Programme Specification: Undergraduate

For Academic Year 2026/27

1. Course Summary

Names of programme and award title(s)	MSci Biology MSci Biology with International Year (see Annex for details) MSci Biology 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 6
Normal length of the programme	3 years; 4 years with either the International Year or Placement Year between years 2 and 3 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 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

Biology at Keele allows you to study life in its broadest extent: from genes to ecosystems. Key biological concepts such as cells, genetics, evolution, physiology of humans and other animals, ecology and plant biology can be developed over the four years of the programme. As you progress you can choose to explore across the biosciences or can focus on key specialisms of relevance to your interests and preferred career. Throughout your study you will regularly use our state-of-the-art David Attenborough laboratories and our huge and diverse campus to develop practical bioscience skills. The MSci fourth year of study is designed to enable you to enhance your employability and subject-specific knowledge through development of advanced problem solving and communication skills. You will develop enhanced research skills in the critical evaluation of scientific literature and in the design and conduct of an authentic research study. On biology will you become adept at delicate molecular biological techniques to investigate DNA or protein structures, as well as becoming a skilled fieldworker, surveying flora and animal biodiversity in various natural habitats. Additionally, on your adventure through your biology degree you will build a suite of academic and employability skills that will prepare you for workplaces as diverse as ecological consultancy to pharmaceutical sales, conservation research to pathology laboratory research. An experiential period of professional practice immersed in research culture during the final year extended research project of the MSci will support you in developing higher-level independent technical and analytical skills through hypothesis-driven enquiry, supported by your academic supervisor and wider research team. The skills and attributes developed here will be of particular value for those looking to continue in a research career, such as further study to PhD level, working in industry or wider bioscience sector. Life on planet Earth is intricate and interconnected at all levels, investigating it all these levels from genes to ecosystem gives you the broadest understanding of this wonderful complexity and the challenges it faces due to human activity.

Distinctive features of the biology programme include:

- A contemporary curriculum, exploring modern biology from the gene to ecosystem level, designed to meet requirements for Royal Society of Biology Accreditation;
- Innovative and authentic assessments, designed to foster creativity and develop a diverse range of key employability skills and attributes;
- A core laboratory programme delivered in well-equipped modern laboratories where you develop hands-on practical skills in the design and conduct of authentic research studies, with a wide range of final year research project choices;
- The use of Keele's large and diverse campus for fieldwork teaching and research. The range of woodlands, grasslands, lakes, streams and the Low Carbon Electricity Generation site allow students to hone biodiversity surveying skills in a familiar environment before exploring field sites outside of the campus;
- The use of external fieldwork sites such as zoos, marine environments, and local conservation areas for additional teaching and research;
- A comprehensive programme of academic and professional development workshops supporting you in acquiring and reflecting on key employability skills aligned with your career goals;
- Our Undergraduate Student Research Conference, where you will present the outcomes of your final year research project in the context of a realistic research conference experience;
- The option to take a Work Placement year between level 5 and level 6, shorter in year work placements at level 5 or level 6, to include study abroad either as a semester abroad at level 5 or an International Year between level 5 and level 6;
- The opportunity to study a language as part of your programme.

4. Aims of the programme

The broad aims of the programme are to enable you to:

- gain knowledge, understanding and skills relevant to biological studies, from the gene to ecosystem level;
- produce skilled graduates that are ready for further study or for employment within or outside the biosciences;
- explore the complexity of life on Earth and the challenges it faces due to human activity;
- promote the development of a range of employability skills, for use in all areas where solo and group-working, data collection, analysis and evaluation and an objective, scientific approach to problem-solving are valued;
- promote the development of independent research skills to enable you to undertake relevant postgraduate study.

- specialise your biology knowledge and skills to masters level through a four year integrated Masters programme, developing key skills and programme outcomes to an advanced level.

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:

- the diversity of life and its evolution from origins to the present
- the complexity of biological processes and mechanisms of life at a range of hierarchical levels (genetic, molecular, cellular, tissue, organismal, community, population, ecosystem)
- the breadth of challenges addressed by the study of biology, such as environmental, physiological, ecological, behavioural issues
- the influence of human activities on living systems (and the converse)
- the basic experimental skills appropriate to the discipline of biology
- the practice and application of laboratory and fieldwork in the biological sciences
- the approaches to acquiring, interpreting, analysing biological data from a variety of sources, including the
- use of statistical and bioinformatic analyses on a variety of platforms appropriate to the discipline
- the contribution of research to the development of biological knowledge
- the dynamic, plural and contested nature of the discipline and an awareness of the philosophical and ethical
- issues involved
- the use of biological terminology, nomenclature and classification systems
- the relevance of biology to practical problems and improving the quality and sustainability of life
- the applicability of the biosciences to the broad range of careers to which graduates will be progression.

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

- the principles and applications of up-to-date research methodologies and techniques in the biosciences to an advanced level;
- the context of their extended research project in relation to on-going research activity in their field of study, in the wider biosciences and society.

Subject specific skills

Successful students will be able to:

- acquire a range of practical laboratory, field and desktop techniques to ensure competence in experimental skills
- use a range of practical laboratory, field and desktop techniques for the acquisition, analysis and critical evaluation of different types of biological information
- sample, record and analyse data in the field and laboratory in a manner that addresses validity, accuracy, calibration, precision, replicability and highlights uncertainty during collection
- formulate hypotheses, design, plan, conduct, collate, analyse, report on and evaluate biological investigations
- recognise historical, philosophical, moral, ethical and conservational issues relevant to the biosciences and explain the need for ethical standards, conservation legislation and professional codes of conduct
- undertake field and laboratory investigations of living systems in a responsible, safe and ethical manner, paying due attention to standard procedures (e.g., risk assessment, health and safety regulations, animal welfare, human tissue regulations, informed consent and local, national and international conservation legislature)

In addition to those outcomes listed above, which are developed through to level 7, as appropriate, to an advanced level, MSci Biology 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 biosciences.

Key or transferable skills (including employability skills)

Successful students will be able to:

- develop an adaptable, flexible, sustainable and effective approach to study and work, including time management, creativity and intellectual integrity
- acquire, analyse, synthesise, summarise and present information and ideas from a wide range of sources: textual, numerical, verbal, graphical
- prepare, process, interpret and present data using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and audio-visual technology
- use paper, online and digital sources appropriately, effectively and critically, as a means of communication and a source of information, avoiding issues with plagiarism
- communicate effectively to a variety of audiences through written, spoken and graphical means using suitable techniques and level-appropriate scientific language
- develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills
- work with others to achieve an objective in a respectful manner that is inclusive, accepting of the viewpoints and opinions of others and evaluates the roles and development of team members
- motivate themselves and sustain that motivation over an extended period of time
- identify and work towards targets for personal, academic and career development

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

- develop greater autonomy in the planning and implementation of tasks associated with their research project and taking responsibility for their workload.

We are committed to developing not only your intellectual, but also personal and professional skills. Alongside our innovative programme, Keele University offers a wide range of enriching activities that offer added value and aim to maximise your potential. Further information can be found at: Additional opportunities - Keele University

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. The Student Voice helps us to shape what we do and we include students and local employers in our decision-making process. The delivery of our programme will include the following types of activities:

- **Laboratory practicals.** Take place in one of our labs. These give you first-hand experience in a range of scientific techniques and have been designed to ensure you develop both independent and team-based skills.
- **Fieldwork.** Using our large and diverse campus environment as well as visits to other sites off-campus to enable you to develop your skills in surveying organism distributions, behaviour and the identification of specimens in situ.
- **Digital material**. 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.
- **Live, campus-based seminars.** Delivered by experts in the field - including external, guest speakers - seminars are ordinarily recorded on the day so you can focus better on the discussion during the live event.
- **Live, campus-based tutorials and workshops.** Often designed to support online lectures. 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 and discuss content with other students and your tutors.
- **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 meet your alumni at Level 4; IT and data analysis at Level 5 and writing retreats and careers at Level 6.

Undertaking an experimental project with the support of an experienced researcher allows students to formulate

relevant research questions and devise, carry out and analyse experiments to answer them.

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 biology, 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 Techniques 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 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, all are active in research or scholarship. For information on the research interests and qualifications of staff from the School of Life Sciences, please see the School web page at: https://www.keele.ac.uk/lifesci/people/

Several modules on the programme also invite visiting speakers.

The expertise of staff teaching on the biology programme covers a broad range of biology from gene to ecosystem level. Research-active staff explore areas as diverse as cancer biology, crop protection, plant-virus and host-parasite interactions, animal migration and seagrass conservation. 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.

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 runs from September to June and is divided into two 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, and from mid-January to the end of April. Our degree courses are organised into modules. Each module is usually a self- contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

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.

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. 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/

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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	90	30	30
Level 6	45	75	75
Level 7	120	0	0

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
Animal Physiology and Anatomy	LSC-10105	30	Semester 1
Human Physiology and Anatomy	LSC-10101	30	Semester 1-2
Practical and Academic Skills in Bioscience	LSC-10103	0	Semester 1-2
Cells, Genetics and Evolution	LSC-10107	30	Semester 1-2
Ecology	LSC-10111	30	Semester 2

Level 4 Module Rules

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 threshold of taught laboratory sessions and successful completion of a competency skills audit. Students who fail this module will transfer to *Studies in Biology*. (This is not accredited by the Royal Society of Biology).

NB: Global Challenge Pathways (GCPs) - students have the option of taking a Global Challenge Pathway with one 15-credit module at Levels 5 and 6 only, GCP is not available at level 4.

Level 5

Compulsory modules	Module Code	Credits	Period
Microbes, Viruses and Parasites	LSC-20073	15	Semester 1
Field Biology	LSC-20129	15	Semester 1
Applications of Molecular Biology	LSC-20131	15	Semester 1
Practical and Professional Skills in Bioscience	LSC-20127	0	Semester 1-2
Research and Analytical Skills	LSC-20056	15	Semester 2
Current Topics in Biology	LSC-20074	15	Semester 2
Biodiversity Crisis	LSC-20093	15	Semester 2

Optional modules	Module Code	Credits	Period
Human Genetics	LSC-20050	15	Semester 1
Animal Behaviour	LSC-20091	15	Semester 1
Flexible Work Placement (Level 5)	NAT-20011	15	Semester 1-2
Animal Adaptations	LSC-20071	15	Semester 2
Nutrition and Health	LSC-20123	15	Semester 2
Molecular Ecology and Plant Genetics	LSC-20125	15	Semester 2

Level 5 Module Rules

1. Field Biology: Please note, this module includes a field course which will take place during the summer vacation between levels 4 and 5.
2. 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 threshold of taught laboratory sessions. Students who fail this module will transfer to *Studies in Biology*. (This is not accredited by the Royal Society of Biology)
3. Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6)
4. *NB: Global Challenge Pathways (GCPs) - students have the option of taking a Global Challenge Pathway with one 15-credit module at Levels 5 and 6.*

Level 6

Compulsory modules	Module Code	Credits	Period
Research Project	LSC-30102	30	Semester 1-2
Employability and Communication Skills in Bioscience	LSC-30106	15	Semester 1-2

Optional modules	Module Code	Credits	Period
Ecotoxicology and Risk Assessment	ESC-30056	15	Semester 1
Animals and Society	GEG-30021	15	Semester 1
Human Parasitology	LSC-30036	15	Semester 1
Conservation Biology	LSC-30043	15	Semester 1
Case Studies in Biotechnology	LSC-30051	15	Semester 1
Tropical Biology Field Course	LSC-30066	15	Semester 1
Insect Ecology and Pest Management	LSC-30070	15	Semester 1
Flexible Work Placement (Level 6)	NAT-30008	15	Semester 1-2
Professional Experience in Education	NAT-30012	15	Semester 1-2
Blue Economy: sustainable futures with an ocean focus	ESC-30108	15	Semester 2
Environmental and Wildlife Forensics	FSC-30029	15	Semester 2
Human Evolution	LSC-30030	15	Semester 2
Cancer Biology	LSC-30061	15	Semester 2
Animal Welfare	LSC-30072	15	Semester 2
Plant Science and Sustainability	LSC-30076	15	Semester 2

Level 6 Module Rules

1. LSC-30066: This module includes a field course at Universiti Sains Malaysia which takes place during the summer vacation between Levels 5 and 6. Students must achieve the criteria below to be eligible to attend:

- Academic Performance (an average of 55% across all modules at Level 5 is required. Students with up to 15 credits of re-assessment who meet the 55% requirement may attend the field course. Where no semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are considered)
- 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 personal tutor, 1st and 2nd year tutors and programme director)

2. Please note: You cannot take both Flexible Work Placement (Level 5) and Flexible Work Placement (Level 6). You also cannot take both Flexible Work Placement (Level 6) and Professional Experience in Education.

3**.** Achieving a pass mark in the Research project is a requirement for RSB accreditation. Students not meeting this threshold will transfer to *Studies in Biology*. This is not accredited by the RSB.

4. *NB: Global Challenge Pathways (GCPs) - students have the option of taking a Global Challenge Pathway with one 15-credit module at Levels 5 and 6.*

Level 7

Compulsory modules	Module Code	Credits	Period
Literature Review and Grant Proposal	LSC-40065	30	Semester 1
Advanced Research Topics in Biology	LSC-40163	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

In Year 1 (Level 4) and Year 2 (Level 5) these learning outcomes are achieved in the compulsory modules which all students are required to take. Some of these outcomes may also be achieved or reinforced in elective modules together with other outcomes not stated here. In Year 3 (Level 6) the stated outcomes are achieved by taking any of the modules offered in each semester.

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
The diversity of life and its evolution from origins to the present	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The complexity of biological processes and mechanisms of life at a range of hierarchical levels (genetic, molecular, cellular, tissue, organismal, community, population, ecosystem)	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The breadth of challenges addressed by the study of biology, such as environmental, physiological, ecological, behavioural issues	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The influence of human activities on living systems (and the converse)	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The basic experimental skills appropriate to the discipline of biology	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
The practice and application of laboratory and fieldwork in the biological sciences	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
The approaches to acquiring, interpreting, analysing biological data from a variety of sources, including the use of statistical and bioinformatic analysis on a variety of platforms appropriate to the discipline	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
The contribution of research to the development of biological knowledge	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The dynamic, plural and contested nature of the discipline and an awareness of the philosophical and ethical issues involved	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
The use of biological terminology, nomenclature and classification systems	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
The relevance of biology to practical problems and improving the quality and sustainability of life	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology
The applicability of the biosciences to the broad range of careers to which graduates will be progressing	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Acquire a range of practical laboratory, field and desktop techniques to ensure competence in experimental skills	Practical and Academic Skills in Bioscience
Use a range of practical laboratory, field and desktop techniques for the acquisition, analysis and critical evaluation of different types of biological information	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Sample, record and analyse data in the field and laboratory in a manner that addresses validity, accuracy, calibration, precision, replicability and highlights uncertainty during collection	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Formulate hypotheses, design, plan, conduct, collate, analyse, report on and evaluate biological investigations	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Recognise historical, philosophical, moral, ethical and conservational issues relevant to the biosciences and explain the need for ethical standards, conservation legislation and professional codes of conduct	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Undertake field and laboratory investigations of living systems in a responsible, safe and ethical manner, paying due attention to standard procedures (e.g., risk assessment, health and safety regulations, animal welfare, human tissue regulations, informed consent and local, national and international conservation legislature)	Practical and Academic Skills in Bioscience

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop an adaptable, flexible, sustainable and effective approach to study and work, including time management, creativity and intellectual integrity	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Acquire, analyse, synthesise, summarise and present information and ideas from a wide range of sources: textual, numerical, verbal, graphical	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Prepare, process, interpret and present data using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and audio-visual technology	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Use paper, online and digital sources appropriately, effectively and critically, as a means of communication and a source of information, avoiding issues with plagiarism	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Communicate effectively to a variety of audiences through written, spoken and graphical means using suitable techniques and level-appropriate scientific language	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Work with others to achieve an objective in a respectful manner that is inclusive, accepting of the viewpoints and opinions of others and evaluates the roles and development of team members	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Motivate themselves and sustain that motivation over an extended period of time	Human Anatomy and Physiology; Animal Anatomy and Physiology; Cells, Genetics and Evolution; Ecology; Practical and Academic Skills in Bioscience
Identify and work towards targets for personal, academic and career development	Practical and Academic Skills in Bioscience

Level 5

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
The diversity of life and its evolution from origins to the present	Field Biology; Biodiversity Crisis; Animal Behaviour; Molecular Ecology and Plant Genetics; Animal Adaptations
The complexity of biological processes and mechanisms of life at a range of hierarchical levels (genetic, molecular, cellular, tissue, organismal, community, population, ecosystem)	Field Biology; Microbes Viruses and Parasites; Applications of Molecular Biology; Biodiversity Crisis; Animal Behaviour; Human Genetics; Molecular Ecology and Plant Genetics; Animal Adaptations; Nutrition and Energy Balance
The breadth of challenges addressed by the study of biology, such as environmental, physiological, ecological, behavioural issues	Field Biology; Microbes Viruses and Parasites; Applications of Molecular Biology; Biodiversity Crisis; Animal Behaviour; Human Genetics; Molecular Ecology and Plant Genetics; Animal Adaptations; Nutrition and Energy Balance
The influence of human activities on living systems (and the converse)	Field Biology; Microbes Viruses and Parasites; Biodiversity Crisis; Animal Behaviour; Molecular Ecology and Plant Genetics; Nutrition and Energy Balance
The basic experimental skills appropriate to the discipline of biology	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
The practice and application of laboratory and fieldwork in the biological sciences	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
The approaches to acquiring, interpreting, analysing biological data from a variety of sources, including the use of statistical and bioinformatic analysis on a variety of platforms appropriate to the discipline	Field Biology; Applications of Molecular Biology; Biodiversity Crisis; Animal Behaviour; Human Genetics; Molecular Ecology and Plant Genetics
The contribution of research to the development of biological knowledge	All level 5 modules, but especially Current Topics in Biology
The dynamic, plural and contested nature of the discipline and an awareness of the philosophical and ethical issues involved	All level 5 modules, but especially Current Topics in Biology
The use of biological terminology, nomenclature and classification systems	All level 5 modules, but especially: Field Biology Practical; Professional Skills in Bioscience; Applications of Molecular Biology
The relevance of biology to practical problems and improving the quality and sustainability of life	All level 5 modules, but especially Biodiversity Crisis
The applicability of the biosciences to the broad range of careers to which graduates will be progressing	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Acquire a range of practical laboratory, field and desktop techniques to ensure competence in experimental skills	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
Use a range of practical laboratory, field and desktop techniques for the acquisition, analysis and critical evaluation of different types of biological information	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
Sample, record and analyse data in the field and laboratory in a manner that addresses validity, accuracy, calibration, precision, replicability and highlights uncertainty during collection	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
Formulate hypotheses, design, plan, conduct, collate, analyse, report on and evaluate biological investigations	Field Biology; Research and Analytical Skills; Practical and Professional Skills in Bioscience
Recognise historical, philosophical, moral, ethical and conservational issues relevant to the biosciences and explain the need for ethical standards, conservation legislation and professional codes of conduct	Field Biology; Practical and Professional Skills in Bioscience; Biodiversity Crisis; Animal Behaviour
Undertake field and laboratory investigations of living systems in a responsible, safe and ethical manner, paying due attention to standard procedures (e.g., risk assessment, health and safety regulations, animal welfare, human tissue regulations, informed consent and local, national and international conservation legislature)	Field Biology; Animal Behaviour; Practical and Professional Skills in Bioscience

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop an adaptable, flexible, sustainable and effective approach to study and work, including time management, creativity and intellectual integrity	All L5 modules
Acquire, analyse, synthesise, summarise and present information and ideas from a wide range of sources: textual, numerical, verbal, graphical	All L5 modules
Prepare, process, interpret and present data using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and audio-visual technology	All L5 modules
Use paper, online and digital sources appropriately, effectively and critically, as a means of communication and a source of information, avoiding issues with plagiarism	All L5 modules
Communicate effectively to a variety of audiences through written, spoken and graphical means using suitable techniques and level-appropriate scientific language	All L5 modules
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	All L5 modules
Work with others to achieve an objective in a respectful manner that is inclusive, accepting of the viewpoints and opinions of others and evaluates the roles and development of team members	All L5 modules but especially: Field Biology; Animal Behaviour; Practical and Professional Skills in Bioscience
Motivate themselves and sustain that motivation over an extended period of time	All L5 modules
Identify and work towards targets for personal, academic and career development	Practical and Professional Skills in Bioscience

Level 6

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
The diversity of life and its evolution from origins to the present	Tropical Biology Field Course; Conservation Biology; Insect Ecology and Pest Management; Human Parasitology; Human Evolution
The complexity of biological processes and mechanisms of life at a range of hierarchical levels (genetic, molecular, cellular, tissue, organismal, community, population, ecosystem)	All Level 6 optional modules and ISP
The breadth of challenges addressed by the study of biology, such as environmental, physiological, ecological, behavioural issues	All Level 6 optional modules and ISP
The influence of human activities on living systems (and the converse)	Tropical Biology Field Course; Conservation Biology; Insect Ecology and Pest Management ; Animals and Society; Ecotoxicology and Risk Assessment; Human Parasitology; Animal Welfare; Blue Economy sustainable futures with an ocean focus; Environmental and Wildlife Forensics; Plant Science and Sustainability
The basic experimental skills appropriate to the discipline of biology	ISP
The practice and application of laboratory and fieldwork in the biological sciences	ISP
The approaches to acquiring, interpreting, analysing biological data from a variety of sources, including the use of statistical and bioinformatic analysis on a variety of platforms appropriate to the discipline	ISP
The contribution of research to the development of biological knowledge	All Level 6 modules
The dynamic, plural and contested nature of the discipline and an awareness of the philosophical and ethical issues involved	All Level 6 modules
The use of biological terminology, nomenclature and classification systems	All Level 6 modules and ISP
The relevance of biology to practical problems and improving the quality and sustainability of life	All Level 6 modules and ISP
The applicability of the biosciences to the broad range of careers to which graduates will be progressing	All modules, but especially: Employability and Communication Skills in Bioscience; Professional Development in Bioscience

Subject Specific Skills	
Learning Outcome	**Module in which this is delivered**
Acquire a range of practical laboratory, field and desktop techniques to ensure competence in experimental skills	ISP
Use a range of practical laboratory, field and desktop techniques for the acquisition, analysis and critical evaluation of different types of biological information	ISP
Sample, record and analyse data in the field and laboratory in a manner that addresses validity, accuracy, calibration, precision, replicability and highlights uncertainty during collection	ISP
Formulate hypotheses, design, plan, conduct, collate, analyse, report on and evaluate biological investigations	ISP
Recognise historical, philosophical, moral, ethical and conservational issues relevant to the biosciences and explain the need for ethical standards, conservation legislation and professional codes of conduct	All level 6 optional modules and ISP
Undertake field and laboratory investigations of living systems in a responsible, safe and ethical manner, paying due attention to standard procedures (e.g., risk assessment, health and safety regulations, animal welfare, human tissue regulations, informed consent and local, national and international conservation legislature)	ISP

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop an adaptable, flexible, sustainable and effective approach to study and work, including time management, creativity and intellectual integrity	All modules, but especially: Employability and Communication Skills in Bioscience; Professional Development in Bioscience
Acquire, analyse, synthesise, summarise and present information and ideas from a wide range of sources: textual, numerical, verbal, graphical	All modules, but especially ISP
Prepare, process, interpret and present data using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and audio-visual technology	All modules, but especially ISP
Use paper, online and digital sources appropriately, effectively and critically, as a means of communication and a source of information, avoiding issues with plagiarism	All modules, but especially ISP
Communicate effectively to a variety of audiences through written, spoken and graphical means using suitable techniques and level-appropriate scientific language	All modules, but especially: Employability and Communication Skills in Bioscience
Develop skills necessary for self-managed and lifelong learning, including working independently, organisational, enterprise and knowledge transfer skills	All modules, but especially ISP
Work with others to achieve an objective in a respectful manner that is inclusive, accepting of the viewpoints and opinions of others and evaluates the roles and development of team members	All modules, but especially: Employability and Communication Skills in Bioscience; Professional Development in Bioscience
Motivate themselves and sustain that motivation over an extended period of time	All modules, but especially ISP
Identify and work towards targets for personal, academic and career development	All modules, but especially: Employability and Communication Skills in Bioscience; Professional Development in Bioscience

Level 7

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
the principles and applications of up-to-date research methodologies and techniques in the biosciences to an advanced level;	All Level 7 modules
the context of their extended research project in relation to on-going research activity in their field of study, in the wider biosciences and society.	All Level 7 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 Level 7 modules
critically evaluate current literature and complex methodologies to an advanced level in relevant areas of contemporary biosciences.	All Level 7 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 their research project and taking responsibility for their workload.	All Level 7 modules

9. Final and intermediate awards

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

MSci Biology	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.
BSc (Hons) Biology Degree	360 credits	You must accumulate at least 270 credits in Biology, with at least 90 credits in each of the three years of study*, to graduate with a named single honours degree in Biology. *An exemption applies for students transferring from a Combined Honours programme - see point 3.4 here:https://www.keele.ac.uk/regulations/regulationc3/ N.B. the award will be Studies in Biology if a pass standard is not achieved in the Level 4 Core Practical Skills, Level 5 Practical Skills in Bioscience or in one of your Level 6 Independent Student Research modules. Students who take the module Animal Nutrition and Health, must also have passed the class participation assessment element to at an acceptable level to meet professional body requirements. Our Studies in Biology pathway 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?

Our assessment strategy is designed to be authentic and diverse so that you can develop key skills that meet academic, professional body and employer expectations. Module managers will provide appropriate guidance for each assessment and the marking criteria that will be used to assess your work.

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.
- **Critically appraise information on current issues.** Critical writing is important for scientists and in the
- modern workplace. The ability to read scientific information and explore the limitations of its application in a particular argument or viewpoint is a vital graduate intellectual skill.
- **Present scientific findings.** Often these are lab or fieldwork 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.
- **Communicate effectively with a range of audiences**. These can include scientific posters, information leaflets, textbook chapters, blogs or oral presentations.
- **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 team fieldwork and group presentations but can also include written work such as scientific posters or public information leaflets.
- **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)	43.9%	56.1%	0%
Year 2 (Level 5)	33.2%	66.8%	0%
Year 3 (Level 6)	38.7%	59.9%	1.4%

12. Accreditation

This programme is not currently 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/

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 or Teams 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 Mentors for academic help and guidance
- Student Experience and Support Officers (SESO), 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

You will be taught in modern, dedicated teaching laboratories (some of which were opened by Sir David

Attenborough himself!). We also make extensive use of our large and diverse campus environment for fieldwork in addition to numerous fieldwork visits off-campus.

You will have access to an extensive collection of books and journals both at our library here on campus and the health library situated at the Royal Stoke Hospital.

You will also have access to a comprehensive range of ebooks, journals and published papers all available online.

We make extensive use of our virtual Keele Learning Environment (KLE) and Microsoft Teams to host a wide range of learning resources such as lectures and guidance materials and to facilitate live debates such as online discussions or Q&As.

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:

- **Tropical Biology Field Course.** You could apply for our School tropical field course that takes place in Malaysia. This is an exceptional chance to hone your fieldwork skills in tropical habitats and also provide a 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
- **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. Eligible criteria 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.

18. Additional Costs

Biology Programme Costs

Any compulsory residential field courses would be subsidised by the School of Life Sciences and you pay no fees to attend. You would be required to cover your own transport costs to and from the location of the field course and maintenance costs during any compulsory residential field course (for example food, appropriate clothing, etc.).

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.

Learning opportunities as outlined *Other Learning Opportunities* above may be available and may incur additional costs.

Activity	**Estimated Cost**
Mandatory costs	
Field courses - compulsory (School pays):	£0
Travel to compulsory field course and to any placement abroad or in the UK:	Dependent on location and mode of transport
Optional costs	
Optional Field Course at USM, Malaysia - travel and accommodation costs:	£1,200
Optional Field Course at USM, Malaysia - £35 per day (14 days) subsistence costs:	£490
Suitable clothing and other items to support field activities:	£180
Equipment Waterproof clothing for field work:	£75
Replacement lab coat (if allocated one lost):	£10
Total estimated additional costs:	**£1,955**

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

c. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

d. Royal Society of Biology accreditation handbook

21. Annex - International Year

Biology 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. **ADD subject-specific ILOs**

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

Biology 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 for Biology, we also aim to provide experience of working in a subjectrelated 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 Work 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.

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. Understand how BRM-related academic studies are reflected into the research, industrial or professional environment.
2. Apply their knowledge and practical skills for an extended period of time.
3. Improve competences in documenting results and appreciate their importance in a research work environment.
4. Expand their written and oral skills.
5. Appreciate the importance of working effectively, reliably, honestly, diplomatically as an individual or as part of a team.
6. Comprehend and consistently comply with the concepts of occupational health, safety requirements and procedures and employee welfare.

These learning outcomes will be assessed through the non-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 Placement module (NAT-30010)
- 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: Biology

Final Award and Award Titles	BSc (Hons) Biology BSc (Hons) Biology with International Year BSc (Hons) Biology with Work Placement Year BSc (Hons) Studies in Biology BSc (Hons) Studies in Biology with International Year BSc (Hons) Studies in Biology With Work Placement Year
Intermediate Award(s)	Diploma in Higher Education Certificate in Higher Education
Last modified	November 2022
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:

No variations apply

Additional Requirements

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

Additional requirement 1: Royal Society of Biology Accreditation

1.1 Students must achieve a pass standard in the Life Sciences Double Experimental Project with research skills assessment (or, subject to agreement, Double Applied Life Sciences Placement) to attain an accredited degree. For students who do not fulfil the conditions of this regulation, the degree award will be '*Studies in Biology*'; the degree will not be accredited by the Royal Society of Biology.

Additional requirement 2: Fieldwork

2.1 Students who display serious misconduct on any field courses (for example LSC-20097 Environmental Biology) will be asked to leave and attend the next field course as a re-assessment at their own expense. Serious misconduct involves wilful damage to property, injury to persons, improper use of safety equipment and/or failure to attend commitments.

2.2 Students that do not attend the field course will be required to cover the cost of attending the field course the following year. These costs can be waived if non-attendance is beyond the student's control and evidence of valid exceptional circumstances is submitted.

Additional requirement: Study Abroad and Field Course

3.1 A student who has completed a semester abroad will not normally be eligible to transfer onto the International Year option.

3.2 Students taking the final year module LSC-30066: Tropical Biology Field Course will undertake field work in Malaysia between level 5 and 6. Students must achieve the following criteria to be eligible to attend:

- **Academic Performance:** an average of 55% across all modules in Semester 1 at Level 5 is normally required. Places on the course are then conditional on achieving an average mark of 55% across all Level 5 modules. You will still be eligible to apply if you have up to 15 credits of re-assessment, but still meet the 55% requirement. Where no Semester 1 marks have been awarded, performance at Level 4 and ongoing Level 5 assessments are considered.
- **General Aptitude:** demonstrated through interview during Level 5, semester 2 and by recommendation of your academic mentor, year tutors and/or programme director.

At least one male and one female academic member of staff from the School of Life Sciences will accompany you on the field course to offer support.

There are additional costs associated with the tropical field course that change each year. These will be discussed at Level 5 before you need to decide to apply.

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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