative arrangement has been approved.

Interim Awards
The requirements for interim awards associated with final awards are as follows:

Certificate of Higher Education Animal Bioscience and Management

The outcomes required for this award are: A, B, C, D, E, F, G, H, I, J, R. Students will have obtained a minimum of 120 credits at Level 4 in accordance with the assessment regulations.

Diploma of Higher Education Animal Bioscience and Management

The outcomes required for this award are: A, B, C, D, E, F, G, H, I, J, K, L, R. The requirements for interim awards associated with final awards are students will have obtained a minimum of 240 credits (with a minimum of 120 credits at Level 5) in accordance with the assessment regulations.

BSc Animal Bioscience and Management

The outcomes required for this award are: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, S, T, U, and V. Students will have obtained a minimum of 300 credits (with a minimum of 80 credits at level 6). This will normally include a pass in the following modules core to the Ordinary Degree programme:

Sustainable Development in the Animal Industry, Recent Advances in Animal Management, and in one of the elective modules.

Sustainable Development in the Animal Industry takes the part of a degree review project.

Students are additionally required to complete a ten-week work placement which will be awarded 30 notional P credits but not contribute to the award classification. Students will complete a logbook and evaluate the skills developed. For students choosing to study the Career Planning and Self Development module, there will be an opportunity to apply for Advanced HE Associate Fellowship.

COURSE STRUCTURE, LEVELS AND CREDIT REQUIREMENTS FOR INTERIM AND FINAL AWARDS
Harper Adams' programmes are based on a credit-accumulation system where 1 credit represents 10 notional hours of student study time. Modules are normally 20 credits or multiples thereof. Modules are also at various levels from Levels 3 – 7, according to their intellectual challenge. Courses leading to specific awards include **core modules, optional modules** from which students must select choices up to the number of credits required, and, in some cases, **elective credit** whereby students may study any modules of their choice from within the Harper Adams portfolio, subject to timetabling and pre-requisite constraints, in place of optional modules, with the approval of their programme manager.

The minimum credit requirements needed to progress to interim and final awards are listed in **Section 4.4.5** of the *Academic Quality Assurance Manual*. These are reflected in the corresponding course structure study programmes, which follow.

Course Structure: BSc/BSc (Hons) Animal Bioscience and Management

2023 Entry Cohort
UCAS Code: D302

Part 1		**Part 2**		**Part 3**	
Year 1 **All at Level 4 unless indicated**		**Year 2** **All at Level 5 unless indicated**		**Year 3** **All at Level 6 unless indicated**	
CORE Semester 1	**CORE** Semester 2	**CORE** Semester 1	**CORE** Semester 2	**CORE** Semester 1	**CORE** Semester 2
Academic Writing and Research ABC4200 (20 credits)		Principles of Animal Management Module code (20 credits)		Research Project ABC6200 (40 credits)	
Animal Anatomy and Physiology ABA4200 (20 credits)		Field and Laboratory Skills Module code (20 credits)		Sustainable Development in the Animal Industry ABA6233 (20 credits)	Population Genetics ABA6228 (20 credits)
Practical Animal Health and Husbandry ABA4204 (20 credits)		Animal Welfare and Ethics Module code (20 credits)	Animal Nutrition Module code (20 credits)		Recent Advances in Animal Management ABA6230 (20 credits
Introduction to Genetics and Biochemistry ABA4203 (20 credits)	Sustainable Earth ABA4205 (20 credits)		Microbiology and Parasitology Module code (20 credits)		
	ELECTIVES Choose One Module	**ELECTIVES** Choose One Module	**ELECTIVES**	**ELECTIVES** Choose One Module	**ELECTIVES**
	Exotic Animal Behaviour ABA4202 (20 credits)	Management of Habitats and Protected Areas Module code (20 credits)	Performance Horse Production and Evaluation Module code (20 credits)	Enclosure Design and Stock Management ABA6225 (20 credits)	
	Canine and Feline Behaviour ABA4201 (20 credits)	Principles of Animal Training Module code (20 credits)	Livestock Production Module code (20 credits)	Behavioural Ecology ABA6220 (20 credits)	Advanced Equine Nutrition ABE6201 (20 credits)
	Equine Behaviour and Welfare ABE4200 (20 credits)	Incubation and Rearing Module code (20 credits)		Global Food Production and Supply Chain Efficiency ABG6200 (20 credits)	
	Livestock Health ABG4200 (20 credits)			Career Planning and Self Development ABA6222 (20 credits)	

Full-time students will normally study at least 120 credits (equivalent to 1200 study hours) per year from a combination of core (compulsory) and elective modules.

Validation Date: 3rd May 2023
Date of Approval following Response to Validation Report: July 2023
Period of Approval: September 2023 – August 2029

COURSE DESIGN, LEARNING, TEACHING AND ASSESSMENT METHODS

Assessment philosophy

Assessments will vary to reflect the academic, practical, and professional skills development of students on the BSc/BSc (Hons) Animal Bioscience and Management programme.

Learning and teaching methods

Teaching and learning methods used to deliver this curriculum are designed to provide experience, and, through reflection upon it, develop concepts which can then be explored through testing and experimentation. Methods vary according to the nature of each module's subject matter but include a wide diversity from more formal lectures to student centred activities including assignments, seminars, field trips, guest lectures and case studies. Practical skills will be developed during sessions in the animal unit, on field trips and in laboratories.

All students carry out an element of research in the final year. The curriculum is delivered in such a way that there is a reducing reliance on tutor-directed study as students' progress through their programme. Students will be supported with their study via the college's Virtual Learning Environment (VLE) which will prepare them for the autonomy expected of HE students and for Continuing Professional Development studies, post-graduation.

Transferable skills

Modules are designed to develop the skills required to succeed on college courses, to obtain employment, to manage careers and to develop the scholarship required in a learning society. The programme includes activities to develop core skills of communication, numeracy, IT and personal development planning. Industry placement periods (normally 300 hours across the three years) help to develop the skills and attributes required in the world of work. Higher level modules are designed to develop teamwork, independent learning, problem solving and research.

Typical assessment

Assessment is considered an important part of the learning process. Typically, modules are assessed by two pieces of assessment, although this may vary. The first will normally provide formative in-course feedback and the second normally provides a summative end-of module assessment. Formative assessments will not be graded.; Each summative assessment contributes to 50% of the weighted mean module work unless otherwise stated.

Unless otherwise specified in module descriptors the overall mark is derived from a weighted mean, with no threshold requirement in any assessment component. Formative assessment methods are diverse and include literature review-based essays, problem-based assignments, oral presentations, business written reports, individual and team scenario exercises, experimental work, and placement assignments. Time constrained assessment includes closed and open book assessment, with both seen and unseen questions and tasks set.

A range of subject specific assessment methodologies will be included to develop practical and technical skills. These will include professional discussion, peer observation, case studies and practical assessments.

Group assessment includes group collection of both quantitative and qualitative data and information to facilitate decision-making. Practical assessment will include the design and set-up of laboratory or field experiments, with analysis and presentation of collected data. Further assessment is facilitated by case studies and links with industry, including product evaluation.

To introduce Level 4 students to HE assessment processes, some semester 1 modules have early assessment submissions with Pre-Christmas feedback. Modules with exams that are running in the first semester have a late exam at the end of Semester 1.

ENTRANCE REQUIREMENTS

Applicants will normally have 5 GCSEs at Grade 4/C or above including English, Maths and Science. Achievements at level 2 in appropriate Functional Skills will also be considered as an alternative for English and Maths and Merit grades or above in science-based modules at Level 3 can be used as an alternative to GCSE Science.

Applicants are expected to achieve a minimum of 84 UCAS points.

Applicants will normally have studied a two-year level 3 programme at 'A' Level, to include Biology, or a vocational Level 3 Diploma. Normally applicants will be expected to show achievements in science modules at Merit grade or above in vocational programmes. This reflects the science-based nature of the programmes.

Applicants without appropriate achievements in science may be asked to undertake an assessment of scientific knowledge.

Applications from those that have significant life or work experience after leaving compulsory education will normally have studied and achieved an Access to HE courses or successfully completed a minimum of a one-year level 3 courses and/or be able to demonstrate that they are working at an appropriate level in English, Maths and Science through an assessment process.

Curriculum Map for BSc/BSc (Hons) Animal Bioscience and Management (Level 4)

Award Outcomes	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Academic Writing and Research	X	B	X	X	X	X		X	X		X	X		X	X							
Animal Anatomy and Physiology	X			X	X				X													X
Introduction to Genetics and Biochemistry	X	X	X	X	X	X			X													
Practical Animal Health and Husbandry		X					X	X	X	X	X		X	X	X							
Sustainable Earth	X	X		X	X			X	X		X	X	X	X	X					X	X	X
ELECTIVES																						
Exotic Animal Behaviour	X	X						X	X	X				X				X	X	X		
Canine and Feline Behaviour	X		X			X	X	X		X								X	X			
Equine Behaviour and Welfare	X	X	X	X	X	X	X	X	X	X	X	X			X			X	X			
Livestock Health	X	X	X	X								X	X									

A	Knowledge	Identify and describe key theories, ideas and terminology associated with the discipline.
B	Problem Solve	Solve straightforward, routine or predictable problems using strategies that are specified.
C	Analysis	Analyse data or ideas using specified procedures to generate usable findings.
D	Synthesis	Categorise information and draw on multiple sources to fulfil a specified purpose.
E	Evaluation	Review information in a balanced manner, using specified methods to fulfil a given purpose.
F	Digital Competence	Use technologies to enable or enhance the performance of specific tasks and demonstrate a commitment to developing appropriate digital competencies.
G	Team Work	Work with others to meet specified objectives and fulfil personal goals.
H	Career Develop	Recognise how learning within their programme links to future careers and identify the knowledge, skills and attributes associated with different relevant professions.
I	Communications	Communicate clearly to convey an understandable message in relation to specific tasks and audiences.
J	Practical Comp	Perform practical operations in predictable, routine situations that require the application of specified procedures.
K	Autonomy	Take responsibility for studies and self-development with guidance and support. Use the resources available to help learning.
L	Research	Recognise that research can generate theory and ideas that are used in practice.
M	Sustain Practice	Recognise the meaning and importance of sustainable practice and identify some of the ways that sustainable practice manifests.
N	Global	Identify a range of international examples or case studies that are associated with the discipline.
O	Ethics	Recognise some ethical challenges and appreciate the need or personal responsibility.
P	Placement	Not applicable
Q	Honours	Not applicable
R		Critically evaluate key scientific principles and apply knowledge to situations relating to the husbandry, behaviour and health of animals and the environment
S		Evaluate key scientific principles and apply knowledge to situations relating to the husbandry, behaviour and health of animals and the environment
T		Appraise external factors and their potential influence on the animal management.
U		Appreciate the scientific, societal, and environmental influences on animal science and be prepared to work within ethical and professional boundaries.
V		Display the attributes, behaviour and attitudes required in working life.

Curriculum Map for BSc/BSc (Hons) Animal Bioscience and Management (Level 5)

Award Outcomes	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Field and Laboratory skills	X	X	X		X	X		X	X	X	X		X								X	
Principles of Animal Management				X			X	X		X		X		X	X			X	X			
Animal Nutrition	X	X	X					X			X		X									X
Animal Welfare and Ethics				X	X	X			X			X			X					X	X	
Microbiology and Parasitology	X			X	X	X		X	X	X	X	X			X			X	X			
ELECTIVES																						
Management of Habitats and Protected Areas		X	X		X	X	X	X					X	X	X				X			
Principles of Animal Training	X	X	X		X		X		X	X					X							X
Incubation and Rearing	X				X	X				X			X	X	X				X			
Performance Horse Production and Evaluation	X	X	X		X		X		X	X				X	X			X		X		
Livestock Production	X	X	X	X	X	X	X		X	X	X	X	X									

A	Knowledge	Demonstrate a detailed knowledge of key theories, ideas and terminology associated with the discipline, with some appreciation of how knowledge is developed and used in practice.
B	Problem Solve	Select and use strategies to solve problems that are complex or unpredictable
C	Analysis	Analyse data using recognisable principles or approaches and draw out specific findings from this process with some awareness of the limitations of the approach.
D	Synthesis	Compare and contrast ideas and/or data to strengthen evidence or arguments towards a specified purpose.
E	Evaluation	Review information using selected methods to address complex issues or problems, with an awareness of some of the limitations of the source material
F	Digital Competence	Select and use appropriate technologies to enable or enhance the performance of specific tasks and appreciate the role information and communication technologies play in the discipline or relevant professions.
G	Team Work	Work productively with others on negotiated tasks and evaluate team performance with reference to some of the internal and external factors affecting success
H	Career Dev	Recognise, pursue and record personal development in a way that supports the needs of relevant professional employers.
I	Communications	Communicate effectively through different media and genre, for specialist and non-specialist audiences.
J	Practical Comp	Perform practical operations in more complex or unpredictable situations that require the selection and application of appropriate skills and review personal effectiveness in practical tasks.
K	Autonomy	Work independently and autonomously with only some supervision in academic and practical tasks; make decisions about when support is needed.
L	Research	Use research to inform the development of knowledge and understanding, and to inform decision-making.
M	Sustain Practice	Recognise the complexity of sustainable practice, and assess the sustainability of different practices, processes and/or developments.
N	Global	Compare and contrast international examples or case studies that are associated with the discipline and identify global factors or trends that have an impact on specific areas of study.
O	Ethics	Recognise some ethical challenges associated with research and within professional behaviour, and appreciate the role of personal responsibility and professional codes in complex ethical dilemmas
P	Placement	Not applicable
Q	Honours	Not applicable
R		Critically evaluate key scientific principles and apply knowledge to situations relating to the husbandry, behaviour and health of animals and the environment
S		Apply practical skills to the management of domestic, captive, and wild animals and their environments
T		Appraise external factors and their potential influence on the animal management.
U		Appreciate external factors and their potential influence on the animal management
V		Be prepared to work within ethical and professional boundaries.

Curriculum Map for BSc/BSc (Hons) Animal Bioscience and Management Studies (Level 6)

Award Outcomes	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Research Project			X								X	X			X		X					
Recent Advances in Animal Management		X	X			X	X	X	X				X				X					
Sustainable Development in the Animal Industry	X	X					X	X	X		X	X	X	X	X		X			X	X	X
Population Genetics	X		X	X	X						X	X		X						X	X	
ELECTIVES																						
Enclosure Design and Stock Management	X	X		X															X			
Behavioural Ecology	X				X	X	X		X		X	X					X	X				
Advanced Equine Nutrition	X			X					X		X						X	X		X	X	X
Career Planning and Self Development	X	X		X	X			X	X		X	X										X
Global Food Production and Supply Chain Efficiency	X		X	X	X	X	X	X	X		X	X	X	X	X					X		

A	Knowledge	Demonstrate a detailed and specialised knowledge of a range of theories, ideas, terminology and contexts associated with the discipline, with a clear appreciation of the ways in which knowledge is developed and the provisional nature of knowledge.
B	Problem Solve	Select, devise and evaluate the use of appropriate strategies to solve complex, unpredictable, ambiguous and real-world problems.
C	Analysis	Analyse complex data using appropriately selected techniques; draw out robust findings in this process; and, thoroughly evaluate the effectiveness of the analytical strategy.
D	Synthesis	Select and combine ideas and/or data to generate meaningful and convincing composite evidence or arguments with a clear purpose.
E	Evaluation	Review complex and unpredictable information to address unpredictable, ambiguous or real-world problems, with a good awareness of the limitations of both the material under review and the analytical approach.
F	Digital Competence	Select, use and evaluate technologies to enable or enhance the performance of specific tasks, and appreciate the evolution of technology in their discipline.
G	Team Work	Work effectively with others, with minimal or no supervision, to achieve positive outcomes; demonstrate leadership and management capabilities within a team situation; and critically assess their personal contribution to the team.
H	Career Dev	Recognise, pursue, record and reflect on personal development to pursue personal career goals and appreciate the changing nature of the workplace and the need for personal resilience and lifelong learning
I	Communications	Communicate effectively and professionally for a range of different purposes and through different modes, with consideration of audience needs as well as other contextual factors such as commercial sensitivity, impact maximisation and accessibility requirements.
J	Practical Comp	Perform practical operations in complex, unpredictable, real-world situations that require the selection of combined or novel practical skills and critically review personal effectiveness in practical tasks with reference to relevant professional standards.
K	Autonomy	Act independently and autonomously with minimum supervision in academic and practical tasks.
L	Research	Select and use research to inform the development of knowledge and understanding, and to inform decision-making.
M	Sustain Practice	Evaluate the sustainability of practices, processes or developments, with attention to different stakeholder perspectives, unintended consequences, economic and social dimensions, or environmental considerations.
N	Global	Compare and contrast international examples or case studies that are associated with the discipline and work with an active awareness of global factors or trends that have an impact on specific areas of study.
O	Ethics	Locate a range of ethical issues associated with their own research or professional behaviours, and demonstrate personal responsibility for ethical choices, including adherence to professional codes in complex ethical dilemmas.
P	Placement	Not applicable
Q	Honours	Effectively plan and undertake research.
R		Critically evaluate key scientific principles and apply knowledge to situations relating to the husbandry, behaviour and health of animals and the environment
S		Apply practical skills to the management of domestic, captive and wild animals and their environments
T		Appraise external factors and their potential influence on the animal management.
U		Appreciate the scientific, societal and environmental influences on animal science and Management
V		be prepared to work within ethical and professional boundaries.