

BSc Zoology

UCAS code: C300

Awarding Institution:

The University of Reading

Teaching Institution:

The University of Reading

Relevant QAA subject benchmarking group(s):

Biosciences

Programme length: 3 years

Faculty of Life Sciences

Date of specification: 16/2/2004

For students entering Part 1 in Oct 2002

Programme Director: Dr. F. Nowell

Programme Adviser: Dr. S.P. Hopkin

Board of Studies: Animal Sciences

Accreditation: None

Summary of programme aims

To enable the student to gain a broad understanding of the main areas of zoology and an in-depth understanding of selected areas. These aims are achieved by the study of a range of animals and of the interactions between them. Animals are considered from the structural, physiological, ecological, behavioural, taxonomic, developmental and evolutionary viewpoints, and are also studied as self-supporting systems.

Transferable skills

The University's Strategy for Teaching and Learning has identified a number of generic transferable skills which all students are expected to have developed by the end of their degree programme. In following this programme, students will have had the opportunity to enhance their skills 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. Students will also gain experience in the methodology of research and scholarship.

Programme content

The profile which follows states which modules must be taken (the compulsory part), together with recommended modules (Part 1 only), and optional modules thought to be most appropriate for zoologists. Students must choose modules offered by AMS or other University of Reading Schools and Departments, subject to the agreement of the Programme Adviser, to a total of 120 credits in each Part.

Part 1 (three terms)

Compulsory modules

		<i>Credits</i>	<i>Level</i>
BI1S11	<i>Concepts and skills in biology 1</i>	10	C
BI1C10	<i>Cell biology and biochemistry</i>	10	C
BI1C11	<i>Genetics and molecular biology</i>	10	C
BI1M10	<i>Biodiversity</i>	10	C

Recommended modules

AM1Z11	<i>Environmental biology</i>	10	C
AM1C12	<i>Animal physiology</i>	10	C
AM1Z10	<i>The whole mammal</i>	10	C
BI1Z10	<i>Ecology</i>	10	C
BI1Z11	<i>Community ecology</i>	10	C

Students without AS or A2 level Chemistry or equivalent must take :

BI1S10	<i>Chemistry for biologists</i>	10	C
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Optional modules

Students will choose further modules up to a total of 120 credits subject to the agreement of the Programme Adviser.

Part 2 (three terms)		<i>Credits</i>	<i>Level</i>
<i>Compulsory modules</i>			
AM2Z38	<i>Field course</i>	10	I
BI2B31	<i>Macro-evolution</i>	10	I
AM2Z32	<i>Vertebrate zoology</i>	10	I
AM2C31	<i>Molecular biology and bioinformatics</i>	10	I
AM2S31	<i>Concepts and skills in Biology 2</i>	10	I
AM2Z34	<i>Invertebrate zoology</i>	10	I
BI2Z31	<i>Micro-evolution</i>	10	I
AM2Z39	<i>Practical molecular zoology</i>	10	I

Optional modules

Students will choose further modules up to a total of 120 credits. Modules within AMS considered most suitable for zoologists are listed below. However, modules from other Departments or Schools (including the Institution Wide Language Programme) may be chosen subject to the agreement of the Programme Adviser

AM2Z33	<i>Animal behaviour</i>	10	I
AM2Z36	<i>Development</i>	10	I
AM2S37	<i>Aquatic biology</i>	10	I
AM2Z35	<i>Immunology</i>	10	I

Part 3 (three terms)		<i>Credits</i>	<i>Level</i>
<i>Compulsory modules</i>			
AM3S75	<i>Project</i>	40	H
AM3S76	<i>Essays and seminars</i>	20	H
AM3Z79	<i>Animal Diversity</i>	10	H

Optional modules

Students will choose further modules up to a total of 120 credits. Modules within AMS considered most suitable for zoologists are listed below. However, modules from other Departments or Schools (including the Institution Wide Language Programme) may be chosen subject to the agreement of the Programme Adviser

AM3Z71	<i>Developmental biology</i>	10	H
AM3Z72	<i>Insects and Society</i>	10	H
AM3Z74	<i>Conservation biology</i>	10	H
AM3Z75	<i>Evolutionary genetics and phylogeny</i>	10	H
AM3Z76	<i>Behavioural ecology and life history theory</i>	10	H
AM3Z77	<i>Research topics in aquatic ecology</i>	10	H
AM3Z78	<i>Biology of Spiders</i>	10	H
AM3Z80	<i>Marine field course</i>	10	H

Progression requirements

In order to proceed from Part 1 to Part 2, students must pass the Part 1 examination by achieving an overall mark of at least 40%. A minimum threshold mark of 30% must be obtained for each module. However, module marks equivalent to 20 credits may be condoned if the student has

attempted the examination and shown reasonable diligence in attending the modules. Part 1 does not contribute to the final degree assessment.

In order to proceed from Part 2 to Part 3, students must pass the Part 2 examination by achieving an overall mark of at least 40%. A minimum threshold mark of 30% must be obtained for each module. However, module marks equivalent to 20 credits may be condoned if the student has attempted the examination and shown reasonable diligence in attending the modules.

Summary of teaching and assessment

Teaching is organised 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%.

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 pass the Part 3 examination overall and gain at least 40% in the Project.

The assessment is carried out within the University's degree classification scheme, details of which are in the programme handbooks.

Admission requirements

Entrants to this programme are normally required to have obtained:

UCAS Tariff : *Points/grades 280/BBC from no more than 4 subjects at A-level. Subjects and levels of qualification : Biology Grade B and one other A-level Science (preferably Chemistry) at grade C. The University supports Key Skills and will take account of points awarded for Key Skills although they are not part of the entry requirements. Entrants will also require Grade B at GCSE in Maths, Science and English.*

Irish Highers : *BBBBB (including Biology and preferably Chemistry)*

International Baccalaureat : *31 points (including Biology and preferably Chemistry)*

Mature students and those with other qualifications are encouraged to apply

Admissions Tutor: Dr. Frank Nowell

Support for students and their learning

University support for students and their learning falls into two categories. Learning support includes IT Services, which has several hundred computers and the University Library, which across its three sites holds over a million volumes, subscribes to around 4,000 current periodicals, has a range of electronic sources of information and houses 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, the Careers Advisory Service, the University's Special Needs Advisor, Study Advisors, Hall Wardens and the Students' Union.

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

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 membership of the Institute of Biology and Chartered Biologist status.

Opportunities for study abroad : The Erasmus programme (within Socrates) enables undergraduates to undertake project work for one term in their final year at one of a number of European Universities. Recent exchanges involving AMS students have taken place with the following: University of Tours, France; Odense University, Denmark; Uppsala University, Sweden; University College Cork, Ireland; University of Zaragoza, Spain; ENSA, Montpellier, France; University of Cagliari, Sardinia. Students also have the opportunity to go to Rostock University, Germany and Siena University, Italy.

Educational aims of the programme

After Part 1, students will have gained an understanding of the basic concepts of modern zoology. After Part 2, students will have deepened their understanding of biological concepts and developed a range of expertise over the main areas of the subject. After Part 3, selected subjects will have been studied in depth and students will be equipped to tackle detailed problem-solving and analytical tasks.

During these 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 and reports and give oral presentations.

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

<p>A. Knowledge and understanding of:</p> <ol style="list-style-type: none">1. the fundamental concepts of biology and their application to zoological systems.2. the main taxa of animals.3. the study of different aspects of zoology as applied to a variety of taxa (systems approach).4. statistics as applied to biological data.5. a selection of more specialised optional topics.	<p>A. Teaching/learning methods and strategies</p> <p>Formal lectures and practicals supported by tutorials (Part 1), group work and miniprojects.</p> <p>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 possibly further afield.</p> <p><i>Assessment</i></p> <p>Most knowledge is tested through a combination of coursework and unseen formal examinations. Dissertations, oral and poster presentations also contribute.</p>
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Skills and other attributes

<p>B. Intellectual skills – able to:</p> <ol style="list-style-type: none">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.	<p>B. Teaching/learning methods and strategies</p> <p>Rational thought and logical analysis are embedded throughout the program, where solutions to key problems in biology have come about through the application of zoological experiments. Research project in Part 3.</p> <p><i>Assessment</i></p> <p>Embedded throughout the assessment protocols.</p>
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C. Practical skills – able to:

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)

C. Teaching/learning methods and strategies

Formal practical classes, both in the laboratory and the field. Miniprojects 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:

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.

D. Teaching/learning methods and strategies

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. The Concepts & Skills modules are in part specifically related to career development.

Assessment
The skills will enhance to performance of students both in coursework and unseen examinations, including in 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 expect 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 module and programme handbooks.