Programme Specification: Undergraduate

For Academic Year 2026/27

1. Course Summary

Names of programme and award title(s)	MSci Bioveterinary Science MSci Bioveterinary Science with International Year (see Annex for details) MSci Bioveterinary Science with Work Placement Year (see Annex for details)
Award type	Single Honours (Masters)
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	4 years; 5 years with either the International Year or Placement Year between years 2 and 3
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	n/a
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Fee for 2026/27 is £9,790* **International students:** Fee for 2026/27 is £18,200** The fee for the international year abroad is calculated at 15% of the standard year fee The fee for either the work placement year is calculated at 20% of the standard year fee

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

** These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

*** These fees are for new students. We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on this subject. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

3. Overview of the Programme

The MSci Bioveterinary Science programme is an integrated master's degree that provides an advanced, research-led education in animal health, disease and veterinary diagnostics. Building on foundational knowledge in animal physiology, anatomy, biochemistry and molecular and cellular biology, the programme enables students to develop a coherent and critical understanding of the biological principles underpinning health and disease across a range of animal species, including livestock, companion animals, wildlife, birds and display animals.

The curriculum supports progression from core disciplinary knowledge to advanced conceptual understanding, with emphasis on the integration of molecular, cellular, organismal and population-level perspectives. Students will develop an in-depth understanding of communicable and non-communicable diseases of veterinary and public health importance, linking disease aetiology and pathophysiology to diagnosis, monitoring, treatment and prevention. Advanced veterinary diagnostic approaches, including laboratory-based testing, disease surveillance and emerging technologies, are critically evaluated within clinical, research and regulatory contexts.

The programme embeds a strong One Health framework, enabling students to analyse zoonotic and notifiable diseases at the animal-human-environment interface, and to evaluate associated regulatory, ethical and policy considerations. Broader bioveterinary themes, including animal nutrition, welfare and behaviour, are explored to demonstrate how bioveterinary science contributes to food security, sustainability and responsible animal management within commercial and non-commercial settings.

The MSci fourth year of study is designed to enable students to enhance employability and subject-specific knowledge through the development of advanced problem-solving and communication skills. A defining feature of the programme is the extended final-year research project, which provides substantial experience of independent scientific enquiry and immersion in research culture. **During this experiential period of professional practice, students will develop enhanced research skills in the critical evaluation of scientific literature and in the design and conduct of an authentic, hypothesis-driven research study, supported by their academic supervisor and wider research team.**

Through this research-led approach, students will demonstrate the ability to formulate research questions, design and conduct experimental or investigative studies, apply appropriate quantitative and qualitative analytical approaches, and critically interpret and communicate findings. **The extended research project supports the development of higher-level independent technical, analytical and evaluative skills expected of graduates at master's level, and is of particular value for those seeking to progress to doctoral study or research-intensive roles in industry or the wider bioscience sector.**

Alongside subject-specific knowledge, the programme places strong emphasis on the development of high-level transferable and professional skills, including critical evaluation of scientific literature, data analysis, scientific writing, effective communication to specialist and non-specialist audiences, and leadership and teamwork. These skills are embedded through innovative and authentic assessments and supported by a comprehensive laboratory and academic development programme.

The MSci Bioveterinary Science programme provides strong preparation for careers in veterinary diagnostic laboratories, research and development, public and animal health, regulatory and advisory roles, or progression to doctoral study or veterinary medicine.

Distinctive features of the course include:

- A contemporary, research-led curriculum focused on the application of bioscience to animal health, disease and veterinary diagnostics, with an extended MSci research project in the final year;
- Innovative and relevant assessments designed to foster independence, creativity, leadership and reflective practice, including case-based learning, presentations and research-led assessments;
- A core laboratory programme delivered in well-equipped modern laboratories, developing advanced practical and analytical skills relevant to bioveterinary research and diagnostics;
- A wide range of final-year research project opportunities aligned with staff expertise and current challenges in bioveterinary and animal health sciences;
- The Undergraduate Student Research Conference and MSci conference, providing opportunities to present research findings in a realistic scientific conference setting;
- Opportunities for experiential learning through an optional Work Placement between level 5 and level 6, including placements in research institutes or veterinary diagnostic laboratories;
- The option to include study abroad, either as a semester abroad or an International Year between level 5 and level 6;

- The opportunity to study a language alongside your programme.

4. Aims of the programme

The broad aims of the programme are to:

- Enable you to specialise in bioveterinary science to Master's level through a four-year integrated Master's programme, developing key skills and programme outcomes to an advanced level;
- Provide you with advanced knowledge, understanding, and skills in animal biology, pathology, diagnostics, and infectious disease control;
- Prepare you for further study, particularly research-focused postgraduate work, or for employment in bioveterinary science, veterinary diagnostics, public, animal and environmental health, or related industries;
- Foster your interest in the biosciences, with a focus on research and development in bioveterinary science, within a supportive and intellectually stimulating environment;
- Develop a broad range of employability skills, including numeracy, critical thinking, and an objective scientific approach to problem-solving;
- Build advanced independent research skills through enquiry-based and experiential learning, supported by an in-depth final-year research project, equipping you for further study or professional practice.

5. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to demonstrate knowledge and understanding of:

- core bioscience topics that underpin the study of bioveterinary science including: anatomy and physiology; molecular biology; genetics; biochemistry; cell biology and their application to the development, diagnosis and treatment of animal diseases;
- the pathophysiology and clinical presentation of infectious and non-communicable animal diseases in a range of animal taxa, the range of methods common in veterinary diagnostics laboratories for their diagnosis, screening and monitoring, and approaches to treatment;
- current and emerging approaches to the prevention and control of infectious diseases affecting wildlife, livestock, companion animals and birds, including vaccine development and biosecurity measures applied to the control of disease transmission, and the emergence and control of zoonotic disease at the human animal-environment interface as part of a One Health approach;
- animal health and welfare, including the fundamental role of animal nutrition and consequences of deficiency, animal welfare legislation, and their application to commercial food production, security and sustainability;
- regulatory frameworks applied to disease outbreak management and notifiable infectious diseases at local and national levels through agencies including the Department for Environment and Rural Affairs (DEFRA) and the Animal and Plant Health Agency (APHA), and wider international contexts;
- experimental methods for the investigation of relevant areas of bioveterinary science, diagnostics and infectious disease, including the scientific method, hypothesis-driven investigations and the critical nature of evidence and scientific debate;
- current developments in bioveterinary science, including areas of ethical and public concern.

In addition to those outcomes listed above, which are developed through to level 7, as appropriate, to an advanced level, MSci Bioveterinary students will also be able to demonstrate advanced knowledge and understanding of:

• The principles and applications of cutting-edge research methodologies and techniques in the study of Bioveterinary and the wider Biosciences to an advanced level;
• The context of their extended research project in relation to on-going research activity in their field of study and the wider biosciences.

Subject specific skills

Successful students will be able to:

- evaluate scientific literature with a full and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application;
- attain competence in a range of analytical laboratory techniques and employ a variety of methods in investigating, acquiring, recording and analysing information;
- design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results;
- work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP);
- recognise philosophical and ethical issues relevant to the subject;
- apply scientific method, planning, and analytical skills to carry out a research project;
- apply knowledge and understanding to familiar and unfamiliar problems.

In addition to those outcomes listed above, which are developed through to level 7, as appropriate, to an advanced level, MSci Bioveterinary students will also:

- Develop an advanced understanding of the processes involved in research dissemination and the acquisition of research funding;
- Critically evaluate current literature and complex methodologies to an advanced level in relevant areas of contemporary in bioveterinary.

Key or transferable skills (including employability skills)

Successful students will be able to:

- develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity;
- acquire, analyse, synthesise, summarise and present information from a range of sources; prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually;
- use the internet and other electronic sources effectively and critically as a means of communication and a source of information;
- cite and reference work in an appropriate manner, ensuring academic integrity;
- communicate effectively to a variety of audiences by written, spoken and graphical means using appropriate techniques and scientific language;
- develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills;
- work with others to identify and achieve collaborative goals and responsibilities and perform in a respectful manner that is accepting of the viewpoints and opinions of others;
- motivate yourself and sustain that motivation over an extended period of time.

In addition to those outcomes listed above, which are developed through to level 7, as appropriate, to an advanced level, MSci Bioveterinary students will also:

• Develop greater autonomy in the planning and implementation of tasks associated with your research project and taking responsibility for your workload.

Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-curricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social, environmental and ethical responsibility.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

6. How is the programme taught?

Diversity, flexibility, and inclusivity is at the heart of our Education Strategy. Your Student Voice helps us to shape what we do, and we include students, local employers, and professional bodies in our decision-making process.

The delivery of our programme will include the following types of activities:

Digital resources: These include provision of short videos and directed reading, aligned with key learning

outcomes and supporting campus-based lectures, tutorials, and workshops focused on active learning through application of content as part of a 'flipped classroom' approach. This also gives you more flexibility to decide how, when, and where to study, with the opportunity to submit questions based on the material anonymously in advance of taught sessions.

Campus-based tutorials and workshops: Designed to promote active learning through application and discussion of core knowledge, building on pre-session digital resources. Tutorials and workshops help promote social learning, develop a sense of community, and give you an opportunity to deepen your understanding of core issues, ask questions, reflect on your own learning, and discuss content with other students and your tutors. Other workshops will also support data analysis and report writing, developing wider academic skills including IT literacy and cutting-edge skills in computational analysis relevant to animal health, diagnostics, and disease monitoring.

Laboratory practicals: A comprehensive laboratory programme covering a wide range of modern bioveterinary, molecular, and diagnostic techniques, applying theoretical knowledge from across the course, training you in the skills needed for a career in bioveterinary science. You will develop skills in experimental design through enquiry-based learning, ensuring you develop both independent and team-based skills.

Case-based learning (CBL) tutorials: Students are expected to play a full part and, often, to lead these discussions. Case-based learning (CBL) is a student-centred style, based on case studies that help you contextualise content taught across other modules. You will also develop key employability skills such as leadership, communication, and evidence-based problem solving in animal health, welfare, and disease management.

Live, online tutorials, workshops and drop-in sessions: These additional sessions to the core academic programme cover topics common to all students in the School of Life Sciences, such as developing skills in effective note-taking, literature analysis, and science communication, and support development of employability skills through reflection on guest sessions delivered by alumni and invited speakers from industry, veterinary practice, and wider careers.

Independent study: Based on directed reading from textbooks, research papers, and other media to support your learning of core material and deepen your understanding of the subject.

Your third-year Research Project gives you the opportunity to undertake a piece of independent experimental research supervised and supported by a member of staff in a selected area of contemporary bioveterinary science, aligned with your interests and supporting your progression to the MSci final year.

MSci study at level 7 (fourth year): This will further develop your research skills in the critical evaluation of scientific literature, and an extended research project will give you the opportunity to design and conduct an in-depth research project in an area of bioveterinary science, animal health, or infectious disease, including formulating a complete research strategy and producing a grant proposal. Research skills in these areas will also be developed in a series of research seminars and journal club-style presentations/discussion in an Advanced Research Topics module.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

7. Teaching Staff

University life is not just about the content of your degree. It is also an opportunity to network, to speak to people working in fields that excite you. Here in Life Sciences, you will meet a diverse range of staff that you can see by using the following link: https://www.keele.ac.uk/lifesci/people/.

Our staff include world-leading researchers, clinical practitioners and experts in learning and teaching. As part of their training, all staff complete post-graduate courses on learning and teaching. Some take this to Masters level and beyond, choosing to specialise in pedagogic research to ensure that our programmes are taught to the very highest standards. Members of the School of Life Sciences hold recognised or accredited teaching qualifications, and the majority are Fellows or Associates of the Higher Education Academy (HEA), whilst a number are Senior Fellows of the HEA. Several Life Sciences' staff members have been awarded Keele's prestigious Excellence in Teaching and Learning awards and several were awarded a KeeleSU Education Award.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the structure of the Programme?

The academic year is divided into two taught semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid- December (semester one), and from mid-January to the end of April (semester two). Details of each semester can be found using the following link: https://www.keele.ac.uk/students/academiclife/keydates/. Our programme is organised into discrete modules. Each module is assessed independently and awarded a set number of credits (usually 15 or 30). A 15-credit module equates to 150 hours of student work. Some modules are compulsory and you are required to complete them. Others are optional, giving you some choice in what you want to study.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules - a module that you are required to study on this course;
- Optional modules - these allow you some limited choice of what to study from a list of modules.

At Level 4, we have consolidated all of your modules into four, compulsory 30-credit modules. This will provide a solid foundation to your degree, regardless of your academic background. We assume no prior knowledge and will make sure that Level 4 gives you the skills needed to succeed at Levels 5 and 6.

At Level 5, 12.5% of the modules are optional, and at Level 6 just over 25% are optional. This allows you to more flexibility to tailor your degree as you progress through it.

At Levels 5 and 6, optional modules include Global Challenge Pathways - a choice of modules from different subject areas that count towards the overall credit requirement but not the number of subject-related credits.

Global Challenge Pathways

This programme includes the option for you to take a Global Challenge Pathway. These modules offer you an exciting opportunity to work with students and staff from different disciplines to explore topical global issues such as power and conflict, health inequalities, climate change, generative AI, social justice, global citizenship, and enterprise from different perspectives.

Global Challenge Pathways can be taken as one 15-credit module at Levels 5 and 6. For more information about our Global Challenge Pathways please visit:
https://www.keele.ac.uk/study/undergraduate/globalchallengepathways/

Modern Languages or Certificate in TESOL

Alternatively, you could choose to study modules with the University Language Centre. The Language Centre offers three pathways; The Language Specialist, The Language Taster, and The Trinity Certificate in Teaching English to Speakers of Other Language (TESOL). Language Centre modules are available separately for students at Levels 4 and 5. At Level 6 they are included within the Global Challenge Pathways.

If you choose the Language Specialist pathway, you will automatically be enrolled on a Semester 2 Modern Language module as a continuation of your language of choice as a faculty funded 'additional' module. Undertaking a Modern Languages module in Semester 2 is compulsory if you wish to continue to the Language Specialist Global Challenge Pathway the following academic year.

For more information about Languages option modules available to you please visit the following webpages.

For Level 4 and 5 students please visit: https://www.keele.ac.uk/study/languagecentre/languagecentreoptions/

For Level 6 students please visit: https://www.keele.ac.uk/students/academiclife/global-challenge-pathways/

For further information on the content of modules currently offered, please visit:
https://www.keele.ac.uk/recordsandexams/modulecatalogue/

A summary of the credit requirements per year is as follows.

Year	Compulsory	Optional	
		Min	Max
Level 4	120	0	0
Level 5	105	15	15
Level 6	90	30	30
Level 7	120	0	0

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Molecules of Life	LSC-10097	30	Semester 1
Animal Physiology and Anatomy	LSC-10105	30	Semester 1
Practical and Academic Skills in Bioscience	LSC-10103	0	Semester 1-2
Molecular Cell Biology	LSC-10066	30	Semester 2
Animal Health and Disease	LSC-10095	30	Semester 2

Level 4 Module Rules

LSC-10103 Practical and Academic Skills in Bioscience is a compulsory zero-credit module. All laboratory work across this Level of study will be coordinated through this module and assessed within other credit-bearing modules across the year, where appropriate. This module will also develop wider academic skills and includes additional academic support and development material to enhance your overall student experience and develop key employability skills. The module will be passed via attendance to a minimum 70% of core sessions and successful completion of practical skills assessment (OSPE).

Students who fail this module will transfer to Studies in Bioveterinary Science. This is not accredited by the RSB.

Level 5

Compulsory modules	Module Code	Credits	Period
Microbes, Viruses and Parasites	LSC-20073	15	Semester 1
Animal Behaviour	LSC-20091	15	Semester 1
Veterinary Diagnostics	LSC-20117	30	Semester 1
Practical and Professional Skills in Bioscience	LSC-20127	0	Semester 1-2
Research and Analytical Skills	LSC-20056	15	Semester 2
Animal Nutrition and Health	LSC-20099	15	Semester 2
Current Topics in Bioveterinary Science	LSC-20119	15	Semester 2

Optional modules	Module Code	Credits	Period
Flexible Work Placement (Level 5)	NAT-20011	15	Semester 1-2
Animal Adaptations	LSC-20071	15	Semester 2

Level 5 Module Rules

LSC-20107 *Practical and Professional Skills in Bioscience* is a compulsory zero-credit module. All laboratory work across this Level of study will be coordinated through this module and assessed within other credit-bearing modules across the year, where appropriate. This module will also develop advanced academic skills in literature searching and analysis and includes additional career development workshops, enhancing your overall student experience and developing key employability skills. The module will be passed via attendance to a minimum 70% of core sessions and successful completion of practical skills assessment (OSPE).

Students who fail this module will transfer to Studies in Bioveterinary Science. This is not accredited by the RSB.

Students studying abroad for one semester at level 5, will undertake relevant lab sessions in LSC-20127 for the semester they are studying at Keele and a pass mark will be based on attendance to a minimum of 70% of the taught laboratory sessions for that semester.

Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6)

Level 6

Compulsory modules	Module Code	Credits	Period
Case Studies in Animal Infection and Control	LSC-30086	15	Semester 1
Food Security and Sustainability	LSC-30088	15	Semester 1
Research Project	LSC-30102	30	Semester 1-2
Employability and Communication Skills in Bioscience	LSC-30106	15	Semester 1-2
Animal Welfare	LSC-30072	15	Semester 2

Optional modules	Module Code	Credits	Period
Animals and Society	GEG-30021	15	Semester 1
Human Parasitology	LSC-30036	15	Semester 1
Conservation Biology	LSC-30043	15	Semester 1
Tropical Biology Field Course	LSC-30066	15	Semester 1
Flexible Work Placement (Level 6)	NAT-30008	15	Semester 1-2
Professional Experience in Education	NAT-30012	15	Semester 1-2
Epidemiology	LSC-30084	15	Semester 2

Level 6 Module Rules

NAT-30008 *Flexible Work Placement (Level 6) and* NAT-30012 *Professional Experience in Education* cannot be taken together.

Level 7

Compulsory modules	Module Code	Credits	Period
Literature Review and Grant Proposal	LSC-40065	30	Semester 1
Advanced Research Topics in Bioveterinary Science	LSC-40165	30	Semester 1
MSci Extended Research Project	LSC-40063	60	Semester 1-2

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Level 4

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Core biological topics that underpin the study of bioveterinary science including anatomy and physiology, molecular biology; genetics; biochemistry; cell biology and their application to the development, diagnosis and treatment of animal diseases	All modules
The pathophysiology and clinical presentation of infectious and non-communicable animal diseases in a range of animal taxa, the range of methods common in veterinary diagnostics laboratories for their diagnosis, screening and monitoring, and approaches to treatment	Animal Health and Disease - LSC-10095 Animal Physiology and Anatomy - LSC-10105
Current and emerging approaches to the prevention and control of infectious diseases affecting wildlife, livestock, companion animals and birds, including vaccine development and biosecurity measures applied to the Control of disease transmission, and the emergence and control of zoonotic disease at the human-animal-environment interface as part of a One Health approach	Animal Health and Disease - LSC-10095
Animal health and welfare, including animal physiology, nutrition and consequences of deficiency, animal welfare legislation, and their application to commercial food production, security and sustainability	Animal Health and Disease - LSC-10095 Animal Physiology and Anatomy - LSC-10105
Regulatory frameworks applied to disease outbreak management and notifiable infectious diseases at local and national levels through agencies including DEFRA and the APHA, and wider international contexts	Animal Health and Disease - LSC-10095
Experimental methods for the investigation of relevant areas of bioveterinary science, diagnostics and infectious disease, including the scientific method, hypothesis-driven investigations and the critical nature of evidence and scientific debate	Molecular Cell Biology - LSC-10066 Animal Health and Disease - LSC-10095 Molecules of Life - LSC-10097 Practical and Academic Skills in Bioscience - LSC-10103
Current developments in bioveterinary science, including areas of ethical and public concern	All modules, particularly Animal Physiology and Anatomy LSC-10105 and Animal Health and Disease: LSC-10095

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Evaluate scientific literature with a full and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application	All modules
Attain competence in a range of analytical laboratory techniques and employ a variety of methods in investigating, acquiring, recording and analysing information	Practical and Academic Skills in Bioscience - LSC-10103
Design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results	Molecular Cell Biology - LSC-10066 Molecules of Life - LSC-10097 Practical and Academic Skills in Bioscience - LSC-10103
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Practical and Academic Skills in Bioscience - LSC-10103
Recognise philosophical and ethical issues relevant to the subject	Molecular Cell Biology - LSC-10066 Practical and Academic Skills in Bioscience - LSC-10103
Apply scientific method, planning, and analytical skills to carry out a research project	Practical and Academic Skills in Bioscience - LSC-10103
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity	All modules
Acquire, analyse, synthesise, summarise and present information from a range of sources	All modules
Prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually	Molecular Cell Biology - LSC-10066 Molecules of Life - LSC-10097 Practical and Academic Skills in Bioscience - LSC-10103
Use the internet and other electronic sources effectively and critically as a means of communication and a source of information	All modules
Cite and reference work in an appropriate manner, ensuring academic integrity	All modules
Communicate effectively to a variety of audiences by written, spoken and graphical means using appropriate techniques and scientific language	All modules
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	All modules
Work with others to identify and achieve collaborative goals and responsibilities and perform in a respectful manner that is accepting of the viewpoints and opinions of others	All modules, particularly the practical component of Practical and Academic Skills in Bioscience LSC-10103 and case-based learning sessions in Animal Health and Disease- LSC-10095
Motivate yourself and sustain that motivation over an extended period of time	All modules

Level 5

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Core biological topics that underpin the study of bioveterinary science including: anatomy and physiology, molecular biology; genetics; biochemistry; cell biology and their application to the development, diagnosis and treatment of animal diseases	Animal Nutrition and Health - LSC-20099
The pathophysiology and clinical presentation of infectious and non-communicable animal diseases in a range of animal taxa, the range of methods common in veterinary diagnostics laboratories for their diagnosis, screening and monitoring, and approaches to treatment	Veterinary Diagnostics - LSC-20117 Current Topics in Bioveterinary Science - LSC-20119
Current and emerging approaches to the prevention and control of infectious diseases affecting wildlife, livestock, companion animals and birds, including vaccine development and biosecurity measures applied to the control of disease transmission, and the emergence and control of zoonotic disease at the human-animal-environment interface as part of a One Health approach	Veterinary Diagnostics - LSC-20117 Current Topics in Bioveterinary Science - LSC-20119
Animal health and welfare, including animal physiology, nutrition and consequences of deficiency, animal welfare legislation, and their application to commercial food production, security and sustainability	Animal Behaviour - LSC-20091 Animal Nutrition and Health - LSC-20099 Current Topics in Bioveterinary Science - LSC-20119
Regulatory frameworks applied to disease outbreak management and notifiable infectious diseases at local and national levels through agencies including DEFRA and the APHA, and wider international contexts	Current Topics in Bioveterinary Science - LSC-20119
Experimental methods for the investigation of relevant areas of bioveterinary science, diagnostics and infectious disease, including the scientific method, hypothesis-driven investigations and the critical nature of evidence and scientific debate	Veterinary Diagnostics - LSC-20117 Practical and Professional Skills in Bioscience - LSC-20127
Current developments in bioveterinary science, including areas of ethical and public concern	All modules, particularly Current Topics in Bioveterinary Science: LSC-20119

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Evaluate scientific literature with a full and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application	All modules
Attain competence in a range of laboratory techniques and employ a variety of methods in investigating, acquiring, recording and analysing information	Research and Analytical Skills - LSC-20056 Animal Behaviour - LSC-20091 Veterinary Diagnostics - LSC-20117 Practical and Professional Skills in Bioscience - LSC-20127
Design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results	Research and Analytical Skills - LSC-20056 Veterinary Diagnostics - LSC-20117 Practical and Professional Skills in Bioscience - LSC-20127
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Practical and Professional Skills in Bioscience - LSC-20127
Recognise philosophical and ethical issues relevant to the subject	All modules
Apply scientific method, planning, and analytical skills to carry out a research project	Research and Analytical Skills - LSC-20056 Veterinary Diagnostics - LSC-20117 Practical and Professional Skills in Bioscience - LSC-20127
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity	All modules
Acquire, analyse, synthesise, summarise and present information from a range of sources	All modules
Prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually	Research and Analytical Skills - LSC-20056 Veterinary Diagnostics - LSC-20117 Practical and Professional Skills in Bioscience - LSC-20127
Use the internet and other electronic sources effectively and critically as a means of communication and a source of information	All modules
Cite and reference work in an appropriate manner, ensuring academic integrity	All modules
Communicate effectively to a variety of audiences by written, spoken and graphical means using appropriate techniques and scientific language	All modules
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	All modules
Work with others to identify and achieve collaborative goals and responsibilities and perform in a respectful manner that is accepting of the viewpoints and opinions of others	All modules, particularly practical classes in Practical Skills in Bioscience- LSC-20107
Motivate yourself and sustain that motivation over an extended period of time	All modules

Level 6

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Core biological topics that underpin the study of bioveterinary science including: anatomy and physiology, molecular biology; genetics; biochemistry; cell biology and their application to the development, diagnosis and treatment of animal diseases	All modules
The pathophysiology and clinical presentation of infectious and non-communicable animal diseases in a range of animal taxa, the range of methods common in veterinary diagnostics laboratories for their diagnosis, screening and monitoring, and approaches to treatment	Case Studies in Animal Infection and Control - LSC-30086 Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Current and emerging approaches to the prevention and control of infectious diseases affecting wildlife, livestock, companion animals and birds, including vaccine development and biosecurity measures applied to the control of disease transmission, and the emergence and control of zoonotic disease at the human-animal-environment interface as part of a One Health approach	Human Parasitology - LSC-30036 Epidemiology - LSC-30084 Case Studies in Animal Infection and Control - LSC-30086 Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Animal health and welfare, including animal physiology, nutrition and consequences of deficiency, animal welfare legislation, and their application to commercial food production, security and sustainability	Animals and Society - GEG-30021 Animal Welfare - LSC-30072 Food Security and Sustainability - LSC-30088 Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Regulatory frameworks applied to disease outbreak management and notifiable infectious diseases at local and national levels through agencies including DEFRA and the APHA, and wider international contexts	Case Studies in Animal Infection and Control - LSC-30086 Food Security and Sustainability - LSC-30088 Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Experimental methods for the investigation of relevant areas of bioveterinary science, diagnostics and infectious disease, including the scientific method, hypothesis-driven investigations and the critical nature of evidence and scientific debate	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Current developments in bioveterinary science, including areas of ethical and public concern	All modules

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Evaluate scientific literature with a full and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application	All modules
Attain competence in a range of laboratory techniques and employ a variety of methods in investigating, acquiring, recording and analysing information	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Recognise philosophical and ethical issues relevant to the subject	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Apply scientific method, planning, and analytical skills to carry out a research project	Research Project - LSC-30102 Flexible Work Placement (Level 6) - NAT-30008
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity	All modules
Acquire, analyse, synthesise, summarise and present information from a range of sources	All modules
Prepare, process, interpret and present data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually	All modules, particularly: Research Project LSC-30102 Flexible Work Placement (Level 6) NAT-30008
Use the internet and other electronic sources effectively and critically as a means of communication and a source of information	All modules
Cite and reference work in an appropriate manner, ensuring academic integrity	All modules
Communicate effectively to a variety of audiences by written, spoken and graphical means using appropriate techniques and scientific language	All modules
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	All modules
Work with others to identify and achieve collaborative goals and responsibilities and perform in a respectful manner that is accepting of the viewpoints and opinions of others	All modules, particularly: Research Project LSC-30102 Flexible Work Placement (Level 6) NAT-30008
Motivate yourself and sustain that motivation over an extended period of time	All modules

Level 7

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Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
The principles and applications of cutting-edge research methodologies and techniques in the study of Bioveterinary and the wider Biosciences to an advanced level;	All L7 Modules
The context of their extended research project in relation to on-going research activity in their field of study and the wider biosciences.	All L7 Modules

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Develop an advanced understanding of the processes involved in research dissemination and the acquisition of research funding;	All L7 Modules
Critically evaluate current literature and complex methodologies to an advanced level in relevant areas of contemporary in bioveterinary.	All L7 Modules

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
• Develop greater autonomy in the planning and implementation of tasks associated with your research project and taking responsibility for your workload.	All L7 Modules

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

MSco Bioveterinary Science	480 credits	You will require at least 120 credits at levels 4, 5, 6 and 7 You must accumulate at least 360 credits in your main subject (out of 480 credits overall) to graduate with a named single honours degree in this subject.
Honours Degree **BSc (Hons) Bioveterinary Science**	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in your main subject (out of 360 credits overall), with at least 90 credits in each of the three years of study, to graduate with a named single honours degree in this subject. N.B. The award will be 'Studies in Bioveterinary Science' if a pass standard is not achieved in the Level 4 Practical and Academic Skills in Bioscience, Level 5 Practical and Professional Skills in Bioscience, or in your Level 6 Research Project module. A 'Studies in Bioveterinary Science' degree is not accredited by the Royal Society of Biology.
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

International Year option: in addition to the above students must pass a module covering the international year in order to graduate with a named degree including the 'international year' wording. Students who do not complete, or fail the international year, will be transferred to the three-year version of the programme.

Work Placement Year option: in addition to the above students must pass a non-credit bearing module covering the work placement year in order to graduate with a named degree including the 'with Work Placement Year' wording. Students who do not complete, or fail the work placement year, will be transferred to the three-year version of the programme.

10. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

Our assessment strategy will help you to develop and evidence your ability to:

- **Provide evidence-based solutions to current scientific problems.** Most often this is assessed through a range of essays, portfolios and literature reviews.
- **Present scientific findings.** Often these are lab reports or experimental projects that test your ability to pose scientific hypotheses, design experiments, understand methodologies, present findings, analyse data and situate your work in the current literature. Other assessments will also develop your skills in accessing, manipulating and presenting the outcomes of computational investigations, including in bioinformatics and the use of small molecule and macromolecular databases.
- **Communicate effectively with a range of audiences.** These can include scientific posters, public-facing information leaflets, wikis, blogs or oral presentations, as well as more standard laboratory reports, proformas and literature reviews.
- **Work professionally.** Your final year, independent research project will give you an opportunity to demonstrate a range of professional skills such as leadership, innovation, time keeping, communication and the ability to work safely and ethically.
- **Work effectively in a team.** Most often this is assessed through group presentations but can also include competencies such as working together in the lab or other group assignments, such as in case-based learning sessions or delivering a group seminar.
- **Solve problems in a time-limited fashion.** Often in the work environment we are asked to solve problems in a relatively short amount of time. Our online tests and end-of-semester, online, open-book examinations will help you to evidence these skills.

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity

	Scheduled learning and teaching activities	Guided independent Study	Placements
Year 1 (Level 4)	42%	58%	0%
Year 2 (Level 5)	36.2%	61.3%	2.5%
Year 3 (Level 6)	32.8%	67.3%	0%

12. Accreditation

This programme is currently not accredited

13. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

14. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme: https://www.keele.ac.uk/study/

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 6.0 or equivalent.

English for Academic Purposes

Please note: All new international students entering the university will provide a sample of Academic English during their registration Using this sample, the Language Centre may allocate you to an English language module which will become compulsory. This will replace any GCP modules. *NB:* students can take an EAP module only with the approval of the English Language Programme Director and are not able to take any other Language modules in the same academic year.

English Language Modules at Level 4:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 5:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 6:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2); ENL-90005 Advanced Business English Communication
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

15. How are students supported on the programme?

The School of Life Sciences operates an open door policy. This means that you can contact any of our staff via email to request a meeting or discus any problem that you may be experiencing.

In addition to the open door policy, you can also contact the following people across Life Sciences for help and support:

- Programme Director or Director of Education for programme-, discipline- or School-related issues
- Module Manager for module-related issues
- Demonstrators for help during labs

- Academic Mentor for academic help and guidance
- Student Experience and Support Officers for more personal or pastoral help
- Early Resolution Officer to help advocate for you, for example, if you would like to raise a complaint
- Student Voice are a group of students from your programme that can advocate for you to the School

Student Services also offer a comprehensive range of specialist services that help you at any time from enrolment to graduation. The following link will provide more information:
https://www.keele.ac.uk/students/studentservices/

16. Learning Resources

Workshops and tutorials are delivered in modern teaching rooms across the University, including up-to-date PC suites for data analysis and bioinformatics workshops.

Practical sessions are held in dedicated teaching laboratories within the School of Life Sciences, over recent years these have been completely refitted, providing modern and well-equipped facilities supporting delivery of a diverse practical programmes (including the David Attenborough laboratories, opened in person by Sir David in 2019). Some sessions are also delivered in our new state-of-the-art Central Science Laboratories, which also provides extensive PC suite capacity for supporting workshops and student self-study. Other activities/resources include visits to local zoos, animal collections and wildlife parks, considering such topics as animal behavioural observation and quantification.

Further learning resources available to you on the Programme include:

- An extensive collection of books and journals held in the University Library on campus, or the health library situated at the Royal Stoke University Hospital.
- Access to a comprehensive range of ebooks, journals and published papers all available online
- The Keele Learning Environment (KLE) which provides easy access to a wide range of learning resources including core learning materials and other guidance/supporting resources, and Microsoft Teams for further content development and to facilitate live and interactive discussions.
- Additional academic skills resources, workshops and drop-in sessions available through the Keele Institute for Innovation and Teaching Excellence (KIITE).

17. Other Learning Opportunities

Study abroad (semester)

Students on the programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income dependent bursaries at Keele. Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

Study Abroad (International Year)

A summary of the International Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the International Year.

Work Placement Year

Students have the opportunity to apply directly for the 4-year 'with Work Placement Year' degree programme or to transfer onto the 4-year degree programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking their year-long placement. Eligibility rules are included in the

Annex.

Students wishing to take the work placement year should meet with the Programme Director to obtain their signature to confirm agreement before they will be allowed to commence their placement.

International students who require a Tier 4 visa must check with the Immigration Compliance Team prior to commencing any form of placement.

A summary of the Work Placement Year, which is a potential option for students after completion of year 2 (Level 5), is provided in the Annex for the Work Placement Year.

Secondments. These are shorter work-based placements that usually take place over the summer in between Level 5 and 6 and usually last between 2-8 weeks. They can be based locally in one of our research labs here at Keele, nationally or internationally. For example, often some our students will travel to Malaysia to work with our partner Universiti Sains Malaysia.

Tropical field trip. You could apply for our School tropical field course that takes place in Malaysia. These are often more conservational in nature, but again provide fantastic international experience and of course, will complement and broaden your programme of study in Biochemistry.

Operation Wallacea. This is a private company that supports a wide range of student projects with a particular focus on biodiversity and climate research. More information can be found at: https://www.opwall.com

Note: the opportunities described above are limited and dependent on external providers. We may not be able to offer them every year and there will be additional costs if you do successfully secure a place. We discuss all of these options in more detail across Level 4 and Level 5 so you can make an informed decision.

Other opportunities

There are a number of schemes available from e.g. Wellcome provide bursaries for students to gain laboratory experience in the summer vacation between level 5 and 6. Staff in Life Sciences have hosted these bursaries in the past and students who are interested can approach staff, who will have to submit an application on the students' behalf to the funding bodies (usually in January or February). Staff may also be willing to host students in their laboratories during the summer vacation on a voluntary basis.

Other learning opportunities for Bioveterinary students vary from year to year but include the opportunity to hear from, and talk to, a range of guest speakers and presenters including researchers from around the world. Some of these activities are timetabled as part of taught modules, others are organised separately as part of a school-wide seminar programme either in the School of Life Sciences, School of Chemical and Physical Sciences, or the School of Pharmacy and Bioengineering, but are widely advertised and undergraduate students are always welcome to attend.

The University also offer a range of wider opportunities to develop your academic skills, in addition to content delivered in your core programme, including careers support, peer mentoring and a variety of active citizenship opportunities to enhance your CV. For more detail see:
https://www.keele.ac.uk/study/undergraduate/additionalopportunities/

18. Additional Costs

Optional costs

There may be optional costs that students can choose to incur to enhance their learning experience. These are not required to complete the course. Details of these optional costs are outlined below to help you plan accordingly.

Optional Field Course at USM, Malaysia: £1200* travel and accommodation costs, plus £35* per day (14 days) subsistence costs.
Suitable clothing and other items to support field activities: £180*.

Optional 3 month research experience at USM, Malaysia: covered by Turing funding.

A lab coat will be provided to all students free of charge upon enrolment. Replacement lab coats will be at the student's expense (£10).

Additional costs will be associated with some of the additional opportunities described in section 16 of this document. We discuss all of these options in more detail across Level 4 and Level 5 so you can make an informed decision.

Activity	Estimated Cost
Optional costs	
Field course- optional hosted at USM, Malaysia - ravel and accommodation costs:	£1,200*
Field course- optional hosted at USM, Malaysia - £35* per day (14 days) subsistence costs.	£490*
Suitable clothing and other items to support field activities:	£180*
Replacement lab coat (if allocated one is lost):	£10
Optional 3 month research experience at USM, Malaysia: covered by Turing funding.	N/A
Total estimated additional costs:	£1,880*

*This price is not set by the University and is liable to increase.

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

Students may also incur general expenses related to university study, such as for printing, textbooks and other materials. Students who undertake a placement may be responsible for additional costs, such as travel, accommodation, and subsistence costs. For further information, please refer to the additional costs information

19. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Revalidation process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students in all three years of the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

20. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education:
http://www.qaa.ac.uk/quality-code
b. QAA Subject Benchmark Statement: Biosciences: (2023) https://www.qaa.ac.uk/docs/qaa/sbs/sbs-biosciences-23.pdf?sfvrsn=b570a881_4

c. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations
d. Royal Society of Biology Degree Accreditation Handbook (2025): RSB Accreditation Handbook 2025 Update.pdf

21. Annex - International Year

Bioveterinary Science with International Year

International Year Programme

Students registered for this Single Honours programme may either be admitted for or apply to transfer during their period of study at Level 5 to the International Year option. Students accepted onto this option will have an extra year of study (the International Year) at an international partner institution after they have completed Year 2 (Level 5) at Keele.

Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the standard programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the International Year option.

International Year Programme Aims

In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with:

1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject
2. Experience of a different culture, academically, professionally and socially

Entry Requirements for the International Year

Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff.

The criteria to be applied are:

- Academic Performance (an average of 55% across all modules in Semester 1 at Level 5 is normally required. Places on the International Year are then conditional on achieving an average mark of 55% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 55% requirement may progress to the International Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2nd semester of year 2 (Level 5), and by recommendation of the student's Academic Mentor, 1st and 2nd year tutors and programme director)

Students may not register for both an International Year and a Placement Year.

Student Support

Students will be supported whilst on the International Year via the following methods:

- Phone or Skype conversations with Study Abroad tutor, in line with recommended Academic Mentoring meeting points.
- Support from the University's Global Education Team

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme with International Year will be able to:

1. Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
2. Discuss the benefits and challenges of global citizenship and internationalisation
3. Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.
4. Use independent research skills to identify relevant information resources on a range of subjects related, or complementary, to Bioveterinary Science.
5. Demonstrate the use of critical thinking skills, augmented by creativity and curiosity, in discussing the application of their International Year studies to Bioveterinary Science.

In addition, students who complete the International Year will be able to:

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

Regulations

Students registered for the International Year are subject to the programme-specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise *at least 40%* in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any module with significant overlap to the Level 6 modules they will study on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

Additional costs for the International Year

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

22. Annex - Work Placement Year

Bioveterinary Science with Work Placement Year

Work Placement Year summary

Students registered for this programme may either be admitted for or apply to transfer during their studies to the 'with Work Placement Year' option. Students accepted onto this programme will have an extra year of study (the Work Placement Year) with a relevant placement provider after they have completed Year 2 (Level 5) at Keele.

Students who successfully complete both the second year (Level 5) and the Work Placement Year will be permitted to progress to Level 6. Students who fail to satisfactorily complete the Work Placement Year will normally revert to the 3-year programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the Work Placement Year option.

Work Placement Year Programme Aims

In addition to the programme aims specified in the main body of this document, the Work Placement Year aims to provide students with:

1. Provide experience of working in a subject-related laboratory or work place within an industrial, academic or public institution either in the UK or abroad.

Entry Requirements for the Work Placement Year

Admission to the Work Placement Year is subject to successful application, interview and references from appropriate staff. Students have the opportunity to apply directly for the 4-year 'with work placement year' degree programme, or to transfer onto the 4-year programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking the year-long work placement. Students who fail to pass the work placement year, and those who fail to meet the minimum requirements of the work placement year module, (* or equivalent, work placement), will be automatically transferred onto the 3-year degree programme.

* We recommend where possible students undertake a placement of between 9 - 12 months on a full-time basis to maximize academic and personal growth. However, the Faculty of Natural Sciences Work / Professional Placement Year mandates a minimum of 24 weeks in duration, ideally on a full-time basis, but no less than 21 hours per week. This enables those undertaking an unpaid placement to work on a part-time basis alongside their placement.

The criteria to be applied are:

- A good University attendance record and be in 'good academic standing'.
- Academic Performance (an average of 50% across all modules in Semester 1 at Level 5 is normally required. Places on the Work Placement Year are then conditional on achieving an average mark of 50% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 50% requirement may progress to the Work Placement Year. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- Students undertaking work placements will be expected to complete a Health and Safety checklist prior to commencing their work experience and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.
- *(International students only)* Due to visa requirements, it is not possible for international students who require a Tier 4 Visa to apply for direct entry onto the 4-year with Work Placement Year degree programme. Students wishing to transfer onto this programme should discuss this with student support, the academic tutor for the work placement year, and the Programme Lead. Students should be aware that there are visa implications for this transfer, and it is the student's responsibility to complete any and all necessary processes to be eligible for this programme. There may be additional costs, including applying for a new Visa from outside of the UK for international students associated with a transfer to the work placement programme.

Students may not register for both an International Year and a Work Placement Year.

Student Support

Students will be supported whilst on the Work Placement Year via the following methods:

- Regular contact between the student and a named member of staff who will be assigned to the student as their University supervisor. The University supervisor will be in regular contact with the student throughout the year, and be on hand to provide advice (pastoral or academic) and liaise with the Placement supervisor on the student's behalf if required.
- Two formal contacts with the student during the placement year: the University supervisor will visit the student in their placement organization at around 5 weeks after the placement has commenced, and then visit again (or conduct a telephone/video call tutorial) at around 15 weeks into the placement.
- Weekly supervision sessions will take place with the placement supervisor (or his/her nominee) throughout the duration of the placement.

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete the 'with Work Placement Year' option will be able to:

1. Demonstrate an ability to successfully work within their placement institution, to learn practical skills and develop their science base within the scope of their work project.

These learning outcomes will be assessed through the 30-credit bearing Work Placement Year module (NAT-30010).

Regulations

Students registered for the 'with Work Placement Year' option are subject to programme-specific regulations (if any) and the University regulations. In addition, during the Work Placement Year, the following regulations will apply:

- Students undertaking the Work Placement Year must successfully complete the zero-credit rated Work Placement Year (NAT-30010 Semester 1-2).
- In order to ensure a high quality placement experience, each placement agency will sign up to a placement contract (analogous to a service level agreement).
- Once a student has been accepted by a placement organisation, the student will make a pre-placement visit and a member of staff identified within the placement contract will be assigned as the placement supervisor. The placement supervisor will be responsible for ensuring that the placement experience meets the agreed contract agreed with the University.
- The placement student will also sign up an agreement outlining his/her responsibilities in relation to the requirements of each organisation.

Students will be expected to behave professionally in terms of:

(i) conforming to the work practices of the organisation; and

(ii) remembering that they are representatives of the University and their actions will reflect on the School and have an impact on that organisation's willingness (or otherwise) to remain engaged with the placement.

Additional costs for the Work Placement Year

Tuition fees for students on the Work Placement Year will be charged at 20% of the annual tuition fees for that year of study, as set out in Section 1. The Work Placement Year can be included in your Student Finance allocation; to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their placement provider, accommodation, food and personal costs. Depending on the placement provider additional costs may include parking permits, travel and transport, suitable clothing, DBS checks, and compulsory health checks.

A small stipend may be available to students from the placement provider during the placement but this will need to be explored on a placement-by-placement basis as some organisations, such as charities, may not have any extra money available. Students should budget with the assumption that their placement will be unpaid.

Eligibility for student finance will depend on the type of placement and whether it is paid or not. If it is paid, this is likely to affect student finance eligibility, however if it is voluntary and therefore unpaid, should not affect student finance eligibility. Students are required to confirm eligibility with their student finance provider.

International students who require a Tier 4 visa should check with the Immigration Compliance team prior to commencing any type of paid placement to ensure that they are not contravening their visa requirements.

23. Annex - Programme-specific regulations

Programme Regulations: Bioveterinary Science

Final Award and Award Titles	BSc (Hons) Bioveterinary Science BSc (Hons) Bioveterinary Science with International Year BSc (Hons) Bioveterinary Science with Work Placement Year
Intermediate Award(s)	Diploma in Higher Education Certificate in Higher Education
Last modified	December 2023
Programme Specification	https://www.keele.ac.uk/qa/programmespecifications

The University's Academic Regulations which can be found on the Keele University website (https://www.keele.ac.uk/regulations/)[1] apply to and regulate the programme, other than in instances where the specific programme regulations listed below over-ride them. These programme regulations list:

- *Exemptions* which are characterised by the omission of the relevant regulation.
- *Variations* which are characterised by the replacement of part of the regulation with alternative wording.
- *Additional Requirements* which set out what additional rules that apply to students in relation to this programme.

The following **exemptions, variations** and **additional requirements** to the University regulations have been checked by Academic Services and have been approved by the Faculty Education Committee.

A) EXEMPTIONS

The clause(s) listed below describe where an exemption from the University's Academic Regulations exists:

For the whole duration of their studies, students on this Programme are exempt from the following regulations:

- **No exemptions apply.**

B) VARIATIONS

The clause(s) listed below describe where a variation from the University's Academic Regulations exists:

Variation 1: No variations apply

C) Additional Requirements

The programme requirements listed below are in addition to the University's Academic Regulations:

Additional requirement 1: Laboratory, lecture and tutorial classes

1.1 Wearing a laboratory coat is compulsory in all classes held in laboratories. Students will not be allowed to attend the laboratory class without a laboratory coat.

1.2 Students must wear appropriate clothing in the laboratories, including sensible footwear. Closed shoes and low heels should be worn. This is to avoid tripping and to protect the feet in the case of spillages. Long hair must be tied back. Students who are inappropriately dressed may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause.

1.3 Students who arrive late to laboratory classes may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause.

1.4 Students who display serious misconduct in any class may, at the discretion of the member of staff in charge, be excluded from the class and recorded as being absent without good cause. Serious misconduct involves wilful damage to property, injury or threat to persons, or persistent disruption of teaching.

1.5 The unauthorised use of mobile phones or headphones is not permitted in any class.

1.6 Students are not permitted to record, video or photograph taught sessions or meetings with staff, except with the permission in advance of the staff concerned. Permission will be given where this is part of an approved disability adjustment. Any permission to record, video or photograph is for personal use only and all recordings, videos or photographs remain the property of the presenter and Keele University.

1.7 Students are required to read and follow the procedures in the School of Life Sciences Safety Handbook, which is available from the Life Science Noticeboard on the KLE.

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[1] References to University Regulations in this document apply to the content of the University's Regulatory Framework as set out on the University website here https://www.keele.ac.uk/regulations/.

Version History

This document

Date Approved: 20 March 2026

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes