Programme Specification ARO 034a

This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if they take full advantage of the learning opportunities provided.

This document is published on the University website and will be a publicly available record of the named programme.

The information contained in this form should be included in the Programme Handbook, either as presented below or in a format determined by the Faculty.

Section 1 Key Facts

<table>
<thead>
<tr>
<th>Awarding Body</th>
<th>University of Stirling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Institution</td>
<td></td>
</tr>
<tr>
<td>Programme Name</td>
<td>Animal Biology</td>
</tr>
<tr>
<td>Award e.g. BSc (Hons), MA etc.</td>
<td>BSc (Hons)</td>
</tr>
<tr>
<td>Faculty</td>
<td>Natural Sciences</td>
</tr>
<tr>
<td>Division (if applicable)</td>
<td>Biological and Environmental Sciences</td>
</tr>
<tr>
<td>UCAS Code (UG only)</td>
<td>C300</td>
</tr>
<tr>
<td>Programme Code</td>
<td>UHX16-ABI</td>
</tr>
<tr>
<td>Mode of Study</td>
<td>Full Time ☒ Part Time ☒</td>
</tr>
<tr>
<td></td>
<td>(if both please provide two Degree Programme Tables in the Outline Programme Structure)</td>
</tr>
<tr>
<td>Location/Method of Study</td>
<td>On Campus – UK ☒</td>
</tr>
<tr>
<td></td>
<td>International ☐ Where:</td>
</tr>
<tr>
<td></td>
<td>Online ☐ Blended ☒</td>
</tr>
<tr>
<td>Admission Points</td>
<td>September ☒ January ☐</td>
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<tr>
<td></td>
<td>Other (if more than one entry point please provide a Degree Programme Table for each in the Outline Programme Structure)</td>
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<tr>
<td>Length of Programme</td>
<td>4 years</td>
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<tr>
<td>SCQF Level</td>
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<tr>
<td>Total Credit Value</td>
<td>480</td>
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<tr>
<td>ECTS Credit Value</td>
<td>240</td>
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<tr>
<td>Relevant QAA Subject Benchmark</td>
<td>Biosciences</td>
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</table>
Professional Body Accreditation (all relevant accreditations to be listed)

Name of accrediting body: NA
Required for programme: No
Date of Accreditation: XX / XX / 20XX
Date of Renewal: XX / XX / 20XX

Programme Director

Dr. Luc Bussière

Advisor of Studies

Dr. Luc Bussière

Programme Approved

11 / 02 / 2011

Last Updated

08 / 02 / 2019

Section 2 Overview

PROGRAMME SUMMARY

A comprehensive summary of the programme.

Animal Biology is a broad discipline that studies animal life in all its forms across the Kingdom, from the smallest forms with several hundred cells through to the largest animals on Earth. Animal Biologists use a wide range of scientific approaches to study their subjects, including the examination of molecules and cells, through to anatomical and functional studies, studies of individual life histories, and even incorporating investigations of population and community structure. Our instructors include scientists conducting active research at each end of the spectrum of scales, from molecular to ecosystem approaches, and those who study intermediate levels of organisation as well.

Students begin with broad training in the first two years, including modules in ecology, physiology, cell biology, evolution and genetics, biodiversity and statistics. In later years, students complete core modules but also have more choice on their specific training, which allows students to follow subjects about which they become passionate in the earlier years of the programme.

Students completing this programme should be able to pursue careers as field biologists (e.g., working on animal conservation/ecology/behaviour), as laboratory-based animal biologists (e.g., studying animal structure, physiology or genetics), or as analysts working primarily with data collected by other scientists. Many of our graduates decide to pursue further postgraduate training in order to become, for example, research scientists, veterinarians, and teachers.

Key Features of the Programme

Because Stirling’s Animal Biology programme is situated within the Division of Biological and Environmental Sciences, our teaching is able to encompass more content from the parental disciplines of biology and environmental sciences, giving our students a broader training base than is possible in more narrowly defined rival institutions. Although our students will focus on animals, our institute allows us to expose them to fundamental knowledge on the habitats in which animals live and the plants, fungi, protists and bacteria that shape animal lives, upon which animals depend, and with which animals must coexist.

Fieldwork is an essential part of the work for many animal biologists, and we take advantage of Stirling’s location to expose students to field work early and often. We also offer several optional opportunities for students to travel and conduct field work, including residential courses to southern Europe and the western Congo basin.
PROGRAMME AIMS

Overarching Programme Aims

On successful completion of this programme, you should:

1. Have a basic understanding of the broad Biological Sciences
2. Have more advanced knowledge in the biology of animals
3. Acquire advanced training focusing on animal ecology, behaviour and conservation i.e. the biology of whole animals; and/or the molecular and physiological structure and function of components of animals
4. Have experience of working with animals in both the laboratory and the field
5. Have strong communication skills and an ability to transmit key information in oral and written formats
6. Have strong numerical/analytic skills that permit you to organize, analyse and present data to professional audiences
7. Have strong teamwork skills that allow you to cooperate with colleagues and work together towards a single goal.

WHAT WILL I BE EXPECTED TO ACHIEVE?

Detailed Learning Outcomes

On successful completion of this programme, you should have the following abilities and skills:

Knowledge and Understanding:

1. Basic knowledge and understanding of molecular and cellular biology
2. Basic knowledge and understanding of the physiology of organisms
3. Basic knowledge and understanding of organismal, population, community and ecosystem level ecology
4. Basic knowledge and understanding of the evolution and taxonomy of the major biological taxa
5. Basic knowledge and understanding of experimental methodology and statistical design
6. Advanced knowledge and understanding of animal physiology
7. Advanced knowledge and understanding of population and behavioural ecology
8. Advanced knowledge and understanding of the molecular and cellular biology of animals
9. For those wishing to pursue a career in animal conservation: advanced knowledge and understanding of conservation, habitat management, restoration ecology and conservation genetics.
10. For those wishing to pursue a career in the pure sciences of ecology and evolution: advanced knowledge of experimental design and analysis, field biology, evolutionary concepts and ecological theories
11. For those wishing to pursue a career as laboratory animal biologists, an advanced level knowledge of modern molecular biological techniques, genomics and proteomics.

Intellectual, Practical and Transferable Skills and other graduate attributes:

12. The ability to formulate a testable scientific hypothesis
13. The ability to apply scientific methodology in order to test a specific hypothesis.
14. The ability to acquire, critically analyse and synthesise information from a variety of sources, and synthesise it for a general audience in a literature review.
15. The ability to critically appraise their own research and the scientific research published in the literature.
16. The ability to plan, conduct, and present both orally and in the form of a report a complete and novel scientific study.
17. The ability to carry out basic laboratory and field skills (such as identify, observe and study animals in nature) in a safe a responsible manner.
18. The ability to write in a concise and informative manner using word processing packages.
19. The ability to use basic data handling, processing and analytical software.

Values and Attitudes:
20. Demonstrate your effectiveness as an independent learner who reflects upon their learning and plans their learning activities towards achieving academic and personal goals.
21. Demonstrate the strong interpersonal skills and business awareness necessary to present yourself professionally in a business environment.
22. The ability to work effectively as part of a team
23. The ability to follow instructions from a supervisor

HOW WILL I LEARN?
Outline of the teaching methods and approach to be used on the programme.

We’ve been awarded five-star excellence for our teaching by the QS World University Rankings 2017/18.

Teaching is delivered in the form of formal lectures and practical classes, tutorials, seminars, computer-based learning and guided reading and research.

Fieldwork is an essential part of your training. Stirling’s campus location is an ideal base from which to make field excursions, whether to study lekking Black Grouse in the Highlands or the distribution of animals on the Forth Estuary. The course includes a mandatory second year module featuring a short residential course in Scotland early in the third semester. As an additional option, fourth year students can attend field courses currently held in the south of France and Lopé National Park in Gabon. Our French field site is in the Cévennes, a rugged mountain landscape of exceptional natural beauty and tremendous biodiversity. The organisms that live there include wild boar, otters, three vulture species (including endangered Cinereous vultures) and grey wolves. In Gabon, we work with Stirling scientists who have a long history of conservation in the Western Congo Basin, and are exposed to ongoing research from a field station established to study sympatric wild chimpanzees and gorillas. Ongoing research projects span the gamut of research topics in our institute, including conservation conflicts, habitat restoration, invasive species management, and the behaviour of at-risk species such as mandrills, elephants and pangolins.

WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?
Outline of the assessment methods and approach to be used on the programme.
Assessment and Assessment Criteria
Modules are assessed by a combination of coursework and examination completed during the semester. For many modules, the marks awarded for coursework contribute 40–50 percent of the final grade, but for some modules this is as high as 100 percent.

Throughout the programme a range of assessment methods are used including short answer or multiple choice examinations and class quizzes, online tests and exercises, extended essays, practical reports, field sketches and drawings, maps, field and laboratory notebooks, oral presentations, seminar performance, social media use reflective exercises and practical performance. All work is marked by academics but an element of peer and external feedback is included in some modules.

Feedback on Assessment
You will receive feedback on coursework within 3 weeks of completion of the assessment. Feedback is usually provided electronically on formal coursework and focusses on identifying areas of strength and weakness and highlighting areas where future work could be improved. Feedback and Guidance sessions with teaching staff are available on all modules. These provide regular opportunities to better understand feedback on coursework and how it may be acted on to improve subsequent work.

In addition, our teaching includes a range of formal and informal formative assessment that will help you to better understand the standards of work being looked for and develop your own ability to critically assess your own and others performance against these standards.

More information about feedback on assessment can be found here; http://www.stir.ac.uk/academicpolicy/handbook/assessment/

Assessment Regulations
If you would like to know more about the way in which assessment works at the University of Stirling, please see the full version of the assessment regulations at:
Undergraduate
Postgraduate – Taught
Postgraduate - Research

WHAT WILL I STUDY?
Outline Programme Structure

The list below shows compulsory and optional modules for this programme. Optional modules are revised over time and, in some cases, will be dependent upon pre-requisite and/or co-requisites being taken. More information about these requirements can be found in the relevant Module Descriptors. The options available each year can be subject to change due to student demand and availability of teaching staff.

- Where an “Option list” is specified, you have a choice of which module to take at this point in the degree programme and these choices are listed below
- For year 1 and 2 where “Any Module” is used it means that you can choose from all modules available to the year group and you can see the full list by following these links:

Undergraduate
### Postgraduate

#### Year 1

Total year 1 credit value = 120  
Compulsory credits = 80  
Option credits = 40

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Science Skills I: Laboratory Skills</td>
<td>SCIU1LS</td>
<td>20</td>
<td>Autumn</td>
<td>8</td>
</tr>
<tr>
<td>Introduction to Ecology</td>
<td>BIOU1EC</td>
<td>20</td>
<td>Autumn</td>
<td>8</td>
</tr>
<tr>
<td>Practical Science Skills II: Field Skills</td>
<td>SCIU2FS</td>
<td>20</td>
<td>Spring</td>
<td>8</td>
</tr>
<tr>
<td>Introduction to Physiology</td>
<td>BIOU2IP</td>
<td>20</td>
<td>Spring</td>
<td>8</td>
</tr>
</tbody>
</table>

Option Modules – you may choose two modules from Any Module, including a wide range of first year modules (33 options in autumn and 35 in the spring) from across the University, including for example, Our Blue Planet, Introduction to Computing Science, Global Cinema, People and the Environment, Introduction to Journalism Studies, Mathematics, Philosophy, Psychology, Spanish and Sports Studies.

#### Year 2

Total year 1 credit value = 120  
Compulsory credits = 100  
Optional credits = 20

**Compulsory Modules**

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology Field Course</td>
<td>BIOU2FB</td>
<td>20</td>
<td>Autumn</td>
<td>8</td>
</tr>
<tr>
<td>Evolution and Genetics</td>
<td>BIOU3EG</td>
<td>20</td>
<td>Autumn</td>
<td>9</td>
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<tr>
<td>Introduction to Cell Biology</td>
<td>BIOU1CB</td>
<td>20</td>
<td>Autumn</td>
<td>8</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>BIOU4BD</td>
<td>20</td>
<td>Spring</td>
<td>9</td>
</tr>
<tr>
<td>Statistical Techniques</td>
<td>SCIU4T4</td>
<td>20</td>
<td>Spring</td>
<td>9</td>
</tr>
</tbody>
</table>

(Add and delete year/rows as needed)

Option Modules – you may choose one module from Any Module, including a wide range of choices (78 modules) from across the University, including for example, Our Thirsty Planet, Computing Systems, Managing Information, Introductory Economics, Intermediate Macroeconomics, Writing and Theory, Landscape Evolution, The Biosphere, Criminal Law, Foundations of Language. Some of these options have prerequisite requirements that will need to have been satisfied by first year module choices.

#### Year 3

Total year 1 credit value = 120  
Compulsory credits = 60  
Optional credits = 60
Compulsory Modules

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Physiology</td>
<td>BIOU9AP</td>
<td>20</td>
<td>Autumn</td>
<td>9</td>
</tr>
<tr>
<td>The Animal Cell</td>
<td>BIOU6AC</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
</tr>
<tr>
<td>Behavioural Ecology</td>
<td>BIOU6BE</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
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</tbody>
</table>

Option Modules – you may choose 60 credits from the following modules.

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enzymes and their applications</td>
<td>BIOU9EN</td>
<td>20</td>
<td>Autumn</td>
<td>9</td>
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<tr>
<td>Microbiology</td>
<td>BIOU5MI</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Population and community ecology</td>
<td>BIOU9PC</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Environmental policy and management</td>
<td>ENVU5A5</td>
<td>20</td>
<td>Autumn</td>
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<tr>
<td>Habitat management and restoration</td>
<td>ENVU9MR</td>
<td>20</td>
<td>Autumn</td>
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<tr>
<td>Statistics using R</td>
<td>SCIU7SR</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Changing Oceans</td>
<td>AQUU6MB</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
</tr>
<tr>
<td>Applied immunology</td>
<td>BIOU6AI</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
</tr>
<tr>
<td>Plant ecology</td>
<td>BIOU6PE</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
</tr>
<tr>
<td>Gabon Field Course</td>
<td>BIOU8GA</td>
<td>20</td>
<td>Spring</td>
<td>10</td>
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</table>

Year 4

Total year 1 credit value = 120
Compulsory credits = 60
Optional credits = 60

Compulsory Modules

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<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
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<tbody>
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<td>Dissertation</td>
<td>BIOU9PR</td>
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Option Modules – you may choose 60 credits from the following modules.

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<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credit</th>
<th>Semester</th>
<th>SCQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation biology</td>
<td>BIOU7CB</td>
<td>10</td>
<td>Autumn</td>
<td>10</td>
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<tr>
<td>Molecular evolution and phylogenetics</td>
<td>BIOU7EP</td>
<td>10</td>
<td>Autumn</td>
<td>10</td>
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<tr>
<td>Biology Field Course</td>
<td>BIOU7FC/8FC</td>
<td>20</td>
<td>Autumn or Spring</td>
<td>10</td>
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<tr>
<td>Omics and Systems Biology</td>
<td>BIOU7PT</td>
<td>10</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>The evolution of sex</td>
<td>BIOU7SX</td>
<td>10</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Molecular techniques</td>
<td>BIOU9TM</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Biological Control Mechanisms</td>
<td>BIOU7CM</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
</tr>
<tr>
<td>Population and community ecology</td>
<td>BIOU9PC</td>
<td>20</td>
<td>Autumn</td>
<td>10</td>
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</tbody>
</table>
READING LIST
Required and Recommended Reading for the Programme
15 books that every biologist should read:

The diversity of life - Edward O. Wilson, 1994
The selfish gene - Richard Dawkins, MyiLibrary, 2006
The emerald planet: how plants changed Earth’s history - David Beerling, 2007
The origin of species by means of natural selection: or, The preservation of favoured races in the
struggle for life - Charles Darwin, J. W. Burrow
Life on earth: a natural history - David Attenborough, British Broadcasting Corporation, 1979
A genetic switch: phage lambda revisited - Mark Ptashne, 2004
Bones, rocks and stars: the science of when things happened - Chris Turney, 2006
Adaptation and natural selection: a critique of some current evolutionary thought - George C. Williams, 1966
The blind watchmaker - Richard Dawkins, 2006
The double helix: a personal account of the discovery of the structure of DNA - James D. Watson,
Steve Jones, 1999
Endless forms most beautiful: the new science of evo devo and the making of the animal
kingdom - Sean B. Carroll, 2011
Genome: the autobiography of a species in 23 chapters - Matt Ridley, 2006
The ghosts of evolution: nonsensical fruit, missing partners, and other ecological anachronisms -
Connie C. Barlow, 2000
The long summer: how climate changed civilization - Brian Murray Fagan, 2004
The weather makers: the history and future impact of climate change - Tim F. Flannery, 2005

Section 3 Student Support [PLEASE UPDATE AS NEEDED FOR THE STUDENT COHORT]

SUPPORT FOR STUDENT LEARNING

Induction
You will receive an induction during the first days of your programme. This includes a range of
social events, information sessions and activities to help you orientate yourself at Stirling and
access the services available to you. These are opportunities to meet staff and other students
from across the university, in the Faculty and on the programme.
In the second year, you will begin the autumn semester with the compulsory Biology Field Course, which will reacquaint you with your colleagues across the biological sciences and help to refocus your studies after the summer break. Likewise, at the beginning of the third year you will meet with select members of the Faculty in Biology to review your progress and best prepare for the honours component of your degree. The Faculty of Natural Sciences provides induction events for 4th years to help prepare you for advanced study and provide you with opportunities to network with businesses.

**Study Skills Support**

Student Learning Services (SLS) are committed to providing comprehensive guidance on all aspects of effective and efficient learning. The ultimate aim of the service is to enable you to make the most of your academic studies at the University and for you to become an independent, successful learner during your time at the University of Stirling. This is facilitated through collaborative work with experienced tutors and by offering a variety of courses, workshops and tutorials.

All students, whatever stage of their academic studies, are welcome to use Student Learning Services. However the service may be particularly beneficial:

- In your first two years of study.
- If you are making the transition from college to Higher Education.
- If you have been out of education for some time.

**What SLS are able to do:**

- Advise you on academic skills relevant to your studies at University.
- Help you consolidate your previous learning and develop new learning strategies.
- Advise on action-plans to potentially improve grades.
- Suggest practical solutions if you feel overwhelmed by assignment work.
- Help you gain confidence in the transition to Higher Education.

More information can be found here: [http://www.stir.ac.uk/campus-life/learning-support/student-learning-services/](http://www.stir.ac.uk/campus-life/learning-support/student-learning-services/)

**STEER**

STEER is a University-wide peer support scheme linking in returning student "Captains" with new undergraduate or taught post-graduate "Crew" during their first year at Stirling.

The scheme aims to help you make the most of your time at the University, help new students - the Crew - settle in and realise the opportunities available to them. You can find out more information here: [https://www.stirlingstudentsunion.com/representation/studentsupport/steer/](https://www.stirlingstudentsunion.com/representation/studentsupport/steer/)

**Stirling Graduate School**

For Research Postgraduate Students the Stirling Graduate School as well as your own faculty will provide support. More information can be found here: [http://www.stir.ac.uk/graduateschool/current-pg-students/skills-development/](http://www.stir.ac.uk/graduateschool/current-pg-students/skills-development/)

**Academic and Pastoral Support**

**Adviser of Studies:** Advisers have an important role to play in enhancing your academic and personal development and are essential to ensuring you make the most of your time at
university. Advisers provide a personalised point of contact for you to discuss academic concerns or queries within the academic community. The general purpose of the role is to provide more in-depth advice on the academic options available to you and on the academic policies and regulations within the University. More information can be found here: http://www.stir.ac.uk/registry/advisers/

**Personal Tutor**: The role of a personal tutor is to help you feel part of the University community. They are a specific and consistent source of guidance, information and support for you throughout your studies. The tutor should be the your first formal point of contact for general academic guidance and pastoral support. More information can be found here: http://www.stir.ac.uk/tse/personal-tutor/

**Support and Wellbeing**: At university you may face non-academic issues where you need some expert help or guidance. There are lots of ways we can help you in your day-to-day life at University. Student Support Services provide a range of high-quality services to assist you during the course of your studies, help prepare you for life after graduation. We aim to enhance the student experience and help you to get the most out of your time at University. More information can be found here: http://www.stir.ac.uk/campus-life/support-and-wellbeing/

**Student Union**: you can also access support through the Students’ Union, more information can be found here: https://www.stirlingstudentsunion.com/representation/studentsupport/

**Accessibility and Inclusion (A&I)**
A&I are committed to offering a service which is welcoming and supportive of the needs of all students. Our service takes into account the full range of needs you may have, in a wide variety of circumstances including - physical and mobility difficulties, sensory impairments, specific learning difficulties including dyslexia and autistic spectrum disorder as well as medical conditions and mental health difficulties. A&I can also support you if you have short-term, temporary impairments or other difficulties as a result of an accident, injury, illness or surgery. More information can be found here: http://www.stir.ac.uk/student-support/accessibility-&-inclusion-service/

**Learning Resources**
You can find out more about the resources available to support your learning here: http://www.stir.ac.uk/campus-life/learning-support/

**Section 4 Programme Evaluation and Enhancement**

**METHODS FOR EVALUATING AND IMPROVING THE QUALITY AND STANDARDS OF TEACHING AND LEARNING**

**Module Feedback**
Module Feedback Questionnaires are carried out each year and are an important way of getting student feedback on the modules we teach. We aim to evaluate every module we teach in every semester. You can find out more here: http://www.stir.ac.uk/registry/studentinformation/moduleevaluation/

**Programme Review**
Programmes are reviewed annually and on a 5 yearly cycle. You can get involved in a variety of different ways; by completing module evaluations, becoming a course representative and
attending Student Staff Consultative Committees, or participating in the review process itself. You can find out more here: [http://www.stir.ac.uk/academicpolicy/handbook/review-and-monitoring/](http://www.stir.ac.uk/academicpolicy/handbook/review-and-monitoring/)

**External Examiner(s)**
 Name of External Examiner: Dr Joanne Lello  
Institution: Cardiff University  
*Please add as required.*

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**Section 5 My Future**

<table>
<thead>
<tr>
<th>WHAT KIND OF CAREER MIGHT I GO ON TO?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>What career avenues does this qualification open up to the student?</em></td>
</tr>
<tr>
<td>Our programme prepares students for professional employment in several sectors, including scientific research, consultancy, communication, education and environmental policy. Some of these disciplines require further study following graduation.</td>
</tr>
</tbody>
</table>

How does this programme facilitate your development of the Graduate Attributes?  

**Connected**

1. The programme will connect you with biological knowledge, understanding and skills as applied to complex real-world issues and processes.

2. The programme will connect you with private, public and third sector representatives via external teaching contributions, placement opportunities and employer-engagement events.

3. The programme will connect you with knowledge, experiences and people providing different perspectives on cultures, beliefs and traditions within a biological context, via diverse student and staff population, overseas field trips, and international examples embedded in our teaching.

4. The programme will allow you to work with staff, students and external organisations as part of an inclusive learning community.

5. The programme will teach you to communicate effectively through a range of digital and other media.

**Innovative**

1. The programme allows you to innovate through participation in active and ethical, world-leading research into animal biology.

2. The programmes exploits new developments in training you to be a biologist, including state-of-the-art genomics methods, and advanced analytic training using industry- and academic-standard programming languages.

3. The programme will train you in independent critical and reflective thinking around animal biology.

4. The programme will help you to identify opportunities for improvement in your own learning and to take action.

**Transformative**
1. The programme can transform your intellectual passion and excellence with regards to issues and solutions in animal biology.
2. The programme can help you share new perspectives and broaden your horizons via overseas field work and study abroad opportunities as well as in-class discussions.
3. The programme provides training in professionalism, allowing you to develop as an adaptable and resilient animal biologist, equipped to succeed in the global biosciences jobs market.
4. The programme gives you substantial practice in critical and sceptical thinking, which are hard-won and useful skills across many graduate careers.

WHAT STUDY ABROAD OPPORTUNITIES ARE AVAILABLE?
Students can spend all or part of year 3 abroad. There is a well-established reciprocal exchange programme with the University of Guelph in Canada where you will take subjects equivalent to those at Stirling. In addition, there are exchange opportunities with a range of universities in the USA, Australia and Europe.

WHAT PLACEMENT OPPORTUNITIES ARE AVAILABLE?
Students may apply for competitive vacation bursaries that are awarded by the department or through external funding agencies for work in the summers between years 2 and 3 or 3 and 4. In addition, we have strong links with Government Agencies such as Scottish Natural Heritage, environmental consultancies, the forestry sector, and various organisations in the environmental sector, such as the Royal Society for the Protection of Birds (RSPB), Bat Conservation Trust, British Trust for Ornithology, and Bumblebee Conservation Trust.

WHAT FURTHER STUDY OPTIONS ARE AVAILABLE TO ME?
*What programmes of study could the student go on to after successfully completing this one?*
Depending on the student’s interests, there are many possible routes for further education, including postgraduate degree courses in research (MSc, MRes, and PhD), veterinary training, and teacher training. Trade-specific opportunities allow students to adapt their scientific training for careers in communication, consultancy, or policy.

WHAT OTHER INFORMATION DO I NEED TO KNOW?
We subsidise costs for fieldtrips, but you’ll have to make a financial contribution towards your travel, accommodation and subsistence for all residential fieldtrips. Field trips are an optional, but highly recommended, part of the programme as they provide an invaluable opportunity to apply your skills and knowledge to answer environmental questions in unfamiliar landscapes. However, non-residential field learning is embedded in other modules in the programme.

Students are expected to provide a laboratory coat and have suitable outdoor clothing for laboratory and field practicals.

Our university library is well-stocked with resources for this programme, but for your convenience you may wish to purchase your own copies of some core texts.
## Section 6 Admissions

### HOW DO I ENTER THE PROGRAMME?

**Admissions Criteria**

**Year 1 entry – Four-year honours**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SQA Highers</strong></td>
<td>AABB - one sitting</td>
</tr>
<tr>
<td></td>
<td>AAAB - two sittings</td>
</tr>
<tr>
<td><strong>GCE A-levels</strong></td>
<td>BBB</td>
</tr>
<tr>
<td><strong>IB Diploma</strong></td>
<td>32 points</td>
</tr>
<tr>
<td><strong>BTEC (Level 3)</strong></td>
<td>DDM</td>
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</tbody>
</table>

**Essential subjects**

To include one of Biology, Chemistry, Mathematics or Physics.

**Year 2 entry – Three-year honours**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SQA Advanced Highers</strong></td>
<td>ABB</td>
</tr>
<tr>
<td><strong>GCE A-levels</strong></td>
<td>ABB</td>
</tr>
<tr>
<td><strong>IB Diploma</strong></td>
<td>35 points</td>
</tr>
</tbody>
</table>

**Essential subjects**

To include Biology and one of Chemistry, Environmental Science, Geography, Geology or Physics.

### Other qualifications

- **Scottish HNC/HND**
  Bs in graded units

- **English, Welsh and Northern Irish HNC/HND**
  Merits and Distinctions.

**Access courses**

Access courses and other UK/EU and international qualifications are also welcomed.
Foundation Apprenticeships
Considered to be equivalent to 1 Higher at Grade B

Essential subjects
As listed above.

Advanced entry
Year 2 entry may be possible with HND in a Science based subject. For information on accepted courses please consult our Advanced Entry pages.

Additional information

General entrance requirements apply
If you’ve taken exams over two sittings, repeated an exam, or been upgraded, the entrance requirements may be higher.

English language requirements
If English is not your first language you must have one of the following qualifications as evidence of your English language skills:

- IELTS - 6.0 with 5.5 minimum in each skill
- Cambridge Certificate of Proficiency in English (CPE): Grade C
- Cambridge Certificate of Advanced English (CAE): Grade C
- Pearson Test of English (Academic): 54 with 51 in each component
- IBT TOEFL: 80 with no subtest less than 17

More information on our English language requirements

Pre-sessional English language courses
If you need to improve your English language skills before you enter this course, our partner INTO University of Stirling offers a range of English language courses. These intensive and flexible courses are designed to improve your English ability for entry to this degree.

Find out more about our pre-sessional English language courses

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