

Programme Specification: Undergraduate

For students starting in Academic Year 2024/25

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Bioveterinary Science BSc (Hons) Bioveterinary Science with International Year (see Annex for details) BSc (Hons) Bioveterinary Science with Work Placement Year (see Annex for details)
Award type	Single Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Normal length of the programme	3 years; 4 years with either an Applied Life Sciences Placement or International Year between years 2 and 3 1-5 years part-time
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	<p>UK students:</p> <p>Fee for 2024/25 is £9,250*</p> <p>International students:</p> <p>Fee for 2024/25 is £20,700**</p> <p>The fee for the international year abroad is calculated at 15% of the standard year fee</p> <p>The fee for either the work placement year is calculated at 20% of the standard year fee</p>

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/>

** 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 Keele Bioveterinary Science programme provides broad and varied coverage of modern biological and animal sciences with a focus on animal health and disease, and veterinary diagnostics. Building on core knowledge of animal physiology, anatomy, biochemistry and molecular cell biology, you will explore a broad range of bioveterinary issues facing society and how scientific research is addressing these. You will develop a deeper understanding of communicable and non-communicable diseases of major animal species, including wildlife, livestock, birds, and companion and display animals. Here you will explore a range of routine tests available in veterinary diagnostics laboratories, how these are applied in the screening, diagnosis and monitoring of select diseases, and how this relates to the underlying pathophysiology and treatment of disease. Current and emerging approaches to the prevention and control of disease outbreaks through vaccination, biosecurity measures and genetic engineering will also be discussed and, as part of a One Health approach to the control of emergent diseases, you will explore zoonotic diseases of public health importance at the animal-human-environment interface, including notifiable infectious diseases and associated regulatory frameworks. Alongside these topics, animal nutrition, welfare and behaviour will also be explored and how collectively, bioveterinary and animal health sciences applies to food security and sustainability in commercial food production businesses. As such, the programme will be particularly suited to those interested in a career in veterinary diagnostic laboratories; research and development in bioveterinary and animal science and related fields; public, animal or environmental health; or progressing to further study in veterinary medicine.

As well as developing core knowledge in the subject, supported with a comprehensive laboratory programme, you will also develop a range of key transferable and employability skills related to the critical evaluation of scientific literature, effective communication in a variety of formats, and teamwork. Additional opportunities, such as the applied life sciences placement, year abroad, and a range of optional modules give you greater flexibility to tailor the structure and content of your programme to your own interests and career goals.

Distinctive features of the course include:

- A contemporary curriculum, with a focus on the applications of core bioscience subjects to animal health and disease, and diagnostics, which has been designed to meet requirements for Royal Society of Biology accreditation;
- Innovative and relevant assessments, designed to foster creativity and qualities of leadership and self-reflection including: group presentations (research posters, oral presentations), communicating to different audiences and contribution to case-based learning discussions;
- A core laboratory programme delivered in well-equipped modern laboratories and a wide range of final year research projects;
- The Undergraduate Student Research Conference, giving you the opportunity to present the outcomes of your final year research project in the context of a realistic research conference experience;
- The option to take an Work Placement between level 5 and level 6, which could include research and development at a partner institute or placement within veterinary diagnostic laboratories.
- The option to include study abroad in 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:

- Provide you with core knowledge, understanding and skills relevant to the study of animal biology, pathology, diagnostics, and infectious diseases and their control;
- Produce skilled and motivated graduates who are suitably prepared for graduate employment or further study within or outside of their field, including research and development in bioveterinary science, employment in areas related to veterinary diagnostics, or wider public, animal and environmental health, or further study in these areas
- Cultivate interest in the biosciences, with a particular emphasis on research and development in bioveterinary sciences, within a caring and intellectually stimulating environment;
- Promote the development of a range of employability skills, for use in all areas where numeracy and an objective, scientific approach to problem-solving are valued;
- Promote the development of independent research skills in the acquisition and analysis of scientific data and the critical evaluation of scientific literature, to show originality in the application of knowledge.

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
- Intellectual skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to:

- 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.

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.

Intellectual skills:

Successful students will be able to:

- assess the merits of contrasting theories, paradigms, concepts or principles and develop reasoned arguments;
- identify, analyse and solve problems by a variety of methods, either individually and/or cooperatively;
- make critical interpretations, evaluations and judgements of data;
- obtain, analyse and summarise several lines of subject-specific evidence to formulate and test hypotheses, with critical interpretation of quantitative and qualitative research findings;
- take responsibility for their own learning and reflect upon that learning;
- construct grammatically correct documents in an appropriate academic style using and referencing relevant ideas and evidence;
- understand the importance of academic and research integrity.

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.

The 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 and ethical awareness**. 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 materials:** Traditional 'lectures' are often redesigned for online consumption, giving you more flexibility to decide how, when and where to study. This can include provision of short videos, directed reading, key learning outcomes and Forms that allow you to ask questions anonymously.
- **Campus-based tutorials and workshops.** Often designed to support 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, including IT literacy and use of range of appropriate programmes and packages.
- **Laboratory practicals.** A comprehensive laboratory programme covering a diverse range of modern biochemical, molecular, diagnostic and analytical techniques designed to train you in the skills needed for a career in Bioveterinary Science. The programme will also develop skills in experimental design through enquiry-based learning and will ensure you develop both independent and team-based skills.
- **Fieldwork.** This may include visits to off-site campuses, commercial animal industries, zoos and wildlife parks, which will enhance your learning of core material and the application of bioveterinary and animal science to real-world contexts.
- **Case-based learning (CBL) tutorials.** Students are expected to play a full part and, often, to lead these discussions. In particular, case-based learning (CBL) is a student-centred style, based on case studies that help you contextualise content taught across other modules. These sessions will also develop skills such as leadership, communication and evidence-based problem solving.
- **Live, online tutorials, workshops and drop-in sessions.** Often used to host plenary sessions. These plenary sessions are optional, added value and may cover topics common to all students such as: note taking and meeting your alumni at Level 4; IT and data analysis at Level 5 and writing retreats and careers support at Level 6.
- **Independent study.** Based on directed reading from textbooks, research papers and research reviews to support your learning of the core material and deepen your understanding of the subject.
- **Life Sciences Double Experimental Project** (with research skills assessment) gives you the opportunity to undertake a piece of independent experimental research supervised and supported by a member of staff.

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 Academic Mentors 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.

Language modules: You are able to take up to 60 credits across your degree programme as Faculty Funded additional Modern Language modules in order to graduate with the Enhanced Degree Title. [Please see [link](#) for more information on Enhanced degree titles.]

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. At Level 4 and 5, all of our modules are compulsory to ensure that you are given a solid foundation to your degree programme regardless of your academic background to prepare you for Level 6. At Level 6, 50% of your modules are optional. This allows you to increasingly specialise in those areas of the programme that interest you most.

Year	Compulsory	Optional	
		Min	Max
Level 4	120	0	0
Level 5	120	0	0
Level 6	60	60	60

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Biochemistry	LSC-10064	30	Semester 1
Animal Biology	LSC-10081	30	Semester 1
Core Practical Skills	LSC-10087	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-10087 is a compulsory, zero-credit module. All lab-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 also provides helpful academic support and development material that provide added value to enhance your overall student experience.

Level 5

Compulsory modules	Module Code	Credits	Period
Microbes, Viruses and Parasites	LSC-20073	15	Semester 1
Animal Behaviour	LSC-20091	15	Semester 1
Current Topics in Bioveterinary Science	LSC-20119	15	Semester 1
Practical Skills in Bioscience	LSC-20107	0	Semester 1-2
Veterinary Diagnostics	LSC-20117	30	Semester 1-2
Research and Analytical Skills	LSC-20056	15	Semester 2
Animal Adaptations	LSC-20071	15	Semester 2
Animal Nutrition and Health	LSC-20099	15	Semester 2

Level 5 Module Rules

LSC-20107 is a compulsory, zero-credit module. All lab-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 also provides helpful academic support and development material that provide added value to enhance your overall student experience.

Level 6

At Level 6 a range of optional modules are offered allowing you to specialise in those areas of the programme that interest

you the most.

Optional module selection (Level 6): Students must select either LSC-30038 or LSC-30045 (30-credits). The remaining 30 credits of options should then be selected from the other optional modules available.

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
Communication Skills for Biologists	LSC-30059	15	Semester 2
Animal Welfare	LSC-30072	15	Semester 2

Optional modules	Module Code	Credits	Period
Human Parasitology	LSC-30036	15	Semester 1
Conservation Biology	LSC-30043	15	Semester 1
Tropical Biology Field Course	LSC-30066	15	Semester 1
Insect Ecology and Pest Management	LSC-30070	15	Semester 1
Double Applied Life Sciences Placement - ISP	LSC-30038	30	Semester 1-2
Life Sciences Double Experimental Project (with research skills assessment)	LSC-30045	30	Semester 1-2
Animals and Society	GEG-30021	15	Semester 2
Cancer Biology	LSC-30061	15	Semester 2
Epidemiology	LSC-30084	15	Semester 2

Level 6 Module Rules

Students must take 30 credits of ISP (Independent Study Project), either LSC-30038 or LSC-30045.

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 Biology - LSC-10081
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 Biology - LSC-10081
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 Core Practical Skills - LSC-10087 Animal Health and Disease - LSC-10095 Biochemistry - LSC-10064
Current developments in bioveterinary science, including areas of ethical and public concern	All modules, particularly Animal Biology: LSC-10081 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	Core Practical Skills - LSC-10087
Design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results	Biochemistry - LSC-10064 Core Practical Skills - LSC-10087 Molecular Cell Biology - LSC-10066
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Core Practical Skills - LSC-10087
Recognise philosophical and ethical issues relevant to the subject	Molecular Cell Biology - LSC-10066 Core Practical Skills - LSC-10087
Apply scientific method, planning, and analytical skills to carry out a research project	Core Practical Skills - LSC-10087
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Intellectual skills	
Learning Outcome	Module in which this is delivered
Assess the merits of contrasting theories, paradigms, concepts or principles and develop reasoned arguments	All modules
Identify, analyse and solve problems by a variety of methods, either individually and/or cooperatively	Core Practical Skills - LSC-10087
Make critical interpretations, evaluations and judgements of data	All modules, particularly the practical component of Core Practical Skills: LSC-10087
Obtain, analyse and summarise several lines of subject-specific evidence to formulate and test hypotheses, with critical interpretation of quantitative and qualitative research findings	Core Practical Skills - LSC-10087 Biochemistry - LSC-10064 Molecular Cell Biology - LSC-10066
Take responsibility for their own learning and reflect upon that learning	All modules
Construct grammatically correct documents in an appropriate academic style using and referencing relevant ideas and evidence	All modules
Understand the importance of academic and research integrity	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 Core Practical Skills - LSC-10087 Biochemistry - LSC-10064
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 Core Practical Skills: LSC-10087 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 Animal Adaptations - LSC-20071
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 Topics in Bioveterinary Science - LSC-20119 Veterinary Diagnostics - LSC-20117
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	Current Topics in Bioveterinary Science - LSC-20119 Animal Behaviour - LSC-20091 Animal Adaptations - LSC-20071 Animal Nutrition and Health - LSC-20099
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 Skills in Bioscience - LSC-20107
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 Practical Skills in Bioscience - LSC-20107 Animal Behaviour - LSC-20091 Veterinary Diagnostics - LSC-20117
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 Skills in Bioscience - LSC-20107
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Practical Skills in Bioscience - LSC-20107
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 Practical Skills in Bioscience - LSC-20107 Veterinary Diagnostics - LSC-20117
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Intellectual skills	
Learning Outcome	Module in which this is delivered
Assess the merits of contrasting theories, paradigms, concepts or principles and develop reasoned arguments	All modules
Identify, analyse and solve problems by a variety of methods, either individually and/or cooperatively	All modules
Make critical interpretations, evaluations and judgements of data	All modules
Obtain, analyse and summarise several lines of subject-specific evidence to formulate and test hypotheses, with critical interpretation of quantitative and qualitative research findings	All modules, particularly Practical Skills in Bioscience- LSC-20107, Research and Analytical Skills- LSC-20056,
Take responsibility for their own learning and reflect upon that learning	All modules
Construct grammatically correct documents in an appropriate academic style using and referencing relevant ideas and evidence	All modules
Understand the importance of academic and research integrity	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	Practical Skills in Bioscience - LSC-20107 Research and Analytical Skills - LSC-20056 Veterinary Diagnostics - LSC-20117
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	Double Applied Life Sciences Placement - ISP - LSC-30038 Case Studies in Animal Infection and Control - LSC-30086 Cancer Biology - LSC-30061 Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045
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 Case Studies in Animal Infection and Control - LSC-30086 Epidemiology - LSC-30084 Insect Ecology and Pest Management - LSC-30070 Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Double Applied Life Sciences Placement - ISP - LSC-30038
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	Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Food Security and Sustainability - LSC-30088 Double Applied Life Sciences Placement - ISP - LSC-30038 Animals and Society - GEG-30021 Animal Welfare - LSC-30072
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 Double Applied Life Sciences Placement - ISP - LSC-30038 Food Security and Sustainability - LSC-30088 Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045
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	Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Double Applied Life Sciences Placement - ISP - LSC-30038
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	Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Double Applied Life Sciences Placement - ISP - LSC-30038
Design, conduct, analyse, report and evaluate biological experiments, acknowledging an awareness of the validity, accuracy, calibration, precision and reproducibility of results	Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Double Applied Life Sciences Placement - ISP - LSC-30038
Work safely and responsibly in the laboratory with awareness of standard procedures such as risk assessment, COSHH and good laboratory practice (GLP)	Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045 Double Applied Life Sciences Placement - ISP - LSC-30038
Recognise philosophical and ethical issues relevant to the subject	Double Applied Life Sciences Placement - ISP - LSC-30038 Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045
Apply scientific method, planning, and analytical skills to carry out a research project	Double Applied Life Sciences Placement - ISP - LSC-30038 Life Sciences Double Experimental Project (with research skills assessment) - LSC-30045
Apply knowledge and understanding to familiar and unfamiliar problems	All modules

Intellectual skills	
Learning Outcome	Module in which this is delivered
Assess the merits of contrasting theories, paradigms, concepts or principles and develop reasoned arguments	All modules
Identify, analyse and solve problems by a variety of methods, either individually and/or cooperatively	All modules, particularly: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045
Make critical interpretations, evaluations and judgements of data	All modules, particularly: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045
Obtain, analyse and summarise several lines of subject-specific evidence to formulate and test hypotheses, with critical interpretation of quantitative and qualitative research findings	All modules, particularly: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045
Take responsibility for their own learning and reflect upon that learning	All modules
Construct grammatically correct documents in an appropriate academic style using and referencing relevant ideas and evidence	All modules
Understand the importance of academic and research integrity	All modules, particularly: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045

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: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045
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: Double Applied Life Sciences Placement-ISP- LSC-30038 Life Sciences Double Experimental Project (with research skills assessment)- LSC-30045
Motivate yourself and sustain that motivation over an extended period of time	All modules

9. Final and intermediate awards

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

Honours Degree	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.
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. The following list is representative of the variety of assessment methods used on your programme:

- **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)	33.6%	66.4%	0%
Year 2 (Level 5)	37.9%	62.1%	0%
Year 3 (Level 6)	32.8%	67.3%	0%

12. Accreditation

This programme does not have accreditation from an external body.

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 discuss 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/student-services/>

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

We are committed to offering a rich and diverse student experience that goes far beyond your degree.

Most years, we are able to offer range of different opportunities to enrich your student experience. These can include:

International year. You could apply to undertake an international year of study abroad as an additional year in between Levels 5 and 6 studying in one of our international partner universities. More information can be found at: <http://www.keele.ac.uk/studyabroad/partneruniversities/>. This not only gives you valuable international experience, but can also allow you to study a greater diversity of topics in greater detail, whilst remaining complementary to your programme of study at Keele.

Work placements. You could apply to a range of national and international employers for an work placement. These take place in between Level 5 and 6 and usually last 9-12 months. They provide excellent work experience and an opportunity to collect data for your Level 6 independent research student project.

Secondments. These are shorter industrial or research opportunities that students may choose to undertake, usually 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, some of our students may choose to go to Malaysia to work with our partner *Universiti Sains Malaysia* on a summer research project.

Tropical field trip: You could apply for our School tropical field course that takes place in Malaysia. These are often more ecology and conservation in nature, and again provide fantastic international experience.

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

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

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%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for this programme.

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/ga/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:

- UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: <http://www.qaa.ac.uk/quality-code>
- QAA Subject Benchmark Statement: Biosciences: (2023) https://www.qaa.ac.uk/docs/qaa/sbs/sbs-biosciences-23.pdf?sfvrsn=b570a881_4
- Keele University Regulations and Guidance for Students and Staff: <http://www.keele.ac.uk/regulations>
- Royal Society of Biology Degree Accreditation Handbook (2019): https://www.rsb.org.uk/images/accreditation_home/RSB_Overall_Handbook_Sept_2019_September_2020_Implementation.pdf

21. Annex - International Year

Bioveterinary Science with International Year

<p>International Year Programme</p> <p>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.</p> <p>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.</p> <p>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.</p>
<p>International Year Programme Aims</p> <p>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:</p> <ol style="list-style-type: none"> 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
<p>Entry Requirements for the International Year</p> <p>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.</p> <p>The criteria to be applied are:</p> <ul style="list-style-type: none"> • 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) <p>Students may not register for both an International Year and a Placement Year.</p>

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 (NB: for Combined Honours students the rules relating to the work placement year in the subject where the placement is organised are to be followed). 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

We have a dedicated Industrial Placement tutor within Life Sciences that can act as a point of contact for you before, during or after your placement year. You will also be assigned a Placement Supervisor. This will be an academic member of the School who will maintain regular contact with you throughout your placement and will become your project supervisor at Level 6. The School Director of Education will also act as an important contact throughout the process, that you can contact them in strict confidence at any point during your placement if you have any concerns about your placement provider or overall experience.

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 (LSC-30038).

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 30-credit rated 'Double Applied Life Sciences Placement module (LSC-30038).
- 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.

[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: 14 June 2024

Previous documents

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