BSc Zoology **UCAS code: C300**
For students entering Part 1 in 2015/6

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	Biosciences
Faculty:	Life Sciences Faculty
Programme length:	3 years
Date of specification:	30/Aug/2016
Programme Director:	Dr Amanda Callaghan
Programme Advisor:	Dr Phil Baker
Board of Studies:	Biological Sciences
Accreditation:	None

Summary of programme aims
The programme aims to provide students with the opportunity to study animal life in all its diversity, at scales that range from the subcellular to that of the ecosystem, and to provide them with a suitable foundation for careers in for example research, teaching, the biological control of pests or the conservation of endangered species in the wild. It emphasizes a mix of modern molecular laboratory expertise, practical field skills and traditional taxonomy.
Part 1 imparts an understanding of the basic concepts of modern zoological science and Part 2 deepens this understanding of zoological concepts and develops a range of expertise over the main areas of the subject. Part 3 aims to study selected subjects in depth, and students will be equipped to tackle detailed problem-solving and analytical tasks associated with pure and applied zoological questions, in areas that include evolution, ecology and conservation. They should also have an overview of animal biodiversity and be able to identify major animal taxa.
During their studies students will be exposed to a variety of information sources and techniques and be trained in various skills including those used in reasoning, argument and communication. Several transferable skills will be acquired including the ability to design and execute experiments in the laboratory and in the field (including working in a team), access information, interpret data using statistics and computing, write essays, scientific papers and reports, and give oral and poster presentations.

Transferable skills
During the course of their studies at Reading, all students will be expected to enhance their academic and personal transferable skills. In following this programme, students will have had the opportunity to develop such skills, in particular relating to career management, communication (both written and oral), information handling, numeracy, problem-solving, team working in the laboratory and in the field, and use of information technology and will have been encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.
Students will also gain experience in the methodology of research and scholarship.

Programme content
The profile below outlines those modules which must be taken (Compulsory modules), together with recommended modules (Part 1 only), and optional modules thought to be most appropriate for zoologists. Students must choose modules offered by the School of Biological Sciences, or other Schools and Departments at the University of Reading, subject to the agreement of the Programme Advisor, to a total of 120 credits in each Part.

Part 1 (three terms)
Compulsory modules

Code	*Title*	*Credits*	*Level*
BI1BEA2	Current Topics in Zoology and Ecology	10	4
BI1BEC1	Building Blocks for Life	20	4
BI1EAA1	Ecology and Behaviour	20	4
BI1EAB1	Animal Diversity	10	4
BI1EAC1	Evolutionary Processes	10	4
BI1EF12	Key Skills in Zoology	10	4
BI1EF3	Practical Field Ecology	10	4

Optional modules
Further modules, to a total of 120 credits, will be selected, subject to approval by the Programme Advisor. Timetable restrictions may apply. Suggestions include:

Code	*Title*	*Credits*	*Level*
AP1A18	Digestion and Nutrition	10	4
AP1AE15	Ecology and Environmental Management	20	4
AP1AE20	Humans and the Environment	10	4
BI1BAB2	Metabolic and Practical Biochemistry	20	4
BI1BAC2	Bacteriology and Virology	10	4
BI1BAD2	Pathology and Histology	20	4
BI1BF1	Laboratory and Study Skills for Biomedicine	10	4
BI1BH12	Human Physiology	20	4
BI1ED2	Mammals Diversity, Behaviour and Conservation	10	4
BI1EG1	Plant Diversity, Structure and Utilisation	10	4
BI1S1	Introductory Microbiology	10	4
LA1XX1	Institution-Wide Language Programme	20	4/5

Part 2 (three terms)
Compulsory modules

Code	*Title*	*Credits*	*Level*
BI2EEE4	Biodiversity: Exploiters and Expolited	10	5
BI2EI4	Invertebrate Zoology	10	5
BI2EV45	Vertebrate Zoology	20	5
BI2EX5	Introduction to Entomology	10	5
BI2EY5	Birds: Diversity, Behaviour and Conservation	10	5
BI2EZ45	Key Skills in Ecology and Zoology 2	10	5

*It is recommended that students take*one of the following field courses:

Code	*Title*	*Credits*	*Level*
BI2EJ3P	Part 2 Zoology Field Course **A OR**	10	5
or			
BI2EK3P	Part 2 Zoology Field Course **C OR**	10	5
or			
BI2EAB3	Tropical Biology Field Course*	20	5
or			
BI2EWEV	Biodiversity Field Course**	10	5

* Limited places
** Takes place in the Easter vacation of Part 2

Further modules, to a total of 120 credits will be selected, subject to approval by the Programme Advisor. Timetable restrictions may apply.

Code	*Title*	*Credits*	*Level*
AP2A52*	Practical Wildlife Reserve Management	10	5
AP2AE45	Methods in Ecology and Environmental Management	20	5
AP2A59	Nature Conservation	10	5
BI2BB4	Endocrinology	10	5
BI2BC4	Human Development, Organogenesis & Anatomy	10	5
BI2BE4	Pharmacology and Toxicology	10	5
BI2BL5	Protein Structure and Function	10	5
BI2BT5	Introduction to Bioinformatics and Computational Biology	10	5
BI2BC45	Cells and Immunity	20	5
BI2BMG4	Molecular Genetics	20	5
BI2EVP5	Venoms and Poisons	10	5
BI2PLA**	Summer Placement	10	5
MM270	Practice of Entrepreneurship	20	5

*This is based in South Africa or Zambia and will cost a considerable amount. It is an agriculture module that runs every other year and the number of places available is restricted. It cannot be taken in place of one of the zoology field courses. If you have any queries about this or other agriculture modules, please contact the module co-ordinators. Look online for details at: http://www.reading.ac.uk/modules/index.aspx

**This takes place in the summer vacation, after part 2 examinations.

Please note that if you want to take any modules outside of the School, you must get the permission of the Programme Advisor and also of the module co-ordinator, since some courses are restricted in number. The onus is on you to do this and to check when non BI courses are running. Some run in the Summer Term.

Part 3 (three terms)

Compulsory modules

Code	*Title*	*Credits*	*Level*
BI3PROA	Research Project - Ecology and Evolution	40	6

Optional modules: Further modules to a total of 120 credits will need to be selected, subject to the approval of the Programme Advisor. Up to 20 credits may be taken outside of the School (i.e. non-BI code). Timetable restrictions may apply.

Code	*Title*	*Credits*	*Level*
AP3AE75	Wildlife and Farming	10	6
AP3A95	Practical Wildlife Reserve Management	10	6
AP3A67	Animal Welfare	10	6
AP3A101	Canine and Feline Sciences	10	6
AP3A91	Captive Animal Management	10	6
BI3BH8	Mammalian Reproduction	10	6
BI3BI8	Neurobiology	10	6
BI3BP7	Systems Biology	10	6
BI3BR7	Structural Proteomics	10	6
BI3EG7	Evolutionary Genetics and Phylogeny	10	6
BI3EK7	Behavioural Ecology and Life History Theory	10	6
BI3EAA7	Insect Ecology and its Application	10	6
BI3EAB8	Palaeozoology	10	6
BI3EP7	Wildlife Diseases	10	6
BI3S78	Seminars in Biology	10	6

Please note that if you want to take any modules outside of the School, you must get the permission of the Programme Advisor and also of the module co-ordinator, since some courses are restricted in number. The onus is on you to do this and to find out when they run.

Progression requirements
To gain a threshold performance at Part 1 and qualify for the CertHE, a student shall normally be required to achieve an overall average of 40% over 120 credits taken at Part 1 and a mark of at least 30% in individual modules amounting to not less than 100 credits. **In order to progress from Part 1 to Part 2** a student shall normally be required to achieve a threshold performance at Part 1.

To gain a threshold performance at Part 2 and qualify for the DipHE, a student shall normally be required to achieve:
- an overall average of 40% over 120 credits taken at Part 2: and
- marks of at least 40% in modules amounting to not less than 80 credits; and
- marks of at least 30% in individual modules amounting to not less than 120 credits

In order to progress from Part 2 to Part 3 a student shall normally be required to achieve a threshold performance at Part 2.

Part 2 contributes one third of the overall assessment and Part 3 the remaining two thirds. In order to be eligible for Honours, students must gain an overall weighted average mark of 40%, at least 40% in modules amounting to 80 credits in Part 3, and must gain a mark of at least 40% in the Research Project module. For a Pass degree, candidates must have an average of at least 35%, and at least 35% in modules amounting to 80 credits in Part 3, and must gain a mark of at least 35% in the Research Project module.

Summary of Teaching and Assessment
The University's honours classification scheme is:

Mark	*Interpretation*
70% - 100%	First class
60% - 69%	Upper Second class
50% - 59%	Lower Second class
40% - 49%	Third class
35% - 39%	Below Honours Standard
0% - 34%	Fail

For the University-wide framework for classification, which includes details of the classification method, please see: www.reading.ac.uk/internal/exams/Policies/exa-class.aspx

The weighting of the Parts/Years in the calculation of the degree classification is

Three-year programmes
Part 2 one-third
Part 3 two-thirds

Teaching is organized in modules that typically involve both lectures and practical classes and student-led seminars. The assessments are carried out within the University's degree classification scheme, details of which are in the programme handbooks. The pass mark in each module is 40%.

Admission requirements
Entrants to this programme are normally required to have obtained:
UCAS Tariff: A2 BBB/ABC to include grade B in Biology and a second science A Level subject. A levels do not include Key Skills and General Studies. **GCSEs**: grade C required in Mathematics, English and Science. BTEC DDM (Animal Management, Applied Science).
International Baccalaureate: Pass Diploma and achieve 6, 6,5 in 3 higher level subjects, including Biology and another science.
Applicants with other types of qualifications and mature students are also encouraged to apply.

Admissions Tutor: Dr Louise Johnson

Support for students and their learning
University support for students and their learning falls into two categories. Learning support is provided by a wide array of services across the University, including: the University Library, the Careers, Placement and Experience Centre (CPEC), In-sessional English Support Programme, the Study Advice and Mathematics

Support Centre teams, IT Services and the Student Access to Independent Learning (S@il) computer-based teaching and learning facilities. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the Institution-wide Language Programme. Student guidance and welfare support is provided by Personal Tutors, School Senior Tutors, the Students' Union, the Medical Practice and advisers in the Student Services Centre. The Student Services Centre is housed in the Carrington Building and offers advice on accommodation, careers, disability, finance, and wellbeing, academic issues (e.g. problems with module selection) and exam related queries. Students can get key information and guidance from the team of Helpdesk Advisers, or make an appointment with a specialist adviser; Student Services also offer drop-in sessions and runs workshops and seminars on a range of topics. For more information see www.reading.ac.uk/student

The Programme Advisor is available to offer advice on the choice of modules within the degree course.

Career learning

Career prospects
After graduation, students will be qualified to undertake a zoological career in a range of areas, or to use skills and problem-solving abilities in careers not directly related to Zoology. Honours graduates will be eligible for graduate membership of the Institute of Biology, which could lead to Chartered Biologist status.

Opportunities for study abroad
Study Abroad:
The Erasmus programme (within Socrates) enables undergraduates to undertake project work for one term in their final year at the University of Zaragoza, Spain.

Placement opportunities
Industrial Placement:
Students who are interested in a scientific career, whether in industry, research or a related field can apply for a year's industrial placement between Parts 2 and 3. Students who wish to apply would normally be expected to have a weighted average of at least 60% in Part 1.

Programme Outcomes
The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

Knowledge and Understanding

A. Knowledge and understanding of:	**Teaching/learning methods and strategies**
1. The fundamental concepts of zoology. 2. The higher-level taxonomy and diversity of animal life. 3. How zoological principles can be applied to problems in conservation and applied biology. 4. Statistics as applied to biological data. 5. A selection of more specialised optional topics. 6. Practical skills in ecology and natural history.	Formal lectures and practicals supported by tutorials (Part 1), group work and mini-projects. Both laboratory and field work/ecology exercises (including residential field courses), the latter dealing with ecosystems found both in SE England, elsewhere in the UK/Europe, and the tropics. 2.Assessment Most knowledge is tested through a combination of coursework and unseen formal examinations. Dissertations, oral and poster presentations also contribute. *Assessment*

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Skills and other attributes

B. Intellectual skills - *able to:*	**Teaching/learning methods and strategies**
1. Think logically. 2. Analyse and solve qualitative and quantitative problems. 3. Organise tasks in structured form. 4. Transfer appropriate knowledge and methods from one topic to another (both previously experienced and novel) within the overall subject area. 5. Plan and conduct an independent project and then to write a report.	Rational thought and logical analysis are embedded throughout the programme, where solutions to problems in zoology have come about through the application of appropriate experiments. Research project in Part 3. *Assessment* Embedded throughout the assessment protocols.

C. Practical skills - *able to:*	**Teaching/learning methods and strategies**
1. Carry out practical work with minimal risk, both to self and to others. 2. Undertake laboratory tasks and techniques. 3. Undertake fieldwork tasks and techniques. 4. Plan experiments and carry them out. 5. Analyse data using appropriate statistical methods, including by computer (e.g. MINITAB)	Formal practical classes, both in the laboratory and the field. Mini-projects during field courses. The design, conduct and completion of a research project. Statistical analysis of data is incorporated into appropriate practical classes and is also required for projects. *Assessment* By practical laboratory and fieldwork reports and by project reports.

D. Transferable skills - *able to:*	**Teaching/learning methods and strategies**
1. Use IT. 2. Communicate scientific ideas by a variety of methods and to a variety of target audiences. 3. Give oral and poster presentations. 4. Work as part of a team. 5. Use library resources both paper and electronic. 6. Manage time. 7. Plan a career.	The use of IT and other skills is a major element of some modules. The use of all skills is embedded throughout the course. The research project is likely to require application of all skills. *Assessment* The skills will enhance the performance of students both in coursework and unseen examinations, including integrating papers.

Please note - This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the module description and in the programme handbook. The University reserves the right to modify this specification in unforeseen circumstances, or where the process of academic development and feedback from students, quality assurance process or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.